



ADVANCES IN GROUP PROCESSES

VOLUME 23

**SOCIAL PSYCHOLOGY OF THE
WORKPLACE**

SHANE R. THYE
EDWARD J. LANLIER

Editors

LIST OF CONTRIBUTORS

<i>Stephen Benard</i>	Department of Sociology, Cornell University, USA
<i>E. Russell Braziel</i>	Bentek Energy, LLC, Golden, CO, USA
<i>Jody Clay-Warner</i>	Department of Sociology, University of Georgia, USA
<i>Shelley J. Correll</i>	Department of Sociology, Cornell University, USA
<i>Abigail Darwin</i>	Department of Sociology, University of Iowa, USA
<i>Amy M. Fasula</i>	Department of Sociology, Emory University, USA
<i>Stuart J. Hysom</i>	Department of Sociology, Texas A&M University, USA
<i>Cathryn Johnson</i>	Department of Sociology, Emory University, USA
<i>Nikki Khanna</i>	Department of Sociology, Emory University, USA
<i>Peter Kollock</i>	Department of Sociology, University of California, Los Angeles, CA, USA
<i>Roderick M. Kramer</i>	Graduate School of Business, Stanford University, USA
<i>Michael J. Lovaglia</i>	Department of Sociology, University of Iowa, USA
<i>Jeffrey W. Lucas</i>	Department of Sociology, University of Maryland College Park, USA
<i>Elizabeth A. Mannix</i>	Johnson Graduate School of Management, Cornell University, USA

<i>Christopher D. Moore</i>	Social Sciences Division, Lakeland College, USA
<i>Dawn T. Robinson</i>	Department of Sociology, University of Georgia, USA
<i>Christabel L. Rogalin</i>	Department of Sociology, University of Iowa, USA
<i>Stephen J. Sauer</i>	Johnson Graduate School of Management, Cornell University, USA
<i>Leigh L. Thompson</i>	Kellogg School of Management, Northwestern University, USA
<i>Cynthia S. Wang</i>	Kellogg School of Management, Northwestern University, USA
<i>Jeongkoo Yoon</i>	School of Business Administration, Ajou University, South Korea

PREFACE

Several years we began a new trend in the *Advances in Group Processes* series. Our goal then was to publish a set of interrelated volumes that examine core issues or fundamental themes in the group processes arena. Each volume was to be organized around a particular problem, substantive area, or topic of study, broadly defined to include a range of methodological and theoretical orientations. Volume 23 represents the fifth volume in the series, addressing issues pertinent to the *Social Psychology of the Workplace*.

The volume opens with a paper by Rod Kramer entitled “Social Capital and Cooperative Behavior in the Workplace: A Social Identity Perspective,” that examines the social psychological underpinnings of social capital. Specifically, Kramer asserts that individuals behave in ways that contribute to group social capital to the extent that they develop a sense of psychological identification with the group. This framework weaves together ideas from social identity theory, the common in-group identity model, self-categorization theory, and other theories of self to understand how collective identities contribute to prosocial behaviors. Overall, this is a creative multi-level approach that sheds new light on the forces producing social capital.

The next two papers examine issues of leadership in groups. Cynthia Wang and Leigh Thompson offer an excellent review piece that examines how social psychologists tend to be myopically pessimistic with respect to the behavior of leaders and groups (e.g., Asch, Milgram, Zimbardo, and so on), while applied psychologists and general practitioners tend to focus more optimistically on the positive achievements of leaders and teams. The paper does an excellent job of reviewing and synthesizing these two, typically distinct, literatures. Next, Jeongkoo Yoon develops a new theory that specifies how and when leaders exert influence over their followers. Specifically, the theory asserts that leaders are most influential when they (i) articulate a salient vision, and (ii) engage in self-sacrificial behavior. The theory claims that this is especially true in teams embracing a collectivistic orientation. Several hypotheses from the theory are tested using data from a sample of teams drawn from Korean organizations, and the results were generally supportive. Overall, this is a provocative paper that sheds new light on two dimensions of leadership.

The next two papers address issues of gender. A paper by Shelley Correll and Stephen Benard entitled “Biased Estimators? Comparing Status and Statistical Theories of Gender Discrimination” examines various dimensions of gender inequality in the labor market. The unique feature of this contribution is that it compares and contrasts two classes of theoretical explanations for the existence of gender inequality: economic theories of statistical discrimination and social psychological theories of status-based discrimination. After mapping points of convergence across these divergent accounts, the authors illustrate how status-based theories may be broadened to encompass more of the empirical landscape. Overall, this paper should interest a range of social scientists interned in issues of gender (and other forms of) inequality. Next, in “Legitimacy, Organizational Sex Composition, and Female Leadership,” Cathy Johnson and colleagues offer another in an important series of papers that extend our understanding of how legitimacy processes affect female leaders (see also *Advances in Group Processes*, Volume 20). Specifically, they assert that delegitimation is one kind of event that makes gender stereotypes salient in the organization, and trace the consequences for how female leaders interact with subordinates. A number of hypotheses are tested using a clever experiment that manipulates formal position (manager, subordinate), legitimacy (authorized, deauthorized), and organizational context (male versus female dominate). The hypotheses received mixed support. The authors close by considering a number of avenues for future research.

Two papers take on issues of power and status in the workplace. First, in “Status and Power in Organizational Group Research: Acknowledging the Pervasiveness of Hierarchy,” Elizabeth Mannix and Stephen Sauer examine how status and power hierarchies found in the modern organization affect how groups resolve conflict, make decisions, and ultimately perform. Specifically, they examine three areas that could benefit from a more refined conceptualization of hierarchy: (i) how groups exchange information and engage in decision-making, (ii) how groups negotiate and manage conflict, and (iii) the levels of creativity and effectiveness that groups experience. Overall, this is a well-rounded paper that broadly integrates ideas from numerous research traditions. Next, in “Power, Status and Leadership in Diverse Organizations: From Basic Research to Program Development,” Michael Lovaglia, Jeffrey Lucas, Christabel Rogalin, and Abigail Darwin illustrate how principles from network exchange theories and the expectation states program can be applied to issues of leadership in academia and organizations. Aside from basic theory development, the authors detail how leadership principles can be implemented with respect to basic and applied

research, undergraduate and graduate training, student recruitment, and a leadership-training program. Along the way they examine issues, such as the glass ceiling effect, that have a number of broader implications. This chapter should serve as a template for scholars and parishioners interested in applying principles of leadership.

The next papers examine issues of legitimacy. In “Procedural Justice and Legitimacy: Predicting Negative Emotional Reactions to Workplace Injustice,” Jody Clay-Warner explores how it is that procedural justice and collective legitimacy work in tandem to produce negative emotions that individuals experience in the workplace. Specifically, she argues that the level of collective legitimacy changes the impact of procedural justice on emotional reactions to under-reward. After reviewing a number of related literatures in sociology and psychology, she develops a series of hypotheses that predict numerous interactions between the levels of legitimacy, emotional response, and justice. These will undoubtedly be the target of future empirical investigation. Next, Jeffrey Lucas and Michael Lovaglia offer a paper that adds a new dimension to theories of legitimacy. In “Legitimation and Institutionalization as Trust-Building: Reducing Resistance to Power and Influence in Organizations,” they assert that legitimation and institutionalization fundamentally produce trust in organizations. Lucas and Lovaglia theoretically distill the relationship between legitimacy and trust, focusing specifically on ways in which these processes interface with research on leadership in organizations. They then propose new research to examine how legitimation can generate trust in the decision of leaders who control the resources of an organization.

The volume closes with two papers that are theoretically and empirically rich. The first paper draws on the larger identity maintenance literature to explain selective identity preference in occupational settings. In “Selecting Identity Preferences: Choosing From Among Alternative Occupational Identities,” Christopher Moore and Dawn Robinson ask the following question: how do individuals choose among potential future identities (e.g., soldier in the Army versus Marines) when all other benefits are essentially the same? Using affect control theory, they assert that this choice is guided by the existing worker identities that are possessed. The assertions are then tested (and supported) using data on the occupational preferences of college students. This paper should peak the interest of scholars interested in social- and workplace identity. Finally, Peter Kollock and E. Russell Braziel explore the fascinating world of business-to-business markets in “How Not to Build An Online Market: The Sociology of Market Microstructure.” Specifically, they explore the emergence of propane markets in the southern

United States, documenting the theoretical principles of market structure and cataloguing the problems such markets face. Overall, the paper provides a rare glimpse of the structure, dynamics, and problems associated with online markets.

Shane R. Thye
Edward J. Lawler
Volume Co-Editors

SOCIAL CAPITAL AND COOPERATIVE BEHAVIOR IN THE WORKPLACE: A SOCIAL IDENTITY PERSPECTIVE

Roderick M. Kramer

ABSTRACT

Sociologists, social psychologists, and organizational theorists alike have shown a great deal of interest in the concept of social capital. To a large extent, this interest has been fueled by accumulating evidence that social capital plays a vital role in the development of more cooperative relationships within groups and organizations. Inspired by this evidence, a primary goal of the present paper is to examine more systematically the psychological underpinnings of social capital within contemporary workplaces. Drawing on social identity theory and related theories on the self, this paper develops a framework for conceptualizing how individuals' psychological identification with a workgroup enhances their willingness to engage in behaviors that contribute to the creation of social capital within that workgroup. The paper reviews empirical evidence in favor of the framework, and draws out theoretical and applied organizational implications of the framework.

Social Psychology of the Workplace
Advances in Group Processes, Volume 23, 1–30
Copyright © 2006 by Elsevier Ltd.
All rights of reproduction in any form reserved
ISSN: 0882-6145/doi:10.1016/S0882-6145(06)23001-7

Sociologists, social psychologists, and organizational theorists have long recognized the importance of cooperation within groups and organizations (Fine & Holyfield, 1996; Hackman, 2002; Levine & Moreland, 1998; Lipman-Blumen & Leavitt, 1999; Turner, 2000). Recognizing its importance, they also have afforded considerable attention to identifying the foundations or bases of such cooperation. This attention includes explorations of the role various interdependence structures (Wageman, 1995), group goals (Weldon & Weingart, 1993), group size (Cusumano, 1997; Hackman & Vidmar, 1970), and even the presence of “collective mind” (Weick & Roberts, 1993) play in the emergence and stability of cooperative interaction within groups and organizations.

One way of thinking about the willingness of individuals to voluntarily cooperate with each other is in terms of the level of social capital available to the groups and organizations to which they belong (Coleman, 1990; Cook, 2005; Fukuyama, 1995; Putnam, 1993a). Scholars have posited, for example, that social capital is associated with heightened levels of voluntary engagement with collective problems, enhances social coordination, leads to more productive and efficient economic exchanges, reduces transaction costs, and enhances social stability (e.g., Boissevain, 1974; Coleman, 1990; Putnam, 1993b). These claims are more than mere armchair assertions – an impressive body of empirical evidence has been marshaled in support of them (e.g., Fukuyama, 1995; Portes, 1998; Putnam, 1993a, 2000).

Given the significant benefits ascribed to it, is hardly surprising that social scientists have afforded considerable attention to identifying the antecedents of social capital. A more thorough understanding of the determinants of social capital, it has been argued, is critical if groups, organizations, and societies are to harvest fully its theorized benefits (Putnam, 1993b). Unfortunately, many significant lacunae remain in this important scholarly enterprise. For example, although sociologists (Portes, 1998) and political scientists (Putnam, 2000) have made major strides in explicating the social, structural, and organizational foundations of social capital, many questions remain regarding its psychological antecedents or underpinnings. The absence of a psychological perspective on this topic is particularly unfortunate, I would argue, because there exists a considerable body of recent social psychological theory and research that might profitably be brought to bear on our understanding of the individual-level attitudinal, motivational, and behavioral underpinnings of social capital. Yet, as noted by Nahapiet and Ghoshal (1998), this important level of analysis remains virtually absent in recent sociological, economic, and organizational perspectives on the origins of social capital.

A primary aim of the present paper, accordingly, is to explicate the role that psychological factors play in the emergence of social capital within groups in the workplace. Specifically, I propose that there exists an intimate link between individuals' psychological identification with a group and their willingness, in turn, to engage in behaviors, which contribute to the reservoir of social capital available to that group. In this sense, I argue, collective identity constitutes an important, and heretofore largely unheralded, psychological source of social capital in groups. To advance this argument, I draw on conceptual insights and empirical findings from several closely related streams of theory and research. From social psychology, I draw on social identity theory (Brewer & Gardner, 1996; Brewer & Kramer, 1986; Kramer & Brewer, 1984; Hogg & Terry, 2001; Tyler & Blader, 2000), the Common Ingroup Identity model (Dovidio, Gaertner, Isen, Rust, & Guerra, 1998), self-categorization theory (Turner, 1987), and related theories regarding the social self (Tyler, Kramer, & John, 1999¹).

To weave together these diverse strands of theory and evidence on identity processes, I present a framework for conceptualizing how an individual's collective identity influences his or her cognitions, motivational orientation, and affective state influence choice behaviors that will led to the creation or production of social capital. To lay a conceptual foundation for this framework, it is useful to provide first a brief introduction to the concept of social capital, including an overview of its various forms, functions, and sources.

SOCIAL CAPITAL IN THE WORKPLACE: FORMS, FUNCTIONS, AND FOUNDATIONS

In an early treatment, Jacobs (1965) conceptualized a collective's social capital in terms of the "networks of strong, cross-cutting personal relationships that develop over time" and that provide "a basis for trust, cooperation, and collective action" among members of that collective (cited in Nahapiet & Ghoshal, 1998, p. 243). Along similar lines, Bourdieu (1986) characterized social capital as a collective resource that derives from the "more or less institutionalized relationships of mutual acquaintance or recognition" that reside within a collective (p. 248). In a subsequent and influential elaboration, Coleman (1990) emphasized that social capital is a useful resource because it is productive, making possible "the achievement of certain ends that would not be attainable in its absence" (p. 302). As noted earlier, these productive benefits include such things as enhanced cooperation, coordination, efficiency, and stability within social systems. When these

collective benefits are conceptualized in individual, behavioral terms, social capital can be understood in terms of the willingness of individual members of a collective to engage in those collectivistic behaviors that help to create and sustain the “reservoir” of social capital available to the collective.

The specific form such collectivistic behaviors take, it is important to note, can vary from one social context to another, depending on (1) the nature of the interdependence among the social actors and (2) the particular forms their exchanges and interactions assume (see, e.g., [Batson, 1994](#); [Brief & Motowildlo, 1986](#); [Kramer, 1991](#); [Organ, 1988](#)). Within a group of mushroom collectors, for example, social capital may be manifested in terms of the willingness of more seasoned group members to educate novice members in the art of safe mushroom collection and preparation – a form of trans-generational social capital (e.g., [Fine & Holyfield, 1996](#)). Among a group of interdependent agencies operating within a large, governmental bureaucracy (e.g., intelligence agencies), on the other hand, social capital may be manifested behaviorally in terms of the willingness of individuals from different agencies to share critical information with each other, especially during a national emergency or crisis (e.g., [Bonacich & Schneider, 1992](#); [Miller, 1992](#); [Olson, 1965](#)). Within larger social aggregates, such as societies or nation-states, social capital may be manifested behaviorally in terms of individuals’ willingness to contribute to the creation of public goods (e.g., [Murnighan & Metzger, 1994](#); [Pew Research Center for the People and the press, 1996](#); [Putnam, 1993b, 2000](#)), or to exercise voluntary restraint when consuming scarce community resources, so as to avoid the “tragedy of the commons” ([Messick & Brewer, 1983](#)).

As these examples suggest, one of the distinctive features of social capital is that it is a collectively owned resource ([Coleman, 1990](#)). As [Putnam \(1993a\)](#) aptly noted in this regard, social capital is never “the private property of any of the persons who benefit from it” (p. 170). It is this aspect of social capital that distinguishes it from other, nonsocial forms of capital that people typically bring to their relationships. Indeed, the fact that all of the members of a collective can fully enjoy the benefits of social capital irrespective of their individual contribution to its production gives rise to a familiar and vexing class of collective action dilemmas ([Putnam, 1993b](#)). Even if all of the individuals in a collective prefer to see an increase in the aggregate level of available social capital, the decision to personally engage in actions that contribute to such an increase poses a dilemma; each individual can, if so inclined, “free ride” on the largesse of others, with little apparent penalty ([Hardin, 1968](#); [Latane, 1986](#); [Olson, 1965](#)).

When framed in terms of this basic choice dilemma, the problem of how to generate social capital has been approached largely from the perspective

of identifying those features of social structure and organizational arrangement that enhance individuals' willingness to voluntarily engage in the specific behaviors that add to the available "stock" of social capital. From this macro-level perspective, the stock of social capital reflects or derives largely from individuals' "embeddedness" within a given social system (Nahapiet & Ghoshal, 1998).

Two forms of embeddedness have been assumed to be of particular importance with respect to the creation of social capital. The first form of embeddedness has been characterized as structural in nature, because it derives from the "impersonal configuration of linkages among people or units" (p. 244). Illustrative of such impersonal configurations are the network "ties" (Granovetter, 1985) and structural "holes" (Burt, 1992) that typically link interdependent actors within a social system. The second form of embeddedness that has been associated with the creation of social capital is more relational in character, because it derives the "kinds of personal relationships people have developed over time with each other through a history of interaction" (p. 244). The sort of intimate and repeated exchanges observed within fraternal organizations and business networks exemplify this form of embeddedness (e.g., Boissevain, 1974; McEvily & Zaheer, 2004; Yamagishi & Sato, 1986).

Unfortunately, as Nahapiet and Ghoshal (1998) recently noted, little systematic attention has been afforded the possibility that there might be important psychological forms of embeddedness among interdependent actors that might also constitute a potent source of social capital. For example, they pointed out, little effort has been made to investigate how individuals' "shared representations, interpretations, and systems of meaning" (p. 244) influence their willingness to engage in those behaviors that actually create social capital. As I propose next, the concept of psychological identification with a collective provides a useful conceptual platform for developing such an analysis. To provide a foundation for this argument, it is necessary to first introduce the concept of collective identity and explore its relationship to collective behavior.

COLLECTIVE IDENTITY AS A PSYCHOLOGICAL SOURCE OF SOCIAL CAPITAL

Psychological and sociological research on identity (e.g., Abrams & Hogg, 1990; Brewer & Kramer, 1986; Desrochers et al., 2004; Hogg & Abrams, 1988; Hogg & Terry, 2001; Kramer & Brewer, 1984; Stryker, 2000) and

related research on the social self (e.g., Brewer, 1991; Simon, 1999; Tyler, Kramer, & John, 1999; Tyler & Blader, 2000) has drawn considerable attention to the central and myriad roles individuals' social identities play in social judgment and behavior. According to such research, our identities help us make sense of who we are, how we are connected to other people around us, and how we should think and act (Brewer, 1991; Deaux, Reid, Mizrahi, & Cotting, 1999; Kramer, 1991). In this capacity, psychological identities enable individuals to both locate or situate themselves in the social order and navigate effectively within that social order (Simon, 1999; Deaux et al., 1999).

Although the diverse and constructive functions of social identities have been widely appreciated, understanding how a particular identity functions in a given situation or context has been viewed as more complicated, because of the fact that people simultaneously possess multiple, co-occurring identities (Ashforth & Johnson, 2001). An individual, for example, may be an academic, a father, and an amateur astronomer. Any one of these alternate and potentially "competing" social identities can have very different implications with respect to how individuals define themselves, their obligations and entitlements, and also how they construe their relationship with other people (Brewer, 1991; Kramer & Brewer, 1984).

From the standpoint of the present analysis, three distinct forms of psychological identity are particularly relevant (1) individuals' personal identities, (2) their subgroup identities, and (3) their collective identities. Individuals' personal identities correspond to those self-representations associated with the individual self – how we think of ourselves as unique or distinct human beings. According to Brewer and Gardner (1996), this identity reflects the "differentiated, individuated self-concept most characteristic studies of the self in Western psychology" (p. 84). For example, a professor might think of him or herself as distinctive or unique within a business school because he or she is the only individual who happens to be studying the problem of social capital. In contrast, individuals' subgroup identities reflect those groupings within a collective to which we belong and with which we might strongly identify (e.g., the same professor might think of him or herself as one of the few social psychologists within their school). Finally, individuals' collective identities correspond to their sense of the larger social aggregate (in this example, the organizational affiliation shared by all of the professors within that business school). As elaborated by Simon (1998), this collective self represents "self-interpretation centered on a collective (i.e., social categorical self)" (p. 260). Thus, whereas the personal self corresponds to individuals' psychological awareness of a distinct or unique self (their

'I' or 'me'), and the subgroup identity tends to foster "us versus them" mentality, the collective self represents their awareness of an inclusive 'we.'

Empirical research suggests two important conclusions regarding the relationships among these three levels of social identity. First, the salience of a given social identity can vary across situations (e.g., Cota & Dion, 1986; McGuire & Padawer-Singer, 1976). Thus, whether individuals construe themselves primarily in terms of their personal, subgroup, or collective identities will be influenced by a variety of situational factors or contextual "cues" that make salient a given level of self-representation.

Second, psychological activation of these different self-representations produces distinct effects on individuals' perceptions, motivation, and behavior. Specifically, when personal identities are salient, individuals are likely to construe situations in individualistic terms and act, accordingly, in more self-interested ways. In contrast, when subgroup identities are salient, individuals are likely to construe situations in terms of the relevant intergroup comparison or relation (e.g., think about how their ingroup is doing relative to the other outgroups around them). Finally, and most importantly from the standpoint of the present argument, when collective identity is salient, individuals are likely to construe their behavior in terms of its impact on the collective. Thus, salient collective identity causes individuals to afford comparatively less attention or weight to personal and subgroup-level orientations.

The empirical support for these general propositions, I should emphasize, is substantial. Initial evidence for them came from experimental research documenting that simply activating or making salient individuals' collective identities enhanced their willingness to engage in collectively oriented behavior. Numerous laboratory studies over the past two decades, for example, have shown that simply increase in the salience of a shared social identity increases cooperative responding in a variety of collective action dilemmas (e.g., Brewer & Kramer, 1986, 1984; Brewer & Schneider, 1990; Dawes, van de Kragt, & Orbell, 1988; Gaertner, Mann, Murrell, & Dovidio, 1989; Orbell, van de Kragt, & Dawes, 1988). Other studies have shown that collective identification, when measured as an individual difference variable, predicts cooperative behavior in various social dilemma situations (Deaux et al., 1999; Kramer & Goldman, 1995; Piliavin, 1990).

Field studies provide further evidence of this general relationship. Mael and Ashforth (1992), for example, found that the extent to which alumni identified with their alma mater was positively correlated with the size of their donations to the institution. They demonstrated further that collective identification in an organizational setting predicted a variety of other

important collective behaviors. Along similar lines, Kelly and Kelly (1994) found that one of the strongest predictors of individuals' participation in collective action on behalf of a group was their identification with the group. More recently, Tyler and his associates (e.g., Tyler & Blader, 2000; Tyler & DeGoey, 1996; Tyler & Smith, 1999) have found that identification with a community or organization influences individuals' attitudes toward collective resources and their willingness to exercise voluntary restraint with respect to the consumption of such resources. Finally, Gupta, Hofstetter, and Buss (1997) reported that collective identification with an organization (viz., the American Association of Retired Persons) was related to individuals' level of commitment to, and participation in, its mission.

To summarize, the results of numerous empirical studies implicate collective identity as a source of "psychological" social capital in a variety of social contexts, ranging from small experimental groups to large organizations, and even whole communities. Viewed in aggregate, the results of these laboratory experiments and field studies converge on the conclusion that social and contextual cues that make salient or otherwise activate individuals' collective identities enhance the propensity to engage in those forms of collectively oriented behavior directly implicated in the creation of social capital.

Confidence in the validity of this general conclusion is enhanced by the fact that these results have been observed across multiple studies, investigating a wide range of social dilemma situations, and employing a variety of different experimental manipulations and measures of collective identity. Notably, the effect emerges even when the mechanisms for making salient an individual's collective identity are fairly minimal. For example, both a brief group discussion (see Caporael, Dawes, Orbell, & van de Kragt, 1989 for a review) and ad hoc categorization into minimal groups have been demonstrated to be sufficient to produce the effect (Brewer & Kramer, 1986; Brewer & Schneider, 1990; Kramer & Brewer, 1984; Kramer, Pommerenke, & Newton, 1993). In short, the relationship appears to be rather robust.

Although I have documented the evidence regarding the robustness of this relationship, I have said little up to this point about why it might be that individuals' choice behaviors would change so dramatically as a function of the level of social identity that is salient to them. What is it about the process of making salient or engaging individuals' collective identities, for example, which influences their self perceptions and/or their perceptions of a collective to which they belong? Why should identification with a given organization, for instance increase individuals' willingness to act on its behalf? Stated differently, why should identification with a group influence

individuals' motivation to contribute to the creation of social capital through their actions?

As I argue next, one answer to this question can be derived from an analysis of the cognitive, motivational, and behavioral consequences of social identification.

EXPLICATING THE LINKS BETWEEN COLLECTIVE IDENTITY AND SOCIAL CAPITAL

To understand more precisely why making different levels of social identity salient might influence individuals' propensity to engage in social capital producing behaviors, it is useful first to note that there are different ways in which individuals can think about social capital in any given situation. As Putnam (2000) pointed out, social capital is a complex construct and can be simultaneously a private good and a public good, such that "some of the benefit from an investment in social capital goes to bystanders, while some of the benefit rebounds to the immediate interest of the person making the investment" (p. 20). The important psychological implication of this fact is that individuals can construe the costs and benefits of their behavior in different ways.

In fact, there are at least three distinct ways in which individuals might think about the social capital they produce through their actions. The first is in terms of personal or individual-level capital. When social capital is construed at the individual-level of analysis, the benefits individuals derive personally from their involvement in social networks tend to be cognitively salient or focal (e.g., Burt, 1992). As one MBA student argued, when asked to explain why she had spent so much time investing in building a network during her time in business school "For the rest of my life, I will be able to draw on these investments." A second level in which social capital can be thought about is in terms of what Putnam (2000) described as bonding social capital, which is defined at the subgroup level. As Putnam (2000) argued, "bonding social capital is good for undergirding specific reciprocity and mobilizing solidarity" (p. 22) within the proximate and important (sub)groups to which an individual belongs in an organization. Finally, the third level at which we can think about social capital is in terms of what Putnam called bridging social capital, by which he meant social capital that is inclusive of people across social distinctions and cleavages. Because bridging social capital is defined at the collective level, Putnam argued, it can "generate broader identities and reciprocity, whereas bonding social

capital bolsters our narrower selves” (Putnam, 2000, p. 23). Bonding social capital thus tends to reify and reinforce exclusive or differentiating subgroup identities, while bridging social capital connects with the larger social aggregate, tending to over-ride and attenuate the significance of such subgroup distinctions.

It is important to note that individual social actors or decision makers within an organization can justify thinking of their own personal actions as legitimate or virtuous forms of social behavior at any one of these three levels. For example, in a situation where personal identity is a salient reference or focal point, individuals can feel they are simply advancing or protecting their own legitimate interests by engaging in actions that increase the individual reservoir or store of social capital available to them. In contrast, in situations where subgroup identity is salient, these same individuals can feel the paramount consideration, which is to act as loyal ingroup members by increasing its store of bonding social capital. Finally, in situations where collective identity is salient, these same individuals may define their actions in terms of serving the broader interests of the collective as a whole – motivating the willingness to contribute to the reservoir of bridging social capital.

Psychological Transformations and Choice Behavior

With these distinctions in mind, it is now possible to suggest why activating or making salient different levels of social identity might influence the kinds of social capital behaviors individuals are likely to engage in. To do so, it is useful first to introduce the concept of psychological transformations. Kelley (1979) developed this concept to explain why participants in experimental games often responded to the same choice dilemma in such dramatically different ways. For example, in Prisoners Dilemma Games, he observed, some individuals consistently chose cooperative responses, whereas others behaved more competitively. To account for these differences, Kelley argued that, despite the seemingly simple formal structure of such games, individuals psychologically “transform” such situations inside their heads into more personal and often highly idiosyncratic representations.

Kelley’s (1979) original analysis focused primarily on how individual difference variables (e.g., a person’s social values and attitudes) affect these psychological transformations. Subsequent research, however, has elaborated on the role that social identities play in this psychological transformation process (see, e.g., Brewer & Gardner, 1996; Kramer & Brewer, 1986; Kramer & Goldman, 1995; Sellers, Smith, Shelton, Rowley, & Chavous,

Table 1. Effects of Level of Salient Social Identification on Individual’s Cognitions, Motives, and Choice Behaviors^a.

	Level of Salient Social Identity		
	Personal identity	Subgroup identity	Collective (organizational) identity
<i>Transformation</i>			
Self-categorization	Personal level	Subgroup membership	Collective membership
Social motivational orientation	Promote individual gain	Promote subgroup gain	Promote collective gain
Hedonic reference points	Individual gains and losses	Ingroup gains and losses	Collective gains and losses
Salient social decision rule	Max own gains/min own losses	Max relative gains/min relative losses	Max collective gains/min collective losses
Effects on form of Social capital created	Personal Social capital	Bonding Social capital	Bridging Social capital

^aThis table incorporates elements from Brewer and Gardner (1986), Kramer (1991), and Kramer and Brewer (1986).

1998). Viewing this empirical work in aggregate, it appears there are at least three important categories of psychological transformation: cognitive, motivational, and hedonic (see Table 1).

Cognitive Transformations

Research has identified two important cognitive transformations associated with changes in the level of salient social identification. These have been called *self-categorization effects* and *social categorization effects*. Within respect to the first of these effects, a considerable body of evidence has documented that how individuals self-categorize (i.e., perceive themselves in social situations) is influenced by the level of social identity that is salient to them. When personal identities are salient, for instance, people tend to categorize themselves in terms of their unique or distinctive traits and dispositions. The self is construed as a distinct entity and provides a basis for personal self-construal and self-evaluation. When individuals categorize themselves at the subgroup level of identity, in contrast, they think in terms of the characteristics they share with other ingroup members and also how they (as a subgroup member) are different from other people who are not

members of their subgroup (the so-called “outgroup” members). At this level, the actions or inactions of the self are construed in terms of what a “good” (i.e., prototypic) ingroup member does or does not do. Finally, when individuals categorize themselves in terms of collective-level social identities, they think in terms of those characteristics they have in common with the collective as a whole. As these latter two distinctions suggest, when individuals’ level of social identity moves from the personal to the subgroup and collective levels, there is a “shift toward the perception of self as an interchangeable exemplar of some social category and away from the perception of self as a unique person” (Turner, 1987, p. 253).

As shown in the table, the level of salient social identity also influences how individual categorize other individuals with whom they are interdependent. When personal level identities are salient, individuals tend to perceive others as distinct individuals. When identification shifts to the subgroup level, in contrast, they categorize others in terms of the subgroup stereotypes they possess regarding their own ingroup and the various outgroups with which they are competing for resources. Finally, when salient identification shifts to the collective level, other people tend to be perceived in terms of the collective schema and are evaluated in terms of the prototypic member of the collective.

Motivational Transformations

A second important consequence of activating or engaging different levels of social identity has to do with the effects of salient social identity on individuals’ social motivational orientation. The term social motivational orientation refers to the psychological weight or subjective utility that individuals assign to their own outcomes versus the outcomes afforded to others in situations that involve outcome interdependence (Kelley, 1979; McClintock & Liebrand, 1988).² Specifically, when personal level identities are salient, individuals’ motivational orientation tends to be defined at the level of individual self-interests (i.e., in terms of personal social capital). When identity moves to the subgroup level, it is defined in terms of advancing and protecting the ingroup’s welfare or interests (bonding social capital). Finally, when identity moves to the collective level, motivational orientation tends to be defined at the collective level, with concern expressed by how individual actions affect the collective welfare (bridging social capital).

In discussing why social identity influences social utility functions in this fashion, Brewer (1979) theorized that one consequence of moving from the

personal to the subgroup and collective levels of identity is a “reduced differentiation between one’s own and other’s outcomes,” which allows for “increasing the weight given to collective outcomes in individual decision-making” (p. 322). Along similar lines, Mael and Ashforth (1992, p. 103) suggested that increasing the salience of “collectivizing” group boundaries helps to foster a “perceived oneness” between individuals’ own fate and the collective outcome (common fate); in short, from “I” to “Us” to “We.”

Another reason why collective identity might increase individuals’ motivation to engage in collective behavior is suggested by research on the relationship between social identity and social attraction. As Hogg and Abrams (1988) noted, when social identification within a group increases, so too does attraction among group members. Because it is predicated specifically on awareness of shared membership in the collective rather than interpersonal knowledge, they argued, this form of social attraction can be distinguished from interpersonal attraction, “which is inter-individual attraction based upon idiosyncratic preferences and firmly rooted in close personal relationships” (p. 107). As a consequence of this generalized, group-based social attraction, individuals are less likely to draw sharp distinctions between their own outcomes and the outcomes obtained by others in the group. Several studies support this line of reasoning (Hogg & Terry, 2001).

Research on social identity suggests another reason why making salient individuals’ collective identity might enhance their motivation to engage in collective behavior – a reason that is rooted in a self-presentational logic. A large body of social psychological research has shown that people’s behavior is often influenced by self-presentational concerns (Leary, 1995). As Leary noted, self-presentational concerns reflect many motives, including the desire to maintain positive personal and social identities, and also to maintain positive emotions about one’s self. Research on self-presentational concerns affirms a simple but important point. In many social situations, people care about what others think of them. In elaborating on the self-presentational aspects of choice in social dilemma situations, Kelley (1979) argued that individuals’ behavior in such situations is important not only in so far as it affects the particular material outcomes they obtain in such situations (e.g., the monetary payoffs in an experimental game), but also a variety of less tangible, but no less important, psychological and social outcomes. In particular, Kelley noted, behavior in such situations afford individuals an opportunity to display important dispositions and cherished identities to others with whom they are interacting (as being, for instance, loyal, trustworthy, and cooperative group citizens). From this perspective,

displays of collective behavior provide a way for individuals to affirm the value they associate with membership in the collective (cf., Lind & Tyler, 1988). They are, in another words, one important mechanism for a sort of “collective self affirmation” – a group-level motive not unlike individual-level forms of self-affirmation observed in other contexts (cf., Steele, 1999).

From this perspective, engaging in collective behavior provides group members with an opportunity to communicate to others the symbolic importance they attach to their shared identity. As March (1994) noted in this regard, social identities serve as a way for individuals to “establish and celebrate their ties with others and their place in a social order of relationships that they honor” (p. 63). Evidence in support of such self-presentational motives comes from several studies. Kramer et al. (1993), for example, examined self-presentational concerns in a two-person bargaining situation. They found that when a shared social identity was made salient to negotiators, their concerns about appearing fair and cooperative were significantly enhanced. In contrast, when personal-level, differentiating identities were reinforced, individuals tended to be more concerned about their own performance (how well they negotiated, outperformed the other party, etc.).

Hedonic Transformations

Over the past decade, there has been a great deal of interest in the relationship between hedonic reference points and individuals’ assessments of their subjective well-being (see, e.g. Kahneman, Diener, & Schwarz, 1999 for an overview of this literature). This research has shown how different reference points influence people’s perceptions of the hedonic consequences associated with their choices (Elster & Loewenstein, 1992). Such reference points have been shown to influence, for example, whether people feel good or bad about the outcomes they obtain, as well as the level of satisfaction or regret they associate with their actions or inactions (Gilovich & Medvec, 1995).

Related research on hedonic self-regulation suggests that people are often able to anticipate or forecasts the hedonic states associated with different actions, and that they are reasonably adept at engineering their behavior so as to bring about desired hedonic outcomes or states (e.g., Ainslie & Haslam, 1992; Gilbert, 2002; Schelling, 1984, 1992). Elster and Loewenstein (1992) framed this competence in terms of the notion of “hedonic anticipation,” emphasizing the functionality of such anticipations

Like memory, anticipated experiences affect current utility through the consumption [effect]. Through [this] effect we are able to, in effect, consume events before they occur

through anticipation ... [our capacity to savor events] acts as multipliers of experience, causing individuals to experience the hedonic impact of events repeatedly before they occur (p. 225, emphases added).

One important implication of this research is that the level of salient social identity might be expected to influence the particular reference points individuals' adopt when evaluating the hedonic benefits of their outcomes (i.e., the net gains or losses in pleasure or satisfaction). Specifically, when salient identity moves from the personal to the subgroup to collective level, there are corresponding changes in the reference points individuals use for evaluating their anticipated affective states and outcomes (literally, how good they feel about themselves and the outcomes they obtain). As summarized in [Table 1](#), when identification is at the personal level, the reference point for evaluating good versus bad outcomes tends to be the personal self; what do I as an individual gain or lose by this action? Decisions are evaluated in terms of the extent to which they contribute to the production of personal social capital. When subgroup-level identities are salient, in contrast, outcomes are defined at the ingroup level (how well is my group doing, especially relative to other groups). Finally, when the collective identity is salient, the reference point becomes the collective outcome (how good are we as a collective faring).

To the extent that individuals perceive engaging in collective behavior as a way of affirming positive relationships with other members, such affirmations are likely to be perceived as intrinsically pleasurable and therefore self-rewarding or reinforcing. As [Simon \(1991\)](#) observed in this regard, "Identification with the 'we,' which may be a family, a company, a city, a nation, or the local baseball team, allows individuals to experience satisfactions (to gain utility) from successes of the unit thus selected" (p. 36, emphases added). Consistent with Simon's argument, there is some evidence that decision makers' satisfaction with outcomes are influenced, at least in part, by the level of social identity that is salient to them when they evaluate their outcomes relative to others. [Kramer et al. \(1993\)](#) showed, for example, that individuals for whom a collective identity was salient reported being more satisfied with equality of outcomes compared to those for whom individualistic identity was salient. Similarly, [Thompson, Valley, and Kramer \(1995\)](#) found that reference points affected regret or happiness with outcomes in a bargaining situation involving either an ingroup or outgroup member.³

The affect theory of social exchange, as formulated by [Lawler \(2001\)](#) and [Lawler and Thye \(1999, 2005\)](#), provides another powerful framework for thinking about the general relationships among collective identity, hedonic

states, engaging in acts that create social capital for a group. According to their framework, individuals are more likely to attribute their individually felt emotions with their group membership if the task they are performing is high in jointness. As Lawler and Thye (2005) theorize, “if exchange generates a sense of shared responsibility, actors are more likely to interpret their individual feelings as jointly produced in concert with others, and therefore they are more likely to attribute those feelings to relationships with those others or to common group affiliations” (p. 36, emphases added).

Extrapolating from these converging perspectives, we might argue that a similar logic implies that when collective identities are salient to individuals, they will be more likely to believe that socially defecting choices (e.g., selfish or noncooperative behavior) will lead to negative hedonic outcomes, including states of guilt, shame, or fear of social sanction or ostracism. I would argue, along these lines, that a fuller explication of the hedonic consequences of choice might clarify some of the intense affective reactions people sometimes experience in social dilemma situations, both with respect to their own behavior and, even more dramatically, the behavior of others. As numerous studies have shown, individuals find the prospect of getting the so-called “sucker’s payoff” (i.e., cooperating with others when others do not reciprocate) to be highly aversive. Striking levels of distress are sometimes observed even in experimental games involving undergraduates who do not know each other, will never even see each other, and extremely small monetary stakes. From the basis of a social identity-based logic, these reactions are understandable; collective identities sometimes engender a strong form of what Rotter (1980) termed moralistic trust – trust construed as a duty or obligation on the part of individuals to engage in trustworthy actions. Rotter noted that trust behavior sometimes reflects an individual’s “belief in the moral rightness of trust [rather than] an expectancy of risk in trusting others” (p. 4). In other words, people sometimes engage in trust-related action not simply or only because they expect to benefit from such action, but rather because they think they ought to engage in such behavior.

Although Rotter originally conceptualized moralistic trust as an individual difference variable, an identity-based logic emphasizes the notion that such trust is predicated upon or tied to individuals’ beliefs regarding what it means to be a “good” (virtuous, honorable, loyal, contributing) member of a group. As March (1994) aptly suggested in this regard, individuals “can violate a logic of consequences and be considered [merely] stupid or naive, but if they violate the moral obligations of identity, they will be condemned as lacking in elementary virtue” (p. 65, emphases added). Consistent with this argument, there is some evidence that moralistic trust is stronger in

individuals with higher levels of group identification and also reactions to perceived trust violations, including affective-reactions and retaliatory aggression (Kramer, 1999).⁴

Salience of Social Decision Rules

From the standpoint of tracing the origins of social capital, the various cognitive, motivational, and hedonic transformations described so far are of real consequence, of course, only to the extent that they actually influence individuals' choice behavior in social dilemma situations. In particular, they are important only to the extent they influence the emergence of different forms of social capital-producing behaviors. Here the concept of salient social decision rules is useful. Social decision rules represent general principles or prescriptions individuals invoke when deciding what to do in situations involving interdependence with others (March, 1999). In particular, they reflect individuals' understanding of what constitutes normatively appropriate behavior for various situations in which individuals find themselves. As March (1994) suggested in this regard, "To make decisions within a logic of appropriateness, decision makers need to be able to determine what their identities are, what the situation is, and what action is appropriate for persons such as they are in the situation in which they find themselves," (p. 68). Implicit in March's formulation is an elegant ecological perspective, mapping logics of identity to logics of situation.

Consistent with such an ecological formulation, I suggested earlier in this paper how the particular way in which people define themselves (self-categorize) in choice dilemmas is likely to be influenced by the level of social identity that is salient to them. In particular, when personal identities are salient, people are likely to construe themselves as individual social actors. Accordingly, the salient decision rules are likely to reflect primarily concerns about increasing or protecting one's own outcomes. These rules are characterized generally as own gain maximizing (Kelly, 1979). In situations where subgroup identities are salient, in contrast, individuals are more likely to use the ingroup's welfare as a referent. Thus, decision rules that increase and protect the ingroup's outcomes, especially relative to outgroups, are focal. These rules have been characterized, accordingly, as relative gain maximizing. Finally, when collective identities are salient, concern is centered around the consequences of one's actions on the collective as a whole. Consequently, the salient decision rules are to increase collective gain and/or reduce collective losses. These rules are thus characterized as joint gain maximizing.

SOCIAL IDENTITY AND SOCIAL CAPITAL IN THE WORKPLACE: TOWARD A MORE INTEGRATIVE PERSPECTIVE

Developing a better understanding of the conditions under which individuals in the workplace are willing to cooperate with each other remains a vital enterprise in the social sciences. The present paper approached this important question from the standpoint of recent theory and research on social identity and its consequences. A primary purpose of this paper was to explicate more systematically some of the psychological links between social identity and the accumulation or accretion of social capital within the workplace. From the standpoint of contemporary organizational theory, the contributions of a psychological perspective on this relationship can be elaborated along several dimensions.

First, as noted earlier, previous researchers have construed social capital largely as an emergent phenomenon or “by-product” of particular organizational structures. As important as it is to identify the organizational structures that generate social capital, it is important also to understand why they do so (i.e., identify the mediating psychological processes linking organizational structures and individual actions). For example, in addition to showing that networks within an organization “allow trust to become transitive and spread” (Putnam, 1993a, p. 169), it is important to understand how and why they do so. For a comprehensive theory of social capital, the devil is in the details; and at least some of the details must include explicating the specific psychological mechanisms that link particular organizational structures (such as network configurations) with the emergence of those specific behaviors that produce social capital within the network. From a psychological perspective, social capital flows from what organizational actors within networks actually do, rather than the networks themselves.

A second and broader way of thinking about this general issue is in terms of what Cappelli and Sherer (1991) characterized as “bridging” constructs. They proposed that there is currently a great need in the social sciences for conceptual models that help us connect or bridge psychological (micro) and sociological (macro) accounts of human behavior. This general problem has long been recognized as particularly acute in the organizational sciences. The concept of identity-based judgment and decision making developed in this paper provides, I would argue, such a constructive bridging function.

There are several other, more specific, contributions such an analysis makes. I address these contributions in the following sections.

Social Identity, Social Capital, and Workplace Trust

An identity-based model of collective action makes an important contribution to our understanding of the relationship between organizational trust and social capital. Social capital theorists have frequently argued that trust constitutes one of the most important “forms” of social capital (e.g., Coleman, 1990; Fukuyama, 1995; Granovetter, 1985; Putnam, 1993a, b; Uzzi, 1997). However, the characteristics of such trust have been much less obvious. It has been far from clear, for example, just what kind of trust matters in collective situations. After all, the concerns about trust that arise in collective contexts – such as within large, complex organizations – are quite different from, and in many respects more problematic than, those that arise in other social contexts. For example, the grounds on which trust is predicated in collective contexts have been less clearly defined or identified than the grounds for trust associated with interpersonal relationships or small group settings. Because of the greater size, social heterogeneity, and structural complexity of large collectives, do not have the opportunity to engage in the sort of incremental and repeated exchanges that have been shown to facilitate the development of interpersonal trust in close relationships (Lindsfold, 1978; Rotter, 1980). Similarly, many of the informal social processes and norms which foster trust development and cooperation within small, relatively homogeneous groups (e.g., Fine & Holyfield, 1996) obviously lose their efficacy in the more complex and socially diverse groups (Olson, 1965). Consequently, our conventional conceptualizations of trust derived from interpersonal (Rotter, 1971) and small group (Golembiewski, & McConkie, 1975) settings are not necessarily applicable to understanding the determinants and dynamics of trust in collective contexts. Recognizing these myriad difficulties, Putnam (1993a) concluded, “In larger, more complex settings, a more impersonal or indirect form of trust is required” (p. 171). An identity-based conception of trust, I would argue, constitutes an important form of such an impersonal and indirect trust.

When predicated explicitly upon one’s awareness of shared membership in a group or organization, such “depersonalized trust” (Brewer, 1981) may be particularly effective as a means of facilitating collective organizational behavior for several reasons. First, identity-based trust of this sort is less likely to be contingent on the expectation that any specific person in the group will act in a trustworthy fashion. Because it represents a depersonalized or generalized expectancy about others’ behavior that is predicated on a positive ingroup stereotype, acts of defection by single individuals will not necessarily disrupt the expectation about what other group members might

do. In this respect, identity-based trust can function, therefore, as a substitute or proxy for other processes on which trust is usually contingent. For example, because it is conferred simply on the basis of recognition of their shared membership in a collective, individuals may perceive less of a need to verify or “negotiate” trust before engaging in exchanges or transactions with other ingroup members. Paraphrasing Uzzi (1996), individuals can “roll over” their positive expectations and experiences with ingroup members from one transaction to another. In this respect, such depersonalized trust operates much like a simple “heuristic” or rule of thumb enabling individuals to engage more readily in the sort of spontaneous actions that generate social capital, even though the usual history of repeated interactions on which such trust is based is not available.

Another factor that may help sustain this depersonalized trust in others is that individuals may even discount the diagnostic import of information suggesting others’ lack of trustworthiness, because of a “leniency bias” extended to other ingroup members (Brewer, 1996). When in doubt, people will give other group members the benefit of the doubt.

*Creating and Sustaining Social Capital in the Workplace:
Some Practical Implications and Caveats*

Another important implication of this analysis is that the level of social capital within a given organization might be increased by creating organizational climates and conditions that activate collective identities, and more effectively “engage” the collective self. Several lines of empirical evidence support such a contention. First, there is considerable evidence from social psychological research that heightened perceptions of “common fate” contribute to the emergence of collective identities. As Brewer and Miller (1996) noted in reviewing this evidence, “perceptions of shared interests or common fate do seem to be crucial to the emergence of collective identity” (p. 43). In support of this argument, they pointed out Gurin and Townsend’s (1986) finding that a “sense of common fate ... proved to be the most important predictor of collective orientation” (p. 43). Support for this argument is suggested also by research demonstrating that “re-categorizing” groups in terms of superordinate, collective-level boundaries can override or attenuate the impact of individualistic and competitive intergroup orientations (e.g., Gaertner et al., 1989; Kramer & Brewer, 1984). Other recent research suggests that even relatively subtle linguistic cues may play a powerful role in evoking collective identities and enhancing collective behavior.

Laboratory research suggests, for example, that even the use of “collectivizing” language, such as “we” instead of “I” may help foster collective orientations and behaviors (Brewer & Gardner, 1996; Dawes, van de Kragt, & Orbell, 1988; Kramer et al., 1993).

Another approach to increasing awareness of collectivizing identities is through structural arrangements that draw attention to, or increase the salience of, cooperative norms and expectations. As March (1994) observed, social structures and arrangements function much like “stage managers,” providing “prompts that evoke particular identities in particular situations” (p. 72). Indeed, this is the logic driving much of the sociological and organizational theory literature on the importance of structural embeddedness for social capital creation. Miller (1992) offers an excellent example of this kind of socially constructed and self-reinforcing dynamic for creating a cooperative collective identity. In discussing the underpinnings of cooperation at Hewlett-Packard, he noted that, “The reality of cooperation is suggested by the open lab stock policy, which not only allows engineers access to all equipment, but encourages them to take it home for personal use” (p. 197).

At first glance, this is a very simple structural arrangement that, from a strictly economic standpoint, effectively reduces monitoring and transaction-costs. However, from the standpoint of an identity-based conception of social perception and behavior, its consequences are more subtle and potentially more powerful and pervasive. As Miller (1992) observes along these lines, “the open door symbolizes and demonstrates management’s trust in the cooperativeness of the employees ... The elimination of time clocks and locks on equipment room doors is a way of building a shared expectation among all the players that cooperation will most likely be reciprocated” creating “a shared ‘common knowledge’ in the ability of the players to reach cooperative outcomes” (p. 197). Because such acts are so manifestly predicated on confidence in others, they tend to breed confidence in turn. It becomes a form of “expectational asset” group members can rely on (cf., Camerer & Knez, 1995).

*Social Identity in the Workplace: Toward a More Prosocial
(and Less Economistic) View of Workplace Behavior*

Construed most broadly, a social psychological analysis of the origins of social capital contributes to a growing body of evidence suggesting the need for a fundamental reformulation of several core models in the social sciences. Within the social sciences, there has been growing disenchantment

with how the self has been portrayed within the social sciences (Brewer, 1991; Mansbridge, 1990; Tyler, Kramer, & Oliver, 1999). As Brewer (1991) lamented along these lines, there is “something peculiarly unsocial about the construal of the self in American social psychology” (p. 475). “The human species,” she observed, “is highly adapted to group living and not well equipped to survive outside a group context. Yet our theories of self show little regard for this aspect of our evolutionary history” (p. 475). Brewer’s observation can be applied with special force to contemporary theories regarding the underpinnings of social capital. As Granovetter (1985) observed in an influential critique of economic conceptions of collective behavior, such conceptions characteristically proceed from an “atomistic, under-socialized conception of human action” (p. 483). A similar point was made by Pfeffer (1997) with respect to conceptions of the self found within organizational theory, “The economic theories that have been imported most frequently into organizational theory almost invariably proceed from a theoretical position of methodological individualism, calculative rationality, and presumptions of self-interested behavior and effort aversion (shirking)” (p. 14). Such conceptions imply human beings who are essentially calculative rather than affiliative, rational rather than emotional, and individualistic rather than social. Starting from such assumptive frameworks, it should come as no surprise that the problem of social capital has been framed often as one of “overriding” the “natural” tendencies of human beings to free-riding or shirk in collective contexts, as if those were the status quo orientations of social actors (cf., Olson, 1965).

The prominence afforded to such asocial and calculative conceptions of human action, and their underlying assumptions of self-interest and individualistic rationality, are not entirely indefensible. Even casual observation is sufficient to suggest that people sometimes do fail to cooperate. The problem, however, is that such models systematically under-predict actually observed cooperation levels (Frank, Gilovich, & Regan, 1993; Putnam, 1993a). Thus, such accounts provide, at best, an incomplete view of social behavior; they predict the behavior of some people some of the time, but they fail to predict the behavior of many other people. Paraphrasing Putnam, (1993a), they “seem to imply cooperation is rare, whereas it seems to be common in much of the modern world” (p. 166).

In contrast, a social identity-based model of organizational behavior paints a very different and considerably more socialized portrait of human agency and action in the workplace. According to such a model, the prospects for spontaneous or voluntary forms of cooperative behavior are substantial relative to what economic accounts suggest. The evidence reviewed

in this paper suggests that whether behavior is relatively self- or other-regarding should be viewed as contingent. In other words, self-interest should be construed as a variable, rather than a fixed or invariant propensity of social actors (Perrow, 1986). Self-interest should, in other words, be treated as a dependent variable just like any other, rather than treated as a base-line assumption for models of social decision making.

Along these lines, Brewer (1989) has argued that debates regarding the fundamental nature of human beings are often misguided, especially with respect to the representation of human nature as falling somewhere along a simplistic continuum that portrays selfishness and altruism as polar opposites. Rather, she suggests, self-gratification and collective identity can be better characterized as “independent, opposing processes that are reflected in ambivalence and variability of responding in the face of conflict between individual and collective welfare” (p. 699). A social identity-based model of choice behavior provides a useful conceptual scaffolding for a theory that gives fuller expression to such ambivalence, and the sort of contingent behavior to which such ambivalence gives rise.

Does it really matter which set of assumptions about human nature we adopt in our theorizing regarding the origins of social capital? Absolutely. As Simon (1985) cogently argued, “Nothing is more fundamental in setting our research agenda and informing our research methods than our view of the nature of the human beings whose behavior we are studying” (p. 303, cited in Pfeffer, 1997, p. 42). As numerous scholars (e.g., Allison, Beggan, & Midgley, 1996; Frank et al., 1993; March, 1994; Simon, 1993) have argued, the assumptive frameworks from which we can proceed and do exert a profound – and often quite subtle – effect not only on the kinds of problems we attend to in our social science theorizing and empiricism, but also the approaches we take when studying those problems, and the kinds of solutions we entertain when thinking about how to solve them. Thus, different conceptions of human action have very different implications with respect to what we expect from people and how we design our social systems to influence that expected behavior.

NOTES

1. In a large and impressive body of work within sociology, Stryker and others (e.g., Desrochers, Andreassi, & Thompson, 2004; Stryker, 2000; Stryker & Burke, 2000; Stryker, Owens, & White, 2000) have afforded considerable attention to the concept of identity and its relationship to role-related behaviors in social systems. Unfortunately, space does not permit an extensive discussion of role identities, or the

numerous and subtle differences between social identity theory and identity theory (see, however, Hogg, Terry, & White, 1995 for a fuller treatment). In a crisp and insightful discussion of such differences, Desrochers et al. (2004) caution theorists that Stryker's identity theory "should not be confused with social identity theory, which emphasizes group process and intergroup relations rather than role behavior. [Stryker's] identity theory focuses on the self as comprised of the various roles an individual occupies, while social identity theory posits that the groups to which people provide a definition of who they are" (p. 61). Because I am focusing in this paper primarily on tensions between social identities at the individual, inter-group, and superordinate-group levels, I do not address role identities further. However, in fact, theoretical predictions from these two distinct perspectives converge in a variety of important ways, especially with respect to what they have to say about how the salience of different identities influence social behavior. And, consistent with Stryker's identity theory, there is evidence that strong role identities can provide a foundation for social capital-generating behaviors (see, e.g., Meyerson, Weick, & Kramer, 1996).

2. Although early research treated these social motivational orientations largely as individual difference variables (on the assumption that they reflected primarily individuals' social values and attitudes), more recent studies have emphasized the extent to which they are responsive to social contextual cues that, in effect, "activate" different social motivational orientations (Brewer & Kramer, 1986; De Cremer & Van Vugt, 1999; Kramer & Goldman, 1985). These studies demonstrated, for example, that the level of social identity made salient to decision makers influenced whether their behavior reflects individualistic versus more cooperative orientations.

3. Research on the well-known "basking in reflected glory" phenomenon (Cialdini et al., 1976) provides further suggestive evidence of this link between positive social identifications (being a member of a school with a winning football team) and positive hedonic states.

4. A further and rather interesting possibility suggesting by this thread of reasoning is that individuals from whom collective-level identities are salient may sometimes be willing to engage in compensatory actions to make up for the comparatively selfish or noncooperative actions of others in the collective. Such behavior constitutes a kind of "compensatory" form of collective behavior (Brewer & Kramer, 1986).

ACKNOWLEDGMENTS

I gratefully acknowledge the editorial contributions of Shane Thye and Edward Lawler to the revision of this paper. I also thank Robert Putnam for his insightful inputs in the refinement of this framework. Early versions of this work were presented at the 1999 Conference on the Psychology of the Social Self, held at the Institute of Personality and Social Research, University of California, Berkeley and the Organization Science 2000 Conference on Social Capital, in Boulder, Colorado. Comments from participants at those conferences are gratefully acknowledged.

REFERENCES

- Abrams, D., & Hogg, M. A. (1990). *Social identity theory*. New York: Springer.
- Ainslie, G., & Haslam, N. (1992). Self-control. In: G. Loewenstein & J. Elster (Eds), *Choice over time*. New York: Russell Sage.
- Allison, S. T., Beggan, J. K., & Midgley, E. H. (1996). The quest for 'similar instances' and 'simultaneous possibilities': Metaphors in social dilemma research. *Journal of Personality and Social Psychology Research*, 71, 479–497.
- Ashforth, B. E., & Johnson, S. A. (2001). Which hat to wear? The relative salience of multiple identities in organizational contexts. In: M. A. Hogg & D. J. Terry (Eds), *Social identity processes in organizational contexts* (pp. 31–48). Philadelphia, PA: Psychology Press.
- Batson, C. (1994). Why act for the public good? Four answers. *Personality and Social Psychology Bulletin*, 20, 603–610.
- Boissevain, J. (1974). *Friends of friends*. Oxford: Basil Blackwell.
- Bonacich, P., & Schneider, S. (1992). Communication networks and collective action. In: W. G. Liebrand, D. M. Messick & H. A. M. Wilke (Eds), *A social psychological approach to social dilemmas*. Oxford, England: Pergamon Press.
- Bourdieu, P. (1986). The forms of capital. In: J. G. Richardson (Ed.), *Handbook of theory and research in the sociology of education* (pp. 241–258). Cambridge, England: Cambridge University Press.
- Brewer, M. B. (1979). In-group bias in the minimal intergroup situation: A cognitive-motivational analysis. *Psychological Bulletin*, 86, 307–324.
- Brewer, M. B. (1981). Ethnocentrism and its role in interpersonal trust. In: M. B. Brewer & B. E. Collins (Eds), *Scientific inquiry in the social sciences*. San Francisco, CA: Jossey-Bass.
- Brewer, M. B. (1989). Ambivalent sociality: The human condition. *Behavioral and Brain Sciences*, 12, 699.
- Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, 17, 475–482.
- Brewer, M. B. (1996). In-group favoritism: The subtle side of intergroup discrimination. In: D. M. Messick & A. Tenbrunsel (Eds), *Codes of conduct: Behavioral research and business ethics*. New York: Russell Sage.
- Brewer, M. B., & Gardner, W. (1996). Who is this 'we'? Levels of collective identity and self representations. *Journal of Personality and Social Psychology*, 71, 83–93.
- Brewer, M. B., & Kramer, R. M. (1986). Choice behavior in social dilemmas: Effects of social identity, group size, and decision framing. *Journal of Personality and Social Psychology*, 50, 543–549.
- Brewer, M. B., & Miller, N. (1996). *Intergroup relations*. Pacific Grove, CA: Brooks-Cole Publishing Co.
- Brewer, M. B., & Schneider, S. (1990). Social identity and social dilemmas: A double-edged sword. In: D. Abrams & M. A. Hogg (Eds), *Social identity theory: Constructive and critical advances*. New York: Springer.
- Brief, A. P., & Motowidlo, S. J. (1986). Prosocial organizational behaviors. *Academy of Management Review*, 10, 710–725.
- Burt, R. S. (1992). *Structural holes*. New York: Cambridge University Press.
- Camerer, C. F., & Knez, M. (1995). Creating 'expectational assets' in the laboratory: 'Weakest link' coordination games. *Strategic Management Journal*, 15, 101–109.

- Caporael, L. R., Dawes, R. M., Orbell, J. M., & van de Kragt, A. J. C. (1989). Selfishness examined: Cooperation in the absence of egoistic incentives. *Behavioral and Brain Sciences*, *12*, 683–739.
- Cappelli, P., & Sherer, P. D. (1991). The missing role of context in OB: The need for a meso-level approach. In: L. L. Cummings & B. M. Staw (Eds), *Research in organizational behavior* (Vol. 13). Greenwich, CT: JAI Press.
- Cialdini, R., Borden, R., Thorne, A., Walkder, M., Freman, S., & Sloan, L. (1976). Basking in reflected glory: Three (football) field studies. *Journal of Personality and Social Psychology*, *34*, 463–476.
- Coleman, J. (1990). *Foundations of social theory*. Cambridge, MA: Harvard University Press.
- Cook, K. S. (2005). Networks, norms, and trust: The social psychology of social capital. *Social Psychology Quarterly*, *68*, 4–14.
- Cota, A. A., & Dion, K. L. (1986). Salience of gender and sex composition in ad hoc groups: A test of distinctiveness theory. *Journal of Personality and Social Psychology*, *50*, 770–776.
- Cusumano, M. A. (1997). How microsoft makes large teams work like small teams. *Sloan Management Review*, *3*, 9–20.
- Dawes, R. M., van de Kragt, A. J. C., & Orbell, J. M. (1988). Not me or thee but we: The importance of group identity in eliciting cooperation in dilemma situations: Experimental manipulations. *Acta Psychologica*, *68*, 83–97.
- Deaux, K., Reid, A., Mizrahi, K., & Cotting, D. (1999). Connecting the person to the social: The functions of social identification. In: T. R. Tyler, R. M. Kramer & O. P. John (Eds), *The psychology of the social self* (pp. 91–113).
- De Cremer, D., & Van Vugt, M. (1999). Social identification effects in social dilemmas: A transformation of motives. *European Journal of Social Psychology*, *29*, 871–893.
- Desrochers, S., Andreassi, J., & Thompson, C. (2004). Identity theory. *Organizational Management Journal*, *1*, 61–69.
- Dovidio, J. F., Gaertner, S. L., Isen, A. M., Rust, M., & Guerra, P. (1998). Positive affect, cognition, and the reduction of intergroup bias. In: C. Sedikides, J. Schopler & C. A. Insko (Eds), *Intergroup cognition and intergroup behavior* (pp. 337–366). Mahwah, NJ: Erlbaum.
- Elster, J., & Loewenstein, G. (1992). Utility from memory and anticipation. In: G. Loewenstein & J. Elster (Eds), *Choice over time*. New York: Russell Sage.
- Fine, G., & Holyfield, L. (1996). Secrecy, trust, and dangerous leisure: Generating group cohesion in voluntary organizations. *Social Psychology Quarterly*, *59*, 22–38.
- Frank, R. H., Gilovich, T., & Regan, D. T. (1993). Does studying economics inhibit cooperation? *Journal of Economic Perspectives*, *7*, 1–13.
- Fukuyama, F. (1995). *Trust: The social virtues and the creation of prosperity*. New York: Free Press.
- Gaertner, S. L., Mann, J., Murrell, A., & Dovidio, J. (1989). Reducing intergroup bias: The benefits of recategorization. *Journal of Personality and Social Psychology*, *57*, 239–249.
- Gilbert, D. T. (2002). Decisions and revisions: The affective forecasting of changeable outcomes. *Journal of Personality and Social Psychology*, *82*, 503–514.
- Gilovich, T., & Medvec, V. (1995). The experience of regret: What, when, and why. *Psychological Review*, *102*, 379–395.
- Golembiewski, R. T., & McConkie, M. (1975). The centrality of interpersonal trust ingroup processes. In: C. L. Cooper (Ed.), *Theories of group processes* (pp. 131–185). London: Wiley.

- Granovetter, M. (1985). Economic action and social structure: The problem of embeddedness. *American Journal of Sociology*, *91*, 481–510.
- Gupta, D. K., Hofstetter, C. R., & Buss, T. F. (1997). Group utility in the micro motivation of collective action: The case of membership in the AARP. *Journal of Economic Behavior and Organization*, *32*, 301–320.
- Gurin, P., & Townsend, A. (1986). Properties of gender identity and their implications for gender consciousness. *British Journal of Social Psychology*, *25*, 139–143.
- Hackman, J. R. (2002). *Leading teams: Setting the stage for great performance*. Boston, MA: Harvard University Press.
- Hackman, J. R., & Vidmar, N. (1970). Effects of size and task type on group performance and member reactions. *Sociometry*, *33*, 37–54.
- Hardin, G. (1968). The tragedy of the commons. *Science*, *162*, 1243–1248.
- Hogg, M. A., & Abrams, D. (1988). *Social identifications: A social psychology of intergroup relations and group processes*. London: Routledge.
- Hogg, M. A., & Terry, D. J. (Eds) (2001). *Social identity processes in organizational contexts*. Philadelphia, PA: Psychology Press.
- Hogg, M. A., Terry, D. J., & White, K. M. (1995). A tale of two theories: A critical comparison of identity theory with social identity theory. *Social Psychology Quarterly*, *58*, 255–269.
- Jacobs, J. (1965). *The death and life of great American cities*. London: Penguin Books.
- Kahneman, D., Diener, D., & Schwarz, N. (1999). *Well-being: The foundations of hedonic psychology*. New York: Russell Sage.
- Kelley, H. H. (1979). *Personal relationships*. Hillsdale, NJ: Lawrence Erlbaum.
- Kelly, C., & Kelly, J. E. (1994). Who gets involved in collective action? Social psychological determinants of individual participation in trade unions. *Human Relations*, *47*, 63–87.
- Kramer, R. M. (1991). Intergroup relations and organizational dilemmas: The role of categorization processes. In: L. L. Cummings & B. M. Staw (Eds), *Research in organizational behavior* (Vol. 13, pp. 191–228). Greenwich, CT: JAI Press.
- Kramer, R. M. (1999). Affective reactions to trust violations: A social identity perspective. Paper presented at the annual academy of management meetings.
- Kramer, R. M., & Brewer, M. B. (1984). Effects of group identity on resource use in a simulated commons dilemma. *Journal of Personality and Social Psychology*, *46*, 1044–1057.
- Kramer, R. M., & Brewer, M. B. (1986). Social group identity and the emergence of cooperation in resource conservation dilemmas. In: H. A. M. Wilke, D. M. Messick & C. G. Rutte (Eds), *Experimental social dilemma*. Frankfurt: Verlag.
- Kramer, R. M., & Goldman, L. (1995). Helping the group or helping yourself? Social motives and group identity in social dilemmas. In: D. Schroeder (Ed.), *Social dilemmas*. New York: Praeger.
- Kramer, R. M., Pommerenke, P., & Newton, E. (1993). The social context of negotiation: Effects of social identity on negotiator judgment and decision making. *Journal of Conflict Resolution*, *37*, 633–654.
- Latane, B. (1986). Responsibility and effort in organizations. In: P. S. Goodman (Ed.), *Designing effective work groups*. San Francisco, CA: Jossey-Bass.
- Lawler, E. J. (2001). An affect theory of social exchange. *American Journal of Sociology*, *107*, 321–352.
- Lawler, E. J., & Thye, S. (1999). Bringing emotions into social exchange theory. *Annual Review of Sociology*, *25*, 217–244.
- Lawler, E. J., & Thye, S. (2005). *Social exchange theory of emotions*. Unpublished manuscript.

- Leary, M. R. (1995). *Self-presentation: Impression management and interpersonal behavior*. Boulder, CO: Westview.
- Levine, J. M., & Moreland, R. L. (1998). Small groups. In: D. T. Gilbert, S. T. Fiske & G. Lindzey (Eds), *The handbook of social psychology* (4th ed., Vol. 2, pp. 415–469). New York: McGraw-Hill.
- Lind, E. A., & Tyler, T. R. (1988). *The social psychology of procedural justice*. New York: Plenum.
- Lindskold, S. (1978). Trust development, the GRIT proposal, and the effects of conciliatory acts on conflict and cooperation. *Psychological Bulletin*, *85*, 772–793.
- Lipman-Blumen, J., & Leavitt, H. J. (1999). *Hot groups: Seeing them, feeding them, and using them to ignite your organizations*. New York: Oxford University Press.
- Mael, F., & Ashforth, B. E. (1992). Alumni and their alma mater: A partial test of the reformulated model of organizational identification. *Journal of Organizational Behavior*, *13*, 103–123.
- Mansbridge, J. (1990). *Beyond self-interest*. Chicago, IL: University of Chicago Press.
- March, J. G. (1994). *A primer on decision making*. New York: Free Press.
- McClintock, C. G., & Liebrand, W. B. G. (1988). Role of interdependence structure, individual value orientation, and another's strategy in social decision making: A transformational analysis. *Journal of Personality and Social Psychology*, *55*, 396–409.
- McEvily, B., & Zaheer, A. (2004). Architects of trust: The role of network facilitators in geographical clusters. In: R. M. Kramer & K. S. Cook (Eds), *Trust and distrust in organizations* (pp. 189–214). New York: Russell Sage.
- McGuire, W. J., & Padawer-Singer, A. (1976). Trait salience in the spontaneous self-concept. *Journal of Personality and Social Psychology*, *33*, 743–754.
- Messick, D. M., & Brewer, M. B. (1983). Solving social dilemmas: A review. *Review of Personality and Social Psychology*, *4*, 11–44.
- Meyerson, D., Weick, K., & Kramer, R. M. (1996). Swift trust in temporary groups. In: R. M. Kramer & T. R. Tyler (Eds), *Trust in organizations*. Thousand Oaks, CA: Sage.
- Miller, G. J. (1992). *Managerial dilemmas: The political economy of hierarchies*. New York: Cambridge University Press.
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, *23*, 242–266.
- Olson, M. (1965). *The logic of collective action*. New Haven, CT: Yale University Press.
- Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, MA: D. C. Heath.
- Perrow, C. (1986). *Complex organizations* (3rd ed.). New York: Random House.
- Pew Research Center for the People and the Press. (1996). *Trust and citizen engagement in metropolitan Philadelphia: A case study*. Washington, DC: The Pew Research Center for the People and the Press.
- Pfeffer, J. (1997). *New directions in organizational theory*. New York: Oxford University Press.
- Piliavin, J. (1990). Why do they give the gift of life? A review of research on blood donors since 1977. *Transfusion*, *30*, 444–459.
- Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology*, *24*, 1–22.
- Putnam, R. D. (1993a). *Making democracy work*. Princeton, NJ: Princeton University Press.
- Putnam, R. D. (1993b). The prosperous community: Social capital and public life. *America*, *4*, 1–13.

- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.
- Rotter, J. B. (1971). Generalized expectancies for interpersonal trust. *American Psychologist*, *26*, 443–452.
- Rotter, J. B. (1980). Interpersonal trust, trustworthiness, and gullibility. *American Psychologist*, *35*, 1–7.
- Schelling, T. C. (1984). The intimate contest for self-command. In: T. C. Schelling (Ed.), *Choice and consequence*. Cambridge, MA: Harvard University Press.
- Schelling, T. C. (1992). Self-command: A new discipline. In: G. Loewenstein & J. Elster (Eds), *Choice over time*. New York: Russell Sage.
- Sellers, R. M., Smith, M. A., Shelton, N., Rowley, S., & Chavous, T. M. (1998). Multidimensional model of racial identity: A reconceptualization of African American racial identity. *Personality and Social Psychology Review*, *2*, 18–39.
- Simon, B. (1998). Individuals, groups, and social change: On the relationship between individual and collective self-interpretations and collective action. In: C. Sedikides, J. Schopler & C. Insko (Eds), *Intergroup cognition and intergroup behavior* (pp. 257–282). Mahwah, NJ: Erlbaum.
- Simon, B. (1999). A place in the world: Self and social categorization. In: T. R. Tyler, R. M. Kramer & O. P. John (Eds), *The psychology of the social self* (pp. 47–69). Mahwah, NJ: Erlbaum.
- Simon, H. A. (1985). Human nature in politics: The dialogue of psychology with political science. *American Political Science Review*, *78*, 293–303.
- Simon, H. A. (1991). Organizations and markets. *Journal of Economic Perspectives*, *5*, 34–38.
- Simon, H. A. (1993). Altruism and economics. *American Economic Review*, *83*, 156–161.
- Steele, C. (1999). The psychology of self-affirmation: Sustaining the integrity of the self. In: R. F. Baumeister (Ed.), *The self in social psychology* (pp. 372–390). New York: Psychology Press.
- Stryker, S. (2000). Identity competition: Key to differential social movement involvement. In: S. Stryker, T. Owens & R. White (Eds), *Identity, self, and social movements*. Minneapolis, MN: University of Minnesota Press.
- Stryker, S., & Burke, P. J. (2000). The past, present and future of identity theory. *Social Psychology Quarterly*, *63*, 284–297.
- Stryker, S., Owens, T., & White, R. (2000). *Identity, self, and social movements*. Minneapolis, MN: University of Minnesota Press.
- Thompson, L., Valley, K., & Kramer, R. M. (1995). The bittersweet feeling of success: An examination of social perception in negotiation. *Journal of Experimental Social Psychology*, *31*, 467–492.
- Turner, J. C. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford: Basil Blackwell.
- Turner, M. E. (2000). *Groups at work: Advances in theory and practice*. Mahwah, NJ: Erlbaum.
- Tyler, T. R., & Blader, S. L. (2000). *Cooperation in groups: Procedural justice, social identity, and behavioral engagement*. Philadelphia, PA: Psychology Press.
- Tyler, T. R., & Degoey, P. (1996). Collective restraint in social dilemmas: Procedural justice and social identification effects on support for authorities. *Journal of Personality and Social Psychology*, *69*, 482–497.
- Uzzi, B. (1997). Social structure and competition in interfirm networks: The paradox of embeddedness. *Administrative Science Quarterly*, *42*, 35–67.

- Wageman, R. (1995). Interdependence and group effectiveness. *Administrative Science Quarterly*, 40, 145–180.
- Weick, K. E., & Roberts, K. (1993). Collective mind in organizations: Heedful interrelating on flight decks. *Administrative Science Quarterly*, 38, 357–381.
- Weldon, E., & Weingart, L. R. (1993). Group goals and group performance. *British Journal of Social Psychology*, 32, 307–334.
- Yamagishi, T., & Sato, K. (1986). Motivational bases of the public goods problem. *Journal of Personality and Social Psychology*, 50, 67–73.

THE NEGATIVE AND POSITIVE PSYCHOLOGY OF LEADERSHIP AND GROUP RESEARCH

Cynthia S. Wang and Leigh L. Thompson

ABSTRACT

The academic literature within social psychology focuses on describing what leaders and groups do wrong rather than what they do right. We refer to this as the “negative psychology” of leaders and groups. This chapter reviews the negative and positive research perspectives on leadership and groups. We propose that scholarly research makes more references to the shortcomings of leaders and groups rather than their successes. We conjecture that the pressure by the academic community to produce compelling counterintuitive research findings fuels the tendency to concentrate on failures. In contrast, we suggest that popular articles and books more often focus on the positive achievement of leaders and groups because their audience, namely managers, are more interested in learning how to achieve positive results than to avoid negative outcomes. Finally, we suggest that scholarly research on the psychology of leaders and groups could benefit from understanding how to achieve and maintain positive outcomes, whereas popular press may better prevent organizational failure and ruin by understanding managers’ blunders and faults.

Social Psychology of the Workplace
Advances in Group Processes, Volume 23, 31–61
Copyright © 2006 by Elsevier Ltd.
All rights of reproduction in any form reserved
ISSN: 0882-6145/doi:10.1016/S0882-6145(06)23002-9

For several decades, management scholars have highlighted the extraordinary failures of organizational actors. The organizational actor has been under attack, labeled as a cognitive miser (Fiske & Taylor, 1991), a biased decision-maker (Tversky & Kahneman, 1974), and a faulty negotiator (Bazerman, Magliozzi, & Neale, 1985). One organizational actor who receives an abundance of criticism from the academic community is the leader within an organization. Social psychologists discuss that those in power become corrupt (Kipnis, 1972) and engage in heinously demeaning behavior toward those with little or no power (Haney, Banks, & Zimbardo, 1973; Zimbardo, 1972). To be sure, the organizational actor is not alone in being criticized. The study of the faults of the organizational actor has even expanded to groups, with researchers noting that groups also fall prey to the aforementioned central biases.

Classic examples of group failure include excessive conformity of group members (Asch, 1951) leading to notable phenomena such as groupthink (Janis, 1982), the Abilene Paradox (Harvey, 1988), and the pervasive tendency to favor one's in-group and discriminate against out-groups (cf. Brewer, 1979; Brewer & Brown, 1998). As a whole, there are many more references in the literature to faulty teamwork than flawless teamwork.

In short, groups and their leaders have been under attack by management scholars intent on painting managers as biased, overconfident, and in many cases, downright dangerous as far as their organizational effectiveness is concerned. In some sense, groups and their leaders are the veritable laughing stock of organizational behavior.

Interestingly, the popular press does not hold this same conception; business books remain enamored by leaders and their teams. A perusal of *Business Week* and other popular business outlets reveal a celebration of leadership and teamwork. For example, what social psychologists refer to as "social loafing" is referred to as "the wisdom of crowds" in a recent business best-seller. Indeed, the positive spin on teamwork and successful leaders likely results from the fact that books about faults do not sell. Managers want to know formulas for success. They desire books that will catapult them to everlasting glory, teach them how to become the next Jack Welch and bring companies back from the brink of Hades to the acme of Olympus. In stark contrast, scholarly work focuses on foibles because journal articles celebrate paradoxical, non-obvious findings. Thus, scientific pursuit is often geared toward studying toxins within the situation, whether it is the decision-making bias of an organizational actor in the management field or studying cancer cells within the medical field.

In sum, the academic field and popular press seem at odds with one another. For example, academics critique popular press for giving too much credit to leaders, suggesting that the impact of leadership on organizational outcomes are “romanticized”, such that leaders tied to superior organizational results are given more credit than actually deserved (Meindl, Ehrlich, & Dukerich, 1985). Thus, there is a Catch-22 of popular press and scholarly work on leaders and groups: academics and practitioners both can better understand leaders and their teams if they studied the contrasting positive and negative perspectives, but do not do so because it does not publish or sell to their respective communities.

In this chapter, we expose the theoretical foundations of the positive and negative psychology of leaders and groups. Our fundamental argument is that management scholars need to stop being so fault-driven; and that practitioners and managers need to stop being so silver-bullet driven. Instead of talking past each other, popular press and management scholars need to find a way to juxtapose their research to tell one the complete story. Following the notion forwarded by President Martin of the American Psychological Association Seligman (1998), we will refer to the fault-based research as “negative psychology”, and the small but burgeoning area of research focused on the positive features of leaders and groups as “positive psychology”.

POSITIVE PSYCHOLOGY

The field of positive psychology seeks to study and understand individual and institutional features that “promises to improve quality of life and prevent the pathologies that arise when life is barren and meaningless” (Seligman & Csikszentmihalyi, 2000, p. 5). The study of positive psychology is defined by three pillars. The first investigates the positive states of the actor, those related specifically to happiness. This pillar studies the subjective well-being of the actor: contentment with the past, happiness with the present, and optimism about the future.

The second focuses on the actor’s positive traits, characteristics, or abilities. Seligman describes 17 traits and characteristics positive individuals possess that enable good occurrences in life: love and intimacy, satisfying work, altruism, citizenship, spirituality, leadership, aesthetic appreciation, depth and breadth, integrity, creativity, playfulness, feeling of subjective well-being, courage, future-mindedness, individuality, self-regulation, and wisdom.

The third investigates the positive organizations that support positive emotions. Positive organizations are any sort of institution that supports and enhances positive subjective experience (e.g., communities, families, and schools).

Positive psychology does not simply refer to an absence of problems. Accordingly, we distinguish positive psychology of leadership and teamwork from mere lack of problems and discuss it in terms of promoting outcomes greater than what is usually expected. We distinguish it by first describing the scholarly literature that has been invaded with negativity, the negative psychology of leadership and teams, followed by the important but limited research on positive leadership and teamwork.

It is important to realize that what we are casting as the negative psychology of leadership and groups is considered by many to be mainstream social psychological research. And, before it is said about us, we will fully admit that at least one author of this chapter has written several papers that neatly fall into the chasm that we now cast as “negative psychology”. Most important, we do not argue that scholars should don their rose-colored glasses and only look at the positive, but rather to expand their research to look at the negative *as well as* the positive. We begin with a selective review of the negative psychology of leadership. In reviewing this research, but we are not criticizing the methods of the research, we simply review the progress of the state of the research. Thus, our focus at this point is descriptive, rather than prescriptive.

NEGATIVE PSYCHOLOGY OF LEADERSHIP

Organizational scholars remain fascinated with the negative effects of leadership. We describe two streams of research: the power literature and the leadership literature, the former which generally is studied more by social psychologists and the latter by applied psychologists. We review research that defines a *leader* in one of two ways: as an individual that either has power over another individual, that is, the relative capacity to make decisions that influence the outcomes of another individual toward the achievement of the power-holder’s goal (Depret & Fiske, 1999; Keltner, Gruenfeld, & Anderson, 2003; Sachdev & Bourhis, 1985) or an individual that holds a formal position of authority (French & Raven, 1959). Being a leader is context specific and assumes that power is based on the relationships and social interactions with others (Emerson, 1962; Fiske, 1993; Lawler, 1992).

The negative effects of leadership centers on three topics: the results of being in a leadership position, the consequences of being under the authority of a leader, and leadership biases. The first central stream of leadership research focuses on the consequences of being in a position of power. The 1960s and 1970s enjoyed a flurry of leadership research with a negative psychology slant. The deleterious effects of power on the power-holder are studied so extensively by social psychologists that their mantra must assuredly be Lord Acton's declaration that "absolute power corrupts absolutely".

Power does indeed corrupt, leading the powerful to disregard individualizing-based cues and to stereotype (Erber & Fiske, 1984; Fiske & Depret, 1996; Goodwin, Gubin, Fiske, & Yzerbyt, 2000), and attempt to reify existing social inequities by maintaining their dominance over less powerful groups (Fiske, 1993; Jost & Banaji, 1994). The powerful show more displays of anger (Martorana, 2005; Tiedens, Ellsworth, & Mesquita, 2000), are worse at estimating the interests and positions of others (Keltner & Robinson, 1996, 1997), and devalue the ability and worth of the less powerful (Kipnis, 1972; Kipnis, Castell, Gergen, & Mauch, 1976). In one investigation by Kipnis (1972), participants were assigned to the position of a "boss" who oversaw the work of "subordinates" in a simulated situation. The experiment was manipulated so that all subordinates performed similarly on the task. Control over more managerial resources increased the boss's attempts to influence the behavior of the subordinates, led to the perception that the subordinates were objects of manipulation, and increased the preference to maintain psychological distance from the subordinates.

Arguably the most popular psychology experiment illustrating how experiencing power results in socially destructive behavior is the Stanford Prison Experiment (Haney et al., 1973; Zimbardo, 1972). This study, seeking to understand the power of the situation, placed participants in either the role of a prisoner or guard in a mock prison. Most notably, some participants assigned to be guards internalized their roles so deeply that they ended up torturing prisoners in ways that paralleled the infamous prisoner abuse that occurred in Abu Ghraib in 2004. The researchers suggested that the absolute power and authority the guards held resulted in the inhumane treatment of those that lacked power.

The research on the corrupting nature of power continues to be pervasive and a central interest in social psychological research. Power not only leads to devaluation of others, but also leads to self-interested behavior, with power-holders more likely to consume food that is seen as a scarce resource (Ward & Keltner, 1998) and more likely to distribute awards in ways that favor their own group (Chen, Lee-Chai, & Bargh, 2001; Sachdev & Bourhis, 1985).

The self-interested behavior of power-holders is posited to result from decreased perspective-taking ability. High-powered individuals, as compared to low-powered individuals, are more likely to draw an “E” on their forehead in a self-oriented manner, more likely to assume that others have the same privileged information they possess, and less accurate in judging others’ emotions (Galinsky, Magee, Inesi, & Gruenfeld, unpublished manuscript). Thus, high-powered as compared to low-powered individuals are less likely to take the perspective of others and as a result act in more egocentric ways.

A second genre of negative psychology-oriented leadership research focuses on the flip side of the coin; how leaders negatively influence their subordinates. The psychological experience of being a leader results in the devaluation of their subordinates (Kipnis, 1972; Kipnis et al., 1976) and, in turn, the abusive relationship can negatively impact the subordinates’ well-being. Certain leadership styles have been tied to negative subordinate reactions. For example, employees feel helpless and alienated from work when their managers use non-contingent punishments (i.e., when punishment is not tied to performance, Ashforth, 1997). Abusive leadership is associated with increased employee stress (Offermann & Hellmann, 1996; Tepper, 2000). For example, medical students who reported to abusive supervisors exhibited higher stress (Richman, Flaherty, Rospenda, & Christensen, 1992). Moreover, poor leadership can haunt the leaders associated with higher levels of subordinate retaliation (Townsend, Phillips, & Elkins, 2000) and aggression (Dupre, Inness, Connelly, Barling, & Hopton, 2005).

Leaders can influence subordinates to the point that they internalize their low-power roles and act in ways that support the asymmetrical power structure. Revisiting the Stanford Prison Experiment (1973), not only did the participants assigned as guards internalize their roles, but also those assigned as prisoners. The prisoners often passively accepted the punishments that they received, even demeaning acts such as cleaning toilets with their bare hands. The prisoners began to believe and act in ways in line with their roles rather than decrying the inhumane treatment and attempting to exit the experiment.

Zimbardo’s high-school classmate, Stanley Milgram, performed a related experiment on authority (Milgram, 1963) that rivaled the Stanford Prison Experiment as one of the most famous (or infamous) social psychology studies of all time. In his classic obedience experiment, participants were told that they would be asked to monitor another participant’s (in reality, a confederate’s) performance on a memory task. An authority figure (the experimenter) then assigned the participant to the role of “teacher”

where s/he would administer a shock to the “leader” (i.e., the confederate) every time s/he got a wrong answer on the word memory task. If the participant hesitated, the experimenter verbally prodded the participant to continue. Disturbingly, 65% of participants administered the highest (fatal) level of shock of 450 volts, even after cries of pain and eventual silence from the learner.

In both Zimbardo’s and Milgram’s experiments, the decision to conform to the subordinate role superseded more common sense and morality-based reactions – instead of rebelling against immoral authority figures, the individuals with no power accepted and complied with the decisions of authority. These studies highlight the power of the situation where low-powered individuals accept their subordinate positions without a question.

Power inequalities persisting over time can eventually lead to differentiating status hierarchies within a social system, where certain traits and characteristics are associated with higher status groups (Lovaglia, 1994, 1995; Ridgeway, Boyle, Kuipers, & Robinson, 1998). Often confounded, status and power have been separated by various theorists (see Thye, 2000). Power, as defined in this paper, is often described as the relative capacity to make decisions to influence another (Depret & Fiske, 1999; Keltner et al., 2003; Sachdev & Bourhis, 1985). In contrast, status refers to one’s relative standing in a group based on prestige (Berger, Zelditch, & Cohen, 1972). There are cultural schemas about status positions of certain groups within society such that group characteristics such as gender, race, ethnicity, education, or occupation become inextricably tied to different levels of status (Wagner & Berger, 1997).

Possessing status is so powerful that low-status actors believe that high-status actors deserve their high-status positions, even at the expense of derogating their own in-group (Jost & Banaji, 1994). This phenomenon known as *system justification*, which is defined as the “process by which existing social arrangements are legitimized, even at the expense of personal or group interest” (Jost & Banaji, 1994). In this case, there is consensus about the status hierarchy, rather than opposed and competing beliefs, by both the dominant and non-dominant groups (Ridgeway et al., 1998).

The advantaged high-status groups act in ways to support the status quo, however the absence of resistance of the disadvantaged groups also perpetuates the current system (see Jost, Banaji, & Nosek, 2004). High-status individuals receive numerous benefits from the rest of society; they receive more opportunities to perform, perform more, and are evaluated more positively for their performance, exhibit greater influence over decisions, and are more likely to be elected into leadership positions (Berger, Conner, & Fisek,

1974). As a whole, high-status actors and groups can maintain their elite position as they have more opportunity to garner and utilize their power.

Even when low-status actors possess power, they will not necessarily utilize it effectively. Low-status actors placed in high-power positions will exercise less of their power as compared to both high- and low-power actors of equal status (Thye, 2000). Moreover, low-status actors will hold high-status actors in higher esteem, even when they hold more power than the high-status actors. Even with power in hand, lower-status actors yield their power to higher-status counterparts. Therefore, actors who possess high-status characteristics exercise greater power and utilize more resources, reinforcing the status quo. The status/power relationship is cyclical and self-reinforcing, reifying current status hierarchies (Lenski, 1966; Weber, 1968). All in all, subordinates embrace and act in ways, such as blind and hazardous obedience to authority (Haney et al., 1973; Zimbardo, 1972), that protect the original status hierarchy (Jost & Banaji, 1994; Jost et al., 2004; Lenski, 1966; Thye, 2000; Weber, 1968). Through the psychological acceptance of their positions, the power structure in society secured, leaving the low powered in the dust and high powered on a pedestal.

A final stream of negative leadership research is the study of biased leadership evaluation. Specifically, there is a propensity to have an archetype in the mind of what characteristics a leader should possess, and to assume that certain types of individuals will be better leaders than others. The bias against leaders that are not prototypical has become a central research question, most notably within the gender stereotyping and social identity literatures.

There are sex differences in ranks and rate of promotion within the workplace (Fiske, Bersoff, Borgida, Deaux, & Heilman, 1993; Kathlene, 1994). These differences are often attributed to structural barriers (e.g., fewer network opportunities for women, Lyness & Thompson, 2000; Ragins & Sundstrom, 1989) that result in the glass ceiling for females (Morrison & Von Glinow, 1990). However, there may not only be structural barriers but also psychological barriers that deter women from being highly successful leaders. The psychological and micro-sociological study of gender and leadership focuses on how female leaders suffer from negative perceptions and reactions because they are not prototypically seen as a leader (Carli, 1990, 2001; Rudman & Glick, 2001).

Two recent theories attempt to explain why negative evaluations of female leaders occur and persist. *Expectation states theory*, related to the discussion of status above, suggests societal expectations are encoded in gender stereotypes, perceived rules for how females and males should behave. The

gender stereotypes result in valenced status beliefs about females in leadership positions, where females are deemed as less competent leaders than males (Wagner & Berger, 1997, see Ridgeway & Walker, 1995, for a review).

Complimentary and similar to expectation states theory is *social role theory*, which posits that culturally defined stereotypes led people to form expectations about the behavior of themselves and others (Eagly & Karau, 2002). These stereotypes may be formed based on a person's gender role and other roles (e.g., occupational) that he or she holds. Devaluation of a person's actions occur when expectations of a social group's generalized traits are incongruent with the expectations of a social role (Eagly & Karau, 2002).

Expectation states theory includes more valenced reasoning than social role theory, incorporating status elements into the discussion, suggesting certain advantaged groups exhibit greater competence in leadership positions. However, both theories predict similar results, that women will be disadvantaged when in leadership positions.

Recent research supports that women in leadership positions will be more likely to face negative consequences (see Ridgeway, 2001, for a review). For example, leadership behavior, such as acting in a more dominant manner, are seen as more pronounced for females than for males because such behavior is traditionally viewed as more masculine than feminine (Manis, Nelson, & Shedler, 1988). In the United States, masculine or agentic traits such as independence and task-orientation match the qualities that leaders possess, whereas feminine or communal traits such as nurturance and expressiveness relate to parenting and caring for the home (Eagly & Mladinic, 1994; Eagly, Wood, & Diekmann, 2000; Heilman, Block, Martell, & Simon, 1989). Females who display leadership behavior receive more negative than positive facial reactions, in contrast to males who receive more positive than negative reactions when exhibiting the same traits (Butler & Geis, 1990). Females acting in an agentic fashion are regarded as more competent, but ultimately less liked overall (Rudman, 1998). Moreover, female leaders may be selected by others into tenuous leadership situations because they are more likely to fail. Involving females in high-crisis roles that are more likely to fail is another barrier females face, and in turn reinforce the perception that women are not good leaders (Ryan & Haslam, 2005).

Not only are perceptions of female leaders more negative, activating stereotypes influence women's attitudes and behavior toward gender-typed occupations. Specifically, activating gender for women influences aspirations and goals in male-dominated arenas. Women who viewed stereotypical advertisements of women (e.g., women not being as good in mathematics)

inhibited ambitions in mathematical arenas, suggesting mass media influences women's perceptions (Davies, Spencer, & Steele, 2005). Thus, stereotypes constrain aspirations of the stereotyped group.

Not only do female leaders suffer from negative perceptions, but any leader who is from an out-group. Recently, social identity researchers explored the negative perceptions of out-group leaders by their subordinates. Subordinates endorsed leaders prototypical of their own in-group, regardless of whether the leader favored the in-group or out-group more (Hains, Hogg, & Duck, 1997; Haslam et al., 2001; Hogg, Hains, & Mason, 1998) and even when leaders acted against the best interest of their in-group (Duck & Fielding, 2003). Therefore, the more prototypical leaders are, the better they are judged. The social identity literature focuses on the biases and discrimination of the out-group, specifically how in-group leaders receive perceptual benefits more than out-group leaders (see Hogg, 2001, for a review).

NEGATIVE PSYCHOLOGY OF GROUPS AND TEAMS

It is debatable when the negative psychology of groups and teams began, but certainly, four epic lines of research typify the negative psychology of teams. One line of research is the *bystander effect*, which refers to the tendency for a given individual to not intervene as the number of perceived other social actors increase. This phenomenon was used to describe the Kitty Genovese case, in which a woman was stabbed to death, despite the fact that over 30 "witnesses" were present (and could have helped, but did not). In the classic study testing the bystander effect, Darley and Latané (1968) found that participants who believed a person was having an epileptic seizure were more likely to help when they thought they were alone than when in the presence of several others. The bystander effect is attributed to the diffusion of responsibility, where it is not explicitly assigned and as a result individuals feel less accountable to help in the situation.

Another well-established negative group effect is the *conformity effect*, which refers to the tendency for individuals to bring their behavior and attitudes in line with those they perceive the group to hold. In 1951, Solomon Asch performed a study where participants were led to believe they would be taking a vision test. Participants were asked to choose a line out of three lines that matched the length of a line on another card. In a room with several confederates who chose the same wrong line, 33% of subjects conformed to the majority answer, compared to the control subjects who all got the answer correct.

A third classic group effect is *social loafing*, a phenomenon related to the bystander effect. Social loafing refers to the tendency for people to put less effort in a task when in a group than when alone (Latané, Williams, & Harkins, 1979). One investigation found that people clap their hands and shout with less force in a group than when they were doing the same task individually. This occurs because individuals in groups have a diminished sense of personal identity and are not under the same evaluation concerns as individuals performing alone.

Finally, of all the negative psychology research on teams, it is *groupthink* that has made its way into mainstream thinking. It may only be a slight exaggeration to declare that there is not a businessperson alive who has not heard of the term. Irving Janis (1982), the originator of groupthink, defines it as a phenomenon where a highly cohesive group unfailingly supports a group decision, even in the face of contrary information. Janis lists a number of antecedents that are likely to encourage groupthink, including insulation of the group, high-group cohesiveness, directive leadership, lack of norms requiring methodical procedures, homogeneity of members' social background and ideology, and high stress from external threats. It is particularly ironic, therefore, that of all the negative psychology classics, groupthink has had the spottiest empirical record. For example, a meta-analysis of groupthink by Tetlock, Peterson, McGuire, and Chang et al. (1992) revealed that two central factors proposed to promulgate groupthink, group cohesiveness and situational stress, did not actually result in groupthink. Rather, only one proposed factor, procedural faults within the organization (e.g., leader directiveness), held any empirical muster.

In addition to these four epic lines of research that all emerged in the 1960–1970s, the 1980s brought an arguably harsher lens to the analysis of groups with the research on cognitive biases. Spurred largely by Tversky and Kahneman's (1974) publication of "Judgment under Uncertainty: Heuristics and Biases", the authors used the razor-sharp economic yardstick to measure the systematic departures of humans from otherwise rational decision-making. Although Tversky and Kahneman's analysis centered upon individuals, researchers quickly extended the classic biases to teams (see Kerr, MacCoun, & Kramer, 1996, for a review). Here, we point to four cognitive bias inspired effects that profoundly cemented the negative psychology of groups and teams: group overconfidence, group polarization, the common information effect, and the escalation of commitment.

Group overconfidence is an extension of the individual bias in which people express great overconfidence in their decisions. Most empirical demonstrations of the overconfidence effect involve giving people general knowledge

questions (e.g., “What was the revenue earned by The Wal-Mart Corporation in 2004?”). Respondents then provide an estimate and provide confidence bounds around their judgments such that they are $x\%$ (with ranges between 90–98%) sure that the true answer falls within their range. The overwhelming empirical finding is that most people are grossly overconfident (cf. Plous, 1993). For example, in an investigation of 15,000 judgments, 42% of all the participants’ judgments were outside the 98% confidence range (Lichtenstein, Fischhoff, & Phillips, 1982). Moreover, experts in a field, such as stock traders are even worse (Odean, 1998). Also, teams are significantly more overconfident than are individuals, and group discussions heighten overconfidence (Ono & Davis, 1988; Seaver, 1979; Sniezek & Henry, 1989). One reason is that people in groups are less accountable than are individuals, with the estimates of one group member potentially discouraging others from sharing their own information.

Group members often do not share information that they own (Stasser, Taylor, & Hanna, 1989; Stasser & Titus, 1985, 1987). For example, a study by Sniezek, Paese, and Furiya (1990) established that groups are ineffective when sharing information, with less than one-third of all individual judgments shared during similar group discussions. When group members do share information, they can fall prey to the *common information effect* (Gigone & Hastie, 1993, 1997), the tendency to discuss information that group members already know rather than the unique information each may possess. Specifically, information held by more members prior to group discussion is discussed more and has greater impact on group decisions than information held by fewer members. The common information effect is based on the information sampling model (Stasser & Titus, 1987), which suggests that the bias to discuss commonly shared information is explained by the heightened probability that an item will be recalled when a greater number of group members know the piece of information.

The information-sampling model explains how a shared item may be recalled more easily. However, Gigone and Hastie (1993) suggest that a shared item will also have more influence on the *judgment* of a group when it is shared than when it is unshared. Because individuals make immediate judgments based on the information they have, shared information often results in similar post-discussion judgments. Shared information is more likely to affect the group judgments. For example in one investigation, three-member groups weighted shared information more heavily than unshared information (Gigone & Hastie, 1993). Specifically, information about a target student’s grade point average (GPA) that was brought up during group discussion was weighted more heavily, when all group

members already knew that piece of information, than if only one group member knew that piece of information prior to group discussion. Moreover, more widely shared information had a stronger impact on decision-making even controlling for information pooling (i.e., if an item was mentioned during discussion) suggesting that all information is not weighted equally as the information sharing model would suggest, rather shared information has a greater impact than unshared information. In sum, groups tend to focus on information that everybody already know and that tendency biases the group decision-making.

Group polarization is a uniquely group-level phenomenon. In the classic empirical demonstration of group polarization, people read a vignette about a protagonist who must make a decision (e.g. undergo a career change with significant financial risk or stay in one's current job, cf. Stoner, 1961). The typical empirical result is that people need to have nearly a 66% probability of success in the new (risky) career before they would advise a career change, whereas groups reading the same problem are willing to take a risk with the chances of success as low as 50%. It is not the case that teams are inherently more "risky" than are individuals; but rather, people in a group make more extreme judgments than they do when acting alone. Accordingly, group polarization is the tendency for group discussion to intensify group opinion, producing more extreme judgments in groups. This shift to the extreme occurs for two reasons (Deutsch & Gerard, 1955). First, people gain additional perspectives on a given problem when they are in groups, and these different perspectives often provide more reasons for holding a particular view. Second, people seek acceptance in groups and by aligning themselves with the majority opinion, they are better liked by others. These two different mechanisms are referred to as informational social influence and normative social influence (Deutsch & Gerard, 1955).

The *escalation of commitment* occurs when individuals and groups commit additional resources after an initial commitment despite signals that the decision is flawed or doomed (Staw, 1976). The escalation of commitment provides a theoretical account of why people "throw good money after bad". Real world examples of the escalation of commitment often involve investment decisions, such as when John R. Silber, president of Boston University, invested \$1.7 million over six years in a promising cancer drug which eventually dropped in value to \$43,000 (Barboza, 1998). Escalation situations often build up over time, with decision makers committing further resources to "turn the situation around", often repeating and escalating their decisions several times throughout the process. Moreover, the social aspects of the group heighten the likelihood to escalate. For example,

groups that are highly cohesive (e.g. groups that consist of friends) are especially prone toward escalation because the need for approval is heightened and there is a desire to take a course of action that pleases group members rather than one that is unpopular but more rational (Dietz-Uhler, 1996).

Another genre of negative group psychology stems from research on stereotyping and prejudice. A large body of research on intergroup psychology has pointed to the poor behavior of people when interacting with members of different groups. In-group bias, in-group favoritism, out-group derogation, and intergroup hostility are all documented empirical phenomena that point to the hostile, self-serving behavior of people in groups (Brewer & Campbell, 1976; Brewer & Miller, 1996; Sumner, 1906; Tajfel & Turner, 1986). For example, Brewer and Campbell (1976) found in-groups were attributed numerous positive traits (e.g., trustworthy, cooperative, honest, and peaceful), whereas out-groups were scrutinized as possessing negative traits (e.g. untrustworthy, competitive, and aggressive).

The classic Robber's Cave experiment by Sherif et al. (1961) set up an isolated camp and pitted two groups of boys similar along the lines of demographics, education, and religion against one another. Sherif et al. predicted that when one group of boys was placed in the same proximity with another group of boys under similar circumstances, they would exhibit in-group favoritism and out-group hostility. Indeed, Sherif et al. found that out-group hostility escalated over time, with verbal abuse and derogation eventually making way for physical acts of terror (e.g., ransacking out-group's cabins and physical aggression).

The intergroup literature has gone to careful lengths to disentangle scarce resource competition from social competition, such that even when there is nothing to be gained (economically) by under-rewarding or devaluing another group, people in groups are still motivated to view themselves as superior to other groups. Lemyre and Smith (1985) suggest that social categorization by itself may constitute a threat to self-esteem, which is often resolved by engaging in social competition, and find that individuals who had the opportunity to discriminate against out-group members report higher levels of self-esteem than those participants who do have the opportunity to engage in discrimination.

The relationship between intergroup behavior and several societal problems, such as racism, ageism, sexism, and gang warfare are closely linked in the eyes of behavioral scientists. Even more depressing, group-serving behavior at the expense of out-groups appears to be hardwired such that people are not necessarily aware that they are displaying favoritism toward

their own group at the expense of an out-group (Dovidio & Gaertner, 1998; Gaertner & Dovidio, 1986).

POSITIVE PSYCHOLOGY OF LEADERSHIP

Seligman's three pillars of positive psychology, the study of positive states and experiences, traits, and institutions can also be discussed in a negative psychology framework. The research on the negative psychology of leadership has mainly been rooted in social psychology, focused on the negative experiences of being a leader or under the authority of a leader, along with the institutions supporting the negative experience (e.g., societal norms that perpetuate leadership stereotypes and biases). However, the study of individual traits has enjoyed more positive attention from leadership researchers, particularly those from the personality and applied arenas of psychology. Specifically, positive leadership researchers desire to understand and document the traits and characteristics that make a good leader.

The dominant research on leadership traits occurred between 1930 and 1950. Researchers at that time were interested in the specific personal characteristics (e.g., height, appearance) and psychological traits (e.g., authoritarianism, intelligence) that were associated with leadership. However, owing to a number of methodological issues and difficulty in finding universal traits that defined a leader, leadership trait theory fell out of favor (see House & Aditya, 1997, for a review). In the 1970s, leadership trait theory was revived when several trait theories began to take into account moderating factors and as a result, these finer-grained studies enjoyed greater empirical support than their predecessors.

A number of recent theories in the leadership traits literature fall most in line with the positive psychology perspective, with the first being Social Influence Motivation and Leader Motive Profile (LMP) theory (McClelland, 1975). According to LMP theory, three qualities are necessary to be an effective leader: high-power motivation, high concern for the moral exercise of power, and having one's power motivation greater than one's affiliative motivation. In short, leaders non-consciously seek status and influence over others and desire to exercise power in a socially constructive manner rather than a self-aggrandizing manner. Moreover, effective leaders do not allow their affiliative motivation (i.e., concern for maintaining close relationships) to deter their power motivation. Several studies support LMP theory, finding that congruence with the LMP profile led to greater leader success (McClelland & Boyatzis, 1982; Winter, 1978, 1991) and instilled employees

with greater team spirit and a sense of responsibility (McClelland & Burnham, 1976).

A second branch in the leadership traits literature is charismatic leadership theory (House, 1977), which proposes that the most successful leaders are also self-confident, desire moral correctness, and are persistent. Both LMP and charismatic leadership theories posit that leaders use their status for not self-aggrandizement, but rather, have a moral sense of responsibility to further the good of the group that they lead.

In the past, the ethical component of leadership was subsumed in more encompassing theories such as LMP and charismatic leadership theory. More recently, however, ethical leadership has been introduced as a separate construct from other leadership theories (Brown, Treviño, & Harrison, 2005; Treviño, Brown, & Hartman, 2003). Specifically, these theorists propose that ethical leadership is related to consideration of behavior, honesty, trust in the leader, interactional fairness, and charismatic leadership, but is not subsumed by any of these aspects. Moreover, ethical leadership is hypothesized to lead to greater perceived effectiveness of the leaders, higher satisfaction of the subordinates, and greater openness between the leader and subordinate (Brown et al., 2005). Overall, the empirical research on the ethical components of leadership is scarce at best (Schminke, Ambrose, & Neubaum, 2005, being an exception), with contributions to the literature chiefly theoretical (i.e., Bass & Steidlmeier, 1999; Brown et al., 2005; Kanungo & Mendonca, 1996; May, Chan, Hodges, & Avolio, 2003; Treviño et al., 2003).

Another recent set of theories, known as the neo-charismatic theories (House & Shamir, 1993), extended and encouraged a new era of leadership styles focused on follower motivation, admiration, trust, dedication, and loyalty. The theories include the aforementioned charismatic leadership (House, 1977), transformational leadership (Bass, 1985; Bass & Avolio, 1989; Burns, 1978), visionary theories of leadership (Kousnes & Posner, 1987), and empowering leadership (Manz & Sims, 1987, 1991, 1992, 1997).

Of all the neo-charismatic theories, transformational leadership has received the most attention in the applied leadership research area (Judge & Bono, 2000). Transformational leadership emphasizes the leader's ability to inspire and encourage subordinates to perform by inspiring pride, loyalty, and confidence (Bass, 1985; Bass & Avolio, 1989; Burns, 1978). This type of leadership has been directly tied to well-being and positive psychology (see Sivanathan, Arnold, Turner, & Barling, 2004, for a review). Unlike ethical leadership, transformational leadership has received an abundance of empirical support (Barling, Loughlin, & Kelloway, 2002; Bass & Steidlmeier,

1999; Bono & Judge, 2003, 2004; Brown et al., 2005; Judge & Bono, 2000; Mio, Riggio, Levin, Reese, & Mio, 2005). For example, transformational leadership positively impacted subordinate development and performance (Dvir, Eden, Avolio, Shamir, & Dvir, 2002) and subordinate empowerment as measured through self-efficacy and organizational-based self-esteem (Kark, Shamir, & Chen, 2003).

The neo-charismatic theories suffer from a similar weakness as the leadership trait theories: whereas some theorists argue that charismatic, transformational, and visionary leadership styles differ drastically (Bass, 1997; Howell & House, 1992), the characteristics associated with each leadership type often overlap, making it difficult to separate one leadership type from another (House & Shamir, 1993). For example, some characteristics associated with transformational leadership are difficult to separate from other types of leadership; transformational leadership (Sivanathan & Fekken, 2002; Turner et al., 2002), LMP theory (McClelland, 1975), charismatic leadership (Howell & Avolio, 1992), and ethical leadership (Kanungo & Mendonca, 1996) have all suggested that higher cognitive moral reasoning of the leader will positively impact followers. The study of positive leadership as a whole may benefit from a clearer delineation between the specific behaviors that fall under each leadership type. Particularly, it is useful to understand how each characteristic of leaders may encourage a specific positive subordinate response (e.g., employee satisfaction), and subsequently test how the interaction of characteristics or other contextual variables might moderate the positive effects.

Whereas the social psychological study of leadership has generally centered on the deleterious effects of leadership, there is no doubt that there is some focus on trying to understand not only the negative, but possibly positive consequences of being a leader (Gardner & Seeley, 2001). For example, participants primed with power, display more goal-oriented behavior by removing an annoying stimulus from an environment (Galinsky, Gruenfeld, & Magee, 2003). However, most research has focused on removing the negative effects of power. For example, a communal relationship orientation (i.e., considering the group) rather than an individual relationship orientation moderates the effect of the self-serving bias (e.g., greater distribution to out-group) that results from being in a position of power (Chen et al., 2001). When power was made insecure, participants exhibited less in-group favoritism to the point the out-group became favored (Ng, 1982). Finally, one study revealed that the deleterious effect of stereotype threat on women's leadership aspirations could be removed. Once the stereotype threat was removed by making the task unrelated to the

stereotype, females increased aspirations as compared to those facing high stereotype threat (Davies, Spencer, Quinn, & Gerhardtstein, 2002). Rather than trying to remove the negative effects of power, it might behoove social psychologists studying leadership and power to specifically discover the undeniable positive effects of power.

POSITIVE PSYCHOLOGY OF GROUPS AND TEAMS

The positive psychology of teams, strangely enough, may be traced to the earliest studies, namely Triplett's (1898) studies of social facilitation. *Social facilitation*, a term coined by Allport (1920), refers to the tendency for people to increase their dominant response when in the presence of others. In the original studies by Triplett, bicyclists riding against other bicyclists performed better than those riding alone. Triplett suggested that it was the mere presence of others that facilitated performance. Zajonc (1965) elaborated on the phenomenon by noting in his drive theory that one's dominant response would prevail in the presence of others, such that with an ill-learned task, one would perform worse and with a well-learned task, one would perform better. Social facilitation largely creates positive effects for teams; even though in most of the investigations, teams are not interdependent, but just co-actors.

Group synergy is a widely used term that refers to the tendency for a group of individuals to achieve greater productivity or performance over what each could do working independently and then aggregating their outcomes. Thus, group synergy refers to the belief that "the whole is greater than the sum of the parts". The question of whether group synergy exists, if it does, and under what conditions, is a matter of intense scholarly research. True to form, it was a business executive (not a crusty scholar) who heralded the idea of group synergy (cf. Osborn, 1953). Osborn, who coined the concept of "brainstorming", was convinced of the power of group synergy, a sine qua non of positive team psychology. Unfortunately, empirical research overturned Osborn's lay theory; brainstorming groups not only did not display synergy, they performed significantly worse than their potential, as benchmarked by "nominal groups" (Diehl & Stroebe, 1987; Jablin, 1981; Mullen, Johnson, & Salas, 1991; Paulus & Dzindolet, 1993; Paulus, Larey, & Ortega, 1995; Taylor, Berry, & Block, 1958).

In Steiner's (1972) classic group formula, the actual productivity of a group is a function of three key factors: the potential productivity of the group, group synergy (process gain), and process loss. Specifically: group

performance = actual behavior + synergy–process losses. Process loss primarily refers to problems of coordination and motivation. However, Steiner (1972) went on to focus on process loss. In others words, the focus of Steiner’s model was on the two types of process loss in groups: motivational loss and coordination loss. Synergy was viewed as nice when it happened, but was not something to count on to always emerge. Subsequent research focused heavily on process loss in groups, with several investigations of social loafing (Karau & Williams, 1993; Latané & Darley, 1969) and the bystander effect (Darley & Latané, 1968; Latané & Darley, 1969), to name a few.

Whereas the cognitive bias movement heralded the negative psychology of teams; the groups-as-information-processors movement heralded a new look at the positive psychology of teams. A significant positive psychology concept that emerged from this perspective as the *transactive memory* construct (Wegner, 1986; Wegner, Giuliano, & Hertel, 1995). A transactive memory system (TMS) is a group-level information processing system in which each team member in a group will encode, store, and retrieve info together, using their shared experiences to work as if they are part of one system. Group members divide tasks that reflect the abilities of each and develop a common language all members can understand. Group members view other group members like an external storage device (i.e. computer), where they can retrieve information otherwise unavailable.

Couples, which have many shared memories because of their constant interactions, are believed to have a superior TMS. A study by Wegner, Raymond, and Erber (1991) tested the TMS of couples. Individuals were told that they would either be working with their partners or an other-sex person from another couple on a memory task. When pairs memorized the task (without communication with each other) in a structured way (e.g., one person would memorize food items and the other the history items), impromptu pairs memorized more items than natural pairs. When working together in an unstructured way, natural pairs performed better than impromptu pairs. These results suggest that natural couples have a TMS that works well during unstructured tasks, a situation in which anticipating the partner’s behavior is beneficial. However, when the task is structured, it interferes with the natural couple’s ability to use the TMS.

Transactive memory is a largely positive concept; in that groups are truly viewed to be greater than the sum of their parts, with a TMS having access to a greater knowledge base than individuals. A study by Liang, Moreland, and Argote (1995) explored the benefits of TMS, either having individuals receive group training, in which groups of three people worked together, or individually based training on a radio assembly task. A week later, they were

asked to assemble the radios again with no instructions. Groups that had trained together did dramatically better on an assembly task than groups consisting of individuals that were trained alone, being more likely to successfully complete the assembly more quickly and with fewer errors.

Liang et al. (1995) theorized that the superior performance of intact groups over individually trained groups was attributable to the fact that the intact groups developed an implicit system for understanding who knows what and who is responsible for what. One way that Liang et al. (1995) attempted to document the presence of an implicit system for understanding who knows what is by looking at how the groups interacted. The authors predicted that groups that developed TMSs would be less likely to challenge one another's knowledge and less likely to make mistakes (e.g., drop things). In their investigation, three process measures were used reflect the operation of TMSs: (1) memory differentiation, the tendency for each group member to remember different components of the radio, (2) task coordination, the ability for the group to work together in a smooth fashion, and (3) task credibility, the level of trust in other group members' knowledge of how to assemble the radio. The authors found that intact groups exhibited greater memory differentiation, task coordination, and task credibility than individually trained groups. Moreover, these three process measures mediated the effects of group training on group performance, giving support that intact groups do better at assembling the radio than individually based groups because they are able to develop a well-oiled TMS.

Interestingly, one of the emerging areas of team positive psychology rests on studies of group emotion and mood. Positive mood, according to theorists can catapult a group to be more effective than it otherwise would (Collins, 1981, 2004; Lawler, 2001). The idea of group positive mood is based on the research on emotional contagion, the process where the mood and emotions of one individual transferred to nearby individuals (Hatfield, Cacioppo, & Rapson, 1992, 1993).

Emotional contagion, a concept that has both a negative as well as a positive side, occurs in groups. Barsade (2002) found that contagion of mood occurred when induced by a trained confederate and when contagion occurred naturally between group members. Moreover, contagion of positive emotions results in greater cooperation, decreased conflict, and increased perceived task performance, whereas contagion of negative emotions results in the reverse pattern.

Groups whose high-powered individuals emitted positive moods expressed and felt more positive affect (Anderson, Keltner, John, & Anderson, 2003), and performed better in group tasks as well (Anderson & Thompson,

2004). Scholars theorize that high-powered individuals are particularly “contagious” because many people in the group are outcome-dependent upon them and hence, group members are closely monitoring them.

Groups often assemble on a repeated basis and the continual transmission of emotion likely strengthens and weakens bonds within the group over time. The *affect theory of social exchange* (Lawler, 2001) which, unlike past work which views social exchange and unemotional (Emerson, 1972; Homans, 1961), suggests that social exchange between individuals within groups generate positive and negative emotions and subsequently promote or deter solidarity between group members.

For example, repeated exchanges with the same group members generates positive emotions and in turn results in perceived cohesion and commitment-oriented behavior (e.g., staying in the relationship, gifts) (Lawler, Thye, & Yoon, 2000; Lawler & Yoon, 1993, 1996, 1998).

One group emotion concept that is partly research-based and practitioner-oriented is the concept of *psychological flow* (Csikszentmihalyi & Hunter, 2003). Psychological flow refers to situations in which people are completely involved in what they are doing to the extent that they lose themselves in the activity. Some facets associated with flow include complete involvement in an activity, a sense of ecstasy or excitement, and intrinsically motivated drives. This line of research suggests that there is a precise combination of a person’s skills and the challenge or task presented that will lead to a “flow” experience. For example, when a manager is highly challenged and has the skills to accomplish his/her goals, he/she will be in a state of “flow”. If the challenge or skills are not present, apathy or anxiety, respectively, will result. Therefore, learning the precise levels of challenge and skill can ultimately optimize both satisfaction and performance in an individuals and groups.

A related theoretical concept to psychological flow is the notion of *interaction rituals* (IR), a mechanism of social rituals that bind society together (Collins, 1981, 2004). IR include four aspects: (1) two or more people must be part of the interaction, (2) the ritual must have a boundary that separates insiders from outsiders, (3) all members must focus on the same goal or objective, and realize that other members also share this focus, and (4) all participants share a common mood or emotional experience. Successful IR result in solidarity and shared group membership, and an influx of emotional energy and exhilaration, whereas failed IR drain emotional energy and result in social disarray. Each person goes from situation to situation, attracted to those situations that give them the best emotional payoff. As a whole, the search for positive IR result in social institutional stability and failed IR are used to explain social strife and conflict.

Both the concept of psychological flow and IR provide a solid theoretical framework for understanding what ultimately leads to group and societal success: individuals who are able to achieve an ultimate balance of the self and situational forces will catapult themselves and their groups into an emotional state of bliss and inevitable group and institutional stability and success. However, both concepts are more theoretical than empirical, and these propositions are yet to be tested.

CONCLUSION

One criticism of the positive psychology movement is that it is just that: a movement that represents a research fad; or worse yet, a way for psychologists and organizational theorists who have spent most of their lives focusing on faults and to focus on the positive aspects of teamwork. Another criticism is that positive psychology ignores the elephant in the room; namely that just because we might think it is time to focus on how great teams and their leaders can be, the plain fact is that to not address some of the problems that would be akin to a doctor not doing cancer screening tests and only prescribing wellness care.

Frankly, we think that academic research needs to take more responsibility for understanding the negative as well as the positive psychology of groups and teams. Management theorists will always be enamored with the “dark side” of human behavior and perhaps one reason why the business ethics scandals that rocked the corporate world were so startling is that they occurred in the midst of the celebration of managers and organizations. Organizational behavior research has an excellent treasure-trove of group and leadership foibles. The next step in the rich history of organizational behavior is to lay claim to some of the greatest achievements of groups and leaders.

Methodological Issues

When it comes to methodological elegance, the “negative” psychology side has made significant inroads as compared to the positive psychology movement. For example, elegant ways of measuring bias, while controlling for a host of other factors, exist in the negative psychology of groups and teams. It is possible that the positive psychology side can make similar strides by carefully carving up the “synergy” side of the equation. However, measures of “subjective well-being” and “happiness” will most likely not be enough

to satisfy management scholars who revel in behavioral measures of performance. Thus, a continued focus on hard measures of performance and achievement is paramount.

Applied and Practical Issues

One problem for the scholar is that if groups are working really well, what problem are they solving? As we pointed out at the beginning of the chapter, the negative psychology model (as manifested in OB) is much like the medical model: it is problem based, and perhaps a little prevention based. The scholar, like the doctor, finds the new, insidious cancer and designs a study to show its devastating effects. We propose that OB scholars complement the problem-based model with a wellness model. It is reasonable to think that the field of organizational behavior has not yet discovered how effective groups and leaders can ultimately be.

REFERENCES

- Allport, F. H. (1920). The influence of the group upon association and thought. *Journal of Experimental Psychology*, 3, 159–182.
- Anderson, C., Keltner, D., & John, O. P. (2003). Emotional convergence between people over time. *Journal of Personality and Social Psychology*, 84(5), 1054–1068.
- Anderson, C., & Thompson, L. L. (2004). Affect from the top down: How powerful individuals' positive affect shapes negotiations. *Organizational Behavior and Human Decision Processes*, 95(2), 125–139.
- Asch, S. E. (1951). Effects of group pressure upon the modification and distortion of judgments. In: H. Guetzkow (Ed.), *Groups, leadership and men; research in human relations* (pp. 177–190). Oxford, England: Carnegie Press.
- Ashforth, B. E. (1997). Petty tyranny in organizations: A preliminary examination of antecedents and consequences. *Canadian Journal of Administrative Sciences*, 14, 1173–1182.
- Barboza, D. (1998). Loving a stock, not wisely, but too well. *New York Times*, (September) 20, p. 1.
- Barling, J., Loughlin, C., & Kelloway, E. K. (2002). Development and test of a model linking safety-specific transformational leadership and occupational safety. *Journal of Applied Psychology*, 87(3), 488–496.
- Barsade, S. G. (2002). The ripple effects: Emotional contagion and its influence on group behavior. *Administrative Science Quarterly*, 47(4), 644–675.
- Bass, B. M. (1985). Leadership: Good, better, best. *Organizational Dynamics*, 13(3), 26–40.
- Bass, B. M. (1997). Does the transactional-transformational paradigm transcend organizational and national boundaries? *American Psychologist*, 22(2), 130–142.
- Bass, B. M., & Avolio, B. J. (1989). Potential biases in leadership measures: How prototypes, leniency, and general satisfaction relate to ratings and rankings of transformational and transactional leadership constructs. *Educational and Psychological Measurement*, 49(3), 509–527.

- Bass, B. M., & Steidlmeier, P. (1999). Ethics, character, and authentic transformational leadership behavior. *Leadership Quarterly*, 10(2), 181–217.
- Bazerman, M. H., Magliozzi, T., & Neale, M. A. (1985). Integrative bargaining in a competitive market. *Organizational Behavior and Human Decision Processes*, 35(3), 294–313.
- Berger, J., Conner, T. L., & Fisek, M. H. (1974). *Expectation states theory: A theoretical research program*. Cambridge, MA: Winthrop.
- Berger, J., Zelditch, M., & Cohen, B. P. (1972). Status characteristics and social interaction. *American Sociological Review*, 37(3), 241–255.
- Bono, J. E., & Judge, T. A. (2003). Self-concordance at work: Toward understanding the motivational effects of transformational leaders. *Academy of Management Journal*, 46(5), 554–571.
- Bono, J. E., & Judge, T. A. (2004). Personality and transformational and transactional leadership: A meta-analysis. *Journal of Applied Psychology*, 89(5), 901–910.
- Brewer, M. B. (1979). In-group bias in the minimal intergroup situation: A cognitive-motivational analysis. *Psychological Bulletin*, 86(2), 307–324.
- Brewer, M. B., & Brown, R. J. (1998). Intergroup relations. In: D. T. Gilbert, S. T. Fiske & G. Lindzey (Eds), *The handbook of social psychology* (pp. 554–594). Boston, MA: McGraw-Hill.
- Brewer, M. B., & Campbell, D. T. (1976). *Ethnocentrism and intergroup attitudes: East African evidence*. Beverly Hills, CA: Sage.
- Brewer, M. B., & Miller, N. (1996). *Intergroup relations*. Buckingham, UK: Open University Press.
- Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, 97(2), 117–134.
- Burns, J. M. (1978). *Leadership*. Oxford, England: Harper & Row.
- Butler, D., & Geis, F. L. (1990). Nonverbal affect responses to male and female leaders: Implications for leadership evaluations. *Journal of Personality and Social Psychology*, 58(1), 48–59.
- Carli, L. L. (1990). Gender, language, and influence. *Journal of Personality and Social Psychology*, 59(5), 941–951.
- Carli, L. L. (2001). Gender and social influence. *Journal of Social Issues*, 57(4), 725–741.
- Chen, S., Lee-Chai, A. Y., & Bargh, J. A. (2001). Relationship orientation as a moderator of the effects of social power. *Journal of Personality and Social Psychology*, 80(2), 173–187.
- Collins, R. (1981). On the microfoundations of macrosociology. *American Journal of Sociology*, 86(5), 984–1014.
- Collins, R. (2004). *Interaction ritual chains*. Princeton, NJ: Princeton University Press.
- Csikszentmihalyi, M., & Hunter, J. (2003). Happiness in everyday life: The uses of experience sampling. *Journal of Happiness Studies*, 4(2), 185–199.
- Darley, J. M., & Latané, B. (1968). Bystander intervention in emergencies: Diffusion of responsibility. *Journal of Personality and Social Psychology*, 8, 377–383.
- Davies, P. G., Spencer, S. J., Quinn, D. M., & Gerhardtstein, R. (2002). Consuming images: How television commercials that elicit stereotype threat can restrain women academically and professionally. *Personality and Social Psychology Bulletin*, 28(12), 1615–1628.
- Davies, P. G., Spencer, S. J., & Steele, C. M. (2005). Clearing the air: Identity safety moderates the effects of stereotype threat on women's leadership aspirations. *Journal of Personality and Social Psychology*, 88(2), 276–287.

- Depret, E., & Fiske, S. T. (1999). Perceiving the powerful: Intriguing individuals versus threatening groups. *Journal of Experimental Social Psychology, 35*(5), 461–480.
- Deutsch, M., & Gerard, H. B. (1955). A study of normative and informational social influences upon individual judgment. *Journal of Abnormal and Social Psychology, 51*, 629–636.
- Diehl, M., & Stroebe, W. (1987). Productivity loss in brainstorming groups: Toward the solution of a riddle. *Journal of Personality and Social Psychology, 53*(3), 497–509.
- Dietz-Uhler, B. (1996). The escalation of commitment in political decision-making groups: A social identity approach. *European Journal of Social Psychology, 26*(4), 611–629.
- Dovidio, J. F., & Gaertner, S. L. (1998). On the nature of contemporary prejudice: The causes, consequences, and challenges of aversive racism. In: J. L. Eberhardt & S. T. Fiske (Eds), *Confronting racism: The problem and the response* (pp. 3–32). Thousand Oaks, CA: Sage Publications, Inc.
- Duck, J. M., & Fielding, K. S. (2003). Leaders and their treatment of subgroups: Implications for evaluations of the leader and the superordinate group. *European Journal of Social Psychology, 33*(3), 387–401.
- Dupre, K., Inness, M., Connelly, C., Barling, J., & Hopton, C. (2005). *Adolescent antagonism: Predicting workplace aggression among part-time teenage employees*. Unpublished manuscript.
- Dvir, T., Eden, D., Avolio, B. J., Shamir, B., & Dvir, D. (2002). Impact of transformational leadership on follower development and performance: A field experiment. *Academy of Management Journal, 45*(4), 735–744.
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review, 109*(3), 573–598.
- Eagly, A. H., & Mladinic, A. (1994). Are people prejudiced against women? Some answers from research on attitudes, gender stereotypes, and judgments of competence. In: W. Stroebe & M. Hewstone (Eds), *European review of social psychology* (Vol. 5, pp. 1–35). New York: Wiley.
- Eagly, A. H., Wood, W., & Diekmann, A. B. (2000). Social role theory of sex differences and similarities: A current appraisal. In: T. Eckes & H. M. Trautner (Eds), *The development psychology of gender* (pp. 123–173). Mahwah, NJ: Erlbaum.
- Emerson, R. M. (1962). Power-dependence relations. *American Sociological Review, 27*(1), 31–41.
- Emerson, R. M. (1972). Exchange theory, Part 1: A psychological basis for social exchange. In: J. Berger, M. Zelditch & B. Anderson (Eds), *Sociological theories in progress* (Vol. 2, pp. 38–57). Boston, MA: Houghton-Mifflin.
- Erber, R., & Fiske, S. T. (1984). Outcome dependency and attention to inconsistent information. *Journal of Personality and Social Psychology, 47*(4), 709–726.
- Fiske, S. T. (1993). Controlling other people: The impact of power on stereotyping. *American Psychologist, 48*(6), 621–628.
- Fiske, S. T., Bersoff, D. N., Borgida, E., Deaux, K., & Heilman, M. E. (1993). What constitutes a scientific review? A majority retort to Barrett and Morris. *Law and Human Behavior, 17*(2), 217–233.
- Fiske, S. T., & Depret, E. (1996). Control, interdependence, and power: Understanding social cognition in its social context. In: W. Stroebe & M. Hewstone (Eds), *European review of social psychology* (Vol. 7, pp. 31–61). New York: Wiley.
- Fiske, S. T., & Taylor, S. E. (1991). *Social cognition* (2nd ed.). New York, NY, England: McGraw-Hill.

- French, J. R. P., Jr., & Raven, B. (1959). The bases of social power. In: D. Cartwright (Ed.), *Studies in social power* (pp. 150–167). Ann Arbor, MI: University of Michigan, Institute for Social Research.
- Gaertner, S. L., & Dovidio, J. F. (1986). The aversive form of racism. In: J. F. Dovidio & S. L. Gaertner (Eds), *Prejudice, discrimination, and racism* (pp. 61–89). Orlando, FL: Academic Press.
- Galinsky, A. D., Gruenfeld, D. H., & Magee, J. C. (2003). From power to action. *Journal of personality and social psychology*, 85(3), 453–466.
- Galinsky, A. D., Magee, J. C., Inesi, M. E., & Gruenfeld, D. H. (unpublished manuscript). Power and perspectives not taken. *Psychological Science*.
- Gardner, W. L., & Seeley, E. A. (2001). Confucius, “Jen,” and the benevolent use of power: The interdependent self as a psychological contract preventing exploitation. In: A. Y. Lee-Chai & J. A. Bargh (Eds), *The use and abuse of power: Multiple perspectives on the causes of corruption* (pp. 263–280). New York, US: Psychology Press.
- Gigone, D., & Hastie, R. (1993). The common knowledge effect: Information sharing and group judgment. *Journal of Personality and Social Psychology*, 65(5), 959–974.
- Gigone, D., & Hastie, R. (1997). The impact of information on small group choice. *Journal of Personality and Social Psychology*, 72(1), 132–140.
- Goodwin, S. A., Gubin, A., Fiske, S. T., & Yzerbyt, V. Y. (2000). Power can bias impression processes: Stereotyping subordinates by default and by design. *Group Processes and Intergroup Relations*, 3(3), 227–256.
- Hains, S. C., Hogg, M. A., & Duck, J. M. (1997). Self-categorization and leadership: Effects of group prototypicality and leader stereotypicality. *Personality and Social Psychology Bulletin*, 23(10), 1087–1099.
- Haney, C., Banks, C., & Zimbardo, P. (1973). Interpersonal dynamics in a simulated prison. *International Journal of Criminology and Penology*, 1(1), 69–97.
- Harvey, J. B. (1988). *The abilene paradox and other meditations on management*. Lexington, Mass: Lexington Books.
- Haslam, S. A., Platow, M. J., Turner, J. C., Reynolds, K. J., McGarty, C., Oakes, P. J., et al. (2001). Social identity and the romance of leadership: The importance of being seen to be ‘doing it for us’. *Group Processes and Intergroup Relations*, 4(3), 191–205.
- Hatfield, E., Cacioppo, J. T., & Rapson, R. L. (1992). Primitive emotional contagion. In: M. S. Clark (Ed.), *Emotion and social behavior. Review of personality and social psychology* (Vol. 14, pp. 151–177). Thousand Oaks, CA: Sage Publications, Inc.
- Hatfield, E., Cacioppo, J. T., & Rapson, R. L. (1993). Emotional contagion. *Current Directions in Psychological Science*, 2(3), 96–99.
- Heilman, M. E., Block, C. J., Martell, R. F., & Simon, M. C. (1989). Has anything changed? Current characterizations of men, women, and managers. *Journal of Applied Psychology*, 74(6), 935–942.
- Hogg, M. A. (2001). A social identity theory of leadership. *Personality and Social Psychology Review*, 5(3), 184–200.
- Hogg, M. A., Hains, S. C., & Mason, I. (1998). Identification and leadership in small groups: Salience, frame of reference, and leader stereotypicality effects on leader evaluations. *Journal of Personality and Social Psychology*, 75(5), 1248–1263.
- Homans, G. C. (1961). *Social behavior: Its elementary forms*. New York: Harcourt Brace & World.

- House, R. J. (1977). A 1976 theory of charismatic leadership. In: J. G. Hunt & L. L. Larson (Eds), *Leadership: The cutting edge* (pp. 189–207). Carbondale, IL: Southern Illinois University Press.
- House, R. J., & Aditya, R. N. (1997). The social scientific study of leadership: Quo vadis? *Journal of Management*, 23(3), 409–473.
- House, R. J., & Shamir, B. (1993). Towards the integration of transformational, charismatic and visionary theories. In: M. M. Chemers & R. Ayman (Eds), *Leadership theory and research: Perspectives and directions* (pp. 81–107). San Diego, CA: Academic Press.
- Howell, J. M., & Avolio, B. J. (1992). The ethics of charismatic leadership: Submission or liberation? *Academy of Management Executive*, 6(2), 12.
- Howell, J. M., & House, R. J. (1992). *Socialized and personalized charisma: An essay on the bright and dark sides of leadership*. Unpublished manuscript.
- Jablin, F. M. (1981). Cultivating imagination: Factors that enhance and inhibit creativity in brainstorming groups. *Human Communication Research*, 7(3), 245–258.
- Janis, I. L. (1982). Counteracting the adverse effects of concurrence-seeking in policy-planning groups: Theory and research perspectives. In: H. Brandstatter, J. H. Davis & G. Stocker-Kreichgauer (Eds), *Group decision making* (pp. 477–502). New York: Academic Press.
- Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and the production of false consciousness. *British Journal of Social Psychology*, 33(1), 1–27.
- Jost, J. T., Banaji, M. R., & Nosek, B. A. (2004). A decade of system justification theory: Accumulated evidence of conscious and unconscious bolstering of the status quo. *Political Psychology*, 5(6), 881–919.
- Judge, T. A., & Bono, J. E. (2000). Five-factor model of personality and transformational leadership. *Journal of Applied Psychology*, 85(5), 751–765.
- Kanungo, R. N., & Mendonca, M. (1996). *Ethical dimensions of leadership*. Thousand Oaks, CA: Sage Publications, Inc.
- Karau, S. J., & Williams, K. D. (1993). Social loafing: A meta-analytic review and theoretical integration. *Journal of Personality and Social Psychology*, 65(4), 681–706.
- Kark, R., Shamir, B., & Chen, G. (2003). The two faces of transformational leadership: Empowerment and dependency. *Journal of Applied Psychology*, 88(2), 246–255.
- Kathlene, L. (1994). Power and influence in state legislative policymaking: Interaction of gender and position in committee hearing debates. *American Political Science Review*, 88, 560–576.
- Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review*, 110(2), 265–284.
- Keltner, D., & Robinson, R. J. (1996). Extremism, power, and the imagined basis of social conflict. *Current Directions in Psychological Science*, 5(4), 101–105.
- Keltner, D., & Robinson, R. J. (1997). Defending the status quo: Power and bias in social conflict. *Personality and Social Psychology Bulletin*, 23(10), 1066–1077.
- Kerr, N. L., MacCoun, R. J., & Kramer, G. P. (1996). Bias in judgment: Comparing individuals and groups. *Psychological Review*, 103(4), 687–719.
- Kipnis, D. (1972). Does power corrupt? *Journal of Personality and Social Psychology*, 24(1), 33–41.
- Kipnis, D., Castell, J., Gergen, M., & Mauch, D. (1976). Metamorphic effects of power. *Journal of Applied Psychology*, 61(2), 127–135.
- Kousnes, J. M., & Posner, B. Z. (1987). *The leadership challenge: How to get extraordinary things done in organizations*. San Francisco, CA: Jossey-Bass.

- Latané, B., & Darley, J. M. (1969). Bystander "apathy". *American Scientist*, 57, 244–268.
- Latané, B., Williams, K., & Harkins, S. (1979). Many hands make light the work: The causes and consequences of social loafing. *Journal of Personality and Social Psychology*, 37(6), 822–832.
- Lawler, E. J. (1992). Power processes in bargaining. *Sociological Quarterly*, 33(1), 17–34.
- Lawler, E. J. (2001). An affect theory of social exchange. *American Journal of Sociology*, 107(2), 321–352.
- Lawler, E. J., Thye, S. R., & Yoon, J. (2000). Emotion and group cohesion in productive exchange. *American Journal of Sociology*, 106(3), 616–657.
- Lawler, E. J., & Yoon, J. (1993). Power and the emergence of commitment behavior in negotiated exchange. *American Sociological Review*, 58(4), 465–481.
- Lawler, E. J., & Yoon, J. (1996). Commitment in exchange relations: Test of a theory of relational cohesion. *American Sociological Review*, 61(1), 89–108.
- Lawler, E. J., & Yoon, J. (1998). Network structure and emotion in exchange relations. *American Sociological Review*, 63(6), 871–894.
- Lemyre, L., & Smith, P. M. (1985). Intergroup discrimination and self-esteem in the minimal group paradigm. *Journal of Personality and Social Psychology*, 49(3), 660–670.
- Lenski, G. E. (1966). *Power and privilege: A theory of social stratification*. New York: McGraw-Hill.
- Liang, D. W., Moreland, R., & Argote, L. (1995). Group versus individual training and group performance: The mediating factor of transactive memory. *Personality and Social Psychology Bulletin*, 21(4), 384–393.
- Lichtenstein, S., Fischhoff, B., & Phillips, L. D. (1982). Calibration of probabilities: The state of the art to 1980. In: D. Kahneman, P. Slovic & A. Tversky (Eds), *Judgment under uncertainty: Heuristics and biases* (pp. 305–334). Cambridge, England: Cambridge University Press.
- Lovaglia, M. J. (1994). Relating power to status. In: B. Markovsky, K. Heimer, J. O'Brien & E. J. Lawler (Eds), *Advances in Group Processes* (Vol. 11, pp. 87–111). Greenwich, CT: JAI.
- Lovaglia, M. J. (1995). Power and status – exchange, attribution, and expectation states. *Small Group Research*, 26(3), 400–426.
- Lyness, K. S., & Thompson, D. E. (2000). Climbing the corporate ladder: Do female and male executives follow the same route? *Journal of Applied Psychology*, 85(1), 86–101.
- Manis, M., Nelson, T. E., & Shedler, J. (1988). Stereotypes and social judgment: Extremity, assimilation, and contrast. *Journal of Personality and Social Psychology*, 55(1), 28–36.
- Manz, C. C., & Sims, H. P. (1987). Leading workers to lead themselves: The external leadership of self-managing work teams. *Administrative Science Quarterly*, 32(1), 106–129.
- Manz, C. C., & Sims, H. P. (1991). SuperLeadership: Beyond the myth of heroic leadership. *Organizational Dynamics*, 19(4), 18–35.
- Manz, C. C., & Sims, H. P., Jr. (1992). Becoming a SuperLeader. In: R. Glaser (Ed.), *Classic readings in self-managing teamwork: 20 of the most important articles* (pp. 309–330). King of Prussia, PA: Organization Design and Development, Inc.
- Manz, C. C., & Sims, H. P., Jr. (1997). SuperLeadership: Beyond the myth of heroic leadership. In: R. P. Vecchio (Ed.), *Leadership: Understanding the dynamics of power and influence in organizations* (pp. 411–428). Notre Dame, IN: University of Notre Dame Press.
- Martorana, P. (2005). *From system justification to system condemnation: Antecedents of attempts to change status hierarchies*. Unpublished Dissertation.

- May, D. R., Chan, A. Y. L., Hodges, T. D., & Avolio, B. J. (2003). Developing the moral component of authentic leadership. *Organizational Dynamics*, 32(3), 247–260.
- McClelland, D. C. (1975). *Power: The inner experience*. Oxford, England: Irvington.
- McClelland, D. C., & Boyatzis, R. E. (1982). Leadership motive pattern and long-term success in management. *Journal of Applied Psychology*, 67(6), 737–743.
- McClelland, D. C., & Burnham, D. H. (1976). Power is the great motivator. *Harvard Business Review*, 54(2), 100–110.
- Meindl, J. R., Ehrlich, S. B., & Dukerich, J. M. (1985). The romance of leadership. *Administrative Science Quarterly*, 30(1), 25.
- Milgram, S. (1963). Behavioral study of obedience. *Journal of Abnormal and Social Psychology*, 67(4), 371–378.
- Mio, J. S., Riggio, R. E., Levin, S., & Reese, R. (2005). Presidential leadership and charisma: The effects of metaphor. *Leadership Quarterly*, 16(2), 287–294.
- Morrison, A. M., & Von Glinow, M. A. (1990). Women and minorities in management. *American Psychologist*, 45(2), 200–208.
- Mullen, B., Johnson, C., & Salas, E. (1991). Productivity loss in brainstorming groups: A meta-analytic integration. *Basic and Applied Social Psychology*, 12(1), 3–23.
- Ng, S. H. (1982). Power and intergroup discrimination. In: H. Tajfel (Ed.), *Social identity and intergroup relations* (pp. 179–206). Cambridge, UK: Cambridge University Press.
- Odean, T. (1998). Volume, volatility, price, and profit when all traders are above average. *Journal of Finance*, 53(6), 48.
- Offermann, L. R., & Hellmann, P. S. (1996). Leadership behavior and subordinate stress: A 360 degrees view. *Journal of Occupational Health Psychology*, 1(4), 382–390.
- Ono, K., & Davis, J. H. (1988). Individual judgment and group interaction: A variable perspective approach. *Organizational Behavior and Human Decision Processes*, 41(2), 211–232.
- Osborn, A. F. (1953). *Applied imagination*. New York: Charles Scribner's Sons.
- Paulus, P. B., & Dzindolet, M. T. (1993). Social influence processes in group brainstorming. *Journal of Personality and Social Psychology*, 64(4), 575–586.
- Paulus, P. B., Larey, T. S., & Ortega, A. H. (1995). Performance and perceptions of brainstormers in an organizational setting. *Basic and Applied Social Psychology*, 17(1–2), 249–265.
- Plous, S. (1993). *The psychology of judgment and decision making*. New York, England: McGraw-Hill.
- Ragins, B. R., & Sundstrom, E. (1989). Gender and power in organizations: A longitudinal perspective. *Psychological Bulletin*, 105(1), 51–88.
- Richman, J. A., Flaherty, J. A., Rospenda, K. M., & Christensen, M. (1992). Mental health consequences and correlates of medical student abuse. *Journal of the American Medical Association*, 267, 692–694.
- Ridgeway, C. L. (2001). Gender, status, and leadership. *Journal of Social Issues*, 57(4), 637–655.
- Ridgeway, C. L., Boyle, E. H., Kuipers, K. J., & Robinson, D. T. (1998). How do status beliefs develop? The role of resources and interactional experience. *American Sociological Review*, 63(3), 331–350.
- Ridgeway, C. L., & Walker, H. A. (1995). Status structures (chapter 11). In: S. C. Karen, A. F. Gary & S. H. James (Eds), *Sociological perspectives on social psychology* (pp. 281–310). Needham Heights, MA: Allyn and Bacon.

- Rudman, L. A. (1998). Self-promotion as a risk factor for women: The costs and benefits of counterstereotypical impression management. *Journal of Personality and Social Psychology, 74*(3), 629–645.
- Rudman, L. A., & Glick, P. (2001). Prescriptive gender stereotypes and backlash toward agentic women. *Journal of Social Issues, 57*(4), 743–762.
- Ryan, M. K., & Haslam, S. A. (2005). The glass cliff: Evidence that women are over-represented in precarious leadership positions. *British Journal of Management, 16*(2), 81–90.
- Sachdev, I., & Bourhis, R. Y. (1985). Social categorization and power differentials in group relations. *European Journal of Social Psychology, 15*(4), 415–434.
- Schminke, M., Ambrose, M. L., & Neubaum, D. O. (2005). The effect of leader moral development on ethical climate and employee attitudes. *Organizational Behavior and Human Decision Processes, 97*(2), 135–151.
- Seaver, D. A. (1979). Assessing probability with multiple individuals: Group interaction versus mathematical aggregation. *Dissertation Abstracts International, 40*(5-B), 2412.
- Seligman, M. E. P. (1998). Building human strength: Psychology's forgotten mission. *APA Monitor, 29*(1). Retrieved March 1, 2006 from <http://www.apa.org/monitor/jan98/pres.html>.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55*(1), 5–14.
- Sherif, M., Harvey, O. J., White, B. J., Hood, W. R., & Sherif, C. W. (1961). *Intergroup cooperation and competition: The Robbers Cave experiment*. Norman, OK: University Book Exchange.
- Sivanathan, N., Arnold, K. A., Turner, N., & Barling, J. (2004). Leading well: Transformational leadership and well-being. In: P. A. Linley & S. Joseph (Eds), *Positive psychology in practice* (pp. 241–255). New York: Wiley.
- Sivanathan, N., & Fekken, G. C. (2002). Emotional intelligence, moral reasoning and transformational leadership. *Leadership and Organization Development Journal, 23*, 198–204.
- Sniezek, J. A., & Henry, R. A. (1989). Accuracy and confidence in group judgment. *Organizational Behavior and Human Decision Processes, 43*(1), 1–28.
- Sniezek, J. A., Paese, P. W., & Furiya, S. (1990). *Dynamics of group discussion to consensus judgment: Disagreement and overconfidence*. Unpublished manuscript.
- Stasser, G., Taylor, L. A., & Hanna, C. (1989). Information sampling in structured and unstructured discussions of three- and six-person groups. *Journal of Personality and Social Psychology, 57*(1), 67–78.
- Stasser, G., & Titus, W. (1985). Pooling of unshared information in group decision making: Biased information sampling during discussion. *Journal of Personality and Social Psychology, 48*(6), 1467–1478.
- Stasser, G., & Titus, W. (1987). Effects of information load and percentage of shared information on the dissemination of unshared information during group discussion. *Journal of Personality and Social Psychology, 53*(1), 81–93.
- Staw, B. M. (1976). Knee-deep in the Big Muddy: A study of escalating commitment to a chosen course of action. *Organizational Behavior and Human Performance, 16*(1), 27–44.
- Steiner, I. D. (1972). *Group process and productivity*. New York: Academic Press.
- Stoner, J. A. F. (1961). *A comparison of individual and group decisions involving risk*. Unpublished master's thesis.
- Sumner, W. G. (1906). *Folkways*. New York: Ginn.

- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In: S. Worchel & W. G. Austin (Eds), *The psychology of intergroup relations* (pp. 7–24). Chicago, IL: Nelson-Hall.
- Taylor, D. W., Berry, P. C., & Block, C. H. (1958). Does group participation when using brainstorming facilitate or inhibit creative thinking. *Administrative Science Quarterly*, 3, 23–47.
- Tepper, B. J. (2000). Consequences of abusive supervision. *Academy of Management Journal*, 43(2), 178–190.
- Tetlock, P. E., Peterson, R. S., McGuire, C., Chang, S.-j., et al. (1992). Assessing political group dynamics: A test of the groupthink model. *Journal of Personality and Social Psychology*, 63(3), 403–425.
- Thye, S. R. (2000). A status value theory of power in exchange relations. *American Sociological Review*, 65(3), 407–432.
- Tiedens, L. Z., Ellsworth, P. C., & Mesquita, B. (2000). Stereotypes about sentiments and status: Emotional expectations for high- and low-status group members. *Personality and Social Psychology Bulletin*, 26(5), 560–574.
- Townsend, J., Phillips, J. S., & Elkins, T. J. (2000). Employee retaliation: The neglected consequence of poor leader-member exchange relations. *Journal of Occupational Health Psychology*, 5(4), 457–463.
- Treviño, L. K., Brown, M., & Hartman, L. P. (2003). A qualitative investigation of perceived executive ethical leadership: Perceptions from inside and outside the executive suite. *Human Relations*, 56(1), 5–37.
- Triplett, N. (1898). The dynamogenic factors in pacemaking and competition. *American Journal of Psychology*, 9(4), 507–533.
- Turner, N., Barling, J., Epitropaki, O., Butcher, V., Milner, C., & Turner (2002). Transformational leadership and moral reasoning. *Journal of Applied Psychology*, 87(2), 304–311.
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185(4157), 1124–1131.
- Wagner, D. G., & Berger, J. (1997). Gender and interpersonal task behaviors: Status expectation accounts. *Sociological Perspectives*, 40(1), 1–32.
- Ward, G., & Keltner, D. (1998). *Power and the consumption of resources*. Unpublished manuscript.
- Weber, M. (1968). *Economy and society*. Berkeley, CA: University of California Press.
- Wegner, D. M. (1986). Transactive memory: A contemporary analysis of the group mind. In: B. Mullen & G. Goethals (Eds), *Theories of group behavior* (pp. 185–208). New York: Springer.
- Wegner, D. M., Erber, R., & Raymond, P. (1991). Transactive memory in close relationships. *Journal of personality and social psychology*, 61(6), 923–929.
- Wegner, D. M., Giuliano, T., & Hertel, P. (1995). Cognitive interdependence in close relationships. In: W. J. Ickes (Ed.), *Compatible and incompatible relationships* (pp. 253–276). New York: Springer.
- Winter, D. G. (1978). *Navy leadership and management competencies: Convergence among tests, interviews, and performance ratings*. Boston: McBer and Company.
- Winter, D. G. (1991). A motivational model of leadership: Predicting long-term management success from TAT measures of power motivation and responsibility. *Leadership Quarterly*, 2(2), 67–80.
- Zajonc, R. B. (1965). Social facilitation. *Science*, 149, 269–274.
- Zimbardo, P. G. (1972). Pathology of imprisonment. *Society*, 9(6), 4–8.

HOW TEAM LEADERS USE SALIENT VISION AND SELF-SACRIFICE TO ENHANCE TEAM EFFECTIVENESS

Jeongkoo Yoon

ABSTRACT

This paper sets forth a theory on how the articulation of a salient vision on the part of a team leader enhances team effectiveness in terms of innovativeness, efficacy, and performance. In addition to vision salience – determining, as it were, one dimension of successful leadership influence – this study postulates another dimension of leadership influence, i.e., self-sacrificial leader behavior. A leader’s self-sacrificial behavior is shown to play a key role in communicating the credibility of her vision to the team, a critical factor on the basis of which team members may decide to commit themselves to its implementation. Drawing upon the roles of salient vision and self-sacrifice, this study hypothesizes a synergistic effect of leadership on team effectiveness when a salient vision by a team leader is conjoined with her self-sacrifice. The study also hypothesizes that a leader’s self-sacrifice and salient team vision are more prominent in a collectivistic team climate, and predicts that a collectivistic team environment will be more conducive in increasing a leader’s influence through

Social Psychology of the Workplace
Advances in Group Processes, Volume 23, 63–87
Copyright © 2006 by Elsevier Ltd.
All rights of reproduction in any form reserved
ISSN: 0882-6145/doi:10.1016/S0882-6145(06)23003-0

vision salience and self-sacrifice than an individualistic team climate. The hypotheses were tested in a sample of teams (n = 53) at the team level. The results support the positive moderating effects of vision with sacrifice, vision with collectivism, and sacrifice with collectivism, respectively, on team performance. In addition, vision salience and self-sacrifice exert their main effects on team innovativeness and team efficacy. This paper provides a detailed discussion of the theoretical and practical implications of these findings.

Scholars have developed many working definitions of leadership. Earlier studies examined leadership in terms of either the personal traits of leaders (Stogdill, 1974; McClelland, 1965; Minor, 1965; Boyatzis, 1982; McCall & Lombardo, 1983) or charisma (Weber, 1968; Bass, 1985; Conger & Kanungo, 1987). Some have advanced a view of leadership as a function of specific task and relationship behavior (Mintzberg, 1973; Fleishman & Harris, 1962; Bowers & Seashore, 1966; Blake & Mouton, 1964) or change-initiative behavior (Burns, 1978; Bass & Avolio, 1990; Tichy & Devanna, 1986). Others have highlighted the role of situations (House, 1971; Hersey & Blanchard, 1977; Kerr & Jermier, 1978). Certain scholars have even approached leadership in light of followers rather than leaders (Greenleaf, 1998; Kelley, 1992; Willner, 1984) or exchanges between a leader and followers (Dansereau, Graen, & Haga, 1975; Graen & Scandura, 1987; Liden, Sparrowe, & Wayne, 1997). Regardless of their diverse focuses (e.g., traits, behaviors, situations, and followers), the common theme underlying each conceptualization has centered on group processes in which a leader uses *influence* to guide followers to achieve goals the leader or followers would not otherwise have been able to achieve alone (Krech & Crutchfield, 1948; Cartwright, 1965; Hollander, 1960; Katz & Kahn, 1966; Yukl, 1994).

The success of a contemporary corporation depends on the number of team leaders who can exercise leadership influence over members and mobilize their commitments to the team goals. For instance, most organizations have at least one person whose leadership influence is naturally accepted and supported among members. When an individual like this announces the need for a new project team, many candidates line up to join. When he asks for a volunteer for an assignment, his team members jump at the chance. Team members turn to her as a mentor, or look to him as a role model. Meanwhile, others in the same organization are struggling to do their jobs with too little follower support. The main goal of this study is to understand the mechanisms and processes through which a leader, as indicated above, acquires such natural influence over members in his or her

work team and induces team members to voluntarily go the extra mile for the team.

Among many possible explanations, this study highlights the two key leadership practices commonly utilized by such influential leaders: salient vision and self-sacrificial behavior. First of all, influential leaders are generally known to be good at packaging a set of challenging and long-term goals into a salient vision. Leadership studies have consistently indicated that a salient vision is one of the most powerful and pervasive mechanisms of influence (Yukl, 1994; Strange & Mumford, 2002, 2005). *Vision* is an idealized mental image of an organizational future (Baum, Locke, & Kirkpatrick, 1998; Collins & Porras 1991, 1996); and *vision salience* is the degree to which a vision helps followers visualize their future clearly enough to arouse their deep-rooted motivation to realize the ideal state (for a similar definition, see Oswald, Mossholder, & Harris, 1994).

Scholars have also revealed that *influential* leaders are trusted and accepted as role models by their followers and those followers attribute their trustworthiness to the self-sacrificial behavior demonstrated by such leaders (Conger & Kanungo, 1987; Choi & Mai-Dalton, 1999). Self-sacrificial behavior by a leader is known to be influential for followers, especially when the situation becomes uncertain and risky (Halverson, Holladay, Kazama, & Quinones, 2004; Yorges, Weiss, & Strickland, 1999). In this study, *self-sacrifice* is a leader's willingness to give up his or her immediate rewards or to incur great personal costs in order to advance the collective welfare.

Identifying salient vision and self-sacrifice as the two key mechanisms of influence, the main goal of this study is to investigate their combined effects in the work-team setting. Although scholars have studied each of the two practices independently, no research to date has investigated their combined roles. To my knowledge, this study is one of the first studies to theorize and test those effects on leadership influence and team effectiveness in real team organizations. With this goal in mind, I will review the existing literature on vision salience and self-sacrifice based on which I will derive several hypotheses to be tested in the sample of work teams and their members.

BACKGROUND

Today's organizations face business cycles driven by the ebb and flow of the global economy; consumer demand and purchasing trends change unpredictably and rapidly; customer expectations of "better, cheaper, faster" continue

unabated; competition grows ever more intense; stockholder expectations escalate, and regulations become tougher in some sectors; and new technologies reshape the way business is done. Along with these challenges from the external environment, organizations face challenges from within: pressure to reduce operating costs, re-engineering imperatives, and the need to streamline management. Accordingly, most employees in the workplace must become adept at acquiring new sets of skills and competencies aligned with an ever-changing business orientation.

Pressured by these new challenges, contemporary corporations have adopted work teams as a new engine of organizational design. Teams are known to handle environmental uncertainties and risks more flexibly than any other conventional organizational form. Once teams became accepted and established as a main organizational engine, there arose an increased need for self-autonomous leaders who could efficiently run these new organizational establishments; and a primary mission assigned for team leaders was to help their members make sense of new organizational challenges and to direct member performances in ways that caused them to excel.

Vision Salience

As these tides of change overshadow organizations, organizational leaders at every corporate level see vision as a pivotal means by which they can meet new challenges (Kilmann & Covin, 1989; Conger, 1990; Sathe, 1985). In this context, corporate vision works as a shared social framework from which all members of an organization derive their visions at their local levels. The primary role of the team leaders is to cascade their unique team visions from the corporate vision; otherwise, the team situation will be bewildering, uncertain, and senseless for the members. A salient team vision helps its members make sense of the meanings of their assigned team tasks in the larger corporate direction, objective, and purpose. This cascading process is ubiquitous, regardless of team level – team managers at lower levels as well as executive team managers need to develop their unique team visions under the guidance of corporate vision, in order to grapple with corporate challenges at their own levels.

Another key role played by team vision is the reduction of uncertainties within the team; even under increasing uncertainties, team vision helps members to visualize their future, delineating a clear destination and directing the pathways necessary to reach it. When a stake in the team vision is

shared among its members, it invokes the sense of a common fate for their future, uplifts their mutual collaborations, and thus fosters a common identity among the members. Once a common identity has been established through the sharing of a vision, members establish comforting psychological zones in which they can safely engage in routines and practices to take them toward that future.

A salient team vision also empowers team members by streamlining team processes and redirecting the members' focus onto goals aligned with the vision. Visions awaken members to the possibility and meaning of their team's future by contrasting the future state with the current state. Furthermore, the envisioned gap between the ideal future state and the current state prompts members to adopt proactive and innovative measures to realize the vision state as quickly as possible (Conger, 1990; Morris, 1987; Wiersema & Bantel, 1992). The team vision also empowers members by invoking their pride; when members visualize their grown-up selves in the vision as their potential reality, the pride associated with the grown-up selves arouses strong intrinsic motivation or determination in realizing the vision (Oswald Mossholder, & Harris, 1994; Shamir, House, & Arthur, 1993; Berson, Shamir, Avolio, & Popper, 2001).

All in all, when members frame their tasks more in terms of the vision their team leader articulates and begin to attribute the credit of the benefits to their leader, they will be more likely to trust their leader and willingly subject themselves to his or her direct leadership influence.

Self-Sacrificial Behavior

Once a salient vision is established, a team leader faces the challenge of communicating it to her members so that they embrace it as their own reality (Baum et al., 1998; Larwood, Fable, Kriger, & Miesing, 1995). A vision becomes influential only when it sinks deeply into team members' minds to induce their voluntary efforts to realize it. Leaders often fail in vision communication, because they believe vision communication is simply "talking the vision" in multiple forums such as meetings, memos, newspapers, and formal and informal addresses (Bass, 1990; Kotter, 1996; Larkin & Larkin, 1994; Kouzes & Posner, 2003). To the contrary, leaders communicate a vision not only by "talking the vision," but also by "walking the vision," that is, by setting examples aligned with the vision talk. Indeed, it stands to reason that walking a vision – embodying it in one's behavior – is a far more powerful method than merely explaining or describing it (talking

it) to instill it in the minds of members. Members are more likely to grasp the team vision when their leader lives it.

Inconsistency between the talk and the walk undermines the credibility of a leader's motives when proclaiming his vision (Kotter, 1996, pp. 95–96; Kouzes & Posner, 2003). Suppose, for example, that a leader tells the members of his team that speed should be the hallmark of their team. He then takes 10 months to approve a request from one of his team members. Suppose another team leader preaches lower costs as a component of a team vision. She then orders expensive furniture and computers to remodel her office. Suppose a third leader of a customer service team talks endlessly about quality service, but when he faces complaints about new products he defends his products while ignoring the sacrifice required of customers. The conclusion is simple: nothing undermines the communication of vision more surely than behavior from the leaders that is inconsistent with their talked vision. Conversely, nothing forges a more powerful communication tool of the vision than a leader's consistent and exemplary behaviors (Kotter, 1996, p. 97; Kouzes & Posner, 2003).

The theory of self-sacrificial leadership has capitalized upon this idea (Choi & Mai-Dalton, 1998, 1999; Kanungo & Conger, 1990, 1993). *Self-sacrificial* leaders in organizational settings often abandon or postpone personal interests, privileges, or welfare for the sake of the larger organization's welfare (Choi & Mai-Dalton, 1999, p. 399), which is a powerful leadership behavior that walks the vision talk. If members observe their leader's sacrificial behavior and attribute it to the leader's internal motivation, they then begin to trust their leader and accept him as a role model. If a team leader who is a role model proclaims a vision, then members tend to accept it more easily and take it more seriously. Given the top-down direction of vision, the burden of proof is, as it were, on team leaders. Members often doubt their leader's motives before they accept her vision as their own. Self-sacrifice on the part of a leader is a powerful mechanism for allaying team members' doubts about their leader's motives. Once convinced of the credibility of their leader's motives, members are willing to accept the vision as their own, and to volunteer in its implementation.

The impact of self-sacrifice becomes more prominent when a situation might appear to be almost hopeless and everybody becomes opportunistic. An excellent example of a leader who has faced this type of situation is Lee Iacocca (Iacocca & Novak, 1984). When Chrysler was plunged into difficulties in the 1980s, he set an example of sacrifice by cutting his salary to \$1 per year. Yukl (1994) quotes a similar case of a colonel during the Korean War: "He ate all his meals with enlisted soldiers, using tin trays, and

washing his own tray as they did” (p. 372). Ross Perot, president of Electronic Data Systems, “never believed in [such things as] executive dining rooms, special parking facilities or similar privileges. To him, every employee was a full partner” (Kets de Vries, 1989, p. 6). Gandhi’s greatness as a leader is often attributed to his life of forbearance, voluntary poverty, and humility under extreme uncertainties and hardships (Choi & Mai-Dalton, 1999).

To summarize, self-sacrifice is an effective and influential tool for instilling the sincerity and selflessness of leaders’ motives in their members’ minds. Members tend to attribute their leader’s self-sacrificial behavior to the leader’s internal causes (e.g., belief in the vision or trustworthiness) and, as a consequence, are more likely to consider their leader an authentic role model (Avolio & Gardner, 2005; Ilies, Morgeson, & Nahrgang, 2005). Once convinced of a leader’s true motives, members are more likely to accept the vision as their own, more likely to implant it in their own minds, and more likely to initiate their own efforts to implement it. Conversely, vision talk without exemplary behavior (e.g., self-sacrifice) damages a leader’s credibility and turns members away from committing themselves to the leader’s vision.

HYPOTHESES

The present study investigates the effects of vision salience and self-sacrificial behavior on three team variables – team innovativeness, team efficacy, and team performance – as the three classes of team effectiveness. Treating teams as the unit of analysis, this study adopts these three specific effectiveness variables, because, unlike conventional individual effectiveness indicators such as satisfaction, commitment, and turnover, these constructs feature challenges at the team level in a rapidly changing and uncertain business environment (Kilmann & Covin, 1989; Kirkman & Rosen, 1999).

Team innovativeness is the degree to which unit members look for opportunities, show initiative, and take action until they reach closure by bringing about desired change (Bateman & Michael, 1993; Scott & Bruce, 1994). *Team efficacy* is a group’s belief in its capability of performing effectively, or the shared belief among members that a group can be effective (Bandura, 1982; Cohen, Ledford, & Spreitzer, 1996; Lindsley, Brass, & Thomas, 1995; Gibson, 1999; Kirkman & Rosen, 1999). Teams that look similar in other respects may develop very different beliefs about their

capacity to carry out their assigned tasks. Unlike self-efficacy, team efficacy arises through group interaction and processes (Gibson, 1999). *Team performance* is team members' perceived evaluations of various group performance dimensions, such as the quality and quantity of completed tasks, the quality and quantity of innovation, task reputations, task completion, and task efficiency (Cohen, 1994; Van de Ven & Ferry, 1980).

The leader's ability to gain influence by maintaining the consistency between "talking the vision" and "walking the vision" predicts a moderation effect of vision salience by self-sacrifice behavior on team effectiveness.

Hypothesis 1. The effect of a leader's salient vision on team effectiveness (i.e., team efficacy, team innovativeness, and team performance) is enhanced by the leader's self-sacrificial behavior.

This moderation hypothesis stipulates that the combination of vision salience and behavioral self-sacrifice is crucial in order for a leader to build up his influence and thereby mobilize his team members' support for team tasks. As indicated, credible team leaders who demonstrate consistency in both talking the vision and self-sacrificing are in a better position to implement their vision than those who display none or only one of the two traits. Once team members are convinced of the credibility of their leader's true motives, and consequently accept the vision as their own, they are likely to abandon their opportunistic attitudes and begin to initiate their own efforts to implement the vision. A salient vision buttressed by self-sacrifice strengthens the team leader's influence, which in turn induces members to engage in more proactive and innovative team goals as well as team performance.

Team Climate

This study investigates the effects of salient vision and sacrificial behavior by team leaders in team effectiveness at the team level. In this context, another research issue that this study has in mind is the different role of collective or individualistic team climates for leadership sacrifice and vision saliency. Many studies examining whether the attitudes, behavior, and motivation of managers and employees in organizations differ between collective and individualistic cultures (Chen, Chen, & Meindl, 1998; Erez, 1994) conclude that the moderation effects are not serious enough to change the direction of the main effects. Similarly, even if a collectivistic team climate may not change the direction of the hypothesized effect of this study, I theorize that the collectivistic team climate will accelerate the roles of vision salience and

sacrificial behavior in team effectiveness. The main rationale is that a leader's self-sacrificial behavior is more required in the collective team than in the individualistic team, and that a salient vision as a key tool of boundary setters among team members is more critical in the collective team climate than in the individualistic climate. This assertion is supported in particular by studies documenting the role of charismatic and transformational leadership (Jung & Avolio, 1999; Dorfman et al., 1997).

Drawing upon that line of research, this study conjectures that members working in the collective team climate are more likely to be sensitive to vision salience and self-sacrifice than those working in an individualistic team climate. Visions dovetail more with a collectivistic orientation, in that a vision activates a collective identity among members who share the vision as their unique team future. As discussed above, a primary role of vision is that of boundary-defining of collectivities. Similarly, a leader's self-sacrifice is more sensitively received by collectivists than by individualists. One study reports that self-sacrifice on the part of leaders is an obligation in collectivistic cultures (Leung & Bond, 1984). The study reported that, in a collectivistic climate, team leaders tend to sacrifice themselves to a greater degree by assuming greater responsibilities, especially when their groups lose; and when the team gains, the leader claims less credit by basing her share of the benefit on an equality rule rather than on an equity rule. The study concluded that, in a collectivist team climate, self-sacrifice on the part of leaders is a norm shared by the leader and members.¹

Hypothesis 2.1. The effect of vision salience on team effectiveness (i.e., team efficacy, team innovativeness, and team performance) will be stronger when team members work in a team climate with a strongly collectivistic orientation than in a team climate with a weakly collectivistic orientation.

Hypothesis 2.2. The effect of a leader's self-sacrifice on team effectiveness (i.e., team efficacy, team innovativeness, and team performance) will be stronger when team members work in a team climate with a strongly collectivistic orientation than in a team climate with a weakly collectivistic orientation.

METHODS

The data were collected from 56 teams across five large corporations in Korea. Participating companies are manufacturing companies that produce

home appliances, multimedia and telecommunication equipment, semiconductors, and electronics supplies. All the companies have adopted work teams as a main organizational design since the mid-1990s. They have also launched major organizational change programs such as restructuring and downsizing, and managers in charge of teams participated in various training programs, such as team management, leadership building, and empowerment. Currently, as environmental changes have become even more rapid and precipitous, these companies have extended their programs to all rank and file employees. Several preliminary interviews indicated that employees considered leadership and effective team operation to be the two most necessary elements for enhancing team innovation and team performance.

For the current study, two sets of independent questionnaires were developed and distributed to team members over the course of roughly one month. This method was designed to create a time lag between independent and dependent variables. The first questionnaire contained only independent variables (i.e., vision salience, self-sacrifice, and collectivism) and the second questionnaire consisted entirely of dependent variables (i.e., team innovativeness, team efficacy, and team performance). Questionnaires were assigned to every member of each team (average number of returns = 6). Among the 480 questionnaires distributed, 341 responses with both questionnaire packets completed were returned by the closing date (response rate = 71%). Deletion of missing values reduced the final analyses to 311. This study aggregated the individual team members' data and constructed the data sets of 53 teams. Analyses indicate that missing data between the first and second periods did not reveal any significant differences pertaining to key variables between team members who missed either the first or the second administration of the instrument.

Reflecting the industry, most respondents were male (88%) and young (mean age = 35). A majority of the respondents had graduated at or above the junior college level (junior college graduates = 17%; college graduates = 46%). The data did not reveal any significant biases according to occupational category, education, gender, or age.

Measurement

All dependent variables (team performance, team innovativeness, and team efficacy) were measured by five-point Likert scales. All scales were first translated into Korean by the author and then translated back into English by bilingual translators. Finally, graduate students independently identified

gaps between the two translations, and the author adjusted measurements to reflect more accurately the meanings of the original instruments.

Team performance, i.e., team members' perceived evaluations of various group performance dimensions, was measured by a six-item index adapted from *Van De Ven and Ferry (1980)*; Cronbach's $\alpha = 0.86$). This item included the quality and quantity of completed tasks, the quantity of innovations, performance reputation, task efficiency, and the timely completion of tasks. The measure asked team members how they would evaluate their teams along the above dimensions. Respondents evaluated their teams on a five-point scale (1 = far below average; 5 = excellent).²

Team innovativeness, i.e., the degree to which unit members collaborate to look for opportunities, show initiative, and take action until they reach closure by bringing about desired change (*Bateman & Michael, 1993*), was measured by a five-item index (Cronbach's $\alpha = 0.84$). On each five-point scale, respondents indicated the degree of agreement or disagreement. The items under team innovativeness included: "Our team is willing to take action and responsibility to improve assigned team tasks;" "Our team seldom initiates something new until we are told to do so" (reverse coded); "Our team tends to speak out about problems and ways to work better;" "Our team tends to seek to solve problems rather than to place blame;" and "Our team likes to do experimentation to find new and better ways."

Team efficacy, i.e., a group's belief in its ability to perform effectively or the shared belief among members that a group can be effective (*Kirkman & Rosen, 1999*), was also measured by a six-item index (Cronbach's $\alpha = 0.87$). The items included: "Our team has confidence in itself"; "Our team believes we are extremely good at producing high-quality work"; "Our team expects to be known as a high-performing team"; "Our team feels we can solve any problem"; "Our team believes we can be very productive"; and "Our team believes we get a lot done when our team works hard."

A five-point scale measured the two independent variables. As in the dependent measures, respondents indicated their agreement or disagreement on each item. Vision salience (i.e., the degree to which a leader has a vision and that vision arouses members' motivations to engage in activities to realize the vision) was constructed by selecting six vision-related items from *Bass's (1985)* account of charismatic leadership (Cronbach's $\alpha = 0.92$): "Our team leader has a clear vision for us"; "Our team leader excites us with his or her vision of what we may be able to accomplish if we work together"; "Our team leader gives us a clear sense of overall purpose"; "Our team leader has a special gift for seeing what is really important for us to consider"; "Our team leader increases our optimism for the future."

Adapted from Choi and Mai-Dalton (1999), self-sacrificial leader behavior was measured by a four-item index (Cronbach's alpha = 0.82): "Our team leader has transcended his or her self-interest"; "Our team leader sets an example of self-sacrifice"; "Our team leader has often acted from a selfish motive (reverse coded)"; "Our team leader usually gives up his or her personal benefits for the team."

Collectivism was measured with a six-item index from Triandis (1995). The question is about the degree to which a team's climate emphasizes a collective orientation rather than an individualist orientation (Cronbach's alpha = 0.60): "Our team members usually sacrifice their personal interests for the benefit of the whole team"; "We believe it is important for us to maintain harmony within our team"; "Our team members like sharing little things with their colleagues"; "Our team members hate to disagree with other members in our team"; "Our team members would sacrifice an activity that they enjoy very much if other colleagues did not approve of it"; "To us, pleasure is spending time with our team colleagues."

We also controlled for team size, tenure, and education. Team size is the total number of team members, including the team leader (Mean = 16). Team size reflects the fact that most teams in this study are large, self-managed work teams. Tenure is an average of team members' individual tenures (Mean = 106 months). Education is an average of each team member's years of schooling (Mean = junior college graduate).

RESULTS

We adopted a progressive strategy to estimate the hypotheses. First, we estimated the baseline model in which all independent variables affect the dependent variables. Then we added the interaction terms to test the moderation hypotheses. The control variables related to team structure were employed in models of both the main and interaction effects. The explanatory power of team efficacy is 55% in the main effect model and 58% for team innovativeness. Compared with these, the specified model explained 47% of team performance. This lower explanatory power is typical for the performance prediction.³

Table 1 shows the zero-order correlations among the key variables. All the directions among the variables appear to be as predicted. As for the size of the correlations, team performance has moderate-to-strong associations with both self-sacrifice and vision ($r = 0.59$ and 0.70). Team performance has a moderate positive association with collectivism ($r = 0.50$), suggesting

Table 1. Zero-Order Correlation among the Key Variables (*N* = 53).

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Performance	1.00								
(2) Innovativeness	0.55*	1.00							
(3) Efficacy	0.49*	0.48*	1.00						
(4) Vision	0.70*	0.64*	0.57*	1.00					
(5) Sacrifice	0.59*	0.58*	0.57*	0.54*	1.00				
(6) Size	0.17*	0.32*	0.16*	0.10	0.15*	1.00			
(7) Tenure	0.18*	0.25*	0.22*	0.08*	0.09	0.57*	1.00		
(8) Education	0.07	0.03	-0.08	0.10	-0.05	0.03	0.26*	1.00	
(9) Collectivism	0.50*	0.49*	0.39*	0.46*	0.45*	0.21*	0.18*	0.00	1.00
Mean	3.60	3.60	3.67	3.42	3.41	15.80	106.3	2.41	3.69
Standard Deviation	0.63	0.63	0.61	0.72	0.73	20.60	69.8	1.38	0.47
Cronbach Alpha	0.86	0.84	0.87	0.92	0.82				0.60

**p* < 0.05; two-tail test.

that a team’s collectivistic orientation is related positively to team members’ cooperation for the sake of team performance. As predicted, team innovativeness also has a moderate-to-strong relationship with both vision and self-sacrifice (*r* = 0.64 and 0.58, respectively). Team innovativeness also shows a moderate association with collectivism (*r* = 0.49). Team efficacy shows a similar pattern of association with both vision and self-sacrifice (*r* = 0.57 and 0.57) and with collectivism (*r* = 0.39). The two key independent variables (i.e., vision salience and self-sacrifice) show a moderate relationship with each other (*r* = 0.54). The correlations of the two variables with collectivism are similar (*r* = 0.46 and 0.45, respectively, for vision and self-sacrifice). Table 1 also indicates that all correlations among the key theoretical variables are significant.

Hypothesis 1 predicts a moderation effect on team effectiveness stemming from a leader’s combined ability to articulate a salient vision and his self-sacrificial behaviors. That is, the leader’s ability to articulate a salient vision, in combination with his or her sacrificial behaviors, is predicted to enhance team effectiveness (i.e., team efficacy, team innovativeness, and team performance). According to this hypothesis, a leader’s vision is likely to increase team efficacy, team innovativeness, and team performance more when the vision is coupled with the leader’s self-sacrificial behavior than in other situations.

The results indicate partial support of Hypothesis 1. As shown in Table 2, the interaction effect of vision salience with self-sacrifice on team

Table 2. Unstandardized OLS Coefficients for Regressing the Endogenous Variables on Vision, Sacrifice and Interaction Terms ($N = 53$).

	Efficacy		Innovativeness		Performance	
	(1)	(2)	(1)	(2)	(1)	(2)
Size	0.00	0.00	0.01	0.00	0.00	0.00
Tenure	0.00	0.00	0.00	0.00	-0.00	-0.00
Education	-0.01	-0.01	0.01	0.01	-0.07	-0.07
Collectivism	0.16	0.11	0.19	0.16	0.06	-0.03
Vision	0.35***	0.35***	0.43***	0.43***	0.32**	0.32**
Sacrifice(H)	0.22**	0.24**	0.32**	0.23**	0.24**	0.31**
Vision*Sacrifice		0.11		0.07		0.17*
R^2	0.55	0.57	0.58	0.58	0.47	0.50

* $p < 0.05$;

** $p < 0.01$;

*** $p < 0.001$; one-tail test.

performance among the three possible interactions is the only significant one.⁴ The moderation effects of vision salience with self-sacrificial behavior on innovativeness and efficacy are not significant, despite their predicted positive directions. The significant moderation effect on team performance suggests that a leader who displays self-sacrificial behaviors with a salient vision is more successful in enhancing team performance than a leader who does not. Apart from this, vision and self-sacrifice have significant main effects on team innovativeness and team efficacy, as well as on the performance prediction. A leader's self-sacrificial behavior and salient vision increase team members' team efficacy and innovativeness independently of each other.

Drawing upon the issue of team climates, Hypotheses 2.1 and 2.2 predicts that the effects of leadership vision and self-sacrifice on team effectiveness will be higher when team members work in a team climate with a strong collective orientation than in a team climate with a weak collective orientation. To test this hypothesis, the three dependent variables were regressed on the two leadership variables (i.e., vision salience and self-sacrifice), collectivism, and the interaction terms of vision salience and self-sacrifice with a team's collective climate. To avoid potential multicollinearity problems, the dependent variables were regressed on the two interaction terms separately.

Table 3. Regression of the Endogenous Variables on Collectivism and Interaction Terms (*N* = 53).

	Efficacy		Innovativeness		Performance	
	(1)	(2)	(1)	(2)	(1)	(2)
Size	0.00	0.00	0.00	0.00	0.00	0.00
Tenure	0.00	0.00	0.00	0.00	0.00	0.00
Education	-0.01	-0.01	0.01	0.01	-0.06	-0.07
Collectivism	0.14	0.16	0.17	0.19	0.01	0.04
Vision	0.33***	0.34***	0.41***	0.42**	0.28**	0.29**
Sacrifice(H)	0.22**	0.22**	0.21*	0.21**	0.27**	0.227**
Vision*Collectivism	0.14	-	0.14	-	0.30*	-
Sacrifice*Collectivism	-	0.10	-	0.11	-	0.27*
<i>R</i> ²	0.56	0.56	0.58	0.58	0.50	0.50

**p* < 0.05;
 ***p* < 0.01;
 ****p* < .001; one-tail test.

Table 3 shows the results. Similar to the previous findings, the interaction predictions of vision and sacrifice with collective team climate on team performance receive support but others do not. A leader’s self-sacrificial behavior enhances greater team performance when team members work in a collectivistic climate, and the leader’s provision of a salient vision also increases team performance among team members with a strong collectivistic orientation. These findings are not replicated, however, with respect to team efficacy and team innovativeness. The results do not show any independent main effects of a collectivistic team climate on efficacy and innovativeness.

To portray the interactions more clearly, the teams are classified into two categories, based on the bottom and upper 25% of each criterion variable (i.e., self-sacrifice and collectivism); then team performance is regressed again on relevant variables within each team category. Fig. 1 shows the patterns of interactions. As shown, the patterns are very similar to each other. As predicted in Hypothesis 1, a leader’s salient vision helped team performance more when the leader of a given team displayed more self-sacrifice than when the leader displayed less sacrifice. As predicted in Hypotheses 2.1 and 2.2, a leader’s vision salience increased team performance more when the team climate was predominantly collectivistic than when it was individualistic. Similarly, a leader’s sacrificial behavior increased team performance more when the team climate was collectivistic than when it was individualistic. All in all, the synergetic effects of a leader’s self-sacrifice with

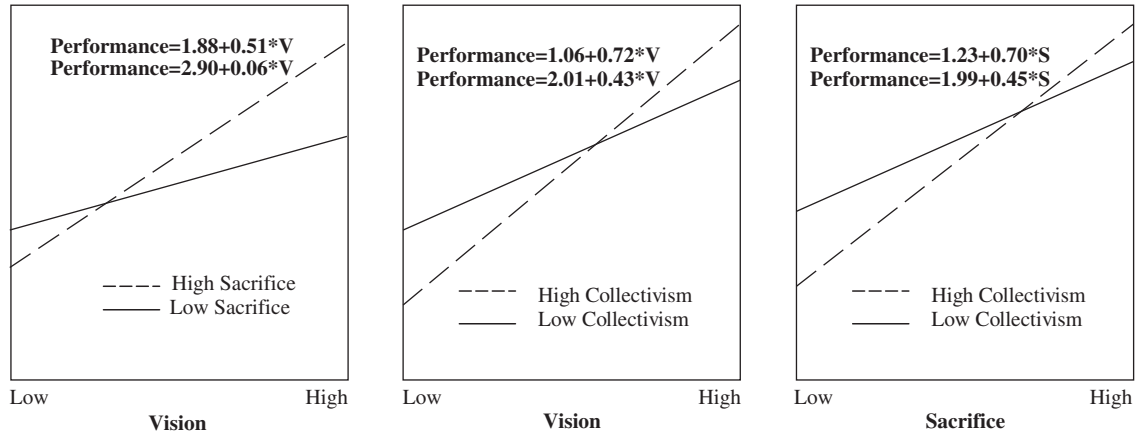


Fig. 1. Patterns of Interaction Effects.

vision saliency, self-sacrifice with a collectivistic climate, and vision saliency with a collectivistic climate are consistently demonstrated primarily for team performance.

To summarize, Hypothesis 1 received partial support. Supporting the hypothesis, a team leader's vision salience in combination with self-sacrificial behavior has a positive moderation effect, primarily on team performance. That is, the team leader who promotes a salient vision demonstrates greater team performance, especially when he enacts sacrificial behavior to a higher degree than when the leader lacks such behavior. Also in partial support of Hypotheses 2.1 and 2.2, the results do support the moderation effects of vision saliency and self-sacrifice by a collectivistic team climate, albeit exclusively on team performance. Yet, a collectivistic team climate does promote both team innovativeness and team efficacy. Besides these interaction effects, vision saliency and self-sacrifice have significant main effects on all the team effectiveness variables. Finally, consolidating the main theoretical findings, the team-level control variables (such as size, tenure, and education) do not affect the three team-effectiveness variables.

CONCLUSION

This study investigates how a team leader, by practicing self-sacrificial behavior and articulating a salient vision, promotes effectiveness in a team organization. The literature indicates consistently that a salient vision is one of the most important factors promoting key organizational processes, such as uncertainty reduction, boundary defining, and empowerment, which are all needed to promote excellence in performance when teams operate in high-pressure, competitive environments. Research also suggests that self-sacrifice on the part of a leader plays a crucial role in enhancing team effectiveness by promoting the communication of the leader's true motives to members, which in turn increases the leader's influence on her members' efforts to achieve team effectiveness.

This study differentiates the *articulation* of a salient vision from its *instillation* into the minds of team members. Articulating a salient vision is tied to the cognitive aspect of vision communication by instantiating the idea of "talking the vision talk," whereas self-sacrifice captures a behavioral and motivational aspect of leadership, instantiating the idea of "walking the vision." Self-sacrificial behavior communicates a leader's commitment to realizing the proclaimed vision. This study also suggests that, by framing a vision as a promise for the future, followers would not accept the proclaimed

vision 'as is' until they are convinced of the credibility of their leader's motives for realizing the vision. A leader's self-sacrifice transmits information about the credibility on her vision, that is, whether her vision is aligned with true motives. Extrapolating from these arguments, the present study suggests that a team leader who articulates a salient vision and shows self-sacrifice is in a better position in terms of mobilizing team member support for team tasks than one who displays only one or none of the two attributes. As such, the main hypothesis predicts that the presence of both a salient vision and self-sacrificial behavior enhances team effectiveness (i.e., team innovativeness, team efficacy, and team performance) more than the other conditions.

The results partially support the moderation hypothesis. A positive moderation effect of vision with sacrifice was found only on team performance, indicating that the leader who tries to promote salient team visions enhances team performance more proficiently when he demonstrates self-sacrificial behavior. It is puzzling, however, that a significant moderation effect was found on team performance but not on both team efficacy and team innovativeness. One might surmise that team performance is a more serious outcome measure of team effectiveness and requires greater coordinated leadership efforts between vision articulation and self-sacrifice. Team performance is also a function of complicated factors, such as autonomous, flexible work-team relations, tolerance of diversity, the availability of adequate supplies, team learning, and team climates. To drive team performance with all these factors coordinated might require even greater leadership efforts, capitalizing on both vision and self-sacrifice.

Beyond this moderation effect, the results indicate the importance of a leader's ability to articulate a vision for the team. Vision salience has the strongest effects of the key independent variables, and its effects are all significant across the three team-effectiveness measures. That is, a leader's ability to articulate a salient vision for her team consistently promotes her team members' cooperation and coordination for the sake of team achievements in terms of efficacy, innovativeness, and performance.

The significant effects of vision salience on efficacy and innovativeness imply that a salient vision could be a powerful measure for boosting other proactive behaviors, thus helping teams adapt to ever-changing environments. As indicated, a salient vision might help teams maintain a competitive edge in several ways: First, it relieves uncertainty about the future by providing guidance and direction to the effort to arrive at the team's long- and short-term goals. Reduced uncertainty in turn helps members create a psychological safety zone within which they can test, practice, and learn new

routines for new challenges. In this regard, vision amplifies a leader's ability to anticipate and respond to opportunities or pressure, especially during times of transition (Oswald et al., 1994). Second, a salient vision becomes a source of intrinsic motivation and empowerment for members because it contrasts the current state with the enlightened future, which in turn energizes members aspiring to the desirable future and helps members focus on select goals designated by the vision. Third, a well-articulated vision also provides a sense of collective pride for team members, as they imagine the accomplished vision and stake their collective achievement on it (Morris, 1987). Acknowledging these crucial roles that a salient vision plays, future research should address the specific processes associated with, and contents of, a vision (Nanus, 1992; Larwood et al., 1995). The processes might include development, articulation, communication, and implementation, whereas the content aspect might include the elements of a vision that the most effective and competitive organizations commonly articulate and the relationship between vision contents and organizational contexts (e.g., strategies, cultures, technology, and industries).

Our findings suggest that, although its effects are smaller than those of vision salience, the main effects of self-sacrifice are nevertheless robust across team innovativeness, team efficacy, and team performance. Leadership studies have hypothesized that a leader who exhibits self-sacrificial behaviors builds greater trust and earns greater acceptance as a role model (e.g., House, 1977; Conger & Kanungo, 1987; Conger, 1989; House & Shamir, 1993; Kouzes & Posner, 2003). Other studies have found that when leaders display self-sacrifice, it evokes similar responses among followers (e.g., Javidan, 1992; Yukl, 1994). Burns (1978) and Bass (1985), in acknowledging this relationship, suggest that self-sacrificial behavior is one of the key factors shifting follower needs in a transcendental way. Similarly, the present study assumes that, beyond role modeling, sacrificial behaviors displayed by a leader communicate the leader's willingness to devote himself to the team's welfare in an unbiased way. In turn, such a personal commitment by a leader curbs potential opportunistic behaviors on the part of followers; some followers even reciprocate by making an extraordinary effort that goes beyond what is expected of them, in order to realize a vision. Such extra effort and greater collaboration within a team helps the team overcome obstacles, take advantage of opportunities, and achieve a higher level of team goals. All in all, findings from the current study and other research suggest consistently that self-sacrifice is one of the most powerful leadership behaviors for enhancing team effectiveness (Calder, 1977).

This study also predicts that a collectivistic team climate helps leaders act on vision and self-sacrificial behavior. Vision is a boundary-defining process, in that sharing the vision implies that everyone on a team has the same stake in a collective future and thus a common identity. Also, the positive mental picture promoted by the vision inspires and stimulates members, and bonds them collectively within the same group boundary. This study also postulates that a leader's self-sacrificial behavior dovetails with team members' collectivistic orientation. A collectivistic team climate curbs team members' free-riding incentives and demands greater contributions or sacrifices from the leader. An upshot is that self-sacrifice and a salient vision elevate leadership influence more in a collectivistic team climate than in an individualistic team climate.

The results did support the moderation hypothesis of leadership with collectivism, primarily on team performance. However, no significant moderation effects emerge for team innovativeness and efficacy. The results also show no main effects of collectivism on team effectiveness after controlling for all other effects. Although this is consistent with the moderation effect of vision by sacrifice on performance, future studies should pay special attention to an understanding of this by theorizing more rigorously about the underlying processes and applying them to various situations across industries, countries, and organizations.

Besides these unresolved research issues, this study also suffers from several limitations. First, although the study was designed to collect data on independent variables first and dependent variables one month later, causality between vision salience and team effectiveness is still problematic. Remembering their responses to the questions of vision salience and self-sacrifice, team members might answer questions used to measure team effectiveness retrospectively (Meindl, Ehrlich, & Dukerich, 1985).

This limitation is coupled with the fact that the measure of vision salience also contains some of the components of team effectiveness. The questionnaire's measure of the Likert scale makes it difficult to present dramatic incidents of self-sacrifice, which would lead study participants to conceive of self-sacrificial behavior as an everyday expectation, rather than as an extraordinary behavior. A later study should clarify this difference.

Another potential problem is that this study does not measure leadership influence directly. Since one of the key assumptions of this study is that a leader's self-sacrificial behavior and salient vision build up his or her natural leadership influence in a way that in turn affects team effectiveness, the validity and lack of direct measures of this key assumption could be the source of various alternative explanations for the same results. Future

studies must examine the validity of the assumption versus alternative explanations by elaborating more explicit theories bridging leadership practices and effectiveness.

To conclude, this study demonstrates the synergistic effect of a leader's sacrificial behavior and salient vision in promoting team performance. To optimize team performance, team leaders are required to cascade their team visions from the corporate vision and help team members make sense of team tasks despite uncertainties. On the other hand, team leaders should also build up their credibility in order to convince team members to accept the visions as their own, because team members might consider the visions to be the leader's promise for a brightened future. The current study proposes that self-sacrificial behavior by a leader is one of the strongest sources of assurance by which members can infer their leader's credibility beyond its practical utility.

ACKNOWLEDGMENT

I am grateful to Yeon Choi for valuable comments on an earlier version of this paper. This study was supported in part by the Korean Research Foundation (KRF#: 2001-042-C00135).

NOTES

1. Korea is also known as a high power-distance society (Triandis, 1995). High power-distance fosters and accepts power and status differences among people in a more natural way. Along with collectivism, this orientation towards high power-distance could burden leaders with higher expectations concerning their contributions to and sacrifices on behalf of a group.

2. This study uses subjective team performance measures based on the perceptions of the team members. Although objective performance data are preferable, this study relies on perceptual performance. One of the primary reasons is that it is extremely difficult to gain access to the documents containing objective individual- and team-performance data. Another issue is standardization, given that each company has its own performance evaluation systems, which are not necessarily comparable to other standardized measures.

3. Even though they are not included in the tables, the effects of organizations are controlled for by transforming the five organizations into four dummy variables. The results do not change the main findings of the present study.

4. To prevent multicollinearity problems caused by pairs of independent variables, the values of vision, sacrifice, and collectivism were centered before being plugged into the interaction equations.

REFERENCES

- Avolio, B. J., & Gardner, W. L. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. *Leadership Quarterly*, *16*, 315–338.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
- Bass, B. M. (1990). From transactional to transformational leadership: Learning to share the vision. *Organizational Dynamics*, *18*, 19–36.
- Bass, B. M., & Avolio, B. J. (1990). *Transformational leadership development: Manual for the multifactor leadership questionnaire*. Palo Alto, CA: Consulting Psychologists Press.
- Bateman, T., & Michael, C. J. (1993). The proactive component of organizational behavior: A measure and correlates. *Journal of Organizational Behavior*, *14*, 103–118.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, *37*, 122–147.
- Baum, R. J., Locke, E. A., & Kirkpatrick, S. A. (1998). A longitudinal study of the relation of vision and vision communication to venture growth in entrepreneurial firms. *Journal of Applied Psychology*, *83*, 43–54.
- Berson, Y., Shamir, B., Avolio, B. J., & Popper, M. (2001). The relationship between vision strength, leadership style, and context. *Leadership Quarterly*, *12*, 53–73.
- Blake, R. R., & Mouton, J. S. (1964). *The managerial grid*. Houston, TX: Gulf Publishing.
- Bowers, D. G., & Seashore, S. E. (1966). Predicting organizational effectiveness with a four-factor theory of leadership. *Administrative Science Quarterly*, *11*, 238–263.
- Boyatzis, R. E. (1982). *The competent manager*. New York: Wiley.
- Burns, J. M. (1978). *Leadership*. New York: Harper Collins.
- Calder, B. J. (1977). An attribution theory of leadership. In: B. M. Staw & G. R. Salancik (Eds), *New directions in organizational behavior*. Chicago, IL: St. Clair Press.
- Cartwright, D. C. (1965). Influence, leadership, control. In: J. G. March (Ed.), *Handbook of organizations*. Chicago, IL: Rand McNally.
- Chen, C. C., Chen, X., & Meindl, J. (1998). How can cooperation be fostered? The cultural effects of individualism–collectivism. *Academy of Management Review*, *23*, 285–304.
- Choi, Y., & Mai-Dalton, R. (1998). On the leadership function of self-sacrifice. *Leadership Quarterly*, *9*, 475–501.
- Choi, Y., & Mai-Dalton, R. (1999). The model of followers' responses to self-sacrificial leadership: An empirical test. *Leadership Quarterly*, *10*, 397–421.
- Cohen, S. G. (1994). Designing effective self-managing work teams. In: M. Beyerlein (Ed.), *Advances in interdisciplinary studies of work teams*. Greenwich, CT: JAI Press.
- Cohen, S. G., Ledford, G. E., & Spreitzer, G. M. (1996). A predictive model of self-managing work team effectiveness. *Human Relations*, *49*, 643–676.
- Collins, J., & Porras, J. I. (1991). Organizational vision and visionary organizations. *California Management Review*, *34*, 30–52.
- Collins, J., & Porras, J. I. (1996). Building your company's vision. *Harvard Business Review*, *74*, 65–77.
- Conger, J. A. (1989). *The charismatic leader: Behind the mystique of exceptional leadership*. San Francisco, CA: Jossey-Bass.
- Conger, J. A. (1990). The dark side of leadership. *Organizational Dynamics*, *19*, 44–55.
- Conger, J. A., & Kanungo, R. N. (1987). Toward a behavioral theory of charismatic leadership in organizational settings. *Academy of Management Review*, *12*, 637–647.

- Dansereau, F., Graen, G., & Haga, W. J. (1975). A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process. *Organizational Behavior and Human Performance*, *13*, 46–78.
- Dorfman, P. W., Howell, J. P., Hibino, S., Lee, J. K., Tate, U., & Bautista, A. (1997). Leadership in Western and Asian countries: Communalities and differences in effective leadership processes across cultures. *Leadership Quarterly*, *8*, 233–274.
- Erez, M. (1994). Toward a model of cross-cultural I/O psychology. In: M. D. Dunnette & L. Hough (Eds), *Handbook of industrial and organizational psychology* (pp. 559–607). Palo Alto, CA: Consulting Psychologist Press.
- Fleishman, E. A., & Harris, E. F. (1962). Patterns of leadership behavior related to employee grievances and turnover. *Personnel Psychology*, *15*, 43–56.
- Gibson, C. B. (1999). Do they do what they believe they can? group efficacy and group effectiveness across tasks and cultures. *Academy of Management Journal*, *42*, 138–152.
- Graen, G. B., & Scandura, T. (1987). Toward a psychology of dyadic organizing. *Research in Organizational Behavior*, *9*, 175–208.
- Greenleaf, R. K. (1998). *The power of servant leadership*. San Francisco, CA: Berrett-Koehler.
- Halverson, S. K., Holladay, C. L., Kazama, S. M., & Quinones, M. A. (2004). Self-sacrificial behavior in crisis situations: The competing roles of behavioral and situational factors. *Leadership Quarterly*, *15*, 263–275.
- Hersey, P., & Blanchard, K. H. (1977). *The management of organizational behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Hollander, E. P. (1960). Competence and conformity in the acceptance of influence. *Journal of Abnormal and Social Psychology*, *61*, 361–365.
- House, R. J. (1971). A path-goal theory of leader effectiveness. *Administrative Science Quarterly*, *16*, 321–339.
- House, R. J. (1977). A 1976 theory of charismatic leadership. In: J. G. Hunt & L. L. Larson (Eds), *Leadership: The cutting edge* (pp. 189–201). Carbondale, IL: Southern Illinois University Press.
- House, R. J., & Shamir, B. (1993). Toward the integration of transformational, charismatic, and visionary leadership. In: M. M. Chemers & R. Ayman (Eds), *Leadership theory and research: Perspective and directions* (pp. 189–201). New York: Academic Press.
- Iacocca, L., & Novak, W. (1984). *Iacocca: An autobiography*. New York: Bantam Books.
- Illies, R., Morgeson, F. P., & Nahrgang, J. D. (2005). Authentic leadership and eudaemonic well-being: Understanding leader–follower outcomes. *Leadership Quarterly*, *16*, 373–394.
- Javidan, M. (1992). Managers on leaders: Developing a profile of effective leadership in top management. In: K. E. Clark, M. B. Clark & D. P. Campbell (Eds), *Impact of leadership* (pp. 47–58). Greensboro, NC: Center for Creative Leadership.
- Jung, D. I., & Avolio, B. J. (1999). Effects of leadership style and followers' cultural orientation on performance in group and individual task conditions. *Academy of Management Journal*, *42*, 208–218.
- Kanungo, R. N., & Conger, J. A. (1990). The quest for altruism. In: S. Srivastava, D. L. Cooperrider & Associates (Eds), *Appreciative management and leadership: The power of positive thought and action in organizations* (pp. 228–256). San Francisco, CA: Jossey-Bass.
- Kanungo, R. N., & Conger, J. A. (1993). Promoting altruism as a cooperate goal. *Academy of Management Executive*, *7*, 37–48.
- Katz, D., & Kahn, R. L. (1966). *The social psychology of organization*. New York: Wiley.

- Kelley, R. E. (1992). *The power of followership: How to create leaders people want to follow and followers who lead themselves*. New York: Doubleday Currency.
- Kerr, S., & Jermier, J. M. (1978). Substitutes for leadership: Their meaning and measurement. *Organizational Behavior and Human Performance*, 22, 375–403.
- Kets de Vries, M. F. R. (1989). *Prisoners of leadership*. New York: Wiley.
- Kilmann, R. H., & Covin, T. J. (1989). *Corporate transformation: Revitalizing organizations for a competitive world*. San Francisco, CA: Jossey-Bass.
- Kirkman, G. L., & Rosen, B. (1999). Beyond self-management: Antecedents and consequences of team empowerment. *Academy of Management Journal*, 42, 58–74.
- Kotter, J. P. (1996). *Leading change*. Boston, MA: Harvard Business Press.
- Kouzes, J. M., & Posner, B. J. (2003). *Credibility: How leaders gain and lose it, why people demand it*. San Francisco, CA: Jossey-Bass.
- Krech, D., & Crutchfield, R. S. (1948). *Theory and problems of social psychology*. New York: McGraw-Hill.
- Larkin, J., & Larkin, S. (1994). *Communicating change*. New York: McGraw-Hill.
- Larwood, L., Fable, C. M., Kriger, M. P., & Miesing, P. (1995). Structure and meaning of organizational vision. *Academy of Management Journal*, 38, 740–769.
- Leung, K., & Bond, M. H. (1984). The impact of cultural collectivism on reward allocation. *Journal of Personality and Social Psychology*, 44, 793–804.
- Liden, R. C., Sparrowe, R. T., & Wayne, S. J. (1997). Leader–member exchange theory: The past and potential for the future. *Research in Personnel and Human Resource Management*, 15, 47–119.
- Lindsley, D. H., Brass, D. J., & Thomas, J. B. (1995). Efficacy-performance spirals: A multilevel perspective. *Academy of Management Review*, 20, 645–678.
- McCall, M. W., & Lombardo, M. M. (1983). What makes a top executive? *Psychology Today*, (February), 26–31.
- McClelland, D. C. (1965). N-achievement and entrepreneurship: A longitudinal study. *Journal of Personality and Social Psychology*, 1, 389–392.
- Meindl, J. R., Ehrlich, S. B., & Dukerich, J. M. (1985). The romance of leadership. *Administrative Science Quarterly*, 30, 78–102.
- Minor, J. B. (1965). *Studies in management education*. Atlanta, GA: Organizational Measurement Systems Press.
- Mintzberg, H. (1973). *The nature of managerial work*. New York: Harper & Row.
- Morris, E. (1987). Vision and strategy: A focus for the future. *Journal of Business Strategy*, 8, 51–58.
- Nanus, B. (1992). *Visionary leadership*. New York: Jossey-Bass.
- Oswald, S. L., Mossholder, K. W., & Harris, S. G. (1994). Vision salience and strategic involvement: Implications for psychological attachment to organization and job. *Strategic Management Journal*, 15, 477–489.
- Sathe, V. (1985). How to decipher and change corporate culture. In: R. H. Kilmann, M. J. Saxton & R. Serpa (Eds), *Research in organizational change and development* (Vol. 5, pp. 115–142). Greenwich, CT: JAI Press.
- Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal*, 37, 580–607.
- Shamir, B., House, R., & Arthur, M. (1993). The motivational effects of charismatic leadership: A self-concept based theory. *Organization Science*, 4, 577–594.
- Stogdill, R. M. (1974). *Handbook of leadership: A survey of the literature*. New York: Free Press.

- Strange, J. M., & Mumford, M. D. (2002). The origins of vision: Charismatic versus ideological leadership. *Leadership Quarterly, 13*, 343–377.
- Strange, J. M., & Mumford, M. D. (2005). The origins of vision: Effects of reflection, models, and analysis. *Leadership Quarterly, 16*, 121–148.
- Tichy, N. M., & Devanna, M. A. (1986). *The transformational leader*. New York: Wiley.
- Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview Press.
- Van de Ven, A. H., & Ferry, D. L. (1980). *Measuring and assessing organizations*. New York: Wiley.
- Weber, M. (1968). In: G. Roth & C. Wittich (Eds), *Economy and society* (Vol. 3). New York: Bedminister.
- Wiersema, M. F., & Bantel, K. A. (1992). Top management team demography and corporate strategic change. *Academy of Management Journal, 34*, 91–121.
- Willner, A. R. (1984). *The spellbinders: Charismatic political leadership*. New Haven: Yale University Press.
- Yorges, S. L., Weiss, H. M., & Strickland, O. J. (1999). The effect of leader outcomes on influence, attributions, and perception of charisma. *Journal of Applied Psychology, 84*, 428–436.
- Yukl, G. (1994). *Leadership in organizations*. Englewood Cliffs, NJ: Prentice-Hall.

BIASED ESTIMATORS? COMPARING STATUS AND STATISTICAL THEORIES OF GENDER DISCRIMINATION

Shelley J. Correll and Stephen Benard

ABSTRACT

Gender inequality in paid work persists, in the form of a gender wage gap, occupational sex segregation and a “glass ceiling” for women, despite substantial institutional change in recent decades. Two classes of explanations that have been offered as partial explanations of persistent gender inequality include economic theories of statistical discrimination and social psychological theories of status-based discrimination. Despite the fact that the two theories offer explanations for the same phenomena, little effort has been made to compare them, and practitioners of one theory are often unfamiliar with the other. In this article, we assess both theories. We argue that the principal difference between the two theories lies in the mechanism by which discrimination takes place: discrimination in statistical models derives from an informational bias, while discrimination in status models derives from a cognitive bias. We also consider empirical assessments of both explanations, and find that while research has generally been more supportive of status theories than statistical theories, statistical theories have been more readily evoked as explanations for

Social Psychology of the Workplace
Advances in Group Processes, Volume 23, 89–116
Copyright © 2006 by Elsevier Ltd.
All rights of reproduction in any form reserved
ISSN: 0882-6145/doi:10.1016/S0882-6145(06)23004-2

gender inequalities in the paid labor market. We argue that status theories could be more readily applied to understanding gender inequality by adopting the broader conception of performance favored by statistical discrimination theories. The goal is to build on the strong empirical base of status characteristic theory, but draw on statistical discrimination theories to extend its ability to explain macro level gender inequalities.

Gender inequality in the labor market endures even as the market changes. In the past several decades, women have increasingly moved into the paid labor market and pursued higher education, even as the nature of work itself has changed (Katz & Autor, 1999). Despite these historic shifts, fulltime female workers continue to earn less than their male counterparts (U.S. Department of Commerce, 2004), and women continue to be underrepresented in high status positions in business, government and academia, holding 8% of top-level executive positions in Fortune 500 companies, 14% of elected positions in the U.S. House and Senate and 21% of university presidencies. While the reasons for this durability are complex, this paper seeks to compare two micro level mechanisms – statistical and status-based discrimination – that potentially contribute to the reproduction of gender inequality in the labor market. These discrimination theories describe how and why employers come to have a preference for men when making hiring, promotion and salary decisions. Consequently, they have implications for understanding the persistence of gender segregation in paid labor, the “glass ceiling,” and the gender gap in wages. “Statistical discrimination” theories originate in economics, while status-based discrimination draws on sociological work in status characteristics theory (SCT) and double standards theory (DST).¹ Statistical discrimination theories argue that discrimination arises when rational economic actors must make hiring and promotion decisions based on the statistical distribution of productivity for a group a worker belongs to, such as gender or race, rather than the productivity of the individual worker being evaluated. Status theories argue that discrimination arises because stereotypes about the relative performance capacity of men and women (and other ascribed categories) influence evaluations of workers. While not theories of labor market discrimination per se, SCT and DST make predictions about when and how women might be discriminated against in hiring, salary and promotion decisions.

To date, these theories have developed in parallel literatures, with little attempt to inform one another. As we will show, the theories make similar predictions and employ similar key concepts, but they propose different mechanisms of discrimination. As we review below, status-based

discrimination has received considerable empirical support in highly controlled laboratory settings; while, according to economists, empirical support for statistical discrimination theories is relatively weak (e.g. Cain, 1986). While the stronger empirical support gives us more confidence in status-based discrimination arguments, statistical discrimination theories have the advantage of being more readily evoked to explain labor market inequalities. Drawing on these two established theories of discrimination, we propose a way to incorporate ideas from statistical discrimination theories into status theories, thereby extending the reach of status theories and improving our understanding of the durability of gender inequality in the labor market.

STATUS-BASED DISCRIMINATION

Status Characteristics Theory

We rely primarily on SCT to develop a status-based discrimination mechanism. SCT is an empirically supported set of propositions describing how socially meaningful nominal distinctions, such as race, gender and physical attractiveness, lead to inequalities in rates of participation and evaluations of task performance in collectively oriented task groups. A nominal distinction is a “status characteristic” if the distinction is associated with widely held beliefs in the culture linking greater status worthiness and competence with one category of the distinction (i.e. men, whites) than others (i.e. women, non-whites) (Berger, Fisek, Norman, & Zelditch, 1977). It is the linking of cultural beliefs about competence and social worthiness with nominal distinctions that give status characteristics force in social relations. The theory argues that actors implicitly use salient status characteristics to guide their behaviors and evaluations. A status characteristic becomes salient when it differentiates those in the setting, such as in mixed-sex groups or when it is believed to be directly relevant to the task at hand.

The theoretical construct linking status characteristics, such as gender or race, to differences in behaviors and evaluations is “performance expectations.” According to the theory, actors implicitly expect more competent task performances from those with the more valued state of a characteristic compared with those with the less valued state. These differentiated performance expectations operate in a self fulfilling way – since they are expected to offer more competent performances, high status actors are given more opportunities to participate, they have more influence over others in a

group and, importantly for understanding how employers might develop a preference for men, they have their performances evaluated more positively (see Correll & Ridgeway, 2003). These effects are predicted except when the task or setting is one for which lower status individuals are believed to be “naturally” better, such as a task requiring nurturing ability in the case of gender. Experiments confirm that a wide variety of status characteristics, including race, gender, level of education, and physical attractiveness, systematically organize the appearance of competence, influence and deference in this manner (Lovaglia, Lucas, Houser, Thye, & Markovsky, 1998; Ridgeway, 2001a; Troyer & Younts, 1997; Webster & Foschi, 1988).

Double Standards Theory

DST extends SCT to propose that status characteristics also affect the standard individuals use to determine whether a given performance is indicative of ability (Foschi, 1989). The central idea is that ability standards are stricter for those with lower performance expectations, that is, those with devalued status characteristics. The logic behind this prediction is that good performances are inconsistent with expectations for lower status actors; therefore, when lower status actors perform well at a task their performances are critically scrutinized. When higher status actors perform equally as well, their performances are consistent with expectations and are therefore less scrutinized. Since performances of lower status actors are more heavily scrutinized, their performances are judged by a stricter standard compared with higher status actors. Therefore, the performances of low status actors – even when “objectively” equal to that of their high status counterparts – are less likely to be judged as demonstrating task ability or competence. A “double standard” benefiting high status individuals is predicted except when the task or setting is culturally associated with the low status group (e.g. a task requiring nurturing ability might advantage women over men). Empirical evidence supports these predictions for both gender and race, and the predictions hold both when individuals evaluate others and when they evaluate themselves (Foschi, 1996; Biernat & Kobrynowicz, 1997; Correll, 2001, 2004).

Status Discrimination in the Labor Market

To develop a status-based mechanism of discrimination, we apply SCT and DST to settings where employers evaluate employees in the course of making hiring, promotion and salary decisions. We predict that when gender is

salient in these settings, either because some employees are women and some are men or because the job is culturally associated with masculinity, employers will use a stricter standard to evaluate the workplace suitability of female employees, compared with their male counterparts. In female-typed jobs, such as nursing or teaching, the theory predicts that women will have a slight evaluative advantage over men. However, there are relatively few female-typed jobs in the U.S. labor market (Sorenson, 1990), and jobs that are associated with cultural notions of femininity (e.g. jobs that involve care taking) are typically lower status and lower paying (England, Budig, & Folbre, 2002). In gender-neutral jobs, and to a greater extent in “masculine” jobs, men will be judged by a more lenient standard and, therefore, be seen as more suitable for hire and promotion and deserving of higher salaries, compared with women who are equally qualified on more objective grounds (i.e. they have equal past experiences, were equally productive on past jobs, have similar educational backgrounds, etc.). Since the great majority of jobs are either culturally associated with masculinity (e.g. engineer, firefighter) or are more gender neutral (e.g. realtor, accountant), in most workplace evaluation settings male employees will be preferred over equally qualified women and will be rewarded more positively for equal past performances. If men are systematically preferred over women when hiring and promotion decisions are made and/or offered higher salaries, status-based discrimination contributes to the reproduction of a gender segregated labor market, the glass ceiling limiting women’s career advancement and the gender gap in wages favoring men.

Scope Conditions

SCT’s predictions are traditionally limited to collectively oriented task groups. In these groups, actors care about doing well on the task at hand (i.e. they are task-oriented), and the shared pressure to complete the group’s task forces group members to anticipate the relative task contribution of each member of the group. However, several researchers have recently argued that status generalization processes occur in a wider range of settings (Correll, 2004; Foschi, Lai, & Sigerson, 1994; Lovaglia et al., 1998; Ridgeway & Correll, 2004; Thye, Willer, & Markovsky, 2006). In particular, researchers have argued for relaxing the collective orientation scope condition, noting that the logic of the theory does not require collective orientation as much as it requires that some feature of the setting pressure actors to anticipate the relative quality of future performances of others (or self and others) and for a status characteristic to be salient when doing so (Correll & Ridgeway, 2003;

Correll, 2004; Erickson, 1998; Foschi et al., 1994). This pressure is generated when individuals are interacting in collectively oriented task groups, but it also is present when actors are in “individual evaluative settings” (e.g. when taking socially important ability tests) (e.g. Correll, 2004; Erickson, 1998; Lovaglia et al., 1998; Steele, 1997) and when they are evaluating the performances of others (Foschi et al., 1994). When employers evaluate employees, they are likely task-oriented, but are they collectively oriented? In a strict sense, probably not, but they are in a setting where they are pressured to anticipate the relative quality of future performances of the individuals whom they are evaluating. If those individuals differ in terms of gender, status beliefs about gender will likely evoke the use of gender differentiated ability standards and consequently lead to higher evaluations of male employees, all else being equal.

The central idea behind status-based discrimination is that employers draw on widely shared cultural beliefs about the relative competence of men and women when forming performance expectations for prospective employees. This leads employers in most settings to anticipate more competent future performances from male employees than from female employees. Consequently, when evaluating objectively equally qualified male and female employees, employers’ evaluations will be biased in favor of men. The central concept of “performance expectations” is similar to the concept of anticipated “productivity” employed in statistical discrimination theories, but, as we show below, the mechanism of discrimination differs between the two theories.

THEORIES OF STATISTICAL DISCRIMINATION

Economists (Phelps, 1972; Arrow, 1973) developed the statistical discrimination approach to address shortcomings in “taste-based” theories of discrimination (Becker, 1957), then the primary economic model of discrimination. Becker’s taste model assumed that employers discriminate because of a preference for workers of a particular group (or because their employees or consumers hold such a preference). This theory explains discrimination in the short run, but cannot account for why non-prejudiced employers would not eliminate those with a taste for discrimination from a competitive market in the long run. Taste-based discrimination should be unstable in a perfect market because a preference for any trait *unrelated to productivity* leads to economic inefficiency. For example, if prejudiced employers reduce their demand for female workers, women’s wages will decrease. Competing firms can then hire women at lower wages than equally

qualified men, thereby reducing costs and undercutting the prices of prejudiced employers. Theories of statistical discrimination propose instead that rational employers prefer one group (e.g. whites or men) over another (e.g. African Americans or women) because groups differ in their distribution of workplace productivity.² Since employers are faced with limited information about the actual productivity of individual workers they develop preferences for individuals from more productive groups. Thus, according to these theories, discrimination occurs as an optimal, if unfortunate, response to an environment with limited information.

Statistical discrimination theories have been widely applied to substantive topics addressed in a more limited way by status discrimination theories, including disparities in wages and hiring. As a result, they offer alternative explanations for empirical findings that may be attributed to status processes. Researchers interested in testing status discrimination theories and applying them to labor market outcomes would benefit from being familiar enough with statistical discrimination theories to account for these alternative explanations in their research designs.

Economists have proposed a variety of models of statistical discrimination. Most of these can be classified as mean models, variance models, or measurement models (England, 1992). These models differ in the assumptions they make about the productivity distributions of groups of workers, and the kind of knowledge employers possess regarding these distributions. In the following section, we will discuss each family of models, and then compare them to one another and to status-based discrimination. We will then consider empirical research assessing the theories.

Mean Models of Statistical Discrimination

Mean models of statistical discrimination assume that differences in two groups' labor market outcomes result from true differences in their average productivity (Phelps, 1972; Arrow, 1973; Bielby & Baron, 1986; England, 1992). The model makes three assumptions. The first assumption is that employers have an unbiased set of beliefs about two groups of workers who differ in their mean level of productivity, such that one group is less productive on average than the other group. The models are typically illustrated using the example of African American and white workers, but also apply to women and men or any other pairing of a disadvantaged group and an advantaged group. The hypothesized productivity differences may take the form of one group being more skilled, dependable or less likely to quit in the

future than the other group (Phelps, 1972).³ The second assumption is that learning the actual productivity of an employee prior to hiring them is prohibitively costly (Phelps, 1972; Arrow, 1973; Bielby & Baron, 1986; England, 1992). True productivity can only be observed well after hire, following a period of employment or training. The third assumption is that employers can distinguish between the two groups at zero or little cost. As employers cannot a priori measure individual productivity, they use group membership as a rough but inexpensive proxy, and hire and pay members of the higher productivity group at greater rates. In the case of gender, this process would disadvantage highly productive women and benefit less productive men, in comparison to a world with affordable information about individual productivity.

While the mean model explains how discrimination could persist in competitive labor markets, it does so at the cost of making strong assumptions. In particular, the assumption of unequal productivity by the two groups has been a target of criticism (Aigner & Cain, 1977). This assumption creates at least two significant problems. First, in the long run both groups are paid according to their average productivity, even if individual workers may receive wages above or below what they would earn if employers had information about individual productivity. For example, if all female workers are paid according to the productivity of an average female worker, more productive women will be underpaid and less productive women will be overpaid. As a group, however, women will be paid a wage that accurately reflects their level of productivity. The model therefore does not produce economic discrimination, in the sense that no group as a whole is paid more or less than its average productivity. The second problem is closely related. The assumption of unequal productivity also implies that all differences in pay are due to premarket discrimination. However, simply assuming that labor market discrimination does not exist prevents the theory from specifying an empirical test of this hypothesis. This is an unsatisfying model for those interested in empirically evaluating the claim that some workers face discrimination in the labor market. To address this issue, later researchers (Aigner & Cain, 1977; Oettinger, 1996) proposed a model that relaxes the assumption of unequal mean productivity.

Variance Models of Statistical Discrimination

Variance models of statistical discrimination (Aigner & Cain, 1977; England, 1992; Oettinger, 1996) avoid some shortcomings of the mean model by

assuming that the mean productivities of two groups in the labor market are identical. Instead, the model assumes that the productivity distribution of one group (women, for example) exhibits greater variance than the other group (men, in this case).⁴ The model further assumes that employers are risk averse. Rational, risk-averse employers prefer to hire and pay greater wages to workers from the lower variance group. This model produces labor market discrimination – a wage gap emerges that is greater than the difference between the two groups' average productivities.⁵ In other words, the assumptions of different variances and employer risk aversion predict a world in which groups receive different pay for the same level of output. This corresponds more closely than the mean model to most researchers' conception of discrimination.

While the variance model addresses limitations of the mean model, it too has received criticism from economists. [Aigner and Cain \(1977\)](#) raise three objections to the variance model. First, they argue that “large firms” should be able to insure themselves against the risk of hiring underqualified workers (182). Second, they argue that, because risk aversion is likely to be heterogeneously distributed in a population, employers with low risk aversion should bid up the wages of workers from the disadvantaged group. Third, the problem of limited information about productivity should create markets for developing instruments to measure productivity more reliably. Despite these criticisms, the variance model remains an active topic for theoretical and empirical research ([Oettinger, 1996](#)).

Measurement Models of Statistical Discrimination

A third family of statistical discrimination models dispenses with both the assumption of unequal productivity and the assumption of unequal variance. Measurement models of statistical discrimination assume that all workers have identical productivity distributions, but the screening procedures used to predict future productivity are culturally biased to reflect the experiences of the advantaged group ([Borjas & Goldberg, 1978](#); [Lundberg & Startz, 1983](#); [England, 1992](#)). While employers could screen potential employees using a variety of criteria or mechanisms, (e.g. they could evaluate education and work experience or administer a diagnostic test) [Borjas and Goldberg \(1978\)](#) illustrate their model with a diagnostic test as a screening device. They assume that employers administer the diagnostic test to prospective employees in order to predict future productivity, and that these tests are biased ([Borjas & Goldberg, 1978](#)). Researchers have suggested

several mechanisms by which these biases are transformed into differential labor market outcomes.

In the case of gender, for example, these biases could manifest themselves in two ways. First, the tests may be more reliable for men, so that test scores are highly correlated with productivity for men but not women. If this happens, employers hiring men and women who pass the test will employ high productivity men and women of varying productivity. If higher productivity translates into higher wages and men's test scores more reliably predict productivity, men will be paid more on average. Second, the tests may produce lower scores for women than for men of equal productivity. If this happens, rational employers will hire women at lower rates than men, but pay them higher wages on average (because only women with very high productivity will pass the test).

Lundberg and Startz (1983) offer an alternative measurement model based on workers' human capital investments. In their model, workers decide how much to invest in human capital, which is costly but increases their "test score" (or their score on whatever screening device an employer might use). Employers know the productivity distribution of each category of workers (e.g. the means and standard deviations of productivity for men and women) and the test score for each worker (344). Employers offer workers a wage based on a worker's expected marginal productivity (the degree to which hiring that worker increases the firm's output), conditioned on the productivity distribution and test score. Lundberg and Startz further assume that for two groups in the labor market, one group's scores are more reliable indicators of productivity than those of the other group. Their analytical results show that the group with more reliable test scores will invest more in human capital, and earn higher wages as a result. This is because, as the reliability of a test score decreases, employers rationally place less weight on the test score when calculating the wage they will offer. As the test score becomes less important for determining an employee's wage, that employee will have less of an incentive to make costly investments in human capital to improve their test score.

This result has been criticized by Donohue and Heckman (1991). In the case of gender, their argument implies that, since returns to education are lower for women than men, women earn less than men at all levels of education, including lower levels. As a result, while women do not benefit as much as men from investing in education, the opportunity cost of delaying employment to invest in education is also lower for women than for men. If women's disadvantage in the marginal benefit of investing in education is matched by the reduction in their opportunity cost, women and men would

invest in education in equal proportions. In other words, even if women have less to gain from education than men, they may also have less to lose. Therefore, we should not necessarily expect lower human capital investments by disadvantaged groups.

These variants of statistical discrimination theories share surface similarities with status discrimination theories, but differ in important ways. Both are formal, mathematically specifiable theories that provide explanations for labor market gender inequalities. Both theories locate the proximate cause of discrimination in employers' attempts to anticipate employee performance, and their central concepts – “performance expectations” and anticipated “productivity” – are also highly similar. However, they make different assumptions about the mechanism that produces bias in anticipating future performance or productivity, and correspondingly vary in the predictions they make. The central concepts themselves have also been operationally defined with differing degrees of specificity, with productivity being defined considerably more broadly than performance expectations. This difference has allowed statistical discrimination theories to be applied to a wide range of labor market inequalities, but without much empirical support. Conversely, status-based discrimination has received considerable support but has been applied less broadly.

A COMPARISON OF STATISTICAL AND STATUS-BASED DISCRIMINATION

The key difference between the two theories is that statistical discrimination theories assume the source of bias leading to a preference for one group over another is *informational*, while status discrimination theories assume the source of bias is *cognitive*. In statistical discrimination models, employers are perfectly rational and maximize expected utility. Bias enters hiring and wage decisions through external constraints on actors' decision-making processes, but is not inherent in them. Because these theories assume flawless reasoning, they require additional assumptions about flaws in the information employers take as input to their decision-making process.

In contrast, status discrimination theories assume that actors' cognitive abilities are biased, and make no assumptions about the nature of the information they receive. While the mechanism underlying statistical discrimination is utility maximization in the face of biased or limited information, the mechanism underlying status discrimination is biased cognitive processes acting on ostensibly accurate performance information. These contrasting

assumptions about the source of bias lead to contrasting predictions about employers' abilities to make unbiased assessments of worker productivity.

Statistical discrimination models assume that employers hold unbiased beliefs about the productivity of groups of workers. To form these beliefs, they require some source of information about the relative productivity of men and women, African Americans and whites, or other groups (Arrow, 1973). Because objective data on the relative productivity of workers by sex, race, ethnicity and other characteristics does not exist, and because, according to the theory, employers cannot determine worker productivity prior to making a hiring decision, they must find some other source of information. Economists solve this problem by assuming that employers form beliefs about groups of workers by observing workers following the hiring decision (Oettinger, 1996). One might also hypothesize that employers could learn about group-level productivity from other employers who have previously employed members of the groups. In both cases, evaluations of the productivity of current employees serve as a prime source of information about the likely productivity of future employees.

Importantly, this means that employers can only obtain accurate information about the relative marginal productivity of groups of workers, such as men and women, to the extent that their evaluations of the productivity of individual workers is not systematically biased by the workers' group membership. SCT and DST suggest that this lack of bias is unlikely. According to these theories, women and ethnic minorities in the workplace will be evaluated according to a more stringent standard than white men. Consequently, they will be judged as less competent than their equally productive white male counterparts. Thus, members of advantaged groups will be more likely to meet employers' expectations for productivity than members of disadvantaged groups, given equivalent signals of productivity. This proposition has found empirical support in the cases of gender and race using resume evaluations and other laboratory studies (Biernat & Kobrynowicz, 1997; Foschi, 1996; Foschi, 2000). Evaluations that are cognitively biased serve to create or reinforce beliefs that some groups are less productive on average, even in the absence of differences in productivity distributions or testing instruments.

Empirical Evidence

Despite making different predictions about a similar explanandum, statistical and status discrimination theories have not been compared in the same

research design. This stems from both disciplinary and methodological boundaries. Economists relying primarily on analytical models have conducted most of the research on statistical discrimination, while sociologists and social psychologists relying primarily on laboratory experiments have conducted most of the research on status discrimination. As a result, researchers have accumulated separate bodies of evidence evaluating the two theories. Evidence supporting status discrimination theories has been discussed above. In this section we focus on research that empirically evaluates statistical discrimination theories.

Early work on theories of statistical discrimination focused on developing analytical models. More recently, researchers (primarily economists, but also scholars from law and sociology) have begun to evaluate how well these theories explain observed patterns of data. Economists and others who have evaluated statistical discrimination have arrived at two principal conclusions. The first conclusion is that few efforts have been made to test one or more models derived from the theory (Oettinger, 1996; Arrow, 1998). Arrow (1998) argues that this is because statistical discrimination is an intrinsically difficult idea to test, because it requires information about individual marginal productivity, which is generally unavailable. While this is true, there have been several indirect attempts to test the theory. This leads to the second conclusion – according to a review by the economist Cain (1986), most of the evidence that does exist runs counter to the theory. We consider some of these efforts to evaluate the theory below.⁶

Bielby and Baron (1986) attempted to evaluate whether statistical discrimination plays a role in supporting sex segregation in the labor market. They found that employers seem to “reserve some jobs for men and others for women” (782). On the basis of indirect evidence, they argued that this behavior seemed to be more about sex typing of skills than economic efficiency, but their data do not allow for this question to be answered definitively.

Donohue and Heckman (1991) similarly argue that statistical discrimination theories are not supported by empirical evidence. They cite the southern textile industry as one case in which the theory finds itself at odds with reality. After African American workers entered this industry, labor costs stabilized where they had previously been increasing. This suggests it would have been economically rational to hire African Americans earlier. On this point, they write:

It is hard to imagine that blacks were largely excluded from this low-skill industry over the fifty-five year period preceding the passage of Title VII because employers were trying to use the information contained in valid stereotypes to select a workforce at the lowest cost (1726).

Instead, Donohue and Heckman (1991) argue, it is more likely that discrimination in labor markets is reinforced by social norms. In particular, they suggest that informal norms could enforce the exclusion of African Americans from businesses. Consonant with status discrimination theories, widespread beliefs about the inferiority of African Americans were crucial for maintaining differential labor market outcomes.

Alton and Pierret (2001) contributed a way to test for statistical discrimination by drawing on the assumption that employers should be able to learn about workers' true productivity after hiring them. For this reason, they argue that the statistical effect of easily observable nominal distinctions, such as level of education and race, on wages should begin strong but diminish over time, while the effect of unobservable measures of productivity, such as workers' score on the Armed Forces Qualifying Test (AFQT), should begin weak and increase over time.⁷ Using data from the 1992 National Longitudinal Survey of Youth, they find the predicted pattern of statistical discrimination for the effect of education on wages: the effect of education is large initially, but diminishes over time, while the effect of AFQT is small initially but increases over time. This suggests that at the point of hire, employers cannot observe productivity (hence the small effect of the AFQT test) and therefore rely on more obvious signals, such as an applicant's level of education (hence the large effect of education). As workers gain experience, Alton and Pierret presume that the worker's true productivity (as measured by the AFQT) becomes more apparent and plays a correspondingly larger role in determining wages, while employer estimates of group productivity (as measured by education) play a smaller role.

While Alton and Pierret's findings suggest that workers may experience a form of statistical discrimination based on their level of education, their findings cast doubt on the role of statistical discrimination in producing racial disparities in wages. In fact, the pattern found for race is the opposite of what a theory of statistical discrimination would predict: the effect of race is almost nonexistent at the outset of the model, but increases substantially over time (as with education, the positive effect of AFQT increases over time). In other words, African Americans and whites appear to be paid similarly when first hired, but over time white wages outpace those of African Americans. To explain this finding, the authors argue that this data is consistent with race being "negatively correlated with productivity (343)," suggesting that African Americans are less productive than whites. However, SCT offers an alternative account of the same findings: employers use harsher performance standards when evaluating the workplace performances of African Americans compared to whites. These biases in evaluations

of productivity cumulate over the course of individuals' careers, such that the categorical disadvantage increases as a result of small but reoccurring injustices.

In general, empirical tests of statistical discrimination theories have yielded disconfirming or ambiguous results, while tests of status theories have yielded confirming results. Status theories hold a few additional advantages relative to the statistical discrimination approach, which we describe in the next section. At the same time, statistical discrimination theories have the advantage of being applied more widely. They thus suggest ways in which status-based discrimination theories could be revised to broaden their applicability.

Relative Advantages of Status and Statistical Discrimination Theories

Status theories offer two additional advantages over statistical discrimination theories. First, while both theories addresses discrimination, or "demand side" processes, status theories also offer an explanation for supply side processes in the same model. Second, status theories offer greater testability than statistical discrimination theories.

Supply side labor market mechanisms are those that are driven by the decisions of workers (those supplying the labor). For example, college women are less likely than college men to choose majors in engineering and the "hard" sciences, and as a result are less likely to obtain the high-wage, high-status jobs to which these majors offer access. Demand side labor market mechanisms are those driven by the decisions of employers (those with a demand for labor). For example, if employers at engineering firms are more likely to hire men than women, women will be underrepresented in these occupations. Both processes are at work in the labor market, but statistical discrimination theories offer solely demand side explanations.⁸ As a result, they only tell part of the story. Status theories can explain both supply and demand side processes.

Correll (2001, 2004) describes and tests a mechanism by which gender, as a status characteristic, shapes the decisions women and men make about human capital investments (in the form of college majors) and job-seeking decisions. In her model, status biases the way people evaluate their own competence in a given domain based on feedback they receive about their performance in that domain. This research shows that it is not only the case that *others* hold high status people to a more lenient standard than lower status people (a demand side process), but that high status people also hold

themselves to a more lenient standard (a supply side process). Just as others require less evidence to believe that higher status people are more competent, higher status people more readily consider themselves competent in the face of limited information. For example, because cultural beliefs associate higher performance in math and science with males, men in an engineering class may interpret a grade of “C” on an exam as a sign that they are meeting expectations, while women may interpret the same grade as a sign that they are struggling with the material. As a result, men are more likely than women to invest in human capital and seek jobs in lucrative quantitative fields. This prediction has been supported in both survey data (Correll, 2001) and controlled experimental settings (Correll, 2004).

Another advantage of status theories is they are comparatively easier to evaluate. As others have noted, statistical discrimination theories are difficult to test empirically because they require data on individual’s marginal productivity (Arrow, 1998) and no standard measure of individual productivity exists. The lack of a standard measure likely results from the inherent difficulty of fully specifying what makes someone a good or productive employee. Because no standard and accurate metric of individual productivity exists, there is always the possibility that some productivity differences have gone unmeasured and bear responsibility for wage or hiring differentials between groups. For example, measuring the number of hours worked per week makes a convenient proxy for measuring productivity, but says nothing about how much was actually accomplished during these hours. For some professions, productivity measures include some sense of what is accomplished at work, although this does not eliminate the problem of unmeasured productivity. Productivity for attorneys, for example, is often measured in terms of “billable hours.” However, if we compared the wages of male and female attorneys controlling for their billable hours and found that female attorneys earned less than male attorneys, we could not know whether the wage gap found was the result of discrimination against women or was instead the result of some *other* unmeasured form of productivity. As this example shows, the inability to define and measure productivity limits empirical evaluations of labor market discrimination hypotheses.

While statistical discrimination theories require the difficult task of measuring individual productivity, testing status theories offers the comparatively easy task of holding productivity constant across individuals and observing whether traits unrelated to performance affect wages and other outcomes. For example, in resume evaluation experiments, researchers present evaluators with resumes for fictitious job applicants who differ on some status characteristic but that hold constant signals of productivity.

Applicants have equivalent indicators of human capital (such as education) and indicators of past productivity (such as sales figures).⁹ Researchers can thus guarantee that any differences in evaluations are the result of evaluators' reaction to the status characteristic, and not to some difference in individual productivity. For example, in a recent experiment, we (Correll & Benard, 2005) had evaluators rate two female applicants who had equivalent signals of productivity (i.e. they had very similar educational backgrounds and workplace experiences) for a high status marketing position. The two applicants being evaluated differed on parental status – one was mother and one was not. We found that motherhood operates as a status characteristic for our sample and that the lower status value attached to mothers produces an evaluative bias against mothers. Mothers were seen as less hireable, less promotable and offered lower starting salaries than non-mothers. Consistent with status-based discrimination, they were also held to a stricter performance standard. Since we are able to hold productivity constant by experimental design, we could isolate discrimination in a way that has not been possible in studies relying on survey analysis.

While we have argued that there are several reasons to prefer status-based discrimination theories, we do not claim that status discrimination theories are uniformly superior. In fact, statistical discrimination theories hold an important lesson for status theories. Statistical discrimination theories have been more readily evoked as explanations for gender and racial inequalities in the labor market. We argue that statistical discrimination theories find broader usage because the central concept of these theories – “productivity” – subsumes a wide range of labor market processes even while being problematically hard to define and measure. By using this more general term, statistical discrimination theories have been able to capture the intuition that employers make and use estimates of how much value a given individual is likely to bring to the firm. The breadth of the concept means that it can be applied to ability, competence, effort, job match or any other factor that might influence the value of a worker to an employer. Status-based theories, by contrast, use a much narrower definition of their central concept of “performance expectations,” typically operationalized as competence, as we describe below. Conceptually, there is no reason why productivity expectations from statistical theories and performance expectations from status theories should differ. Both appear to address the same underlying variable. The difference between the concepts exists at the level of their operational definitions – whether individual's capacities are defined narrowly or broadly. We claim that status-based theories can also be applied to explain a wider array of gender inequalities, if the conventional

usage of the central concept of “performance expectations” is broadened to include more of the processes commonly associated with “productivity.” However, it is important to broaden the concept of performance expectations systematically without limiting its testability. In the next section, we propose a way to extend the reach of SCT without reducing its power.

Broadening the Conception of Performance Expectations

According to SCT, since high status actors are expected to offer more *competent* performances, they are often given behavioral and evaluative advantages compared with low status actors. Indeed, when claiming that a nominal distinction carries status value, researchers frequently attempt to demonstrate that one category of the distinction is widely believed to be more competent than another (e.g. Correll, 2004 for gender as a status characteristic, Ridgeway & Correll, 2004 for motherhood as a status characteristic, and Webster & Driskell, 1983 for beauty as a status characteristic).¹⁰ However, the theory implies that any factor that increases the relative expectation about the capacity of a person to perform in a setting should advantage her/him in that setting (Berger, Cohen, & Zelditch, 1966, 1972). Expectations about performance capacity have at least two dimensions: competence (or ability) and effort (Heider, 1958). While researchers typically focus on the competence dimension, cultural beliefs about the relative *effort* that social groups exert in task situations can also be the basis for forming differentiated performance expectations. In fact, there is a precedent for considering effort in SCT. For example, when explaining why social class is a status characteristic, Berger, Cohen, and Zelditch (1966, pp. 33–34), describe beliefs that the “white collar class” is “more industrious” and “more energetic” than the lower class. While such a precedent exists, “performance expectation” is usually more narrowly operationalized as a competence expectation.

We argue that extending the concept of performance expectations to include anticipations of future effort is valuable for several reasons. First, like expectations about competence, expectations about effort or commitment can lead to gender inequalities in labor market outcomes. Another, related, reason to broaden the definition of performance expectations is that expectations about future effort may play an important role in labor market outcomes even when expectations about competence do not. We will show that there are strong reasons to think that cultural beliefs about the relative workplace effort or commitment of women and men lead to status-based

discrimination against women. Finally, we will show that extending the theory in this way does not limit its testability.

The Importance of Commitment and Effort

Incorporating expectations of commitment or effort into SCT is valuable because, like beliefs about relative competence, cultural beliefs about relative effort can lead to inequalities in rates of participation and evaluation. For example, if men are believed to be more committed to the labor market than women and therefore to be more likely to exert higher levels of effort at their jobs, we would expect that employers would have higher expectations for the workplace performance of men. Because of these higher expectations, male employees will be given more opportunities to participate in mixed sex work settings, be judged by a more lenient standard and, consequently, have their performances evaluated more positively compared with women performing at the same level.

In fact, it is easy to imagine situations where employers might rely more heavily on anticipations of effort/commitment than ability/competence. For example, when a job requires sufficiently low skill such that most potential employees have the requisite ability, effort anticipations will likely be the basis for forming relative performance expectations. Likewise, when considering two individuals whose abilities appear to be equal for a job that requires extensive time commitment, anticipations about how much effort each is likely to expend on the job could bias hiring decisions.

More generally, when the attachment of an individual or individuals to a group is lengthy, as opposed to short-lived, effort anticipations will likely be the more important component of performance expectations. For example, when making hiring decisions, employers must be concerned not only with the ability of individuals to do their jobs, but also with their willingness to use their ability to accomplish the firm's tasks. By contrast, in short lived groups with a clearly defined and limited task, such as a jury, ability anticipations are likely more important than effort anticipations. In these settings, long-term effort and commitment are not required, making competence expectations a more likely source of differentiated performance expectations.

The tendency to operationally define performance expectations as competence has thus far been unproblematic. Most laboratory evaluations of SCT use a standard experimental setting with short-lived groups that have a clearly defined task. In these studies, subjects interact with a partner for an hour or less, and they must come to an agreement about the best answers to

a series of problems. When gender is salient in this setting, the theory predicts that participants will draw on status beliefs that men are diffusely more competent than women and develop higher performance expectations for men. This prediction finds ample empirical support (see [Wagner & Berger, 1997](#) for a review). Because of the short-lived nature of these groups, anticipations of competence are likely the basis of differentiated performance expectations.

The Declining Significance of Competence

However, there are reasons to believe that effort anticipations might be a crucial dimension of performance expectations when considering the effects of gender as a status characteristic, especially in settings where employers making hiring, promotion and salary decisions. As psychologists have shown, even though people in the U.S. continue to rate the category “men” as more competent than “women,” women’s self-reported competence ratings have risen in recent years, lessening the distinction between men and women on this dimension, at least among women ([Spence & Buckner, 2000](#)).¹¹ Consistent with this changing gender belief, researchers have found less consistent effects of gender as a status characteristic in the standard laboratory setting involving short-lived task groups (e.g. [Foschi, Enns, & Lapinte, 2001](#); [Foschi & LaPointe, 2002](#); see also [Rashotte & Smith-Lovin, 1997](#); [Johnson, Clay-Warner, & Funk, 1996](#)).

Even if beliefs about the relative general *competence* of men and women are becoming less differentiated, there is evidence that cultural beliefs about gender in the U.S. include beliefs that men are more *committed* to the labor market than women or that they are more single-mindedly career-oriented. For example, an article in the *New York Times Magazine* proposed that women “opt out” of the paid labor market because they have a more diverse set of priorities than men ([Belkin, 2003](#)). Similarly, the former vice chairwoman of Fannie Mae stated in an interview in *Fortune* magazine “women demand more satisfaction in their lives than men do” ([Sellers, 2003, p. 88](#)). So, while men are believed to be single-mindedly committed to their jobs, popular press accounts describe women’s commitment as split between work, family and perhaps other domains. In other words women, unlike men, are perceived to lack a single-minded commitment to work. While presented as a virtue, employers likely prefer employees whom they believe are more singularly and exclusively committed to work.

It is important to note that if work commitment is measured by the importance or intrinsic satisfaction people attach to their work identities

either absolutely or relative to other (e.g. family) identities, the picture that emerges is quite different from that contained in cultural beliefs about gender and workplace commitment. For example, [Bielby and Bielby \(1984\)](#) found no differences between women and men in work commitment, measured as attachment to work identity. Similarly, family ties such as having children do not affect women's commitment to the organizations in which they are employed ([Marsden, Kalleberg, & Cook, 1993](#)). Nonetheless, the belief that women are less singularly committed to paid work than men appears to be widespread in U.S. culture and it is this belief, rather than women's actual commitment to their work roles, that drive status generalization processes.

When employers evaluate employees, we claim that they draw on gender beliefs about workplace commitment and anticipate that women will exert less effort at work than men. Employers are especially likely to rely on effort anticipations since evaluations of employees or potential employees have long-term implications in the workplace. This underscores the importance of considering anticipated effort/commitment and its effects in long-term groups. If we examine only the competence dimension of performance expectations and study only short-term groups (as in most laboratory studies), we might conclude that gender is no longer a status characteristic, even as women continue to experience evaluative disadvantages in the workplace that look remarkably like status-based discrimination (e.g. [Carli & Eagly, 1999](#)). Incorporating effort into the definition of performance expectations is therefore valuable for understanding labor market gender inequalities, if it does not reduce the theory's ability to produce testable hypotheses.

Evaluating Perceived Effort, Commitment and Competence

In fact, extending the definition of performance expectations to include commitment/effort will not limit SCT's testability, since effort can be measured similarly to competence. For example [Webster and Driskell \(1983\)](#), use the following item, "How capable do you think Person A is compared to person B at most tasks?" as part of their assessment of the performance expectations individuals hold for attractive versus non-attractive people. Likewise, [Correll \(2004\)](#) cites a multinational survey of gender stereotypes that finds that men are rated as more capable than women ([Williams & Best, 1990](#)) to justify the claim that gender is a diffuse status characteristic. In both cases, higher competence expectations are shown to be associated with one category of the nominal distinction (attractive people, men) compared

with the other (less attractive people, women). If we were to broaden performance expectations to include anticipations of future effort, we might also ask individuals questions such as, “How much effort do you think Person A will exert in the group compared to Person B?” or “How hard working do you think Person A is compared with Person B” or “How would you compare Person A’s commitment to his/her job compared with Person B?” In other words, it should be no more difficult to measure the effort dimension of performance capacity than the competence dimension.

If effort anticipations are especially important when making evaluations that have long term implications, such as hiring decisions, and if current gender beliefs differentiate men and women as much, if not more on an effort than on a competence dimension, then status researchers should consider adopting laboratory designs in which participants make evaluations that appear to have long term implications. Foschi (2002) has proposed the “application files” experimental setting, where evaluators evaluate hypothetical job applicants who differ on a nominal distinction that carries status value, like gender, for a summer intern position in engineering. Since participants are considering applicants for hire, and hiring decisions have long-term implications for hiring firms, participants are likely pressured to anticipate the effort that individuals will make toward their jobs, in addition to anticipating their competence/ability. In one study using this design, Foschi et al. (1994) found that male evaluators preferred men when men were slightly more qualified than women, but they had no preference for women when women were slightly more qualified applicants. They concluded that, consistent with the predictions of DST, women were judged by a harsher performance standard than men.

In a more recent experiment, we (Correll & Benard, 2005) used a similar job applications design except that the job for which evaluators were making evaluations was a permanent position, rather than temporary, and was less sex-typed. Participants rated two applicants who were functionally equivalent (i.e. they had very similar educational backgrounds and workplace experiences) for a high status marketing position with a communications start-up company. To increase their task orientation, they were told that their evaluation would impact actual hiring decisions. As previously mentioned, the experiment was conducted to assess whether motherhood itself operates as a status characteristic, so the two applicants being evaluated differed on parental status – one was mother and one was not. We found that evaluators rated mothers as less committed to their jobs. They also rated them as less competent. On the basis of these ratings we concluded that motherhood is a status characteristic for our sample. We then show

that the lower status value attached to mothers produces an evaluative bias against mothers. Mothers were seen as less hireable, less promotable and offered lower starting salaries than non-mothers. They were also held to a stricter performance standard: they were allowed fewer days of being late to work and they were required to have higher test scores before being seen as “management material.” Fathers incurred no such penalty compared with men who are not fathers and were actually advantaged on some of our measures, being seen as more committed than non-fathers and being offered higher starting salaries.

This design offers three advantages. We can measure both competence and commitment/effort in the same experimental design; participants’ evaluations have long-term implications that encourage them to take effort into account; and we can hold evidence of past workplace performance constant and assess whether discrimination occurs. The first two advantages improve our ability to apply SCT to labor market inequalities. The third advantage isolates discrimination from productivity in a way that has not been possible with studies using survey data. By expanding performance expectations to include both the effort and competence/ability expectations, we are able to develop a model of status-based discrimination that has both a strong empirical foundation and can be more easily applied to understanding gender discrimination in the labor market.

CONCLUSION

In this paper, we examined two theories that highlight how employers might come to have a preference for men over equally qualified women when making hiring, salary and promotion decisions. While these theories have a number of similarities, they differ in the mechanism each holds responsible for gender differences in labor market outcomes. Statistical discrimination theories argue that employers rationally prefer men because they rely on limited or biased information, while status theories argue that employers prefer men because cultural beliefs about the relative performance capacity of men and women bias cognition.

More generally, our analysis has sought to evaluate the relative advantages of statistical and status discrimination theories. Both offer clearly specified and plausible accounts of gender-based wage and hiring discrimination. Furthermore, the advantages of the two theories are complementary. Researchers working in the status tradition have found evidence of status discrimination to be robust across a range of settings. However, these

effects have been observed for a relatively narrow range of phenomena, because performance expectations are typically operationally defined as competence. In contrast, economists have concluded that empirical evidence for statistical discrimination is relatively weak. Nonetheless, the theory has enjoyed greater scope than status theories because productivity is broadly defined.

We suggest that if status theories broaden their usage of performance expectations to include commitment/effort they could extend their reach without limiting their testability. Including effort within the purview of SCT will keep the theory relevant to understanding gender inequality even as cultural beliefs change. We described evidence that cultural beliefs about female competence may be increasingly similar to beliefs about male competence; at the same time, beliefs about female commitment to paid work remain unfavorable. Research that focuses on competence alone may find diminishing evidence that gender functions as status characteristic even as women continue to experience discrimination in the workplace resulting from beliefs that women, as a group, have lower workplace commitment.

The comparison of status and statistical discrimination theories contributes to our understanding of the enduring pattern of gender inequality in the labor market. For example, the distinction we make between the cognitive basis of status discrimination theories and the informational basis of statistical discrimination theories appears subtle, but leads to divergent predictions in some settings. Consider a supervisor assessing the performance over time of two equally productive employees employed in her unit. Statistical discrimination theories argue that the supervisor – as a rational actor with high quality information – would evaluate the performance of the two employees equally. Status theories predict that cultural stereotypes would color the supervisor's analysis, leading to a lower evaluation for the female employee. For example, imagine a situation where a male and female employee each decline to take on a new work demand. The employer might assume that the male was simply too busy with other work responsibilities, reinforcing the image that he is as a committed and competent worker. The same decision by a female worker might instead be interpreted as a sign that she prioritizes family or personal time over work, leading employers to penalize her. As this example illustrates, gendered expectations about workplace commitment can lead to evaluative biases against women in workplace settings.

Even when the direct effect of a single act of discrimination is small (and sometimes such effects are large), the consequences of employers' decisions accrue over the life course. When the contributions of individual women are

systematically downplayed, overlooked and misattributed, women as a group disproportionately see their applications disregarded, their promotions fail to materialize and their raises remain meager. The resulting gap in material rewards fuels perceptions that women are less interested in such rewards or less capable of achieving them, shoring up cultural beliefs that contribute to persistent disadvantages.

NOTES

1. Statistical discrimination is the term economists use to refer to a class of theories that assume labor market outcomes are shaped by employers' estimates, based on limited information, of workers' productivity. This is distinct from the term *economic discrimination* (Aigner & Cain, 1977), which occurs when a group of workers is paid at a rate lower than their marginal productivity. As discussed below, some, but not all instances of statistical discrimination constitute economic discrimination, and not all instances of economic discrimination constitute statistical discrimination.

2. Or, because groups of workers differ in the distribution of their signals of workplace productivity. See the discussion of "measurement models" below.

3. Proponents of these theories suggest that differences in productivity obtain because of premarket discrimination. For example, some theorists argue that African Americans may be denied equal access to education, and thus acquire less human capital than whites.

4. Economists justify this assumption with two arguments. First, they claim that communication across groups tends to be noisier than communication within groups. As most managers are men, this would create a noisier signal or productivity for female workers than for male workers. Second, in the case of race, they point out that whites are more likely than African Americans to use social contacts to obtain jobs, and that these contacts tend to be more information-rich than other methods of finding employment.

5. In this case, the difference is zero.

6. It is important to note that we do not claim that economics in general has had little to say about gender and other kinds of inequality in the labor market. Indeed, the discipline has produced much valuable work in the area. We simply note that, as a number of economists have argued, tests of the specific mechanism posited by statistical discrimination are (1) rare, and (2) largely unresponsive.

7. They assume that AFQT scores are, in fact, measures of productivity. Presumably employers in the study did not have access to AFQT scores.

8. One might argue that measurement models offer a supply-side explanation, because wage differences are a product of human capital investments. However, these investments are driven by employer demands for certain classes of workers. Worker decisions are thus only a very proximate cause, with employer demands as the crucial, more distant cause.

9. Typically, resumes are not perfectly identical to maintain plausibility. Instead, resumes are first pretested to ensure that they are rated equivalently, and then

counterbalanced to ensure any differences in resumes are uncorrelated with the experimental manipulation.

10. Status characteristics theory distinguishes between “specific” status characteristics, such as mechanical ability, which associate greater competence with one category of the distinction (e.g. those with high mechanical ability) in a limited domain (e.g. settings requiring mechanical ability) and “diffuse” status characteristics, such as gender and race, which associate greater competence with one category of the distinction (e.g. men, whites) in a broad range of settings.

11. While beliefs about general competence may be less gender differentiated, stereotypic beliefs about gender and competence at specific skills (e.g. mechanical ability, child care) are, of course, quite common. When a job is culturally associated with masculinity or femininity, the competence dimension of performance expectations will be an important basis for differentiated performance expectations due to gender’s perceived direct relevance to the job (Ridgeway 2001b).

REFERENCES

- Aigner, D. J., & Cain, G. G. (1977). Statistical theories of discrimination in labor markets. *Industrial and Labor Relations Review*, 30, 175–187.
- Alton, J. G., & Pierret, C. R. (2001). Employer learning and statistical discrimination. *The Quarterly Journal of Economics*, 116, 313–350.
- Arrow, K. J. (1973). The theory of discrimination. In: O. C. Ashenfelter & A. Rees (Eds), *Discrimination in labor markets* (pp. 3–33). Princeton, NJ: Princeton University Press.
- Arrow, K. J. (1998). What has economics to say about racial discrimination. *Journal of Economic Perspectives*, 12, 91–100.
- Becker, G. (1957). *The economics of discrimination*. Chicago, IL: University of Chicago Press.
- Belkin, L. (2003). The ‘opt-out’ revolution. *New York Times Magazine*, (October 26), 42–47, 58, 85–86.
- Berger, J., Cohen, B., & Zelditch, M., Jr. (1972). Status characteristics and social interaction. *American Sociological Review*, 37, 241–255.
- Berger, J., Cohen, B., & Zelditch, M., Jr. (1996). Status characteristics and expectation states. In: J. Berger, M. Zelditch, Jr. & B. Anderson (Eds), *Social theories in progress* (Vol. 1, pp. 29–46). Boston, MA: Houghton Mifflin Company.
- Berger, J., Fisek, H., Norman, R., & Zelditch, M. (1977). *Status characteristics and social interaction*. New York: Elsevier.
- Bielby, D. D., & Bielby, W. T. (1984). Work commitment, sex-role attitudes, and women’s employment. *American Sociological Review*, 49, 234–247.
- Bielby, W. T., & Baron, J. N. (1986). Men and women at work: Sex segregation and statistical discrimination. *American Journal of Sociology*, 91, 759–799.
- Biernat, M., & Kobrynowicz, D. D. (1997). Gender and race-based standards of competence: Lower minimum standards but higher ability standards for devalued groups. *Journal of Personality and Social Psychology*, 72, 544–557.
- Borjas, G. G., & Goldberg, M. S. (1978). Biased screening and discrimination in the labor market. *The American Economic Review*, 68, 918–922.
- Cain, G. G. (1986). The economic analysis of labor market discrimination: A survey. *Handbook of Labor Economics*, 1, 693–785.

- Carli, L. L., & Eagly, A. H. (1999). Gender effects on social influence and emergent leadership. In: G. N. Powell (Ed.), *Handbook of gender & work* (pp. 203–222). Thousand Oaks, CA: Sage.
- Correll, S. J. (2001). Gender and the career choice process: The role of biased self-assessments. *American Journal of Sociology*, *106*, 1691–1730.
- Correll, S. J. (2004). Constraints into preferences: Gender, status and emerging career aspirations. *American Sociological Review*, *69*, 93–133.
- Correll, S. J., & Benard, S. (2005). Getting a job: Is there a motherhood penalty? Paper presented at the American Sociological Association, August 15, Philadelphia, PA.
- Correll, S. J., & Ridgeway, C. L. (2003). Expectation states theory. In: J. Delamater (Ed.), *Handbook of social psychology* (pp. 29–51). New York: Kluwer Academic Press.
- Donohue, J. J., & Heckman, J. J. (1991). The law and economics of racial discrimination in employment: Re-evaluating federal civil rights policy. *Georgetown Law Journal*, *79*, 713–735.
- England, P. (1992). *Comparable worth: Theories and evidence*. New York: Aldine De Gruyter.
- England, P., Budig, M., & Folbre, N. (2002). Wages of virtue: The relative pay of care work. *Social Problems*, *49*, 455–473.
- Erickson K. G. (1998). *The Impact of cultural status beliefs on individual task performance in evaluative settings: A new direction in expectation states research*, Ph.D. dissertation. Stanford University, Department of Sociology.
- Foschi, M. (1989). Status characteristics, standards, and attributions. In: J. Berger, M. Zelditch, Jr. & B. Anderson (Eds), *Sociological theories in progress: New formulations* (pp. 58–72). Newbury Park, CA: Sage Publications.
- Foschi, M. (1996). Double standards in the evaluation of men and women. *Social Psychology Quarterly*, *59*, 237–254.
- Foschi, M. (2000). Double standards for competence: Theory and research. *Annual Review of Sociology*, *26*, 21–42.
- Foschi, M. (2002). On the application-files design for the study of double standards. Presented annual meeting of the American Sociological Association, August 18, Chicago, IL.
- Foschi, M., Enns, S., & Lapointe, V. (2001). Processing performance evaluations in homogeneous task groups: Feedback and gender effects. *Advances in Group Processes*, *18*, 185–216.
- Foschi, M., Lai, L., & Sigerson, K. (1994). Gender and double standards in the assessment of job applicants. *Social Psychology Quarterly*, *57*, 326–339.
- Foschi, M., & LaPointe, V. (2002). On conditional hypotheses and gender as a status characteristic. *Social Psychology Quarterly*, *65*, 146–162.
- Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley.
- Johnson, C., Clay-Warner, J., & Funk, S. J. (1996). Effects of authority structures and gender on interaction in same-sex task groups. *Social Psychology Quarterly*, *59*, 221–236.
- Katz, L. F., & Autor, D. H. (1999). Changes in the wage structure and earnings inequality. In: O. C. Ashenfelter & D. Card (Eds), *Handbook of labor economics* (Vol. 3, pp. 1463–1555). Elsevier: Amsterdam.
- Lovaglia, M. J., Lucas, J. W., Houser, J. A., Thye, S. R., & Markovsky, B. (1998). Status processes and mental ability test scores. *American Journal of Sociology*, *104*, 195–228.
- Ludberg, S. J., & Startz, R. (1983). Private discrimination and social intervention in competitive labor markets. *The American Economic Review*, *73*, 340–347.
- Marsden, P. V., Kalleberg, A. L., & Cook, C. R. (1993). Gender differences in organizational commitment. *Work and Occupations*, *20*, 368–390.

- Oettinger, G. S. (1996). Statistical discrimination and the early career evolution of the black-white wage gap. *Journal of Labor Economics*, 14, 52–78.
- Phelps, E. S. (1972). The statistical theory of racism and sexism. *American Economic Review*, 62, 659–661.
- Rashotte, L. S., & Smith-Lovin, L. (1997). Who benefits from being bold: The interactive effects of task cues and status characteristics on influence in mock jury groups. *Advances in Group Processes*, 14, 235–255.
- Ridgeway, C. L. (2001a). Social status and group structure. In: M. A. Hogg & S. Tindale (Eds), *Blackwell handbook of social psychology: Group processes* (pp. 352–375). Malden, MA: Blackwell.
- Ridgeway, C. L. (2001b). Gender, status, and leadership. *Journal of Social Issues*, 57, 637–655.
- Ridgeway, C., & Correll, S. J. (2004). Motherhood as a status characteristic. *Journal of Social Issues*, 60, 683–700.
- Sellers, P. (2003). Power: Do women really want it? *Fortune*, 48(8), 80–100.
- Sorenson, E. (1990). The crowding hypothesis and comparable worth. *Journal of Human Resources*, 25, 55–89.
- Spence, J. T., & Buckner, C. E. (2000). Instrumental and expressive traits, trait stereotypes and sexist attitudes: What do they signify? *Psychology of Women Quarterly*, 24, 44–62.
- Steele, C. M. (1997). A threat is in the air: How stereotypes shape intellectual identity and performance. *American Psychologist*, 52, 613–629.
- Thye, S. R., Willer, D., & Markovsky, B. (2006). From status to power: New models at the intersection of two theories. *Social Forces*, 84(3), 1471–1495.
- Troyer, L., & Younts, W. C. (1997). Whose expectations matter? The relative power of first-order and second-order expectations in determining social influence. *American Journal of Sociology*, 103, 692–732.
- U.S. Department of Commerce, Census Bureau. (2004). Historical income tables <http://www.census.gov/hhes/income/histinc/p38.html>, October 2004.
- Wagner, D. G., & Berger, J. (1997). Gender and interpersonal task behaviors: Status expectation accounts. *Sociological Perspectives*, 40, 1–32.
- Webster, M. A., Jr., & Driskell, J. E., Jr. (1983). Beauty as status. *American Journal of Sociology*, 89, 140–165.
- Webster, M. A., Jr., & Foschi, M. (1988). Overview of status generalization. In: M. A. Webster & M. Foschi (Eds), *Status generalization: New theory and research* (pp. 1–20). Stanford, CA: Stanford University Press.
- Williams, J. E., & Best, D. L. (1990). *Measuring sex stereotypes: A multinational study*. Newbury Park, CA: Sage.

LEGITIMACY, ORGANIZATIONAL SEX COMPOSITION, AND FEMALE LEADERSHIP

Cathryn Johnson, Amy M. Fasula, Stuart J. Hysom
and Nikki Khanna

ABSTRACT

In this paper, we examine the effects of legitimation and delegitimation of female leaders in male- and female-dominated organizations on leader behavior toward their subordinates. Drawing upon status and legitimacy theories, we argue that delegitimation represents one event that makes gender stereotypes salient in different organizational contexts, and by this means affects leader–subordinate interaction. Gender stereotypes will be more salient in male- than in female-dominated organizations, but only when female leaders are delegitimated. Specifically, we hypothesize that deauthorized female leaders will exhibit more deferential and less directive behavior than authorized female leaders, and this effect will be stronger in male- than in female-dominated organizations. Authorized female leaders, however, will express a similar amount of deferential and directive behavior, regardless of organizational sex composition. To test these hypotheses, we created a laboratory experiment with simulated organizations. Results are mixed. Deauthorized leaders are marginally

Social Psychology of the Workplace
Advances in Group Processes, Volume 23, 117–147
Copyright © 2006 by Elsevier Ltd.
All rights of reproduction in any form reserved
ISSN: 0882-6145/doi:10.1016/S0882-6145(06)23005-4

more deferential than authorized leaders, and this effect is stronger in male-dominated organizations; authorized leaders express similar amounts of deferential behavior in both types of organizations. Yet, leaders are more directive in male- than in female-dominated organizations, whether they are deauthorized or authorized. We discuss the implications of these results and future directions for this research.

Over the last several decades, there has been a healthy increase in the number of women filling leadership positions, particularly in middle management (Carli & Eagly, 2001; Reskin & McBrier, 2000; Ridgeway, 1997; Rothman, 1998). As more women enter leadership positions, we would expect to see a decrease in the salience of general gender stereotypes in the workplace over time (Carli & Eagly, 2001). Yet cultural assumptions about gender still get invoked, particularly in male-dominated contexts. For example, take the case of Janet Reno, the first female Attorney General of the U.S. (i.e., the “top cop” position), confirmed in 1993. She has had her share of praises, yet also has faced harsh criticism and controversy. Much of this criticism is based in predictable political partisanship and bantering. More striking, however, is the way in which gender stereotypes were infused into the negative image of Reno. She was portrayed as a man, a man-woman, a lesbian, and even a slut. Reno’s image crossed over the line of political partisanship into a gendered imagery, an imagery that paid particular attention to her physical appearance.

This example is extreme, but one that illustrates how gender is invoked readily for female leaders, even though it is irrelevant to the context. Many of us have experienced more subtle forms of the invocation of irrelevant gender stereotypes in the workplace, such as in business organizations, public administration, or academia and we can see the consequences of these stereotypes for such things as the acquisition of resources, workplace power, and job security (e.g., Ridgeway, 1997; Elliott & Smith, 2004).

In this paper, we are concerned with how gender stereotypes get triggered in the workplace for female leaders, and the consequences of them on interaction between leaders and their subordinates. In organizations, gender is often an implicit background identity, while positions, skills, and credentials are usually of primary importance. Yet, actors’ gender stereotypes are lingering in the background, ever ready to be triggered in the workplace (Ridgeway, 1997). How might this triggering occur? We take an initial step toward understanding this question by examining how one mechanism, *the delegitimation of female leaders*, may trigger the relevance of gender stereotypes in interaction.

Legitimacy is one key factor in predicting success of female (and male) leaders with their subordinates. Legitimacy allows leaders to issue commands and receive compliance from his or her subordinates (Weber, [1918] 1968). Also, legitimated leaders are evaluated more favorably by their subordinates than leaders without legitimacy (Butler & Geis, 1990; Yoder, 2001), and are more effective and influential with their subordinates (Kanter, 1977; Berger, Fisek, Ridgeway, & Norman, 1998; Lucas, 2003; Ridgeway & Berger, 1986; Yoder, 2001; Zelditch & Walker, 1984). Importantly, past research shows that the benefits of legitimacy are greater for female than male leaders; women are more hesitant to take on a leader role than men when they are not legitimated in their positions (e.g., Lucas, 2003; Meeker & Weitzel-O'Neill, 1977; Yoder, 2001).

Many leaders eventually face events that question their legitimate authority, yet we know relatively little about the effects of delegitimation (i.e., loss of legitimacy) on leader-subordinate relations for female (or male) leaders. If legitimacy is more critical for female than male leaders, then it is likely that the effects of delegitimation are more powerful for female leaders. Are there conditions under which threats to legitimacy will be especially problematic for female leaders?

We argue that one such condition is a male-dominated organization. Recent research notes that women continue to regularly interact in this type of work context, a context that is considered less congenial for female than male leaders (Carli & Eagly, 2001; Eagly, Karau, & Makhijani, 1995; Ridgeway & Smith-Lovin, 1999a; Yoder, 2001). We investigate here the effects of delegitimation for female leaders in both male- and female-dominated organizations (i.e., settings where a majority of authority positions in an organization are held by men and women respectively (Kanter, 1977; Ridgeway, 1988)).

Drawing upon status and legitimacy theories (Berger, Rosenholtz, & Zelditch, 1980; Berger et al., 1998; Ridgeway & Berger, 1986; Zelditch & Walker, 1984, 2000), we argue that delegitimation of a leader is one event that makes gender stereotypes salient in different organizational contexts, thereby affecting leader-subordinate interaction. When gender stereotypes become salient they measurably modify actors' expectations, judgments, and behaviors in situations (Ridgeway, 1997, p. 221, 2001). We argue that gender stereotypes are more likely to become salient for female leaders in male-dominated than in female-dominated organizations, but only when female leaders are delegitimated. Delegitimation creates inconsistency and uncertainty in the leader and subordinates' perceptions of the group's status order. When gender becomes salient in male-dominated organizations, this salience will have consequences for leader-subordinate interaction. In

contrast, in female-dominated organizations, threats to legitimacy do not heighten the salience of gender. We also argue that when female leaders are legitimated, the sex composition of the authority structure may matter less because legitimacy itself constrains any potentially negative or adverse leader–subordinate interaction.

To test these ideas, we created a laboratory experiment with female leaders and subordinates within simulated organizations. We focus on all-female groups for two strategic reasons. First, female managers are much more likely to supervise women than men and, therefore, it is practically important to study female leadership in this context (Browne, Tigges, & Press, 2001; Reskin & Ross, 1992). Second, the study of female groups allows us to address a key unanswered theoretical question about whether gender can be activated in same-sex groups (Fennell, Barchas, Cohen, McMahon, & Hildebrand, 1978; Ridgeway, 1988; Johnson, Clay-Warner, & Funk, 1996). It is well known that gender, under certain conditions, is activated in mixed-sex groups and in groups that work on stereotypical tasks (Wagner & Berger, 1997), but we believe that it may also be activated by delegitimation in male contexts. If so, this has implications for understanding legitimacy processes for female leaders within male-dominated authority structures.

Before presenting our experiment and results, we provide background on the relationship between legitimacy and leadership and between gender stereotypes and organizational sex composition. We then offer our analysis and hypotheses about the effects of legitimacy and the sex composition of the authority structure on leader–subordinate interaction.

LEGITIMACY AND LEADERSHIP

There are many objects that can be legitimated, such as an individual's act, individuals in positions, the position itself, a group's status structure, and the system of positions within an organization (Walker & Zelditch, 1993; Zelditch & Walker, 1984, 2000). In this study, we are interested in, (1) the legitimacy of an individual in a formal leader position and (2) the legitimacy of the status structure of a formal task group (i.e., groups that consist of superiors and subordinates). A legitimated leader in a formal position has the right to dictate another's compliance within the scope of his or her authority, and subordinates are obligated to obey him or her regardless of their personal views (Weber, [1918] 1968; Zelditch & Walker, 1984). Subordinates typically perceive a legitimated leader as the right and proper individual for the leader position. A group's status structure is legitimated

when group members provide collective validation in that all members act as if they support the hierarchy (Ridgeway & Berger, 1986; Berger et al., 1998).

Regarding leaders, we focus on three sources of legitimacy. The first consists of the procedure used to assign the person to the position. The second is the qualifications of that person for the position (Read, 1974). Previous studies show that individuals in leadership positions have the greatest legitimacy when their appointments are designated by someone from the top of the authority structure and are based on qualifications and past achievements (Burke, 1968; Johnson, 1993; Lucas, 2003; Read, 1974; Yoder, 2001).

A third source of leader legitimacy involves the receiving of positive evaluations and resources from organizational members at higher levels. Drawing upon Zelditch and Walker's (1984; Walker & Zelditch, 1993; Dornbusch & Scott, 1975; Kanter, 1977) work on legitimacy processes in organizations, the leader may be either authorized or deauthorized by their superiors. When authorized, a leader's work is positively evaluated and supported by an external higher authority, and her subordinates are given resources based on her work on the prior task. When deauthorized, a leader's work is negatively evaluated and not supported; thus the leader and subordinates do not receive resources.

In regard to a group's status structure legitimation occurs when the group members' expectations for how well each other will do on a task are very clear and consistent. In formal groups, the leader should expect and be expected to do better on the task than the subordinates. Delegitimation occurs when leaders are no longer expected to excel compared to the subordinates, in which case expectations are incongruent with an initially legitimated status order (Berger et al., 1998). Delegitimation occurs, for example, when the leader is deauthorized; that is, she receives explicit negative evaluations of her performance on a task, and is denied support and resources to get the job done. In this case, subordinates and the leader also may question the status order of the group. In this study, we extend the leadership literature by examining how deauthorization/authorization of female leaders may affect subsequent interaction with their female subordinates in male- and female-dominated organizations.

GENDER STEREOTYPES, GENDER STATUS BELIEFS, AND ORGANIZATIONAL SEX COMPOSITION

Ridgeway (1997, 2001) argues that occupational roles such as manager and worker are likely to reside in the foreground for actors in the workplace.

These roles and the actors' perceived skills and experiences should be more powerful in determining behavior in interaction than gender, which is more likely to be an implicit background identity. Actors' gender stereotypes, however, are implicitly accessible in many situations. These stereotypes tell actors what behaviors are expected for both women and men. For example, men are expected to be more agentic (e.g., assertive, directive, and forceful), and women are expected to be more communal (e.g., responsive and attentive to others, nurturing, and kind) (Eagly, 1987; Eagly & Johannesen-Schmidt, 2001). Actors' gender stereotypes are cued by actors' sex categorization of one another so that they may easily become salient in situations (Banaji & Hardin, 1996; Blair & Banaji, 1996; Fiske & Taylor, 1991). They become salient under at least two conditions: when men and women are interacting together, and when gender is relevant to the social context of interaction (such as working on a sex-typed task) (Berger et al., 1980; Wagner & Berger, 1997; see also Foschi & Lapointe (2002) for discussion of gender salience).

Ridgeway (2001) notes that gender stereotypes have both a status and a non-status component. The non-status component refers to the expectations that women are more nurturing, responsive, and attentive to others and less forceful than men. Drawing upon status characteristics theory (Berger, Fiske, Norman, & Zelditch, 1977; Berger et al., 1980), Ridgeway focuses on the status component of these stereotypes and its effects on interaction. This status component refers to the widely held cultural beliefs that men are perceived to have greater value and worth than women and, therefore, are believed to be generally superior and competent at most things relative to women (Wagner & Berger, 1997; Fiske, Cuddy, Glick, & Xu, 2002). When gender is salient in a situation, gender status beliefs cause men and women to expect that others will expect men to be more competent than women, all else being equal. These expectations for competence shape men and women's assertiveness, judgments of each other's ability, and actual performance (Ridgeway & Smith-Lovin, 1999b; Wagner & Berger, 1997; Wood & Karten, 1986). We extend this work by examining how delegitimation is a process that triggers the salience of gender stereotypes in work groups. We argue that delegitimation will be particularly threatening to female leaders in less congenial male-dominated contexts.

Over a decade ago, Ridgeway (1988; Ridgeway & Diekema, 1992) suggested that gender and its associated status value might become salient in all-female groups when these groups are embedded in male-dominated organizations, such as ones located in the lower echelons of the organization with male supervisors (Fennell et al., 1978). The contrast between the all-female group and the male authority structure creates an "implied male

other” in the group. Just as the contrast between males and females in a mixed-sex group makes gender status salient in the group, so too does the contrast between the members in an all-female group and the male authority structure. This contrast makes gender status salient, causing women in the group to form lower performance expectations for themselves at the task relative to the male implied other. In contrast, gender status should not be salient in all-female groups in female-dominated organizations or in all-male groups in male-dominated organizations, given a gender-neutral task, because there is no contrast between the sex composition of the group and that of the authority structure (Ridgeway, 1988). The key here is that there must be some contrast in the context in order to trigger the salience of gender status. Exactly under what conditions this will happen, however, is still unclear. In the next section we suggest how legitimacy may trigger gender stereotypes, under certain conditions. We then predict their effect on leader–subordinate interaction.

THE TRIGGERING EFFECT OF DELEGITIMATION

The Work Situation: Scope Conditions

Our analysis applies to situations with the following conditions. First, we focus on all-female groups in either male- or female-dominated organizations to examine how gender stereotypes may be triggered under different conditions of legitimacy, even in same sex groups. Second, members of the task group are differentiated by at least two formal positions, superior and subordinate, and these positions are associated with different activities, rights, and responsibilities. Third, members come together to work on a task, take into account each other’s opinions, and aim at overall task success.¹

Fourth, a legitimate authority within the organization, but outside the superior-subordinate task group, appoints the individual in the leader role. Thus, the organization has at least a three-level authority structure. Fifth, group members believe that the external authority figure bases the appointment of the leader on the individual’s work experience and previous responsibilities. Sixth, rewards, in terms of both monetary value and/or status value, are consistent with a member’s formal position. For example, the leader receives higher pay, a more attractive office, and more privileges than the subordinates. Finally, an event occurs that deauthorizes the leader, threatening her legitimacy.

To present our argument, we first consider interaction between a leader and subordinates during work on an initial task (task 1). We then show how a legitimating or delegitimizing event regarding the leader's work on task 1 may affect interaction between the leader and the subordinates as they work on a second task (task 2).

Task 1

According to status characteristics theory, members' expectations for how well each other will do on the task determine the participation levels, task behaviors (i.e., opinions and suggestions), evaluations of these opinions, and relative influence of group members. Drawing upon expectation states theories of status characteristics and rewards, we argue that leaders will have a clear expectation advantage over subordinates, given their higher status formal position, their more highly valued rewards, and their legitimacy in the position (Berger, Wagner, & Zelditch, 1985; Willer, Lovaglia, & Markovsky, 1997).² Therefore, leaders should talk more, use more task behaviors, and be more influential than subordinates. Leadership studies support these predictions (e.g., Cohen & Zhou, 1991; Johnson, 1993; Lucas, 2003; Read, 1974).

In addition to forming expectations for performance, Ridgeway and Berger (1986; Berger et al., 1998) argue that group members also form expectations about who should be in high and low status positions, referred to as expectations for valued status positions within the group. The key to Ridgeway and Berger's (1986) legitimacy theory is the activation of referential structures. Referential structures are socially shared systems of beliefs that represent what group members believe to be the usual association between a valued characteristic and levels of rewards. The source of these beliefs is any larger collectivity of which the individual is a member such as an organization, a subculture, or the larger society.

There are three types of referential structures. Diffuse status characteristics of group members such as gender, race, and occupation prompt realization of *categorical structures* that suggest that individuals of one level of a status characteristic have higher positions than others (e.g., men occupy higher status positions than women). Specific status characteristics of group members trigger *ability structures*, indicating that individuals who do better at the task will occupy higher positions in the status order. Reward or outcomes characteristics, which often take the form of evaluations, correspond to *outcome structures* prescribing that actors who have higher evaluations are in higher status positions (Berger et al., 1998; Ridgeway & Berger, 1986). Ridgeway & Berger (1986; Berger et al., 1998) suggest that when referential

beliefs are activated in a group, they give rise to these expectations for who will have high and low status positions in that group. Because members presumably draw on the same referential beliefs, each actor believes that the other actors share their same expectations. Therefore, they are likely to treat each other in accordance with their shared status expectations. Group members thus tend to behave in ways that validate the status structure. As these behaviors confirm the status order, they create a presumption of collective normative support for the order (see Ridgeway, Johnson, & Diekema, 1994; Ridgeway, Diekema, & Johnson, 1995 for supportive evidence). Berger et al. (1998) argue that expectations for valued status positions determine the distribution of deferential behaviors such as esteem, respect, and honor, which may be communicated verbally or nonverbally. In addition, directive behaviors (i.e., those that guide the group on their task) may also be tied to legitimacy (Fennell et al., 1978). Those members who feel that they have a right to be leaders are more likely to exhibit directive behavior than those not legitimated. Therefore, expectations for valued status positions most likely also determine directive behaviors.

We argue that valued formal status positions are the object of legitimation in our work situation. And the ability referential structure for the specific characteristic of managerial skill implied by formal position links leaders to the more highly valued position. Individuals in the managerial/leader position are expected to be more skilled at managerial tasks than individuals in the subordinate position. As a result of the distribution of expectations for valued formal status positions, leaders are likely to engage in fewer deferential and more directive behaviors than subordinates.

Most important for our argument, in task 1, where the ordering of expectations for performance and for valued status positions are consistent and clear for the leader and subordinates, we argue that the sex composition of the authority structure will *not* have an effect on leader–subordinate interaction. We suggest that the simple contrast between the sex composition of the authority structure and the sex composition of the group will not be strong enough to make gender salient for everyday interaction in typical same-sex work groups. As long as there is no information that contradicts or destabilizes the status hierarchy, organizational sex composition should have little effect on superior/subordinate interaction.

The Triggering Effect of Deauthorization in Task 2

After completing task 1, consider that the leader's work on the task is evaluated in terms of success/support or failure/lack of support by the

external authority, and the subordinates are aware of this evaluation. In this way, the leader is either authorized or deauthorized (Dornbusch & Scott, 1975; Zelditch & Walker, 1984). After this evaluation, imagine that the group is charged with a second task by the authority figure where the leader is held responsible for the success or failure of the group task.

We argue that the contrast between the sex composition of the authority structure and the group sex composition will make gender stereotypes and particularly gender status beliefs salient, but only when there is some event that *triggers the relevance of this contrast*. One way this contrast may become relevant is by a delegitimizing event. In all-female groups within male- and female-dominated organizations, we suggest that deauthorization of the leader creates an inconsistency between the ordering of performance expectations and expectations for valued status positions in the prior task and their ordering in the current task, thus creating an inconsistent status structure in task 2. Deauthorization of the leader activates outcome referential beliefs. As Ridgeway and Berger (1986) note, outcome structures prescribe that actors who have higher evaluations will occupy higher positions in the status structure. When deauthorization occurs, these beliefs become salient and, in turn, question the expectation that the leader will occupy the most valued status position. Thus, they induce uncertainty in the initial ranking of performance expectations, and thereby undermine normative prescriptions of who should have higher status on subsequent tasks.

In the context of this uncertainty about the status order, deauthorization, in combination with the contrast between the sex composition of the group and the sex composition of the organization's authority structure, serve to trigger gender status beliefs in the group as a possible explanation for the deauthorization event. As a result, the relevance of a "male implied other" becomes salient in these all-female groups and the lesser competence of a female leader is implied. In all-female groups in female-dominated organizations, however, there is no contrast based on sex, and therefore, deauthorization will not trigger gender status beliefs.

We argue that members in both male- and female-dominated organizations will search for reasons for deauthorization, such as poor decision-making choices or ineffective leadership style of the leader. In addition, members will seek out ways to redress the uncertainty caused by deauthorization. In male-dominated organizations, however, the contrast between the group and the larger authority structure provides the context for gender stereotypes to become construed as relevant for members' attempts to explain and fix the uncertainty in the group status structure.

Unlike deauthorization, under conditions of authorization, an explicitly positive evaluation of a leader’s performance by an external authority figure should not trigger actors’ gender stereotypes and gender status beliefs, even in male-dominated authority structures. Authorization does not create any inconsistency or uncertainty in the original status order and the expectations for performances or rewards on the current task. In fact, authorization serves to further strengthen the already existing performance expectations and status structure, making the structure more comprehensive (Berger et al., 1998). Competence is not called into question and, therefore, there is no reason to search for reasons for incompetence. Gender status beliefs, therefore, should not become salient for authorized female leaders with female subordinates, either in female-dominated or male-dominated organizations (see Table 1 for summary). Based on the above, we modify Ridgeway’s contrast argument:

Uncertainty-contrast argument: The contrast between the sex composition of an organization’s authority structure and the sex composition of the group will make gender stereotypes (most importantly gender status beliefs) salient only when evaluations from an authority figure create some inconsistency and uncertainty in the current status structure of the task group.

Table 1. Legitimacy of Female Leaders.

Sex Composition of Authority Structure	Legitimacy of Leader		
	Authorization	Deauthorization	Gender Stereotypes in Deauthorized Groups
Male	<ul style="list-style-type: none"> • Legitimated leader • Certainty in the order of performance expectations • Consistent and more comprehensive status structure 	<ul style="list-style-type: none"> • Delegitimated leader • Uncertainty in the order of performance expectations • Inconsistent status structure 	<ul style="list-style-type: none"> • Become salient and activate negative expectations
Female	Same	Same	<ul style="list-style-type: none"> • Never become salient
Behavioral outcomes	Authorized female leaders will express similar amounts of deferential behaviours in both types of authority structures.	Deauthorized female leaders will express more deferential behavior than authorized female leaders, and this effect will be stronger in male-dominated than in female-dominated organizations	

Our analysis suggests, then, that delegitimized female leaders in male-dominated organizations face a greater disadvantage than delegitimized female leaders in female-dominated organizations because gender status beliefs become salient.

Theoretical Assumptions and Hypotheses

Drawing upon legitimacy theory, we argue that authorization/deauthorization will have direct effects on expectations for valued formal status positions through the activation of outcome referential structures. Therefore:

Assumption 1. The expectation advantage for valued formal status positions of deauthorized female leaders over their subordinates will be less than that of authorized female leaders over their subordinates.

As we recall, the distribution of these expectations affects the expression of deference and directive behaviors. Therefore, we make the following predictions:

Hypothesis 1a. Deauthorized female leaders will express more deferential behavior with their subordinates than authorized female leaders.

Hypothesis 1b. Deauthorized female leaders will express less directive behavior with their subordinates than authorized female leaders.

Drawing upon legitimacy theory and the uncertainty-contrast argument, we also argue that in all-female groups in male-dominated organizations, deauthorization and gender status should have negative direct effects on expectations for valued formal status positions for the superior in the current task. Deauthorization will have direct effects on these expectations through the activation of outcome referential structures and gender status will have direct effects through activation of categorical referential structures. In all-female groups in female-dominated organizations, deauthorization will not serve to trigger gender salience, but the effects of deauthorization on expectations for valued status positions should occur (see Johnson, 2003 for graph representations). Therefore:

Assumption 2. The expectation advantage for valued formal status positions of deauthorized female leaders over their subordinates in male-dominated organizations will be less than that of deauthorized female leaders over their subordinates in female-dominated organizations. Organizational sex composition will have no effect on these expectations of authorized female leaders over their subordinates.

As a result, we offer the following hypotheses:

Hypothesis 2a. In male-dominated organizations, deauthorized female leaders will express more deferential behavior with their subordinates than authorized female leaders with their subordinates than in female-dominated organizations.

Hypothesis 2b. Authorized female leaders will express similar amounts of deferential behavior with their subordinates in male- and female-dominated organizations.

Hypothesis 2c. In male-dominated organizations, deauthorized female leaders will express less directive behavior with their subordinates than authorized female leaders with their subordinates than in female-dominated organizations.

Hypothesis 2d. Authorized female leaders will express similar amounts of directive behavior with their subordinates in male- and female-dominated organizations.

In addition to testing these hypotheses, we also explore the effects of authorization and deauthorization on leaders' task behavior because task behavior is routinely studied in leadership studies (Ridgeway, 2001; Ridgeway & Smith-Lovin, 1999a). We do not, however, make specific predictions because it is not clear how legitimacy will affect task behavior. Deauthorized leaders may decrease their task behavior more so than authorized leaders, or they may increase them in order to actively try to change their standing in the group.

METHODS

Participants and Organizational Groups

We created an experimental situation using a $2 \times 2 \times 2$ factorial design (formal position (manager/subordinate), legitimacy (authorization/deauthorization), and organizational sex composition (male-dominated/female-dominated)) to test our hypotheses. The level of authorization of the manager was crossed with the sex composition of the organization's authority structure to create four types of three-person organizational groups: (1) an authorized manager with two employees in a male-dominated organization; (2) an authorized manager with two employees in a female-dominated organization; (3) a deauthorized manager with two employees in a male-dominated organization;

and (4) a deauthorized manager with two employees in a female-dominated organization.

A simulated organization was designed to replicate closely an office work group. All groups were composed of females in the manager and employee positions. The manager and subordinate positions were differentiated in the following way. The manager: (1) received higher pay (\$10.00 versus \$7.00); (2) performed complex decision-making tasks while the subordinates performed mundane tasks; (3) had access to information not given to the employees; (4) directed the employees on their tasks; (5) inspected employees' performance; and (6) had an office decorated to reflect higher status.

One hundred and fifty paid undergraduate volunteers (all female, white, 18–22 in age, and strangers to one another) were recruited from introductory classes in social sciences, humanities, and sciences to participate in the experiment.³ They were randomly assigned to one of the four types of three-person organizational groups, yielding 50 groups. The final analysis included 40 groups (a total of 40 managers and 80 subordinates) with 10 groups in each condition.⁴

Procedures

We created two offices of a retail video store, a manager's office and an employees' office, in the laboratory. In an informational summary, subjects were told that they would be asked to role-play in a simulated organizational context. The organization, called Movie Time Inc., in operation since 1985, was described as one of the fastest growing national chains of video retail stores in the U.S. that rents videos, DVDs, DVD players, VCRs and computer games.

To ensure legitimacy of individual assignments to managerial and subordinate positions, all subjects were asked to complete an employment/volunteer history form and were told by the experimenter that role assignments were based on their reported work experience. These forms asked subjects to list the three paid jobs/non-paid work activities they performed in which they have had the most responsibility (based on position title, duties performed, and length of activity). This procedure drew upon cultural assumptions that presume that those who have more responsibility on the job are more qualified to manage others. In reality, however, subjects were randomly assigned to positions.

After viewing the manager's and the employees' offices, the subjects were led into their respective offices and given a brief history of the organization, their job descriptions, and role-playing instructions. The manager's office

had an attractive wooden desk, credenza, small computer table, sofa, end table, comfortable and stylish chairs, and pictures on the walls. In contrast, the employees' office was noticeably stark, containing only a metal desk, bookcase, two basic chairs, and some boxes.

Employees performed a variety of low-skilled, repetitive tasks as directed by the manager, including shelving videotapes, mailing flyers and promotional materials, and assisting the manager with promotional and clerical services. In contrast, the manager engaged in more complex decision-making tasks, including instructing the employees in their work, inspecting employees' performance, reviewing the store's financial and inventory reports, and ordering products. This phase lasted one-half hour and established the subjects in their roles and context.

As part of the manager's instructions, there was a memo from Headquarters asking her to develop a marketing strategy. The memo also included relevant promotional information. The manager was asked to develop some ideas and then ask the employees into her office after they completed their tasks to discuss the development of a new marketing strategy. To prepare for this discussion meeting, the manager was given the following information:

In our last quarterly meeting, *Sara/Steve* Gross, our financial director, brought to our attention the new marketing campaign of our main competitor, SuperVideo. We then decided that each Movie Time, Inc. manager would devise a marketing strategy for his or her own store to compete with SuperVideo's current promotion. It is your responsibility to come up with a high quality marketing strategy that will be competitive with SuperVideo's current promotion, while still increasing the profits of your store.

Please outline your store's new marketing strategy. *Betty/Bob* Parish, Vice President of Marketing, has designated one member of *her/his* team to review the proposals. If your proposal is acceptable, we will allocate funds to implement your plan next month. If it is unacceptable, we will return it to you with concerns and suggestions for improvement.

This is a crucial promotion for Movie Time, Inc. Thank you in advance for your hard work and effort on this important project. *Joan/Jack* Learner

Once the discussion was completed, the manager was to submit a brief marketing strategy proposal. Discussions of the first topic ranged from 4.29 to 11.50 min and were videotaped. After the discussion, the experimenter gave the manager a form to use for her proposal and told her in front of the employees that it was the *manager's responsibility* to select the best strategies and to write a marketing strategy that the store will adopt. The manager should take into account her employees' ideas, but can either include or not include their ideas in her proposal. The manager then sent her employees

back to their office to continue their tasks while the manager wrote her proposal.

While the manager was working on her marketing strategy, the two employees continued with their tasks. After the manager completed her proposal, the experimenter went into the manager's office to pick it up. The experimenter asked the manager to direct her employees back to her office to discuss the second topic for the store. While all three members were getting settled in the manager's office, the experimenter evaluated the manager's proposal in another room. After returning to the manager's office, the experimenter reported the results of the manager's proposal (Authorization or Deauthorization – see below). Then the experimenter handed the second memo from corporate Headquarters to the manager. The memo stated:

It's that time again! Movie Time, Inc. is continuing to show its support for its local communities through our Annual Community Action Weekend (ACAW). Each year, on the first weekend in June, every Movie Time store in the country participates in a meaningful community service project that directly affects their local community.

As you know, this project is an important aspect of our corporate image as a community-based business. In addition, our studies show that the ACAW increases our customer base and promotes corporate visibility in the community. You need to decide what project your store will do for this year's ACAW.

Please forward your ACAW proposal to *Linda/Jake Turner*. *Sara/Steve Gross*' financial team will be consulted to determine what funds to allocate to each store's ACAW project. Funding will depend on your project's potential to increase your store's visibility and customer base.

Thank you for your support in this important project. *Linda/Jake Turner*.

The manager/employees received additional information from the experimenter. To the manager:

You want to take into account your employees' opinions; however, as manager it is your responsibility to develop a community service project that will increase your store's visibility and customer base. In addition, you are responsible for submitting a final written proposal of your store's community service project.

To the employees:

Your manager has received a memo from the corporate office requesting that he or she devise a community service project for the store. On the same weekend every year each Movie Time store in the country participates in a community service project. The goal of this project is to increase the store's customer base and promote corporate visibility in the community. You will be asked to provide suggestions to your manager for this project. The manager, however, will be responsible for deciding which strategies to use and submitting the final written proposal.

Discussions for this second topic ranged from 4.00 to 12.49 min and were videotaped.

After the second meeting, the experimenter entered the manager's office and explained that there was no time for the manager to write another proposal. Instead, they were asked to fill out a questionnaire about how they would rate themselves and each other on a variety of characteristics such as leadership and competence. Once questionnaires were completed, participants were debriefed and paid \$15.

Manipulations of Independent Variables

The manipulation of the sex composition of the authority structure involved three levels of the organization. We attended to three levels of authority to try to make the manipulation as strong as possible. Our approach is based on Kanter's (1977) and Ridgeway's (1988) arguments that organizations may be considered male-dominated or female-dominated if at least 75% of the top authority positions are filled by men and women respectively. To accomplish this, we manipulated the sex composition of the corporate officers, including the owner, by listing eight names on the organizational history information sheet. When the company was male-dominated, we listed seven out of eight top officers, including the owner, with obvious male names and their positions, and vice versa when it was female-dominated. To ensure that members remembered the sex composition, one of the manager's tasks involved reviewing the Financial Report, initialing the first page of eight copies of the report, and writing the names of each corporate officer on each copy in a place labeled "Corporate Officer". The manager then took the initialed reports, a list of corporate officers, and a rolodex to the employees and asked one of them to address an envelop for each officer and the other employee to transfer the officer names and addresses to a specific card in the rolodex. Thus, the manager and both employees wrote down the names of each officer.

Second, we manipulated the sex of the owners of a local marketing firm that the organization ostensibly hired to evaluate the manager's proposal. Specifically, after the experimenter told the subjects that the manager was responsible for coming up with a high quality proposal (see above), he or she also stated:

I will evaluate the manager's proposal by comparing the manager's plan to marketing criteria developed by a local (name of city) marketing firm owned by *Brenda/Brian* Moore and *Susan/Christopher* Freeman. We hired this firm to provide us with criteria to evaluate marketing strategies. The quality of the manager's proposal will determine whether or not each of you will receive an additional cash bonus for participation in this part of the study.

Third, the experimenter was a male graduate student in the male-dominated condition and a female graduate student in the female-dominated condition. Both were similar in age and appearance (i.e., both looked in their late 20s and dressed professionally) and were trained to act similarly, following a detailed script and using a confident tone and demeanor.

The manipulation of authorization took place after the first discussion meeting. The experimenter ostensibly evaluated the manager's proposal and then, with all members present in the manager's office, either authorized or deauthorized the manager. In the authorized conditions, the experimenter said to the manager:

I have the results of your proposal. Based on my analysis of your marketing proposal using the *Brenda/Brian Moore* and *Susan/Christopher Freeman* criteria, your proposal has a *high* chance of being a successful marketing strategy. Your work on this proposal has *exceeded the standards* for allocating bonuses. *This has earned you a \$4.00 bonus for yourself and a \$3.00 bonus for each of your employees.*

In the deauthorized conditions, the experimenter said to the manager:

I have the results of your proposal. Based on my analysis of your marketing proposal using the *Brenda/Brian Moore* and *Susan/Christopher Freedman* criteria, your proposal has a *low* chance of being a successful marketing strategy. Your work on this proposal *failed to meet our minimum standards* for allocating bonuses. *This rules out a \$4.00 bonus for yourself and a \$3.00 bonus for each of your employees.*

In these conditions, the experimenter's evaluations are not based on his or her own judgments, but rather on the criteria set out by this marketing firm.

Measures of Dependent Variables

Data on group members' deferential, directive, and task behaviors were gathered through videotaping and transcription of discussions for task 1 and task 2. Two coders first transcribed the discussions verbatim for each of the 40 groups.⁵ One coder transcribed 28 groups (7 in each condition); the other transcribed 12 groups (3 in each condition). Once all discussions were transcribed, one coder coded the behaviors from the 40 transcripts. To measure intercoder reliability, a second coder coded behaviors from 8 randomly chosen groups from the 40 groups (2 randomly chosen groups from each condition). *Cohen's (1960)* kappa for intercoder reliability is the percentage of agreement between the coders, above chance level, in the use of directive, task, and deferential codes for group discussions (*Bakeman & Gottman, 1986*).⁶ Cohen's kappa was .72 for task 1 and .70 for task 2. These

scores are similar to those found in other studies with coding schemes (e.g., Stets & Burke, 1996; Stets, 1997).

Deferential behaviors: Specifically, the number of deferential behaviors was counted for each member. According to Berger et al. (1998), general deferential behaviors toward others exude respect and esteem for another, such as respectful praise and gestures of deference. Based on this description, acts coded as deferential behaviors included showing consideration to another, complimenting an idea, agreeing with another member, apologizing for an idea or argument, and playing down one's own ideas.

Directive behaviors: The number of directive behaviors was counted for each member. Acts coded as directive behaviors included making procedural statements (statements that suggest the direction the group discussion should take), commanding and instructing, and giving summary statements (statements that summarize briefly what course of action the group will take or has just taken) (Johnson et al., 1996; Ridgeway & Diekema, 1989).

Task behaviors: The number of task behaviors was counted for each member. Acts coded as task behavior included giving opinions, suggestions, and information about the task (Bales, 1950, 1972).

RESULTS

Manipulation Checks of Independent Variables

We checked the authorization/deauthorization manipulation with three questions on the post-questionnaire. First, we asked participants if they and the other members received a bonus; all those in the authorized conditions said yes and all those in the deauthorized conditions said no. Second, we asked how successful was your manager's marketing strategy judged to be (1 = not at all successful; 9 = very successful). ANOVA results showed a strong main effect for authorization ($F = 2083.37$; $p < 0.001$; $M = 1.67$ in deauthorized conditions and $M = 8.12$ in authorized conditions). Third, we asked to what extent was your manager supported by those higher up in the organization (1 = not at all supported; 9 = very supported). Once again, there was a strong main effect for authorization ($F = 73.32$; $p < 0.001$; $M = 4.25$ in deauthorized conditions and $M = 6.80$ in authorized conditions). There was also a significant interaction effect between authorization and position ($F = 6.34$, $p = 0.013$), indicating that the effect of authorization/deauthorization in terms of general support was more strongly felt by leaders ($M = 3.47$ in deauthorized; $M = 7.15$ in authorized) than by the

subordinates ($M = 4.62$ in deauthorized; $M = 6.62$ in authorized). Based on these results, the manipulation worked well.

We used two questions to check our organizational sex composition manipulation. We asked if the eight corporate officers of MovieTime Inc., were primarily men, women, or composed of men and women equally (They could also answer, "I don't remember"), and who developed the criteria that were used to assess the success of your manager's marketing proposal. No subject incorrectly reported being in one type of organization when they were in the other type for both questions. Seventy-five percent of all subjects had the correct answers for both questions. Of the remaining 25%, 87% had one correct answer, and they were spread randomly among managers and subordinates and in all four types of groups.⁷ Finally, we assume that all subjects knew that the male experimenter was indeed male, and the female experimenter was indeed female. Overall, the manipulation was successful.

Finally, we checked to make sure that the male experimenter and female experimenter were similar in behavior and demeanor when providing information on the authority structure and when authorizing or deauthorizing the manager. A third coder used two separate coding sheets (one for the initial instructions, including the sex composition manipulation, and one for the authorization/deauthorization manipulation), and checked the following behavior of the experimenters: (1) presentation of the details of the script; (2) tone of voice; (3) overall demeanor; (4) and use of qualifiers (e.g., perhaps and maybe). Results showed that 100% of the time both experimenters mentioned the key details of the scripts regarding the manager's responsibilities, the quality of the proposal, and the evaluation process. Similarly, in the authorization/deauthorization manipulation, both experimenters clearly stated all key details of the manipulation 100% of the time. In addition, the experimenters' tone of voice was consistently coded as firm (versus soft) for each group. Codes for demeanor were very confident, mostly confident, mostly hesitant, or very hesitant. The male experimenter's demeanor was rated as very confident in 16 out of 20 groups (80%), and mostly confident in 20% of the groups; the female experimenter's demeanor was coded very confident in 14 out of 20 groups (70%) and mostly confident in 30% of the groups. Finally, during the execution of the script neither experimenter used any qualifiers.

Task 1 Results Check

We used ANOVA to examine the effects of position (leader and subordinate) and sex composition of the authority structure (male-dominated and

female-dominated) on directive, task, and deferential behaviors. We expected that managers would be more directive, task-oriented, and less deferential than subordinates, regardless of the organizational sex composition. The results show a strong main effect of position for directive ($F = 155.21$, $p < 0.001$), task ($F = 74.37$, $p < 0.001$), and deferential behaviors ($F = 20.83$, $p < 0.001$). As expected, leaders exhibited significantly more directive and task behaviors than subordinates ($M = 3.15$ and $M = 0.163$ for directive behaviors respectively; $M = 21.33$ and $M = 9.71$ for task behavior respectively). Leaders, however, also expressed more deferential behavior than subordinates ($M = 26.45$ and $M = 15$ for deferential behavior respectively). In our work situation, leaders did much more of the talking in general ($F = 32.13$, $p < 0.001$, $M = 257.18$ seconds for leaders and $M = 78$ sec for subordinates), and also were very respectful of the subordinates in their leadership style. Subordinates were also respectful, but leaders had more opportunity to express these behaviors. In addition, other studies examining formal leadership find that formal leaders use more positive socioemotional behavior (i.e., complimenting and showing consideration) than subordinates as part of their leader role (e.g., Johnson, 1993). Positive socioemotional behavior is not equivalent to deferential behavior, but is one aspect of the expression of deference.

Also, consistent with our argument, the sex composition of the organization's authority structure did not have a significant effect on any of the behaviors in task 1 (p values range from 0.260–0.876).⁸

Task 2 Results

The Effects of Legitimacy on Deferential and Directive Behavior

We used ANOVA, scheffe tests, and t -tests to test our hypotheses. Table 2 shows the condition means and ANOVA results. Position has a main effect in task 2, indicating that leaders express more deferential behavior ($F = 13.77$, $p < 0.001$) and directive behavior than subordinates ($F = 136.56$, $p < 0.001$), similar to task 1. In addition, there is a marginal main effect of authorization ($F = 3.02$, $p = 0.084$), indicating that more deferential behavior occurs in deauthorized than authorized conditions. This effect is qualified by a marginally significant interaction effect of position and authorization ($F = 3.18$, $p = 0.077$).

Hypothesis 1a suggests that deauthorized leaders will be more deferential than authorized leaders. Using scheffe tests, we find that leaders do marginally express more deferential behavior when deauthorized than when authorized ($F = 3.31$, $p = 0.077$; $M = 35.1$ and $M = 25.45$).

Table 2. Leader and Subordinate Behavior.

Sex Composition of Authority Structure		Condition Means			
		Authorization		Deauthorization	
		Leader	Subordinate	Leader	Subordinate
Deferential behaviors	Male	26.00	21.00	39.20	21.75
	Female	24.90	19.35	31.00	18.35
Directive behaviors	Male	3.90	0.15	3.80	0.35
	Female	2.90	0.55	1.70	0.55
Task behaviors	Male	21.70	12.35	25.40	18.45
	Female	14.30	13.25	18.40	16.25

ANOVA Results							
	Pos	Auth	Org	PxA	PxO	AxO	PxAxO
<i>F</i> =	13.77	3.02	1.72	3.18	0.15	0.65	0.24
<i>P</i> =	0.000	0.084	NS	0.077	NS	NS	NS
<i>F</i> =	136.56	1.44	7.45	2.68	16.33	2.02	0.97
<i>P</i> =	0.000	NS	0.007	0.10	0.000	NS	NS
<i>F</i> =	8.50	6.38	5.51	0.04	3.84	0.16	0.27
<i>P</i> =	0.004	0.013	0.021	NS	0.053	NS	NS

For directive behaviors, there is a marginal interaction effect for position and authorization ($F = 2.68$, $p = 0.10$). Contrary to Hypothesis 1b, scheffe tests reveal that leaders are not significantly less directive when deauthorized ($M = 2.75$) than when authorized ($F = 1.07$, $p = 0.308$; $M = 2.75$ and $M = 3.40$).

The Effects of Legitimacy and Organizational Sex Compositions on Deference and Directive Behaviors

Hypothesis 2a suggests that deauthorized leaders will be more deferential than authorized leaders in male-dominated than in female-dominated organizations. The three-way interaction is not significant, but t -tests do reveal that leaders are more deferential in deauthorized than in authorized conditions ($t = 1.63$, $p = 0.029$, one-tailed; $M = 39.20$ and $M = 26.00$, respectively) in male-dominated organizations; while in female organizations, there is a less significant, yet marginal, difference between leaders' deferential behavior in deauthorized and authorized conditions ($t = 0.863$, $p = 0.10$, one-tailed; $M = 31.00$ and $M = 24.90$, respectively), providing

some support for Hypothesis 2a. Supporting Hypothesis 2b, there is no significant difference between leaders' deferential behavior in male and female organization conditions when leaders are authorized ($t = -0.171$, $p = 0.867$; $M = 26.00$ and $M = 24.90$, respectively).

For directive behavior, there is a significant main effect for the organization's authority structure ($F = 7.45$, $p = 0.007$), indicating that more directive behavior is expressed in male- than in female-dominated conditions. This main effect is qualified by a significant interaction effect between position and organizational structure ($F = 16.33$, $p < 0.001$). Scheffe tests indicated that leaders' directive behavior is expressed more often in male- than in female-dominated organizations ($F = 6.98$, $p = 0.012$; $M = 3.85$ and $M = 2.30$).

T-tests reveal a similar and more detailed pattern. Contrary to Hypothesis 2c, deauthorized leaders are less directive than authorized leaders in female-dominated organizations ($t = -1.78$, $p = 0.046$, two-tailed, $M = 1.7$ and $M = 2.9$, respectively) than in male-dominated organizations ($M = 3.8$ and $M = 3.9$, respectively). *T*-tests also reveal that female leaders in female-dominated organizations are significantly less directive than female leaders in male organizations when deauthorized ($t = -2.77$, $p = 0.006$, two-tailed). Female leaders act in a more stereotypically "feminine" way in female-dominated organizations and in a more "masculine" way in male-dominated organizations after deauthorization. Also, authorized leaders are somewhat similarly directive in male and female organizations ($t = -1.11$, $p = 0.139$, two-tailed, $M = 3.90$ and $M = 2.90$, respectively), providing some support for Hypothesis 2d, yet note that even authorized leaders are more directive in male than in female-dominated organizations, similar to deauthorized leaders. These findings suggest that legitimation and organizational sex composition seem to be activating general gender stereotypes for leaders, but not in the direction predicted by the gender status beliefs component of these stereotypes. We discuss implications in the conclusion.

The Effects of Legitimacy and Organizational Sex Composition on Task Behavior

When exploring task behavior, we found that leaders express more task behavior than subordinates in task 2, similar to task 1 ($F = 8.50$, $p = 0.004$; $M = 19.95$ and $M = 15.10$, respectively). There is also a main effect for authorization ($F = 6.38$, $p = 0.013$), indicating that both leaders and subordinates express *more* task behavior in deauthorized ($M = 18.87$) than in authorized ($M = 14.53$) conditions. All group members seem to respond in a more proactive way when the leader is deauthorized than when

authorized. There is also a main effect of the organization ($F = 5.51$, $p = 0.021$), indicating that there is more task behavior in male-dominated ($M = 18.12$) than in female-dominated ($M = 15.28$) organizations. This main effect is qualified by a significant interaction effect between position and organizational type ($F = 3.84$, $p = 0.053$). Scheffe tests reveal that in female-dominated organizations, the subordinates and the leader have a similar amount of task behavior ($F = 0.53$, $p = 0.47$; $M = 16.35$ for leaders and $M = 14.75$ for subordinates), but in male-dominated organizations leaders are more task-oriented than subordinates ($F = 9.82$, $p = 0.003$; $M = 23.55$ for leaders and $M = 15.40$ for subordinates). In addition, when leaders are authorized, they express more task behavior in male- than in female-dominated organizations ($t = -2.26$, $p = 0.018$, two-tailed, $M = 21.7$ in male and 14.3 in female). Similarly, when deauthorized, leaders express more task behavior in male- than in female-dominated organizations ($t = -1.60$, $p = 0.064$, two-tailed, $M = 25.4$ and $M = 18.4$).⁹

CONCLUSION

Over a decade ago, Ridgeway (1988) suggested that perhaps gender (and its associated status value) is triggered in all-female groups within a male-dominated organization. More recently, she argues that gender, as a diffuse social role, is more likely to be present in the workplace as an implicit “background identity” rather than a central focus (Ridgeway 1997, 2001). Actors’ gender stereotypes, including one of their core components, gender status beliefs, however, linger in the background, ever ready to become salient, ready to modify actors’ expectations, judgments, and behaviors in situations (Ridgeway, 1997, p. 221).

Based on these ideas, we argued that legitimacy processes represent one event that may trigger the salience of gender status in the workplace. Specifically, gender status will be more salient in male-dominated than in female-dominated organizations, but only when female leaders are deauthorized. Deauthorization creates uncertainty in the current status order. As a result, in the presence of a contrast between the group’s sex composition and that of the organization’s authority structure, it triggers the salience of gender status. Gender status and deauthorization affect the expectations for valued status positions within the group and, in turn, the deferential and directive behavior expressed by the leader. In contrast, when female leaders are authorized, organizational sex composition should be less relevant to leader–subordinate interaction.

Consistent with our argument, in the first task, legitimacy of leaders in their position (and the rewards that come with it) strongly affected leader–subordinate interaction, while organizational sex composition had little effect. We suggested that this is so because there was no event that triggered the relevance of the contrast between the sex composition of the group and the sex composition of the organization.

In task 2, however, after an authorizing/deauthorizing event, legitimacy and the organizational sex composition do affect interaction, in addition to position, but the results are mixed and do not consistently support our argument. As predicted, deauthorized leaders were marginally more deferential with their subordinates than authorized leaders, and this pattern was stronger in male than in female-dominated organizations. And authorized female leaders were similarly deferential in male and female contexts. Contrary to our predictions, however, leaders overall were more directive in male than in female-dominated organizations, whether authorized or deauthorized. In addition, deauthorized leaders were more directive than authorized leaders in male than in female-dominated organizations. [Ridgeway \(1997, 2001\)](#) argues that, in addition to gender status beliefs, gender stereotypes have a non-status component (e.g., masculinity is associated with being forceful and directive, while femininity is associated with being responsive and attentive), and our results suggest this idea (also see [Carli, 1990](#)). In reaction to both authorization and deauthorization, female leaders took on a more “masculine” approach in male settings and a more “feminine” approach in female settings in terms of directive leadership. It is as if they matched their leadership style with their setting: female leaders in male-dominated settings were more directive and less deferential than female leaders in female-dominated settings.

In summary, our findings show that a legitimating event can trigger the relevance of the organizational sex composition, but the pattern of these effects is not convincingly explained by our theoretical argument. Gender stereotypes do seem to come to the foreground for female leaders in same-sex groups in task 2 only after a legitimating event, showing that gender stereotypes can become salient in same-sex groups in certain organizational contexts. This occurred even under minimal conditions – i.e., after only one delegitimizing event. Yet, our results are mixed on exactly how organizational sex composition affects interaction.

We need to further develop our theoretical argument to take into account not only the activation of gender status beliefs, but also the activation of general gender stereotypes in the workplace. How do gender status and general gender stereotypes operate simultaneously in male-dominated and

female-dominated contexts when triggered and, in turn, affect interaction? In addressing this question, we should examine the effects of legitimacy and organizational sex composition in mixed-sex groups in both types of organizations in order to better understand how gender stereotypes operate for male and female leaders and their subordinates. In addition, we should examine other consequences of these stereotypes, such as their effect on members' influence in groups and on performance evaluations of female leaders by their superiors.

Finally, we believe that an important next step is to consider the role of cognitive processes in the relationship between legitimacy, organizational sex composition, and leader-subordinate behavior in the workplace. For example, when a leader is deauthorized or authorized, what do leaders and subordinates attribute this event to and how does their rationale affect their behavior? Are leaders more likely to attribute deauthorization to external reasons, and authorization to their own ability to protect their sense of self? How about the subordinates? And do these attributions depend on the organizational context? Finally, how do these attributions of why the legitimacy event occurred actually affect, if at all, their behavior on future tasks? Exactly how cognitive processes affect the relationship between legitimacy and behavior should further our understanding of legitimacy processes in the workplace.

NOTES

1. Specifically, status characteristics theory specifies the following scope conditions. In regard to the interaction, the theory applies to situations where there are two or more actors and these actors are differentiated by one or more status characteristics. In addition, it applies to task situations where the task possesses four properties. It must be evaluated, related to an instrumental ability, unitary, and collective: (1) Members must believe that it is possible for someone outside the group to assess objectively the group's performance as to whether it has succeeded or failed at the task, and this success or failure is not due to chance exclusively; (2) Members must believe that there is some specific capability that exists and that this capability directly relates to the success of the task; (3) If completing the task involves solving smaller sub-tasks along the way, then group members must believe that those sub-tasks are related to the same instrumental ability; and (4) The task must be collective in that members believe that in order to successfully complete the task, they must listen to and seriously consider one another's ideas and suggestions (Berger et al., 1977). Finally, group members must be motivated to successfully complete the task.

In addition, the theory specifies five assumptions that help us connect members' status characteristics to their rank in the group's status hierarchy (Berger, Fisek, &

Norman, 1989): (1) information on status characteristics becomes salient when group members differentiate on that characteristic or when the task is directly relevant to the characteristic (e.g., a sex-typed task); (2) actors will consider status characteristics salient and use this information to order interaction unless they are convinced that these characteristics are not relevant to the task (called burden of proof); (3) a new structure will develop when a new member joins the group and initiates a task or engages in interaction with other members as stated by the salience and burden of proof assumptions; (4) actors act as if they combine all positive status information (specified as a value of $e+$), and all negative information (specified as a value of $e-$), and this combining is subject to attenuation (i.e., each additional piece of positive information adds less to $e+$ than did information preceding it; each additional piece of negative information subtracts less from $e-$ than does information that precedes it – to calculate aggregated expectations for an actor, $e+$ and $e-$ are summed. The subtraction of the aggregated expectations of an actor from those of another actor provides that actor's expectation advantage or disadvantage relative to that other (i.e., $e_p B e_o$)); and (5) an actor's position in the status hierarchy relative to another is a direct function of his or her expectation advantage or disadvantage relative to that other.

2. Formal position, experience, and rewards are indirectly linked to task outcome. Formal position and previous managerial experience, only indirectly related to the current task, are linked through specific performance expectations and abstract task ability; and goal objects are linked through reward levels and instrumental ability (See Berger et al., 1980, 1985, and Johnson, 2003 for graphic representations of these relationships). According to reward expectation states theory (Berger et al., 1985), goal objects (i.e., specified realizations of different reward levels, such as office space or special privileges) are indirectly linked to perceived task competence through reward levels.

3. Only groups that were homogeneous in terms of gender, age, and race were used in the data analysis. These status characteristics may act as confounding variables, making it difficult to interpret the effects of position, authorization, and organizational sex composition on behavior.

4. Post-experimental questions asked participants how they were assigned positions, what their responsibilities were in these positions, and whether they wanted their organization to do well. Only one group had members who did not answer questions correctly or positively. Also, three groups were excluded from the final analysis because at least one member in the group reported the incorrect type of organization; three groups were excluded because the experimenter did not follow the script precisely for a particular condition; two groups were excluded because one of the members had either a noticeable stutter or a French accent; and one group consisted of two close friends.

5. They received approximately 20 h of training to assure consistency in transcribing and coding members' behaviors (training involved learning definitions of behaviors and transcribing and coding four pretest groups together with the authors).

6. Cohen's kappa is an agreement statistic that corrects for chance. It is equal to the proportion of agreement observed (P_o) minus the proportion expected by chance (P_c) divided by 1 minus P_o .

7. Of these, 70% said they did not remember for one of the answers (8 subjects for the first question, and 10 subjects for the second question); and 30% reported remembering a mixed-gender (2 subjects for question 1 and 6 subjects for questions 2).

8. We also performed two other sets of analyses. In the second analysis, we used ANCOVAs for each dependent variable to control for variation in length of discussion time of the groups. The results revealed very similar effects at the same significance level. In a third analysis, we took into account the effect of being in a particular group by using a hierarchical design described by Kirk (see Kirk, 1995, pp. 476–483). This design allows us to take into account the nuisance effect of the specific group the subject acted in while testing for the effect of position and organizational context on the dependent variables. Results show very similar effects to the ANOVA results reported above. Position is still highly significant for all three variables (all p -values < 0.001); sex composition of the organization has no significant effect (p values range from 0.319 to 0.702); and being in a particular group has no significant effect on all three variables (p -values range from 0.846 to 0.997).

9. Similar to task 1, we also conducted ANCOVAs for each dependent variable, controlling for length of group discussion. The results are very similar to the ANOVAs reported above, and in the same directions. For deferential behaviors, position has the same effect; authorization no longer has a significant effect, but the interaction between position and authorization becomes stronger ($F = 3.87$, $p = 0.05$) and with the same pattern. For directive behaviors, the effects of position, position \times organization, and position \times authorization are similar in strength and direction. The main effect of organization is weaker, but remains marginally significant. For task behaviors, the effects of position and authorization remain the same; the main effect of organization is no longer significant, but the interaction effect of position and organization remains significant.

In the third set of analyses, we once again controlled for group effects. Results are very similar to the ANOVA results reported above. Being in a particular group has no significant effect for directive behaviors ($p = 0.294$), and position still has a strong effect ($p < 0.001$). The notable difference is that being in a particular group has a significant effect on deferential behaviors ($p = 0.01$) and task behaviors ($p < 0.001$). In these cases, position is much less significant when controlling for being in a particular group for deferential behaviors ($p = 0.36$) and for task behaviors ($p = 0.21$). Authorization and organizational context have similar effects and in the same direction for all three variables.

ACKNOWLEDGMENT

We are grateful to Cecilia Ridgeway and Joseph Berger for their invaluable comments on a previous version of this paper. We also thank Eve Hayworth, Tracy Scott, Timothy Dowd, and the two editors, Shane Thye and Edward Lawler, for their insightful comments on an earlier version. This research was supported by a National Science Foundation Grant (SBR-9730445) awarded to the first author.

REFERENCES

- Bakeman, R., & Gottman, J. M. (1986). *Observing Interaction: An introduction to sequential analysis*. Cambridge, UK: Cambridge University Press.
- Bales, R. F. (1950). *Interaction process analysis: A method of small groups*. Cambridge, MA: Addison-Wesley.
- Bales, R. F. (1972). *Personality and interpersonal behavior*. New York: Holt, Rinehart and Winston.
- Banaji, M. R., & Hardin, C. D. (1996). Automatic stereotyping. *Psychological Science, 7*, 136–141.
- Berger, J. M., Fisek, M. H., & Norman, R. Z. (1989). The evolution of status expectations: A theoretical extension. In: J. Berger & M. Zelditch, Jr. (Eds), *Sociological theories in progress: New formulations* (pp. 100–130). San Francisco, CA: Jossey-Bass.
- Berger, J. M., Fisek, M. H., Norman, R. Z., & Zelditch, M., Jr. (1977). *Status characteristics and social interaction: An expectation states approach*. New York: Elsevier.
- Berger, J., Fisek, M. H., Ridgeway, C. L., & Norman, R. Z. (1998). The legitimation and delegitimation of power and prestige orders. *American Sociological Review, 63*, 379–405.
- Berger, J., Rosenholtz, S., & Zelditch, M., Jr. (1980). Status organizing processes. *Annual Review of Sociology, 6*, 479–508.
- Berger, J., Wagner, D. G., & Zelditch, M., Jr. (1985). Expectation states theory: Review and assessment. In: J. Berger & M. Zelditch, Jr. (Eds), *Status, rewards, and influence: How expectations organize behavior* (pp. 1–72). San Francisco, CA: Jossey-Bass.
- Blair, I. V., & Banaji, M. R. (1996). Automatic and controlled processes in stereotype priming. *Journal of Personality and Social Psychology, 70*, 1142–1163.
- Browne, I., Tigges, L., & Press, J. (2001). Inequality through labor markets, firms, and families: The intersection of gender and race-ethnicity across three cities. In: A. O'Connor, C. Tilly & L. D. Bobo (Eds), *Urban inequality: Evidence from four cities* (p. 3720406). New York: Sage.
- Burke, P. J. (1968). Role differentiation and the legitimation of task activity. *Sociometry, 31*, 404–411.
- Butler, D., & Geis, F. L. (1990). Nonverbal affect response to male and female leaders: Implications for leadership evaluations. *Journal of Personality and Social Psychology, 58*, 48–59.
- Carli, L. L. (1990). Gender, language, and influence. *Journal of Personality and Social Psychology, 59*, 941–1556.
- Carli, L. L., & Eagly, A. H. (2001). Gender, hierarchy, and leadership: An introduction. *Journal of Social Issues, 57*, 629–636.
- Cohen, B. P., & Zhou, X. (1991). Status processes in enduring work groups. *American Sociological Review, 56*, 179–188.
- Cohen, J. (1960). A coefficient of agreement for nominal scales. *Education and Psychological Measurement, 20*, 37–46.
- Dornbusch, S. M., & Scott, W. R. (1975). *Evaluation and exercise of authority*. San Francisco, CA: Jossey-Bass.
- Eagly, A. H. (1987). *Sex differences in social behavior: A social-role interpretation*. Hillsdale, NJ: Erlbaum.

- Eagly, A. H., & Johannesen-Schmidt, M. C. (2001). The leadership styles of women and men. *Journal of Social Issues, 57*, 781–798.
- Eagly, A. H., Karau, S. J., & Makhijani, M. G. (1995). Gender and the effectiveness of leaders: A meta-analysis. *Psychological Bulletin, 117*, 125–145.
- Elliott, J. R., & Smith, R. (2004). Race, gender, and workplace power. *American Sociological Review, 69*, 365–386.
- Fennell, M. L., Barchas, P. R., Cohen, E. G., McMahon, A. M., & Hildebrand, P. (1978). An alternative perspective on sex differences in organizational settings: The process of legitimation. *Sex Roles, 4*, 589–604.
- Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectfully follow from perceived status and competition. *Journal of Personality and Social Psychology, 82*, 878–902.
- Fiske, S., & Taylor, S. (1991). *Social cognition*. New York: McGraw-Hill.
- Foschi, M., & Lapointe, V. (2002). On conditional hypotheses and gender as a status characteristic. *Social Psychology Quarterly, 65*, 146–162.
- Johnson, C. (1993). Gender and formal authority. *Social Psychology Quarterly, 56*, 193–210.
- Johnson, C. (2003). Consideration of legitimacy processes in teasing out two puzzles in the status literature. *Advances in Group Processes, 20*, 251–284.
- Johnson, C., Clay-Warner, J., & Funk, S. (1996). Effects of authority structures and gender on interaction in same-sex task groups. *Social Psychology Quarterly, 59*, 211–236.
- Kanter, R. M. (1977). *Men and women of the corporation*. New York: Basic Books.
- Kirk, R. E. (1995). *Experimental design* (3rd ed.). Pacific Grove, CA: Brooks/Cole.
- Lucas, J. W. (2003). Status processes and the institutionalization of women as leaders. *American Sociological Review, 68*, 464–480.
- Meeker, B. J., & Weitzel-O'Neill, P. A. (1977). Sex roles and interpersonal behavior in task oriented groups. *American Sociological Review, 42*, 91–105.
- Read, P. B. (1974). Sources of authority and the legitimation of leadership in small groups. *Sociometry, 37*, 189–204.
- Reskin, B. F., & McBrier, D. B. (2000). Why not ascription? Organizations' employment of male and female managers. *American Sociological Review, 65*, 210–233.
- Reskin, B. F., & Ross, C. E. (1992). Jobs, authority, and earnings among managers: The continuing significance of sex. *Work and Occupations, 19*, 342–365.
- Ridgeway, C. L. (1988). Gender differences in task groups: A status and legitimacy account. In: M. Webster, Jr. & M. Foschi (Eds), *Status generalization: New theory and research* (pp. 188–206). Stanford, CA: Stanford University Press.
- Ridgeway, C. L. (1997). Interaction and the conservation of gender inequality: Considering employment. *American Sociological Review, 62*, 218–235.
- Ridgeway, C. L. (2001). Gender, status, and leadership. *Journal of Social Issues, 57*, 637–656.
- Ridgeway, C. L., & Berger, J. (1986). Expectations, legitimation and dominance in task groups. *American Sociological Review, 51*, 603–617.
- Ridgeway, C., & Diekema, D. (1989). Dominance and collective hierarchy formation in male and female task groups. *American Sociological Review, 54*, 79–93.
- Ridgeway, C. L., & Diekema, D. (1992). Are gender differences status differences? In: C. Ridgeway (Ed.), *Gender, interaction, and inequality* (pp. 157–180). New York: Springer.
- Ridgeway, C. L., Diekema, D., & Johnson, C. (1995). Legitimacy, compliance, and gender in peer groups. *Social Psychology Quarterly, 58*, 298–311.

- Ridgeway, C. L., Johnson, C., & Diekema, D. (1994). External status, legitimacy, and compliance in male and female work groups. *Social Forces*, 72, 1051–1077.
- Ridgeway, C. L., & Smith-Lovin, L. (1999a). Gender and interaction. In: J. S. Chaftetz (Ed.), *Handbook of the sociology of gender* (pp. 247–274). New York: Kluwer.
- Ridgeway, C. L., & Smith-Lovin, L. (1999b). The gender system and interaction. *Annual Review of Sociology*, 25, 191–216.
- Rothman, R. A. (1998). *Working: Sociological perspectives*. New Jersey: Prentice-Hall.
- Stets, J. E. (1997). Status and identity in marital interaction. *Social Psychology Quarterly*, 60, 185–217.
- Stets, J. E., & Burke, P. J. (1996). Gender, control, and interaction. *Social Psychology Quarterly*, 56, 193–220.
- Wagner, D. G., & Berger, J. (1997). Gender and interpersonal task behaviors: Status expectation accounts. *A Sociological Perspectives*, 40, 1–32.
- Walker, H. A., & Zelditch, M., Jr. (1993). Power, legitimacy, and the stability of authority: A theoretical research program. In: J. Berger & M. Zelditch, Jr. (Eds), *Theoretical research programs: Studies in the growth of theory* (pp. 364–381). Stanford, CA: Stanford University Press.
- Weber, M. ([1918] 1968). In: R. Guenther & W. Claus (Eds), *Economy and Society*. Berkeley, CA: University of California.
- Willer, D., Lovaglia, M. J., & Markovsky, B. (1997). Power and influence: A theoretical bridge. *Social Forces*, 76, 571–603.
- Wood, W., & Karten, S. (1986). Sex differences in interaction style as a product of perceived sex differences in competence. *Journal of Personality and Social Psychology*, 50, 341–347.
- Yoder, J. D. (2001). Making leadership work more effectively for women. *Journal of Social Issues*, 57, 815–828.
- Zelditch, M., Jr., & Walker, H. A. (1984). Legitimacy and the stability of authority. *Advances in Group Processes*, 1, 1–27.
- Zelditch, M., Jr., & Walker, H. A. (2000). The normative regulation of power. *Advances in Group Processes*, 17, 155–178.

STATUS AND POWER IN ORGANIZATIONAL GROUP RESEARCH: ACKNOWLEDGING THE PERVASIVENESS OF HIERARCHY

Elizabeth A. Mannix and Stephen J. Sauer

ABSTRACT

Within the organizational literature, the emphasis on group performance has tended to overshadow issues of group composition and structure. In this chapter we urge group scholars to turn their attention to the topic of hierarchy in organizational groups. We focus on hierarchy as defined by both status and power. We propose that understanding how organizational groups resolve conflicts, make decisions, and ultimately perform, must stem from an understanding of the hierarchical structure in the team. Hierarchy imposes constraints on group interactions and should therefore be more central in our frameworks, theories, and research. We look at three areas that could benefit from bringing a hierarchical perspective to the forefront: (1) Information exchange and discussion biases in group decision making, (2) The study of conflict management and negotiation, and (3) Creativity and effectiveness in diverse teams.

Social Psychology of the Workplace
Advances in Group Processes, Volume 23, 149–182
Copyright © 2006 by Elsevier Ltd.
All rights of reproduction in any form reserved
ISSN: 0882-6145/doi:10.1016/S0882-6145(06)23006-6

It is probably not too controversial to state that most people are members of groups, and that such groups have hierarchies. Hierarchies are simply a “body of persons or things ranked in grades, orders, or classes, one above another” (Oxford English Dictionary, OED.com). Social scientists, most commonly sociologists, have observed that throughout history, social systems have tended to order groups according to hierarchies, ultimately giving rise to more and less privileged groups (cf. Marx & Engles, 1992; Weber, 1968). Indeed, some theorists have argued that intergroup ranking is even adaptive, or at least rational, because it allows for protection of the more successful group’s resources (Allport, 1958; Levine & Campbell, 1972).

The question of hierarchy *within* groups, however, has been given somewhat less scrutiny. Is it inevitable – and what are its consequences? Certainly, questions of leadership within groups have been studied since the early days of social psychology (e.g., Lewin, Lippitt, & White, 1939) and are of interest today, particularly by management scholars (cf. Yukl, 2002). For example, scholars have argued that leaders are adaptive and needed in groups to set the agenda and ensure that groups make progress and move forward (e.g., Hollander, 1995; Bass, 1990). However, research and theory focused on the differential valuing of individual members – resulting in an actual ordinal ranking of members along status lines – has been less often addressed (Overbeck, Correll, & Park, 2005). As Levine and Moreland (1998) noted in a recent review of small group research in the *Handbook of Social Psychology*, topics such as group composition and structure have been relatively shortchanged by group researchers. Sidanius and Pratto (1993) have noted that hierarchy might be an adaptive feature of group development, as resources are concentrated in the hands of those with valued skills helpful to the survival of the group, but more research needs to be done. Overbeck et al. (2005) have argued that hierarchy is inevitable, and that in groups without an a priori hierarchical structure, certain individuals will seek to fill the void – notably those with high self-esteem and high self-efficacy (see also Neale, Mannix, & Thomas-Hunt, 2005). They also propose that groups that have more heterogeneity, and succeed in sorting themselves into a stable hierarchy, will give each member a clearer sense of “place” within the group, and hence be more productive and satisfied (see also Levine & Moreland, 1998).

Consider that most of the above theorists and researchers were writing about groups *in general*. In this manuscript, we are focusing on a much narrower set of groups – task-performing groups within organizations. As such, we will take it as given that these groups create hierarchies, and that these hierarchies affect the functioning and performance of the group. For

the most part, we are talking about groups that perform relatively complex, interdependent tasks, toward the completion of some objective. Our goal in this manuscript is to move theorists and researchers who study these sorts of groups toward a deeper integration of structure and “hierarchy” in their work. To do so, we naturally begin with arguments supporting the pervasiveness of hierarchy drawn from the literatures on status and power. We then continue with a focus on particular work within the group arena, drawing from the diversity and conflict research streams. In particular, we look at how work on: (1) knowledge and information exchange, (2) conflict management and negotiation, and (3) creativity and diversity could be enhanced by moving away from traditional research paradigms which tend toward an isolated study of status and power in groups, toward models that recognize hierarchy as pervasive in all group interactions. We also theorize about ways in which groups research might lead to a clearer understanding of the distinction between status and power.

STATUS, POWER, AND INFLUENCE

Status

Human groups that sort themselves into ranked hierarchies essentially do so based on assessments of *status*. Status has been examined from a number of different perspectives. One of the most comprehensive research programs that focus on status is expectation states theory. As Knottnerus (1997) states, expectation states theory has a metatheoretical concept of a *state organizing process*, which provides a general framework for the constructing of theories of the interpersonal process (Berger, Wagner, & Zelditch, 1992).

In this chapter we are primarily interested in status as a determinant of power (Lawler, Ridgeway, & Markovsky, 1993; Thye, Willer, & Markovsky, *in press*) and we focus on the ranking of individual members of a group according to status. We consider this ranking, or status hierarchy, to be fundamentally the same as Berger and Fisek’s conception of power and prestige social orders (Fisek, Berger, & Norman, 1995; Berger, Ridgeway, Fisek, & Norman, 1998) in which actors are discriminated by status characteristics and at the same time are communicating evaluations of others’ performances.

Status characteristics theory is one of the best developed of the research areas within the expectation states tradition. The general question addressed

is: How do status characteristics generate and then sustain hierarchical inequalities? The dependent variable is usually conceptualized in terms of the influence one member has over another, the rate of participation of any given group member, the opportunities given to act, and, finally, compliance (cf. Berger, Conner, & Fisek, 1982; Berger, Fisek, Norman, & Zelditch, 1977; Berger & Zelditch, 1985).

Status characteristics can be specific, that is, limited to a specific situation or task, or diffuse, that is, applying to a wide range of situations. For example, a specific status characteristic for an executive MBA student in an accounting class study group might include past experience as a CPA. A more diffuse status characteristic might be age, in which younger employees in a firm are viewed as more technically competent than older employees. Thus, the same individual may have high status in one setting (the study group) and lower status at work (in which he is an older employee in a high-tech firm). In both cases, status characteristics theory offers predictions for determining the status ordering within a group. Such ordering allows an understanding of the way in which individuals within a group become leaders or followers, wield or yield influence, perform tasks, and are evaluated by their group members (Berger & Zelditch, 1985).

Note that this is a purposely broad definition because it includes status described by relationships such as “sister” or “boss,” as well as those described by socioeconomic or minority status. It is also important to recognize that these statuses involve “unaware hunches” (Ridgeway, 1997) about the social worth of the individuals who occupy them, called *status beliefs*, such that a person who occupies one position is “better than” or “not as good as” a person who occupies another position (Sewell, 1992).

While we will focus on status characteristics theory, we might note that there are other formulations that address the role of status. Dominance theorists propose that humans display behaviors that simply signal their interpersonal dominance and submission (Mazur, 1973, 1983; Mazur et al., 1980; Ofshe & Lee, 1981). Evolutionary psychologists have also addressed the idea that some status characteristics are derived from evolutionary processes by which some groups were faced with very different problems than others faced (Buss & Kenrick, 1998; Cosmides & Tooby, 1994) and adapted accordingly. In addition, social role theory (see Eagly, 1987; Eagly & Karau, 1991; Eagly & Wood, 1999) argues that some status characteristics are prompted by the characteristics of the situation and that these characteristics are primarily based on the structure of role and resources existent in society.

Power

Power at its most fundamental involves the redistribution of resources rather than just social or economic exchange. This conception is similar to Weber's (1968) definition of power and to French and Raven's (1959) development of power and its different bases. Many classic definitions of power are available to us, but despite extensive research on the construct of power, there is little consensus on the definition of power (Lee & Tiedens, 2001).

Thibaut and Kelley's (1959) social psychology of groups advanced the concept that social power is produced by the dependence of some group members on others. More specifically, they proposed that individuals in a group compare their expected outcomes within the group with alternative outcomes that may be available to them, an idea that was termed the *comparison level of alternatives* (CL_{alt}). An important proposition from this research is that those individuals with more attractive alternatives were less dependent on the group and thus had more power (see also Homans, 1974).

Finally, Emerson's (1962, 1964) *power dependence theory* of social relations also specifies social power as relational. To have power is to have power *over* someone rather than a more general conception of power as the capacity to accomplish something. Power dependence theory united behaviorist conceptions of social behavior as exchange with the idea that dependence is produced by the availability of alternatives or lack thereof. The more dependent an individual is on a social relationship, the less power that individual has. Interestingly, this relational aspect of power is very similar to how status is conceptualized within status characteristics theory. It is the relationships between the actors, not the characteristics of the actors, which produce status differences (Berger, Rosenholtz, & Zelditch, 1980).

Bacharach and Lawler (1981) took a process view of power as a person's potential to alter another's state. They conceptualized power in three primary ways: (1) power potential or capability, (2) power plays or influence tactics, and (3) actual or realized power. These are considered to be distinct moments of a power process in which all parties have some capability to affect other's outcomes, an option to use that capability, and an uncertain probability of success. In this chapter we focus on social power, which can be adequately defined as the ability to gain favorable outcomes at another's expense (Willer, Lovaglia, & Markovsky, 1997). This can also be called influence, and is conceptually the same as Bacharach and Lawler's idea of actualized power.

Influence

In some instances, power and status have been shown to be highly correlated (Ridgeway, 1991, 1997). In a demonstration of one process through which nominal characteristics might acquire status value, Ridgeway (1991) developed and then tested aspects of status construction theory. This theory posits one mechanism through which a characteristic previously not status-valued might acquire it. Linking an unordered nominal characteristic with differing levels of material resources (i.e., power) was shown to alter the perceived status of the characteristic (Ridgeway, 1997). This not only shows the link between power and status, but also provides further evidence for the pervasiveness of hierarchy, and the creation of it (see also Thye, 2000).

In other cases, researchers have made an effort to keep the two concepts clearly distinct. Lovaglia (1994) separates power from status by drawing from Festinger (1953) and noting that power can compel public compliance, but only the influence resulting from status induces both public compliance and private acceptance. Status, but not power, may cause one actor to defer to another without pressure, coercion, bribe, or threat. In addition, status is conferred on a group member by the group as a whole. Status is based on the expectations group members have for contributions to valued group goals. The more consensus among group members: the greater the effect on the status hierarchy. No such consensus is necessary for power. Indeed, power is the ability to extract advantage from others despite their resistance. Thus, power is largely independent of the expectations and attitudes of group members.

As one might expect, however, there is empirical evidence linking status to power. In other words, when individuals have higher status they are typically better able to influence others and access more group resources (Anderson & Berdahl, 2002, Molm, 1988). Reversing the directionality, however, is less clear cut. High power actors have not necessarily been shown to enjoy more status, although the relationship was predicted by early power theorists. For example, Homans (1974) argued that power that yielded superior resources over time would inevitably lead to higher status – although he clearly put power as more fundamental than status. In addition, status initially played a more important role in Emerson's power-dependence theory of social exchange than most social scientists currently acknowledge. The original work by Emerson (1962) included an emphasis on the power balancing operations that *Person B* (the dominated) could engage in to mitigate the power held by *Person A* (the dominator). Emerson argued that because status is a "highly valued" commodity by most individuals, a dominated

individual could increase their power by giving status to the dominator (e.g., a sycophant's fawning over a boss, or a groupie's adoration of a rock star), which increases dependence on the status giver and thus leads to balanced power and the emergence of status hierarchies (cf. Proell, 2005).

Clearly, this point did not become a central focus for the exchange theorists, and the study of status hierarchies faded from social psychology (Lawler, 1992). As social psychologists focused on power; sociologists picked up the issue of status emergence. To a large extent, the research in these fields has moved forward in separate streams. Scholars focusing on status have been concentrated in the field of sociology and been interested primarily in the *emergence* of status (e.g., Berger, Cohen, & Zelditch, 1972). The classic work on power was originally the domain of many social scientists, including social psychologists (e.g., Emerson, 1962; Thibaut & Kelley, 1959) economists (e.g., Camerer & Thaler, 1995), political scientists, (Shepsle, 2003), and sociologists (Molm, 1988; Bacharach & Lawler, 1980), but more recently it has been emphasized by social psychologists and management scholars, and the work has typically focused on the *consequences* of power use (Keltner, Gruenfeld, & Anderson, 2003; Polzer, Mannix, & Neale, 1998; Pfeffer, 1992). There is no doubt that this bifurcation has resulted in some missed opportunities, however, some new work on small groups has started to open up the possibilities of a more interdisciplinary perspective.

Recently, scholars came together from the disciplines of psychology, sociology, management, communication, political science, education, and information science to assess, integrate, and evaluate the state of the theory of small groups. The result was a comprehensive series of conferences, journal articles, and finally a book containing nine interdisciplinary perspectives on small groups (Poole & Hollingshead, 2005). This massive undertaking spans theory and research on groups from *evolutionary* theory (Caporael, Wilson, Hemelrijk, & Sheldon, 2005), the *network* perspective (Katz, Lazer, Arrow, & Contractor, 2005), and on through the *psychodynamic* lens (McLeod & Kettner-Polley, 2005), just to name a few.

One of the fascinating aspects of this review is to understand both the similarities and the differences between the nine perspectives (Fulk & McGrath, 2005). For one thing, all nine approaches deal in some way with the issue of status and power. For example, in the *conflict–power–status* perspective, hierarchy is obviously given (Lovaglia, Mannix, Samuelson, Sell, & Wilson, 2005). The basic question of this perspective is: How are conflict, power, and status used to maintain or resolve conflict? However, in almost every other perspective, status and power are at least implicitly, if not

explicitly dealt with. For example, in the *social identity perspective* (Abrams, Hogg, Hinkle, & Otten, 2005), social identity provides differentiation within and between groups, and explains leadership, communication patterns, collective action, and social loafing – to name a few influence-related outcomes. In the *functional perspective* (Hollingshead et al., 2005), group members are posited to have different status levels, and high status members are predicted to be most influential in group communication and decision making.

GROUPS AND HIERARCHY

As the interdisciplinary research described above demonstrates, the one place where both status and power naturally come together is within the organizational group. Group functioning is inextricably linked to group and member status, and status is often derived from membership in groups (Thomas-Hunt, 2005). Clearly, status within groups is closely related to power; however, the relationship between the two has been somewhat nebulous (Lovaglia, 1994). For example, in reviews of group research, status and power are rarely discussed together (Levine & Moreland, 1998). Some scholars do not attempt to distinguish between the two, and they use the concepts of power and status interchangeably, noting that both can result in influence (Anderson & Spataro, 2005). In these cases, power is most often defined similarly to French and Raven's (1959) referent power, based on one person's identification with and desire to be like another person.

On the other hand, we will find it useful in some of our discussions below to keep status and power conceptually separate. One body of research in the groups arena that affords us an opportunity to distinguish between status and power is in the area of negotiations and bargaining. In a negotiation context, each party's power is usually thought of as based on having a Best Alternative To a Negotiated Agreement (BATNA). This is very similar to Thibaut and Kelley's (1959) *comparison level of alternatives* and Emerson's (1962, 1964) power-dependence perspectives. Parties engaged in a negotiation possess different levels of power capability based on each party's alternative option – a better BATNA leads to greater power.

However, in an organizational setting, group members have to work with and through others in order to get anything done. This requires group members to exert influence, which is a bilateral process (Mechanic, 1962; Salancik & Pfeffer, 1977). In organizations, bilateral influence is articulated through the process of negotiation (Dansereau, Graen, & Haga, 1975;

Bacharach & Lawler, 1981). In negotiations, the ability to influence outcomes is based on more than BATNA alone. Status indicators such as fairness norms (Mannix, 1994), reputations (Glick & Croson, 2001; Tinsley, O'Connor, & Sullivan, 2002), and values (O'Connor & Arnold, 2001) also come into play. Status in a negotiation setting will affect the moves each party might attempt to make, and we could conceivably see a situation in which a low status party with a strong BATNA might defer to a high status party, even if high status person has a poor BATNA. This is just one illustration of how groups research on negotiations could potentially offer an opportunity to distinguish the relationship between power and status.

Another example of distinction is in the area of resource bargaining. In an experimental test of their status influence model of negotiated exchange, Thye et al. (in press) demonstrated that higher status negotiators exercised more power and earned more resources than lower status negotiators. In a different study using a resource exchange task, Mannix (1993) found that when individuals had the ability to form coalitions, they could compensate for low structural power by forming alliances, thus commanding more resources. This was more likely when the individuals with low structural power also had high status, that is, when their expertise was more highly valued. Thye et al. (in press) explain the status-power link by arguing that status characteristics activate competence expectations, which in turn catalyze social influence processes that benefit higher status individuals.

As these examples begin to demonstrate, behavior within groups involves the exercise of power and status. As such, we propose that hierarchy imposes a structure upon the group that constrains the way in which group members interact. Furthermore, the fact that status is emergent coupled with the idea that group members can engage in social behaviors to strategically increase their power leads us to believe that group hierarchy is not necessarily fixed. On the contrary, the balance of status and power among group members is continually changing as the group evolves and responds to a changing environment. Therefore, understanding how an organizational group ultimately performs must stem from an understanding of the status and power hierarchy within the team, and how the hierarchy might change over time. We argue that the concept of group hierarchy should be more central in our frameworks, theories, and research. In the next sections we look at three areas that could benefit from bringing hierarchy to the forefront: (1) information exchange, (2) conflict management, and (3) creativity. As such, we offer a general proposition here, which will be followed by more domain specific research propositions.

General Proposition. Social hierarchy, and its emergent and fluid nature within groups, is likely to affect the expression of many individual and group behaviors, and consequently affect group dynamics and performance.

PUTTING HIERARCHY AT THE FOREFRONT: RESEARCH AGENDAS FOR GROUPS

Information Exchange and Hierarchy

Discussion Bias

Perhaps one of the most disappointing findings from the group decision making area in recent years is that information exchange in groups typically focuses on shared, rather than unshared information among group members (Argote, Gruenfeld, & Naquin, 2000; Wittenbaum & Stasser, 1996). Poor group decisions that result from information sharing failures may, in part, be explained by group members' propensity to introduce and consider commonly held information at the expense of exchanging and considering information uniquely possessed by members (Stasser, Taylor, & Hanna, 1989; Stasser & Titus, 1985; Stasser & Stewart, 1992). Kim (1997) has described this phenomenon as a group's *discussion bias* while Wittenbaum, Hubbell, and Zuckerman (1999) have termed this the *collective information sampling (CIS) bias*.

Discovery of this phenomenon has encouraged researchers to examine the circumstances in which this group-discussion bias is mitigated (Wittenbaum, 1998; Gigone & Hastie, 1993; Stasser & Titus, 1985) as well as theoretical explanations for the bias. These explanations range from statistical explanations (e.g., common information is more frequent and thus more likely to be shared and recalled, Stasser & Stewart, 1992) to more psychologically oriented explanations. It is particularly important to consider what occurs when status hierarchy in the group varies. Ultimately, if decision-making groups are to function well, they must work at uncovering the unshared information, even when it has implications for the status of group members.

Phillips, Mannix, Neale, and Gruenfeld (2004) conducted a laboratory study examining information sharing in a three-person, socially heterogeneous group. In this study, groups were composed of either socially homogeneous individuals (that is, individuals who were all socially connected), or socially heterogeneous individuals (that is, two socially connected individuals and one stranger). They were asked to perform an intellectual decision task, and each individual was provided with some information that all the others

also had, while each individual was also provided with uniquely held information. Phillips et al. (2004) found that socially connected members withheld information that they perceived was different from the perspective of a member to whom they were also socially connected. Under these circumstances, the degree to which the perceived experiences of socially connected members diverged depended on the overlap of their social and informational ties. On average, socially connected members felt more comfortable in their groups and reported higher levels of group effectiveness than did the socially isolated members. This was especially true when the information and social categories overlapped: that is, when socially connected individuals had the same information and social isolates had different information. However, when the informational and social categories did not overlap, the socially connected member with different information viewed this situation as stressful and was often unwilling to share his or her unique information.

Phillips et al. (2004) concluded that within groups in which social ties are heterogeneous, the risk of social ostracism to socially connected members may be so threatening to their status position that they primarily focus on preserving their social connections within the group. In fact, the presence of a socially isolated member may heighten the socially connected members' awareness of the social connection and, consequently, attenuate their willingness to share uniquely possessed information that could differentiate them from or put them at odds with their connected others. Conversely, isolated members, facing participation in a group in which they are socially separate from the others (and, therefore, potentially not accepted), may believe that their best chance of acceptance in the group will be through instrumental rather than social means (Ibarra, 1995). As a result, they may attempt to gain acceptance, and hence *status*, by demonstrating their value to the group by bringing their divergent or unique perspective to bear (Phillips, Liljenquist, & Neale, 2003).

Studies on information sharing have looked at status as defined by other variables including: member sex, expertise, leadership, and centrality (see research reviewed in Wittenbaum & Bowman, 2005). Most have found that higher status members do contribute more information to the group discussion than lower status members, and more of that information is "unshared." Thomas-Hunt and Burris (2003) found that unshared information stated by a lone expert (thus, high status) member in a 4-person group was more likely to be repeated when his expertise was known, and indeed, other research has shown that unshared information shared by a low-status member is likely to be viewed with more skepticism (Stewart & Stasser, 1995; Wittenbaum, 2000). Finally, low status members perceive that

communicating shared information is more likely to raise their status than communicating unshared information, and hence they are likely to do so in order to acquire status (Wittenbaum & Bowman, 2005).

This line of research, more than many others in the groups traditions, has really begun to incorporate hierarchy more fully into the research paradigm. As a result, there can be a fuller understanding of when and why discussion bias occurs as the result of the group structure. Taken together, the research seems to assume a fixed or stable status hierarchy, in which each member's position is fairly well set. Within such groups, there is a higher likelihood of discussion bias, since there is less opportunity to make a power play. Therefore, we propose

P1. Hierarchy interacts with information distribution and exchange such that more stable hierarchies lead to greater discussion bias in groups.

However, power and status may change as the group undergoes changes in team composition and task demands. Only recently have researchers begun to examine how information sharing might be used as a power tactic to acquire status and thus influence the group hierarchy. The probability of success for this type of strategic power play is likely to change as the group context changes. Determining which opportunities are most ripe for success requires us to take a temporal perspective of groups.

Until quite recently, time has not been a major focus in the organizations or groups literatures. That is changing, however, as the calls to include time in our theoretical thinking have begun to draw attention (cf. Arrow, Henry, Poole, Wheelan, & Moreland, 2005; Mannix & Jehn, 2004; McGrath & Kelly, 1986; Bluedorn & Denhardt, 1988; George & Jones, 2000). Temporal issues affect organizational groups in a variety of ways. For example, Moreland and Levine (1982) have defined the stages of group formation as members enter and exit over time, affecting team composition and factors such as the goals, norms, and power structure of the group. As teams mature, they must manage the scheduling of internal task activities and deal with changing membership and changing interpersonal patterns of behavior within the group (McGrath, 1991; McGrath & O'Connor, 1996). Deadlines come into play, as groups must finish projects "on time" (Parks & Cowlin, 1995), and often in synch with external activities of the firm (Ancona & Chong, 1996, 1999). Teams may also be asked to respond to nonroutine external events, such as environmental shocks or unexpected crises, within a certain time frame (Waller, 1999). Recently, some intriguing work has been done looking at several temporal features of groups. In this section we look at how adding the hierarchical dimension might enrich this research area.

Newcomers to Groups

There are clearly some advantages to membership stability in teams. With increasing experience of working together, team members develop a more complex understanding of their task (Gruenfeld & Hollingshead, 1993) and become more cooperative (Chatman & Flynn, 2001). However, the more organizations increase their reliance on teams as the unit of organizational decision making, the more likely it is that these teams will experience changes in membership. As such, teams will lose members and will gain members as the needs for specific expertise changes over the life cycle of the team. The necessity for turnover in teams is not all bad news, however, and in some situations may result in better performance. For example, Argote, Epple, Rao, and Murphy (1997) found that moving new members into a manufacturing plant initially increased, and then decreased plant productivity. Thus, how one manages this turnover process can have profound effects on the team's performance, because it heralds a disruption in both the composition of the team's knowledge as well as the existing social relationships. Although team newcomers may be included for important reasons, they often face difficulty integrating themselves into a functioning team. At other times, however, teams eagerly embrace the expertise, skills, or novel ideas that the new members have to offer. There is a large body of research and writing that focuses on the socialization of newcomers – in some cases issues of status and power are considered, but more often they are not.

Being a newcomer in a team is a stressful experience because of disruption of the social system that is caused by their presence. As such, newcomers are typically quite responsive to the socialization attempts of old-timers. In terms of the acquisition of mental models of the knowledge structure of the team, the knowledge flow is typically from the old-timers to the newcomers. Of course, the implication is that the higher status is held by the old-timers. Newcomers, however, can be quite valuable. Consider the situation when a team's environment or task changes rapidly. In this situation, if the newcomer has valuable knowledge relevant to the new situation, their status is likely to improve. Levine, Choi, and Moreland (2003) suggest that such a situation is ripe for innovation to occur, however, newcomers can produce new ideas but old-timers also have to agree to implement these ideas: that there is a negotiation, either explicit or implicit, between these two groups (Levine & Moreland, 1994; Moreland & Levine, 1982).

Rotating Group Members

Scholars and practitioners alike have suggested that one way to assure that team-based knowledge gets disseminated beyond the team's boundaries is to

rotate team members (Ancona and Caldwell, 1992; Mohrman, Cohen, & Mohrman, 1995; Nahavandi & Aranda, 1994; Nonaka & Takeuchi, 1995). While this seems a reasonable prescription, until the recent work of Gruenfeld, Martorana, & Fan (2000), researchers had not empirically investigated the impact of team member rotation on the performance of the teams to whom the members are rotated as well as the performance of the teams who lose and later re-gain their members. They investigated the impact of temporary membership changes in the form of itinerant members: individuals who leave their group of origin temporarily for the purpose of importing new information into the team or exporting team information to other teams. Particularly, they were interested in assessing the impact on the learning of team incumbents in teams who were visited by itinerant members, of team incumbents in teams when the itinerant returned, and of these itinerant members.

While one might expect that itinerant team members would have more impact on their home teams when they returned from their experience, Gruenfeld and her colleagues found just the opposite: the direct influence of itinerant team members was diminished after they changed groups and when they had unique information to offer – their ideas appeared less frequently in the final product the team of origin produced. However, their indirect influence increased in their teams of origin – indigenous team members produced more unique ideas in the presence of a returning team member. Although itinerant team members were perceived to be more involved after their return, they were also perceived to be more argumentative. Consistent with the findings of Phillips et al. (2003), who also discovered that when itinerant members visited a new team (i.e., in this case, they were out-group members), they had greater direct influence but significantly less indirect influence. That is, indigenous team members produced significantly fewer unique ideas, but the itinerant team member's (in a visitor role) ideas were valued more and used more often in the final product.

The changes to a group's social structure resulting from members coming and going affect group process and performance in significant and complex ways, suggesting that status, power, and hierarchy are key factors to consider in dynamic teams. A consistent theme of this research is that new or unique information itself is not sufficient to significantly affect status. Instead, the information has the greatest impact on a member's status when it is shared at the right time and place. Periods of changing group membership represent times when information sharing might successfully be used as a strategic power play.

P2. Hierarchy interacts with changes in group situation over time such that group members will share more uniquely held information during dynamic periods.

Transactive Memory

As we can see from the work on discussion biases, for teams to take advantage of their potential synergy, they must have knowledge of, and access to, the various reserves of information that exist within group. In other words, groups need to know *who knows what*. Wegner (1987, 1995) calls this a transactive memory system and describes it as a shared system that groups use to encode, store, and retrieve their available information.

In an empirical demonstration of transactive memory, researchers examined the performance of dating and stranger couples on a memory task (Wegner, Erber, & Raymond, 1991). Asked to memorize a list of words, half of the couples were provided with a structure to help them, while the other half of the couples were not provided with such a structure. The results showed that dating couples with no imposed structure performed the recall task best, while dating couples with an imposed memory structure performed most poorly on the recall task. In contrast, stranger couples performed better on the recall task when a structure was provided. Thus, imposing an external memory structure interfered with the dating couple's normal transactive memory function while allowing stranger couples to develop a memory structure much more quickly.

Hollingshead (1998) argues that transactive memory is more likely to be developed among dyads or teams who have greater shared experiences, common language, and joint decision-making. In the group context, Moreland, Argote, and Krishnan (1996) found that groups whose members were trained together performed more effectively on a task than groups whose members were trained apart. They argued that this co-training effect develops as team members learn about other members' domains of expertise through a combination of experience and member disclosure. Over time, the team relies on these pools of expertise and different members become responsible for encoding, storing, and retrieving expert knowledge across domains. Experience also aids groups in becoming more effective in learning transfer as they develop transactive memory systems facilitating more abstract understandings of the task domains (Lewis, Lange, & Gillis, 2005).

Recently, work has begun providing evidence that transactive memory systems have benefits in organizational settings (e.g., Austin, 2003; Faraj & Sproull, 2000; Lewis, 2003). Of course, within the organizational setting, one might expect a higher range of diversity within the team, and member

expertise and access to unique knowledge pools may have greater variance (Mannix & Neale, 2005). In diverse teams where members have considerable face-to-face interaction, diversity of perspective and expertise may be identified by various markers. Style of dress, behaviors, gender, age, race, and ethnicity may convey information about an individual or team member's perspective, knowledge, or expertise, and also convey information about status and power. Such heterogeneity may facilitate the development of a transactive memory system because of these obvious physical cues. However, also consider that since many organizational teams are currently *virtual*, that is, separated by geographical or temporal distance, the informational value of these visual cues is dramatically reduced (Mannix, Griffith, & Neale, 2002). Nonetheless, research has shown that status cues are transmitted through virtual communication via means such as e-mail signatures and message text (Owens, Neale, & Sutton, 2000).

Thus, the question of to what extent status and power differences affect the development, maintenance, and communication of transactive memory systems has not been explored. This seems like a natural connection, given the highly structural nature of both transactive memory systems and communication patterns in groups. It is likely that those group members who contribute the majority of specialized knowledge to the group's transactive memory system will have the most expertise and will be ascribed the highest status. In addition, as group members are viewed as the repositories of important group knowledge, they are also likely to gain status. But the transactive memory system might also provide a mechanism for non-expert group members to gain status or power. Knowing who knows what within a group seems particularly likely to provide opportunities to engage in strategic power tactics, if the information is used judiciously.

P3. Group members' contribution to and mastery of a transactive memory system will affect and be affected by the group hierarchy. Specifically, (3a) individuals with mastery of the group's transactive memory system will be higher in the status hierarchy than individuals with less knowledge of the transactive memory system; (3b) mastery of group's transactive memory system will allow low status members to move up in the status hierarchy.

Conflict and Performance

Groups engaged in complex interdependent tasks will inevitably experience some level of conflict (Fulk & McGrath, 2005). Conflict can be defined as

awareness by the parties involved of differences, discrepancies, incompatible wishes, or irreconcilable desires (Boulding, 1963). Conflict can also be created when each member of a group is confronted with a mixed-motive situation (Schelling, 1960) – i.e., a choice between the motive to compete and the motive to cooperate with other group members. Although it is true that different measures are posited to resolve the conflict within different perspectives on the small group – from the creation of a common social identity, to rational decision making, symbolic rituals, and even psychotherapy – the conflict is pervasive.

Clearly, understanding the resolution of conflict within groups involves the exercise of power and status (Sell, Lovaglia, Mannix, Samuelson, & Wilson, 2004). The groups literature has identified three different types of intragroup conflict: task, relationship, and process conflict. Task conflict is disagreement over differences in ideas, viewpoints, and opinions pertaining to the group's task, similar to cognitive conflict (Amason & Sapienza, 1997). Relationship conflict is conflict resulting from interpersonal incompatibilities, which includes affective components such as feeling tension and friction. Process conflict is conflict about dividing and delegating responsibility and deciding how to get work done, (Jehn, 1997).

While relationship conflict is consistently associated with low group performance and member satisfaction (De Dreu & Weingart, 2003), the results have been mixed for how well task and process conflict predict these outcomes. High levels of task conflict have been found to distract the group's attention from reaching a consensus or accomplishing the task (Porter & Lilly, 1996), yet too little task conflict can lead to frustration due to a perceived lack of reciprocal commitment or disbelief that other members are contributing (Jehn, 1997). In addition, a recent meta-analysis found task conflict to be negatively correlated with performance (De Dreu & Weingart, 2003). There has been less work done on process conflict, however, in a small number of cross-sectional studies, high levels of process conflict have been negatively related to performance and satisfaction (Behfar, Peterson, Mannix, & Trochim, 2005; Porter & Lilly, 1996; Jehn, 1997).

The recent meta-analysis by De Dreu and Weingart (2003) casts doubt on some of the previous research, which suggests that at least moderate levels of task conflict can benefit group performance. However, it should be noted that all of the studies analyzed by the researchers were single-shot rather than longitudinal – this was the case out of necessity. Nonetheless, it may be just as relevant to consider *when* conflict occurs, rather than *if* it occurs, or even to what extent. For example, a team that has early conflicts regarding task allocation may assist group members in assigning the correct people to the

correct task; however, later process conflicts might interfere with smooth, efficient operations and may be used to mask negative relationship issues.

In a longitudinal study, [Jehn and Mannix \(2001\)](#) studied the conflict patterns of 51 project teams over 12 weeks. Their findings revealed that higher group performance could be differentiated by a particular pattern for each of the three conflict types. High-performing teams were characterized by process conflict that started out very low, but increased somewhat at the midpoint, and again toward the deadline. Relationship conflict also started out low, remained low at the midpoint, but increased slightly toward the deadline. And perhaps the most interesting finding was the pattern of task conflict, which started out at moderate levels, rose at the midpoint, and dropped back down toward the deadline. In the high performing groups the midpoint was characterized by concentrated debate and discussion of the task. This seemed to allow groups to adopt new perspectives, leveraging the synergy provided by moderately high, but not overly high levels of task conflict. To reach high performance, groups were then required to follow-through with consensus and implementation of the task goals, which is represented by a decrease in task conflict after the midpoint (cf. [Gersick, 1988](#)).

Low performing groups, by contrast, actually experienced a dip in task conflict during the middle time block. In addition, they experienced a high degree of task conflict right before the project deadline, when it was likely to be more destructive than helpful. The same low-performing groups also exhibited an escalating pattern for relationship conflict. This dual rise may reflect the negative cycle that can develop between task and relationship conflict. In these groups, task conflict may have been misperceived as personal criticism, and interpreted as relationship conflict ([Deutsch, 1969](#); [Brehmer, 1976](#); [Amason, 1996](#)). If this occurs over time, the result may be a steady rise in both task and relationship conflict, and a performance loss rather than gain.

The findings on whether conflict, particularly task conflict, is beneficial within groups have been mixed. A focus on status and power differences within the group may help us to a better understanding of the role of conflict in group performance. Consider that if the study had employed a one-time measure of conflict, the results and their interpretation would have been very different. The interpretation likely would have been that low performing groups had very high levels of all types of conflict throughout the group process, while high performing groups had moderate amounts of conflict with little differences between the levels of task, relationship, or process. By looking at patterns over time, it is possible to see that *when* certain interactions take place it may matter just as much as what sorts of interactions occur.

Of course, it is not possible to see how the hierarchy of the group, either through status or power differences, may have affected the expression of conflict and its resolution. Clearly, among executive MBA students working on projects, the group members would be expected to differ on a variety of dimensions, including knowledge, skills and abilities, values and beliefs, access to resources, access to social networks, personality and behavioral styles, and demographic characteristics. All of these aspects would contribute to differences in status and power, and hence the hierarchy of the teams.

Since one of the co-authors of this chapter was also a co-author of the longitudinal research, it may not be too out of place to say that although some important structural variables were measured (work-related values, demographic characteristics), a holistic picture of the team structure and hierarchy were not examined. As a result, a full understanding of the team dynamics as it relates to conflict and conflict resolution is elusive. However, we might speculate on how groups that perform well may have found a way to manage the conflict that occurs without it damaging the group interaction pattern. For example, [Simons and Peterson \(2000\)](#) found that trust was the important variable to break the link between task and relationship conflict. When teams trusted one another they were able to have constructive task conflict without destructive relationship conflict. In a qualitative study of conflict resolution types, [Behfar et al. \(2005\)](#) found that high performing teams shared three conflict-structuring tendencies: (1) they focused more on the content of interpersonal interactions rather than delivery style, (2) they explicitly communicated the reasons behind decisions that they reach in accepting and distributing work assignments, and (3) they assigned work to members who had the relevant task expertise, rather than by convenience.

In both these examples, the high performing teams were able to avoid destructive conflict by accepting that the disagreements were task focused and for the good of the overall outcome. In addition, the roles in these groups were clear, either because the groups were hierarchical or because the peer groups developed assignments based on a clear and agreed upon metric-expertise. Perhaps these teams are able to clearly focus on the task because they were not focused on jockeying for status within the group ([Owens, Neale, & Sutton, 2003](#)). In stable hierarchical groups when high and low status members disagree, they may be more likely to view it as task conflict because there is no pressure to engage in a contest for prestige. However, when status is up for grabs, or when trust is weak, it is much easier to transform constructive task conflict into detrimental relationship conflict. Because the parties do not trust that the disagreement is task related, and instead suspect that the argument may be motivated by a power

grab, the conflict becomes personal. When we take a hierarchical perspective of groups experiencing task/relationship conflict spillover, we might see that the status and power balance are causing the trouble.

P4. The stability of group effects how conflict is experienced and resolved in groups. Specifically, (4a) stable group hierarchy allows groups to engage in constructive, task focused conflict, without experiencing relationship conflict; and (4b) peer groups or unstable group hierarchies are more likely to engage in both detrimental relationship and task focused conflict.

Creativity: Managing Diversity in Groups

What does it take to develop a truly effective as well as creative team? Teams that do much of the organization's work have to find ways to cope that include not only innovation and exploration of new opportunities, ideas, and products but also the straightforward exploitation and implementation of what is already known (Smith & Tushman, 2005; March, 1991; Tushman & Romanelli, 1985). Exploration activities typically include experimenting, innovating, divergent thinking, and problem solving, while exploitation focuses on production, efficiency, convergent thinking, and execution. In essence, exploration is rooted in variance increasing activities while exploitation is rooted in variance minimizing activities. In the literature, exploration and exploitation have been characterized as fundamentally different search modes, and usually result in completely different outcomes (Lewis, 2000; March, 1991; Cameron & Quinn, 1988). Despite the fact that these two activities are fundamentally contradictory, many organizational teams are expected to perform both sorts of tasks (Tripsas & Gavetti, 2000).

Exploration requires the creation and emergence of divergent perspectives, and, as such, is best achieved with teams composed of heterogeneous individuals (Mannix & Neale, 2005; Brown & Eisenhardt, 1998). Specifically, given the extant research, the heterogeneity required to bring about creative solutions to problems is most likely to be heterogeneity at the level of knowledge, skills, and abilities, although scholars also argue that demographic and social category differences may be associated with these deeper level cognitive differences (Halpren, 1986; Halpern, 1989; Eagly & Wood, 1991; Feingold, 1994). Indeed, social category differences may trigger expectations of deeper-level cognitive differences, actually leading to a self-fulfilling prophecy in group process and performance (Phillips & Loyd, 2006; McGrath, Berdahl, & Arrow, 1996). Researchers have demonstrated

the positive effects of heterogeneity of skills and abilities on performance in a variety of settings, ranging from top management teams in the airline industry (Hambrick, Cho, & Chen, 1996) to textile workers in the garment industry (Hamilton, Nickerson, & Owan, 2003). In terms of creativity, some of the earliest work linking group heterogeneity and problem solving was undertaken by Triandis and colleagues, who specifically argued that heterogeneity was most beneficial for tasks requiring creativity (Triandis, Hall, & Ewen, 1965). Indeed, dyads with heterogeneous attitudes (e.g., liberal and conservative) generated more creative solutions to problems than dyads with homogeneous attitudes. In the field, Bantel and Jackson (1989), examined the composition of the top management teams of within the banking industry, and found that more innovative banks were managed by teams that were more diverse with respect to their educational and functional backgrounds of expertise.

The diversity required to facilitate more creative solutions is also likely to increase variance in status and power differences within groups. McGrath, Berhadl, and Arrow (1995), propose that among the five types of diversity present within groups, one's relative organizational status is one likely to be affected by each other type of diversity (e.g., demography, knowledge and skills, values & beliefs, personality).

To what extent individuals with low power (if not *status*) in groups can contribute to overall creativity has been examined through the work on minority influence. The classic finding from this area of work is that while the presence of a majority opinion tends to stimulate convergent thinking, the presence of a minority opinion tends to generate divergent thinking – a consideration of the issue from multiple perspectives – resulting in debate and constructive conflict (Nemeth, Mosier, & Chiles, 1992). When there is a minority opinion, majority members respond with increased cognitive flexibility. Ironically, this seems to occur because of the desire of the team to converge to a single outcome or decision. As teams attempt to explain away or somehow incorporate the minority perspective the team typically must reconceptualize their perspective on the task. In doing so, they may recognize aspects of the problems that had, heretofore, been hidden (Nemeth, 1986).

It has consistently been shown that individuals exposed to opposing minority views exert more cognitive effort, attend to more aspects of the situation, think in a divergent way, and are more likely to detect novel solutions or come to new decisions (Nemeth & Kwan, 1987; Nemeth & Wachtler, 1983). However, it is also the case that while people publicly adopt the majority perspective (Tanford & Penrod, 1984), the minority

perspective exerts significant influence on latent or private opinions (Maass & Clark, 1984) – even though their publicly espoused opinions or compliance behavior may not change. Thus, low power individuals, in the form of minorities, can foster more creativity in teams.

It is also important to note that many times minority viewpoints come from individuals who are distinct from the group on more than one metric, that is, *double-minorities*. Single minorities differ from their majority colleagues only in their beliefs. In contrast, double minorities differ from their majority both in their beliefs and in their social categorization. As such, these individuals may also have lower status in the group. Their impact on group process and performance is less clear. Work by Mugny, Kaiser, and Papatamou (1983) suggested that double-minority status facilitated attributions to explain the minority's deviance – and the attributions were typically oriented to self-interest (i.e., a woman arguing for women's rights) – and thus more easily dismissed as biased. In contrast to this finding on single versus double minorities (e.g., Mackie, Gastardo-Conaco, & Skelly, 1992; Clark & Maass, 1988; McGuire & McGuire, 1988), Moscovici (1985a, b) proposed that double-minorities who differ not only in their demographic characteristics but also in their opinions might exert greater latent influence than so-called “in-group” minorities, who are similar to the majority in their demographic characteristics, but have divergent opinions. Because of their desire to agree with other in-group members, the in-group member who possesses a minority perspective will be less persistent in expressing his or her deviant views. On the other hand, when out-group members possess a different perspective, they may be more willing to express those opinions and exert influence on the group. Not only will this differentiation between out- and in-group allow all group members to maintain category distinctiveness and cognitive consistency, but it will also allow the out-group member to validate his or her contribution to the group.

The prescriptive aspect of minority influence research has typically focused on how to improve the influence of the minority group member through behavioral styles (Moscovici, 1985a, b). Another option is to focus on the structure and hierarchy of the group itself. Much of the original study of status, particularly through expectation states theory, dealt with the emergence of stable power and prestige orders (Berger & Connor, 1974). However, status has also been shown to be constructed (e.g., Ridgeway, 1991) as well as contested (e.g., Haas, 2005; Overbeck et al. 2005). Indeed, individuals are likely to use group interactions as opportunities to change the status hierarchy (Owens & Sutton, 2001; Proell, 2005). Thus, although

status hierarchies may be relatively inflexible over time, power may be more flexible, depending on the context. If groups are able to align their power structures with the current demands of the task, then they are likely to be more effective. For example, if the task requires knowledge of a specific technology, then the holders of that knowledge should be given more influence for the purposes of the task, regardless of their demographic characteristics, rank or tenure in the organization, or other status markers. As demands shift, either due to the environment, the task, or even the lifecycle of the team, influence should change.

Consider this example: as a development team moves from designing a product to fabricating and marketing it, differential knowledge and expertise will be called for, and as a result, different individuals should be more influential within the team. This varying influence may, at times, be inconsistent with the existing status hierarchy, however, that may be the mark of a well functioning team and an astute leader. This example also suggests the need for more divergent thinking early on (that is, creativity), versus more convergent thinking later in its lifecycle.

In a study of power use within a large development organization, [Wageman and Mannix \(2004\)](#) attempted to examine fluidity of influence among team leaders and members by focusing on who took on key team functions – particular high status individuals (usually the team leader) or the team-as-a-whole. Classic team theory suggested that team performance is a joint function of the level of effort, strategy, and the amount of knowledge and skill possessed by the team ([Hackman & Morris, 1975](#)). As such, teams should be most effective when team functions that require the collective capabilities and motivation of the team are performed by the team-as-a-whole, while functions that the team is likely to try to avoid are better performed by high status team members, usually the team leader. For example, we found that teams were better off when the team leader allowed the team-as-a-whole to determine strategies for accomplishing the task goals, however, teams were generally better off when high status individuals performed critical evaluations of team accomplishments.

Thus, although the [Wageman and Mannix \(2004\)](#) study did not specifically examine shifting patterns of influence between individuals, it does suggest that as leaders are able to shift influence patterns away from themselves and toward the group, when appropriate, performance will improve. Thus, we might infer that leaders who are capable of creating fluid patterns of influence among team members may be more likely to create teams that will engage in communication, influence processes, as well as divergent and convergent thinking and decision making.

P5. Group effectiveness and creativity will increase as groups are able to align influence with task and environmental demands, regardless of the status hierarchy.

It is also likely to be the case that as individual experts are given the chance to shine through their sponsorship from higher status members, they may also gain status. Thus, just as the mastery of a transactive memory system may allow low status group members to improve their position in the social order, so may the demonstration of relevant knowledge and expertise. Such change is likely to rely, to some extent, on the mentoring and support of higher status individuals in the organization.

P6. Over time, influence that is mis-aligned with status may alter that status hierarchy.

CONCLUSION

We have argued that, when compared to other topics in group research, structure and hierarchy have received relatively less attention. We focused on hierarchy as defined by both status and power, and proposed that understanding how organizational groups make decisions, resolve conflicts, and ultimately perform, must stem from an understanding of the hierarchy in the team and how it changes over time. Taking three research areas, we have demonstrated the benefits that can be achieved by more fully integrating status and power into group research. Indeed, it seems possible that disentangling some of the theoretical differences between status and power – both how status can lead to power, and vice versa – may be well achieved by focusing on research in the group area.

Within the arena of information exchange we focused on discussion biases and transactive memory research. The work on discussion biases has, more than others in the groups area, incorporated hierarchy into the research paradigm, but it has fallen short of taking a systematic view of status and power over time. We have proposed that information sharing might be used as a strategic power tactic during periods of dynamic group activity. New-comers in groups and rotating group membership are both quite topical for groups in modern organizations, and have important implications for power and status structures. Transactive memory research has not been as comprehensive, although the structural nature of this paradigm lends itself well to incorporating a power and status perspective.

We also looked at research on patterns of conflict over time as one example of longitudinal research that could add the status dimension to more

fully understand the impact of group process on performance and outcomes. And finally, we examined the link between diversity, creativity, and the alignment of influence. Here we proposed that groups able to align their influence patterns to the demands of the tasks and environment would be most effective, even if this alignment did not fit the existing status structure. Such a study would point to an interesting examination of the dynamic nature of status and power, and their effects on group and individual outcomes.

Of course, our arguments require that researchers add yet another variable to studies that are often already complex, and difficult. As we know, studies of groups and teams are intricately designed, complicated to enact, costly to run, and time-consuming to complete. However, the interdependence of actors within a group or team is hard to avoid. The social order that they create, almost instantly, should be difficult for us as social scientists to ignore. We must understand in much more depth when and how the social hierarchy affects specific group processes, states, and outcomes. Ultimately, we believe that the key to doing so will require a closer collaboration between sociologists, social psychologists, and organizational scholars working within the domains of status, power, and influence.

ACKNOWLEDGMENTS

The authors would like to thank the extremely helpful comments of the editors, Shane Thye and Edward Lawler. We are also grateful for the insights of our colleagues Simona Botti, Gregory Northcraft, and Kathleen O'Connor, who were kind enough to read and comment on an earlier draft of this manuscript.

REFERENCES

- Abrams, D., Hogg, M., Hinkle, S., & Otten, S. (2005). The network perspective on small groups. In: M. S. Poole & A. B. Hollinghead (Eds), *Theories of small groups: Interdisciplinary perspectives* (pp. 99–138). Thousand Oaks, CA: Sage.
- Allport, G. (1958). *The nature of prejudice*. Reading, MA: Addison-Wesley.
- Amason, A. (1996). Distinguishing effects of functional and dysfunctional conflict on strategic decision making: Resolving a paradox for top management teams. *Academy of Management Journal*, 39, 123–148.
- Amason, A., & Sapienza, H. (1997). The effects of top management team size and interaction norms on cognitive and affective conflict. *Journal of Management*, 23, 496–516.

- Ancona, D. G., & Caldwell, D. F. (1992). Bridging the boundary: External activity and performance in organizational teams. *Administrative Science Quarterly*, 37(4), 634–665.
- Ancona, D., & Chong, C. (1996). Entrainment: Pace, cycle and rhythm in organizational behavior. In: L. L. Cummings & B. Staw (Eds), *Research in organizational behavior* (Vol. 18, pp. 251–284). Greenwich, CT: JAI Press.
- Ancona, D., & Chong, C. (1999). Cycles and synchrony: The temporal role of context in team behavior. In: E. Mannix, M. Neale & R. Wageman (Eds), *Research on managing groups and teams* (Vol. 2, pp. 33–48). Stamford, CT: JAI Press.
- Anderson, C., & Berdahl, J. L. (2002). The experience of power: Examining the effects of power on approach and inhibition tendencies. *Journal of Personality and Social Psychology*, 83, 1362–1377.
- Anderson, C., & Spataro, S. E. (2005). Misperceiving your place: Humility and hubris in social hierarchies. In: M. A. Neale, E. A. Mannix & M. C. Thomas-Hunt (Eds), *Research on managing groups and teams: Status and groups* (Vol. 7). New York: Elsevier Science Press.
- Argote, L., Epple, D., Rao, R., & Murphy, K. (1997). *The acquisition and depreciation of knowledge in a manufacturing organization: Turnover and plant productivity*. Working paper. Carnegie-Mellon University.
- Argote, L., Gruenfeld, D. H., & Naquin, C. (2000). Group learning in organizations. In: M. E. Turner (Ed.), *Groups at work: Advances in theory and research*. Hillsdale, NJ: Lawrence Erlbaum and Associates.
- Arrow, H., Henry, K. B., Poole, M. S., Wheelan, S., & Moreland, R. L. (2005). Traces, trajectories, and timing: The temporal perspective on groups. In: M. S. Poole & A. B. Hollinghead (Eds), *Theories of small groups: Interdisciplinary perspectives* (pp. 313–368). Thousand Oaks, CA: Sage.
- Austin, J. R. (2003). Transactive memory systems in organizational groups: The effects of content, consensus, specialization and accuracy on group performance. *Journal of Applied Psychology*, 88, 866–878.
- Bacharach, S. B., & Lawler, E. J. (1980). *Power and politics in organizations*. San Francisco, CA: Jossey-Bass.
- Bacharach, S. B., & Lawler, E. J. (1981). *Bargaining: Power, tactics, and outcomes*. San Francisco, CA: Jossey-Bass.
- Bantel, K., & Jackson, S. (1989). Top management and innovations in banking: Does the composition of the team make a difference? *Strategic Management Journal*, 10, 107–124.
- Bass, B. M. (1990). From transactional to transformational leadership – learning to share the vision. *Organizational Dynamics*, 18(3), 19–31.
- Behfar, K., Peterson, R., Mannix, E., & Trochim, W. (2005). *Exploring conflict resolution-strategies in autonomous work groups*. Working paper.
- Berger, J., Cohen, B., & Zelditch, M. (1972). Status characteristics and social interaction. *American Sociological Review*, 63, 379–405.
- Berger, J., & Connor, T. (1974). Performance expectations and behavior in small groups: A revised formulation. In: J. Berger, T. Connor & M. Fisek (Eds), *Expectation states theory: A theoretical research program* (pp. 85–109). Cambridge, MA: Winthrop.
- Berger, J., Conner, T. L., & Fisek, M. H. (1982). *Expectation states theory: A theoretical research program*. Cambridge, MA: Winthrop.
- Berger, J., Fisek, M. H., Norman, R. Z., & Zelditch, M., Jr. (1977). *Status characteristics and social interaction: An expectation-status approach*. New York: Elsevier.

- Berger, J., Ridgeway, C. L., Fisek, M. H., & Norman, R. Z. (1998). The legitimation and delegitimation of power and prestige orders. *American Sociological Review*, 63(3), 379–405.
- Berger, J., Rosenholtz, S. J., & Zelditch, M. (1980). Status organizing processes. *Annual Review of Sociology*, 6, 479–508.
- Berger, J., Wagner, D. G., & Zelditch, M., Jr. (1992). A working strategy for constructing theories: State organizing processes. In: G. Ritzer (Ed.), *Metatheorizing: Key issues in sociological theory* (Vol. 6, pp. 107–123). Newbury Park, CA: Sage.
- Berger, J., & Zelditch, M., Jr. (1985). *Status, rewards, and influence: How expectations organize behavior*. San Francisco, CA: Jossey-Bass.
- Bluedorn, A., & Denhardt, R. (1988). Time and organizations. *Journal of Management*, 14, 299–320.
- Boulding, K. E. (1963). Conflict-management as a key to survival. *American Journal of Orthopsychiatry*, 33(2), 230–231.
- Brehmer, B. (1976). Social judgement theory and the analysis of interpersonal conflict. *Psychological Bulletin*, 83, 985–1003.
- Brown, S., & Eisenhardt, K. (1998). *Competing on the edge: Strategy as structured chaos*. Boston, MA: Harvard Business School Press.
- Buss, D. M., & Kenrick, D. T. (1998). Evolutionary social psychology. In: D. Gilbert, S. Fiske & G. Lindzey (Eds), *The handbook of social psychology* (pp. 982–1026). New York: Random House.
- Camerer, C., & Thaler, R. H. (1995). Ultimatums, dictators and manners. *Journal of Economic Perspectives*, 9(2), 209–219.
- Cameron, K., & Quinn, R. (1988). Organizational paradox and transformation. In: R. Quinn & K. Cameron (Eds), *Paradox and transformation* (pp. 1–18). Cambridge, MA: Ballinger.
- Caporael, L., Wilson, D., Hemelrijk, C., & Sheldon, K. (2005). Small groups from an evolutionary perspective. In: M. S. Poole & A. B. Hollinghead (Eds), *Theories of small groups: Interdisciplinary perspectives* (pp. 369–396). Thousand Oaks, CA: Sage.
- Chatman, J., & Flynn, F. (2001). The influence of demographic heterogeneity on the emergence and consequences of cooperative norms in work teams. *Academy of Management Journal*, 44, 956–974.
- Clark, R. D., & Maass, A. (1988). Social categorization in minority influence: The case of homosexuality. *European Journal of Social Psychology*, 18, 347–364.
- Cosmides, L., & Tooby, J. (1994). Better than rational: Evolutionary psychology and the invisible hand. *The American Economic Review*, 84, 327–332.
- Dansereau, F., Jr., Graen, G., & Haga, W. J. (1975). A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process. *Organizational Behavior and Human Performance*, 13, 46–78.
- De Dreu, C., & Weingart, L. (2003). Task versus relationship conflict, team performance, and team member satisfaction. *Journal of Applied Psychology*, 88, 741–749.
- Deutsch, M. (1969). Conflicts: Productive and destructive. *Journal of Social Issues*, 25, 7–41.
- Eagly, A., & Wood, W. (1991). Explaining sex differences in social behavior: A meta-analytic perspective. *Personality and Social Psychology Bulletin*, 17, 306–315.
- Eagly, A. H. (1987). *Sex differences in social behavior: A social-role interpretation*. Hillsdale, NJ: Lawrence Erlbaum.
- Eagly, A. H., & Karau, S. (1991). Gender and the emergence of leaders: A meta-analysis. *Journal of Personality and Social Psychology*, 60, 685–710.

- Eagly, A. H., & Wood, W. (1999). The origins of sex differences in human behavior: Evolved dispositions versus social roles. *American Psychologist*, *54*, 408–423.
- Emerson, R. M. (1962). Power-dependence relations. *American Sociological Review*, *27*, 31–41.
- Emerson, R. M. (1964). Power-dependence relations: Two experiments. *Sociometry*, *27*, 282–298.
- Faraj, S., & Sproull, L. (2000). Coordinating expertise in software development teams. *Management Science*, *46*, 1554–1568.
- Feingold, A. (1994). Gender differences in personality: A meta-analysis. *Psychological Bulletin*, *116*, 429–456.
- Festinger, L. (1953). An analysis of compliant behavior. In: M. Sherif & M. O. Wilson (Eds), *Groups relations at the crossroads* (pp. 232–256). New York: Harper.
- Fisek, M. H., Berger, J., & Norman, R. Z. (1995). Evaluations and the formation of expectations. *American Journal of Sociology*, *101*, 721–746.
- French, J. R., Jr., & Raven, B. H. (1959). The bases of social power. In: D. Cartwright (Ed.), *Studies in social power* (pp. 150–167). Ann Arbor, MI: Institute for Social Research.
- Fulk, J., & McGrath, J. (2005). Touchstones: A framework for comparing premises of nine integrative perspectives on groups. In: M. S. Poole & A. B. Hollinghead (Eds), *Theories of small groups: Interdisciplinary perspectives* (pp. 399–426). Thousand Oaks, CA: Sage.
- George, J., & Jones, G. (2000). The role of time in theory and theory building. *Journal of Management*, *26*, 657–684.
- Gersick, C. (1988). Time and transition in work teams: Toward a new model of group development. *Academy of Management Journal*, *31*, 9–41.
- Gigone, D., & Hastie, R. (1993). The common knowledge effect: Information sharing and group judgment. *Journal of Personality and Social Psychology*, *65*, 959–974.
- Glick, S., & Croson, R. (2001). Reputations in negotiation. In: S. Hoch & H. Kunreuther (Eds), *Wharton on decision making* (pp. 177–186). New York: Wiley.
- Gruenfeld, D., & Hollingshead, A. (1993). Sociocognition in workgroups: The evolution of group integrative complexity and its relation to task performance. *Small Group Research*, *24*, 383–405.
- Gruenfeld, D., Martorana, P., & Fan, E. (2000). What do groups learn from their worldliest members? Direct and indirect influence in dynamic teams. *Organizational Behavior and Human Decision Processes*, *82*, 45–59.
- Haas, M. (2005). Cosmopolitans and locals: status rivalries, deference, and knowledge in international teams. In: M. Neale, E. Mannix & M. Thomas-Hunt (Eds), *Research on managing groups and teams: Status in groups* (pp. 201–228). Oxford: Elsevier.
- Hackman, J. R., & Morris, C. G. (1975). Group tasks, group interaction processes, and group performance effectiveness: a review and proposed integration. In: L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 9). New York: Academic Press.
- Halpren, D. F. (1986). *Sex differences in cognitive abilities*. Hillsdale, NJ: Erlbaum.
- Halpern, D. R. (1989). The disappearance of cognitive gender differences: What you see depends on where you look. *American Psychologist*, *44*, 1156–1157.
- Hambrick, D., Cho, T., & Chen, M. (1996). The influence of top management team heterogeneity on firms' competitive moves. *Administrative Science Quarterly*, *41*, 659–684.
- Hamilton, B., Nickerson, J., & Owan, H. (2003). Team incentives and worker heterogeneity: An empirical analysis of the impact of teams on productivity and participation. *Journal of Political Economy*, *111*, 465–497.

- Hollander, E. P. (1995). Organizational leadership and followership: The role of interpersonal relations. In: P. Collett & A. Furnham (Eds), *Social psychology at work: Essays in honour of Michael Argyle* (pp. 69–87). London: Routledge.
- Hollingshead, A. (1998). Retrieval processes in transactive memory systems. *Journal of Personality and Social Psychology*, 74(3), 659–671.
- Hollingshead, A., Wittenbaum, G., Paulus, P., Hirokawa, R., Ancona, D., Peterson, R., Jehn, K., & Yoon, K. (2005). A look at groups from the functional perspective. In: M. S. Poole & A. B. Hollingshead (Eds), *Theories of small groups: Interdisciplinary perspectives* (pp. 21–62). Thousand Oaks, CA: Sage.
- Homans, G. C. (1974). *Social behavior: Its elementary forms* (Rev. ed.). New York: Harcourt Brace Jovanovich.
- Ibarra, H. (1995). Race, opportunity, and diversity of social circles in managerial networks. *Academy of Management Journal*, 38, 673–703.
- Jehn, J. (1997). A qualitative analysis of conflict types and dimensions in organizational groups. *Administrative Science Quarterly*, 42, 530–557.
- Jehn, K., & Mannix, E. A. (2001). The dynamic nature of conflict: A longitudinal study of intragroup conflict and group performances. *Academy of Management Journal*, 44, 238–251.
- Katz, N., Lazer, D., Arrow, H., & Contractor, N. (2005). The network perspective on small groups: Theory and research. In: M. S. Poole & A. B. Hollingshead (Eds), *Theories of small groups: Interdisciplinary perspectives* (pp. 277–312). Thousand Oaks, CA: Sage.
- Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review*, 110(2), 265–284.
- Kim, P. H. (1997). When what you know can hurt you: A study of experiential effects on group discussion and performance. *Organizational Behavior and Human Decision Processes*, 69(2), 165–177.
- Knottnerus, J. D. (1997). Social structural analysis and status generalization: The contributions of potential of expectation states theory. In: J. Szatka, J. Skvoretz & J. Berger (Eds), *Status, network, and structure: Theory development in group processes* (pp. 119–136). Stanford, CA: Stanford University Press.
- Lawler, E. J. (1992). Power processes in bargaining. *Sociological Quarterly*, 33(1), 17–34.
- Lawler, E. J., Ridgeway, C. L., & Markovsky, B. (1993). Structural social psychology and the micro-macro problem. *Sociological Theory*, 3, 268–290.
- Lee, F., & Tiedens, L. Z. (2001). Who's being served? "Self-serving" attributions in social hierarchies. *Organizational Behavior and Human Decision Processes*, 84(2), 254–287.
- Levine, R., & Campbell, D. (1972). *Ethnocentrism: Theories of conflict, ethnic attitudes and group behavior*. Oxford: Wiley.
- Levine, J. M., Choi, H-S., & Moreland, R. L. (2003). Newcomer innovation in work teams. In: P. Paulus & B. Nijstad (Eds), *Group creativity: Innovation through collaboration* (pp. 202–224). New York: Oxford University Press.
- Levine, J. M., & Moreland, R. L. (1994). Group socialization: Theory and research. In: W. Stroebe & M. Hewstone (Eds), *European review of social psychology* (Vol. 5, pp. 305–336). Chichester: Wiley.
- Levine, J., & Moreland, R. (1998). Small groups. In: D. Gilbert, S. Fiske & G. Lindzey (Eds), *The handbook of social psychology, fourth edition*. New York: Oxford University Press.
- Lewin, K., Lippitt, R., & White, R. (1939). Patterns of aggressive behaviour in experimentally created "social climates". *Journal of Social Psychology*, 10, 271–299.

- Lewis, K. (2003). Measuring transactive memory systems in the field: Scale development and validation. *Journal of Applied Psychology, 88*, 587–604.
- Lewis, K., Lange, D., & Gillis, L. (2005). Transactive memory systems, learning and learning transfer. *Organization Science, 16*(6), 581–598.
- Lewis, M. (2000). Exploring paradox: Toward a more comprehensive guide. *Academy of Management Review, 25*, 760–776.
- Lovaglia, M. J. (1994). Relating power to status. In: B. Markovsky, K. Heimer, J. O'Brien & E. Lawler (Eds), *Advances in group processes* (Vol. 11, pp. 87–111). Greenwich, CT: JAI Press.
- Lovaglia, M., Mannix, E., Samuelson, C., Sell, J., & Wilson, R. (2005). Conflict, power and status in groups. In: M. S. Poole & A. Hollingshead (Eds), *Theories of small groups: Interdisciplinary perspective*. Thousand Oaks, CA: Sage.
- Maass, A., & Clark, R. D. (1984). Hidden impact of minorities: Fifteen years of minority influence research. *Psychological Bulletin, 95*, 428–450.
- Mackie, D., Gastardo-Conaco, M. C., & Skelly, J. J. (1992). Knowledge of the advocated position and the processing of in-group and out-group persuasive messages. *Personality and Social Psychology Bulletin, 18*, 145–151.
- Mannix, E. (1994). Will we meet again – effects of power, distribution norms, and scope of future interaction in small-group negotiation. *International Journal of Conflict Management, 5*, 343–368.
- Mannix, E., & Jehn, K. (2004). Let's storm and norm but not right now: Integrating models of group development and performance. In: E. Mannix, M. Neale & S. Blount (Eds), *Research on managing groups and teams: Temporal issues* (Vol. 6). New York: Elsevier Science Press.
- Mannix, E., & Neale, M. (2005). What differences make a difference? The promise and reality of diverse teams in organizations. *Psychology in the Public Interest, 6*(2), 31–55.
- Mannix, E. A. (1993). Organizations as resource dilemmas: The effects of power balance on coalition-formation in small-groups. *Organizational Behavior and Human Decision Processes, 55*(1), 1–22.
- Mannix, E. A., Griffith, T. L., & Neale, M. A. (2002). The Phenomenology of Conflict in Distributed Work Teams. In: P. Hines & S. Kiesler (Eds), *Distributed work* (pp. 213–232). Cambridge, MA: MIT Press.
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science, 2*(1), 71–87.
- Marx, K., & Engles, F. (1992). *Collected works: Marx and Engles: 1874–1979*. New York: International Publishers.
- Mazur, A. (1973). Cross-species comparison of status in established small groups. *American Sociological Review, 38*, 513–529.
- Mazur, A. (1983). Hormones, aggression, and dominance in humans. In: B. Svare (Ed.), *Hormones and aggressive behavior*. New York: Plenum.
- Mazur, A., Rosa, E., Faupel, M., Heller, J., Leen, R., & Thurman, B. (1980). Physiological aspects of communication via mutual gaze. *American Journal of Sociology, 86*, 50–74.
- McGrath, J. (1991). Time, interaction, and performance (TIP): A theory of groups. *Small Group Research, 22*, 147–174.
- McGrath, J., Berdahl, J., & Arrow, H. (1995). Traits, expectations, culture, and clout. In: S. Jackson & M. Ruderman (Eds), *Diversity in workteams* (pp. 47–68). Washington, DC: APA Books.

- McGrath, J. E., Berdahl, J. L., & Arrow, H. (1996). Traits, expectations, culture, and clout: The dynamics of diversity in work groups. In: S. E. Jackson & M. N. Ruderman (Eds), *Diversity in work teams: Research paradigms for a changing workplace* (pp. 17–45). Washington, DC: American Psychological Association.
- McGrath, J. E., & Kelly, J. (1986). *Time and human interaction: Toward a social psychology of time*. New York: The Guilford Press.
- McGrath, J., & O'Connor, K. (1996). Temporal issues in work groups. In: M. A. West (Ed.), *Handbook of work group psychology* (pp. 25–52). New York: Wiley.
- McGuire, W. J., & McGuire, C. V. (1988). Content and process in experience of self. In: L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 97–143). San Diego, CA: Academic Press.
- McLeod, P., & Kettner-Polley, R. (2005). Psychodynamic perspectives on small groups. In: M. S. Poole & A. B. Hollinghead (Eds), *Theories of small groups: Interdisciplinary perspectives* (pp. 63–98). Thousand Oaks, CA: Sage.
- Mechanic, D. (1962). Sources of power of lower participants in complex organizations. *Administrative Science Quarterly*, 7(3), 349–364.
- Mohrman, S. A., Cohen, S. G., & Morhman, A. M. (1995). *Designing team-based organizations: New forms for knowledge work*. San Francisco, CA: Jossey-Bass.
- Molm, L. D. (1988). Status generalization in power-imbalanced dyads: The effects of gender on power use. In: M. J. Webster & M. Foschi (Eds), *Status generalization: New theory and research* (pp. 86–109). Stanford, CA: Stanford University Press.
- Moreland, R., Argote, L., & Krishnan (1996). Socially shared cognitive at work: Transactive memory and group performance. In: J. L. Nye & A. M. Bower (Eds), *What's social about social cognition? Research on socially shared cognition in small groups* (pp. 57–84). Thousand Oaks, CA: Sage.
- Moreland, R., & Levine, J. (1982). Socialization in small groups: Temporal changes in individual-group relations. In: L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 15). New York: Academic Press.
- Moscovici, S. (1985a). Innovation and minority influence. In: S. Moscovici, G. Mugny & E. Van Avermaet (Eds), *Perspectives on minority influence* (pp. 9–52). Cambridge, England: Cambridge University Press.
- Moscovici, S. (1985b). Social influence and conformity. In: G. Lindzey & E. Aronson (Eds), *Handbook of social psychology* (3rd ed., Vol. 2, pp. 347–412) New York, NY: Random House.
- Mugny, G., Kaiser, & Papatamou, S. (1983). Intergroup relations, identification, and social influence. *British Journal of Social Psychology*, 23, 317–322.
- Nahavandi, A., & Aranda, E. (1994). Restructuring teams for the re-engineered organization. *Academy of Management Executive*, 8(4), 58–68.
- Neale, M., Mannix, E., & Thomas-Hunt, M. (2005). *Research on Managing Groups and Teams: Status and Groups* (Vol. 7). Oxford, UK: Elsevier Science Press.
- Nemeth, C. J. (1986). Differential contributions of majority and minority influence. *Psychological Review*, 93, 23–32.
- Nemeth, C. J., & Kwan, J. L. (1987). Minority influence, divergent thinking, and detection of correct solutions. *Journal of Applied Social Psychology*, 17, 788–799.
- Nemeth, C., Mosier, K., & Chiles, C. (1992). When convergent thought improves performance majority versus minority influence. *Personality and Social Psychology Bulletin*, 18(2), 139–144.

- Nemeth, C. J., & Wachtler, J. (1983). Creative problem solving as a result of majority vs. minority influence. *European Journal of Social Psychology*, *13*, 45–55.
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. Oxford: Oxford University Press.
- O'Connor, K. M., & Arnold, J. A. (2001). Distributive spirals: Negotiation impasses and the moderating role of disputant self-efficacy. *Organizational Behavior & Human Decision Processes*, *84*, 148–176.
- Ofshe, R., & Lee, M. T. (1981). Reply to Greenstein. *Social Psychology Quarterly*, *44*, 383–385.
- Overbeck, J., Correll, J., & Park, B. (2005). Internal status sorting in groups: The problem of too many stars. In: M. Neale, E. Mannix & M. Thomas-Hunt (Eds), *Research on managing groups and teams: Status in groups*. Oxford: Elsevier.
- Owens, D., Neale, M., & Sutton, R. (2003). Technologies of status management: Status dynamics in e-mail communication. In: M. Neale, E. Mannix & T. Griffith (Eds), *Research on managing groups and teams* (Vol. 3, pp. 205–230). Greenwich, CT: JAI Press.
- Owens, D. A., Neale, M. A., & Sutton, R. I. (2000). Technologies of status negotiation: Status dynamics in email discussion groups. In: M. A. Neale, E. A. Mannix & T. L. Griffith (Eds), *Research on managing groups and teams: Technology* (Vol. 3). Stamford, CT: JAI Press.
- Owens, D. A., & Sutton, R. I. (2001). Status contests in meetings: Negotiating the informal order. In: M. E. Turner (Ed.), *Groups at work: Theory and research* (Vol. xiv, pp. 299–316). Mahwah, NJ, US: Lawrence Erlbaum Associates.
- Oxford English Dictionary, www.OED.com.
- Parks, C. D., & Cowlin, R. (1995). Group discussion as affected by the number of alternatives and by a time limit. *Organizational Behavior and Human Decision Processes*, *62*, 267–275.
- Pfeffer, J. (1992). *Managing with power: Politics and influence in organizations*. Boston, MA: Harvard Business School Press.
- Phillips, K., Liljenquist, K., & Neale, M. (2003). *Is the pain worth the gain? The advantages and liabilities of agreeing with socially distinct newcomers*. Working paper.
- Phillips, K., & Loyd, D. (2006). When surface and deep-level diversity collide: The effects on dissenting group members. *Organizational Behavior and Human Decision Processes*. Working paper. Kellogg Graduate School of Management.
- Phillips, K., Mannix, E., Neale, M., & Gruenfeld, D. (2004). Diverse groups and information sharing: The effect of congruent ties. *Journal of Experimental Social Psychology*, *40*, 497–510.
- Polzer, J., Mannix, E. A., & Neale, M. A. (1998). Interest alignment and coalitions in multi-party negotiation. *Academy of Management Journal*, *41*, 42–54.
- Poole, M. S., & Hollingshead, A. (Eds) (2005). *Theories of small groups: Interdisciplinary perspectives*. Thousand Oaks, CA: Sage.
- Porter, T., & Lilly, B. (1996). The effects of conflict, trust, and task commitment on project team performance. *The International Journal of Conflict Management*, *7*, 361–376.
- Proell, C. (2005). *Moving on up: A theoretical model of power use and status enhancement*. Unpublished doctoral dissertation.
- Ridgeway, C. L. (1991). The social construction of status value: Gender and other nominal characteristics. *Social Forces*, *70*, 367–386.
- Ridgeway, C. L. (1997). Where do status beliefs come from? New developments. In: J. Szmacka, J. Skvoretz & J. Berger (Eds), *Status, network, and structure* (pp. 137–158). Stanford, CA: Stanford University Press.

- Salancik, G. R., & Pfeffer, J. (1977). Who gets power – how they hold on to it – strategic-contingency model of power. *Organizational Dynamics*, 5(3), 3–21.
- Schelling, T. C. (1960). *The strategy of conflict*. Oxford, UK: Oxford University Press.
- Sell, J., Lovaglia, M. J., Mannix, E. A., Samuelson, C. D., & Wilson, R. K. (2004). Investigating conflict, power, and status within and among groups. *Small Group Research*, 35, 44–72.
- Sewell, W. H., Jr. (1992). A theory of structure: Duality, agency, and transformation. *American Journal of Sociology*, 98, 1–29.
- Shepsle, K. A. (2003). Losers in politics (and how they sometimes become winners): William Riker's heresthetic. *Perspectives on politics*, 1(2), 307–315.
- Sidanius, J., & Pratto, F. (1993). The inevitability of oppression and the dynamics of social dominance. In: P. M. Sniderman & P. Tetlock (Eds), *Prejudice, politics and the American dilemma* (pp. 173–211). Stanford, CA: Stanford University Press.
- Simons, T., & Peterson, R. (2000). Task conflict and relationship conflict in top management teams: The pivotal role of intragroup trust. *Journal of Applied Psychology*, 83(1), 102–111.
- Smith, W., & Tushman, M. (2005). Managing strategic contradictions: A top management team model for managing innovation streams. *Organization Science*, 16(5), 522–536.
- Stasser, G., & Stewart, D. (1992). The discovery of hidden profiles by decision making groups. Solving a problem versus making a judgment. *Journal of Personality and Social Psychology*, 63, 426–434.
- Stasser, G., Taylor, L. A., & Hanna, C. (1989). Information sampling in structured and unstructured discussion of three- and six-person groups. *Journal of Personality and Social Psychology*, 57, 67–78.
- Stasser, G., & Titus, W. (1985). Pooling of unshared information in group decision making: Biased information sampling during discussion. *Journal of Personality and Social Psychology*, 48, 1467–1478.
- Stewart, D., & Stasser, G. (1995). Expert role assignment and information sampling during collective recall and decision making. *Journal of Personality and Social Psychology*, 69, 619–628.
- Tanford, S., & Penrod, S. (1984). Social influence model: A formal integration of research on majority and minority influence processes. *Psychological Bulletin*, 95, 189–225.
- Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. New York: Wiley.
- Thomas-Hunt, M. (2005). Preface. In: M. Neale, E. Mannix & M. Thomas-Hunt (Eds), *Research on managing groups and teams: Status in groups*. Oxford: Elsevier.
- Thomas-Hunt, M., & Burris, E. (2003). *The effects of complex configurations of status on knowledge consideration and performance within workgroups*. Working paper. Cornell University.
- Thye, S. (2000). A status value theory of power in exchange relations. *American Sociological Review*, 65(3), 407–432.
- Thye, S. R., Willer, D., & Markovsky, B. (in press). From status to power: New models at the intersection of two theories. *Social Forces*.
- Tinsley, C., O'Connor, K., & Sullivan, B. (2002). Tough guys finish last: The perils of a distributive reputation. *Organizational Behavior and Human Decision Processes*, 88, 621–642.
- Triandis, H., Hall, E., & Ewen, R. (1965). Member heterogeneity and dyadic creativity. *Human Relations*, 18, 33–55.
- Tripsas, M., & Gavetti, G. (2000). Capabilities, cognition and inertia: Evidence from digital imaging. *Strategic Management Journal*, 18, 119–142.

- Tushman, M., & Romanelli, E. (1985). Organizational evolution: A metamorphosis model of convergence and reorientation. In: B. Staw & L. L. Cummings (Eds), *Research in Organizational Behavior* (pp. 171–222). Greenwich, CT: JAI Press.
- Wageman, R., & Mannix, E. (2004). *The effects of individual power use on team process & performance: Evidence from field and lab*. Working paper.
- Waller, M. (1999). The timing of adaptive group behavior. *Academy of Management Journal*, 42, 127–137.
- Weber, M. (1968). In: G. Roth, & C. Wittich (Trans.) *Economy and society*. Totowa, NJ: Bedminister Press.
- Wegner, D. M. (1987). Transactive Memory: A contemporary analysis of the group mind. In: B. Mullen & G. R. Goethals (Eds), *Theories of Group Behavior* (pp. 185–208). New York: Springer.
- Wegner, D. M. (1995). A computer network model of human transactive memory. *Social Cognition*, 13, 319–339.
- Wegner, D. M., Erber, R., & Raymond, P. (1991). Transactive memory in close relationships. *Journal of Personality and Social Psychology*, 61, 923–929.
- Willer, D., Lovaglia, M. J., & Markovsky, B. (1997). Power and influence: A theoretical bridge. *Social Forces*, 76, 571–603.
- Wittenbaum, G. (1998). Information sampling in decision-making groups: The impact of members' task-relevant status. *Small Group Research*, 29, 57–84.
- Wittenbaum, G. (2000). The bias toward discussing shared information: Why are high status members immune? *Communication Research*, 27, 379–401.
- Wittenbaum, G., & Bowman, J. (2005). Member status and information exchange in decision making groups. In: M. Neale, E. Mannix & M. Thomas-Hunt (Eds), *Research on managing groups and teams: Status in groups*. Oxford: Elsevier.
- Wittenbaum, G., Hubbell, A., & Zuckerman, C. (1999). Mutual enhancement: Toward an understanding of the collective preference for shared information. *Journal of Personality and Social Psychology*, 77, 967–978.
- Wittenbaum, G. M., & Stasser, G. (1996). Management of information in small groups. In: J. L. Nye & A. M. Browser (Eds), *What's social about social cognition* (pp. 3–29). Thousand Oaks, CA: Sage Publications.
- Yukl, G. (2002). *Leadership in organizations* (5th ed). Upper Saddle River, NJ: Prentice-Hall.

POWER, STATUS, AND LEADERSHIP IN DIVERSE ORGANIZATIONS: FROM BASIC RESEARCH TO PROGRAM DEVELOPMENT[☆]

Michael J. Lovaglia, Jeffrey W. Lucas,
Christabel L. Rogalin and Abigail Darwin

ABSTRACT

Fundamental theories of power and status have developed sufficiently to apply in educational and organizational contexts. The path from basic theory to program development is neither simple nor direct. We trace the application of theoretical principles taken from network exchange theories of power as well as status characteristics and expectation states theories through the interdisciplinary field of leadership studies to applications that interrelate basic research, applied research, undergraduate

[☆]We dedicate this article to the memory of Elizabeth G. Cohen whose life and work so convincingly demonstrate the profound truth of Kurt Lewin's statement that there is nothing as practical as a good theory.

Social Psychology of the Workplace
Advances in Group Processes, Volume 23, 183–206
Copyright © 2006 by Elsevier Ltd.
All rights of reproduction in any form reserved
ISSN: 0882-6145/doi:10.1016/S0882-6145(06)23007-8

educational programs, and organizational development. Two proposals result (1) a leadership training program that will produce university graduates with effective leadership skills, while also bringing diverse high school students to participate in a university program and (2) basic status characteristics research to explain the glass ceiling phenomenon.

INTRODUCTION

The leadership literature has been built on studies of successful leaders. Because leaders are by definition high-status members of their societies, the resulting knowledge is based largely on situations in which older white men lead younger white men. Recent attempts at diversity drive home the point by including such leaders as Martin Luther King, Jr. and Mahatma Gandhi; men of color leading people of color. Other leaders such as Margaret Thatcher, a woman that led a diverse nation, are conspicuously absent as exemplars in leadership studies. Modern organizations and work groups, however, consist of men and women from diverse ethnic and racial backgrounds. What are the problems faced by leaders of color leading groups composed of substantial numbers of white men or by women leading groups composed of men and women? White-male leaders also face new challenges when attempting to lead groups composed of substantial numbers of women and people of color.

We attempt a program of theory, research, and applied training that uses fundamental theories of power and status to address problems of leadership in diverse environments. We begin by relating basic theory and research on power and status in groups to the problem of leadership. We then describe a method for using the outcomes of basic research to improve leadership training. The resulting leadership-training program rests on a foundation of educational innovation and promotes applied and basic research into important leadership problems faced by organizations today. For example, the glass ceiling hampers the rise of women to top leadership positions.

Why is it that women compete so effectively for entry-level management positions but are progressively under-represented at higher levels? That is, the glass ceiling implies that women face *increased* barriers to advancement the higher they go in the organizational hierarchy. In contrast, people of color may face more consistent barriers to advancement at each hierarchical level (Cotter, Hermsen, Ovadia, & Vanneman, 2001). We develop the theory that effects of the status characteristics – gender, race, and age – may

interact to explain a glass ceiling effect for women but not for people of color.

POWER, STATUS, AND LEADERSHIP

The fundamental group processes of power and status relate to the applied field of leadership with enticing directness. Leaders are often in positions that carry formal authority to control people's lives. Using that power, however, presents complications. To lead implies that leaders attract willing followers who comply not through bribe or threat of force but because they honor and respect the leader's ability to guide the group to a successful outcome.

All three concepts – power, status, and leadership – have an almost mystical aura that attracts students and researchers, while also hampering their use in basic research. The meanings and moral implications of all three terms have multiplied through use until their exact meaning in particular situations becomes difficult to ascertain.

Restricted definitions that capture key aspects of concepts, but necessarily miss others, have proven effective in advancing basic research in power and status. We define power in terms found useful by network exchange researchers. *Power* is the “structurally determined potential for obtaining favored payoffs in relations where interests are opposed” (Willer, Lovaglia, & Markovsky, 1997, p. 573). Note that this definition is also consonant with Weber's (1968 [1920]) more intuitive concept of power as the ability to carry out one's will despite others' resistance. More intuitively still, we limit power to an individual or group being in an advantageous position that allows them to push others around against their will. *Authority* is power that has been legitimated or institutionalized. Power is similarly conceived in political science as the ability to take resources from one group or individual and give them to another (Sell et al., 2004).

To distinguish influence from power, we define *influence* to occur when a person's opinion or behavior changes to conform to the suggestion of another without the threat of punishment or promise of reward. For Zelditch (1992, p. 995), “what distinguishes power is that it involves external sanctions Influence, on the other hand, persuades B that X is right according to B's own interests.” Influence uses persuasion, information and advice while power employs force, coercion, and sanctions (Mokken & Stokman, 1976).

We define *status* as a person's position in a group's prestige hierarchy.¹ An individual's status determines her influence. When a high-status person suggests a course of action, other group members are more likely to follow

that suggestion because of their high expectations for the competence of the high-status person to contribute to group goals. In matters affecting group goals, high-status members have influence to the extent that they are perceived as competent and oriented toward group goals rather than selfish goals (Ridgeway, 1982). Status, then, is a collective estimation of a person's worthiness in the context of the group (Berger, Fisek, Norman, & Wagner, 1985; Podolny, 1993; Ridgeway, 1991; Thye, 2000).

Leadership will remain ill defined for now. We can categorize it as a behavior that attracts followers rather than a quasi-mystical presence as charisma is commonly conceived (Madsen & Snow, 1991). The concept of leadership, then, seems more directly related to status than to power. When an individual uses high status to influence others, she relies on their respect for her abilities and intentions. That is, she pulls them along with her as she leads. In contrast, a person using power controls others' behavior against their resistance, pushing them from behind. Using our definitions, then, might seem to imply that effective leaders would never use power. Leaders, however, are often in positions of formal authority where the use of power is not only authorized but also sometimes required.

Having narrowly defined power and status, it is possible to study the relationship between them. We know that individuals with high status can easily acquire power (Thye, 2000). Having power, it would also seem easy to acquire high status. Leaders known for their effective use of power, such as Abraham Lincoln, become revered. Furthermore, leaders known for their brutal and even arbitrary use of power can also become revered. For example, Bierstedt (1950) concludes that Stalin was held in respect and even awe in the Soviet Union because he was first a man of power, despite having caused the deaths of millions of Soviets (Radzinsky, 1996).

Laboratory research has progressed slowly in attempting to demonstrate that the use of power can increase an individual's influence and status. A strong theoretical case has been made that power is causally connected to increased status (Lovaglia, 1994; Lovaglia, Willer, & Troyer, 2003). Recently, however, an experiment produced some measurable influence derived directly from power use (Willer, Troyer, & Lovaglia, 2005). Aside from increasing a power user's resources (Markovsky, Willer, & Patton, 1988; Lovaglia, Skvoretz, Willer, & Markovsky, 1995), the most robust effect of power use in the laboratory is the resistance it produces in others (Lovaglia, 1995). That resistance countervails perceptions of increased competence and ability to contribute to group goals that power has also been found to produce in others (Willer et al., 1997).

RELATING THEORIES OF POWER AND STATUS TO LEADERSHIP DIVERSITY

Basic theories of power and status can help explain the resistance faced by leaders who are not white men. Because their leadership may be seen as less legitimate, diverse leaders' directions to followers may be seen as illegitimate dominance attempts. Ridgeway and her colleagues (Ridgeway, 1984, Ridgeway & Diekema, 1989) show that group members who observe directives made by a low status-group member are more likely to intervene in opposition to the directive than when a high-status group member issues a directive. Ridgeway and Berger (1986) propose that when a status hierarchy is legitimated, directives are more likely to gain compliance. More specifically, Ridgeway, Johnson, and Diekema (1994) discovered that directives were more likely to gain compliance when issued by a high-status white male with lower ability than when coming from a lower-status woman or a minority group member with higher ability.

Basic research on responses to women leaders and the structural determinants of those responses has recently shown that strategically planned organizational interventions can minimize the resistance faced by women leaders. Lucas and Lovaglia (1998) legitimately appointed men and women to leadership positions based on a purported test of leadership ability. They found that legitimately appointed women in leadership positions were evaluated as just as competent as legitimately appointed men in leadership positions. Groups led by women, however, evaluated themselves as less effective than did groups led by men. Lucas (2003) created an organizational setting in the laboratory that carefully legitimated and institutionalized the role of women in leadership positions. The study led group members to believe that it was proper, acceptable, productive, and normative for women to take leadership roles in groups of the type formed in the study. Lucas found that by doing so, women in leadership positions had as much influence as men in the same positions without increasing negative perceptions of women.

While revamping organizations to legitimate and institutionalize women and minority group members as leaders might solve the problems they face, implementing such a major social overhaul is an arduous and lengthy process. A small-scale applied program to help women and minority group members in leadership positions requires intervention at the individual level. Ridgeway's (1982) basic research suggests one applied technique that could be effective; self-presentation as group motivated. She found that when

women presented themselves as group motivated, they attained influence in the group nearly as high as that of men. [Shackelford, Wood, and Worchel \(1996\)](#) extended Ridgeway's work to show that an effective leadership style for a woman could consist of (1) demonstrating her technical competence, (2) conveying her cooperative motivation, and (3) attracting others to her high quality solutions to group problems. While still in the realm of basic research, the discovery of an effective and non-combative leadership style for women brings group processes research to the point where applied interventions can begin.

INTERRELATING THEORY, RESEARCH, AND PROGRAM DEVELOPMENT

Successful theoretical research programs in sociology have relied heavily on laboratory studies to support the growth of basic knowledge about such abstract social processes as power and status. Basic knowledge gained in theoretical research programs has been successfully applied in the field but it is important to note that the results of basic research do not generalize directly from laboratory to field settings. Rather, a complex process of reciprocal interaction among theory, basic and applied research, and program development is needed for a successful result in a complex, naturally occurring organization ([Berger & Zelditch, 1998](#)).

Elizabeth Cohen instituted a paradigmatic program that illustrates how fundamental sociological theory can be applied successfully in the field of education. She began with basic research on race as a status characteristic. [Cohen and Roper \(1972\)](#) studied a classroom phenomenon they termed "interracial interaction disability." They proposed that because race is a status characteristic, African-American students would have less opportunity than European-American students to participate in the classroom in ways that advanced their learning and social status. They then conducted a series of laboratory experiments that not only demonstrated the phenomenon but also showed that with special training, African-American students could overcome problems in interracial interaction, although at some cost to group harmony. That is, while African-American students were able to successfully demonstrate their acquisition of a technical skill in the classroom setting, European-American students resisted giving respect and cooperation to them. Thus, application in the classroom remained problematic and the mitigation of interracial interaction disability a distant dream.

Perhaps because Elizabeth Cohen held a position as a professor in a school of education at a research university rather than in its sociology department, she was ideally suited to continue the work of interrelating basic research, applied research, and educational program development. She understood and kept abreast with basic theoretical developments in status characteristics theory that she and her colleagues in sociology were rapidly producing. At the same time, she was immersed in the applied problems of effective teaching in the school of education. Thus, she had the necessary knowledge of the laboratory and the field, as well as the autonomy to work through the complexities of a successful application of basic research. Bernard P. Cohen (1989) notes that successful application of basic theory to program development in a complex organization requires (a) basic science that produces and tests new knowledge, (b) applied science that finds new uses for that knowledge, and (c) a complex and sometimes messy process that he terms *engineering* to solve the myriad technical problems required for successful application in a naturally occurring social environment.

Years of fundamental research on the process of status attainment followed. For example, Ridgeway (1982) discovered that competent low-status group members who presented themselves as group motivated could overcome some of the resistance to increased status commensurate with their ability to contribute to group goals. Meanwhile, Elizabeth Cohen was working to make systematic interventions in classroom procedure, a routine part of program development in the field of education (Cohen, 1993). For example, her students showed that reading ability was an important status characteristic in grade school classrooms (Rosenhotz, 1985; Tammivaara, 1982). Another piece of knowledge puzzle grew out of the applied research program in combination with the experience of Elizabeth Cohen's (1993) graduate students who were also teachers. They discovered that emphasizing the importance of multiple abilities reduced some negative effects of status differences in the classroom. In terms of basic theory, the construction of multiple status characteristics mitigated the effects of status differences because most of the students would be higher on some characteristics and lower on others. Musical ability, for example, could be presented as important along with reading. Also progressing during this period was basic theoretical development into the process by which status characteristics are created and become cultural beliefs (Ridgeway, 1991 culminating in Ridgeway, Boyle, Kuipers, & Robinson, 1998).

Elizabeth Cohen and her students then collaborated with E. DeAvila, a developmental psychologist, to develop a curriculum that emphasized a broad array of important abilities that enhanced the academic performance

of all the students while mitigating the negative effects of status differences for members of diverse ethnic and racial groups (e.g., [Cohen & Lotan, 1995](#); [Cohen et al., 1997](#)). That curriculum has been successfully instituted at several different grade levels in schools in various regions of the United States and in several countries (e.g., [Cohen & Lotan, 1997](#)). The final phase of the project involves systematic interventions in teacher training to successfully implement and perpetuate demanding cooperative learning strategies in the classroom (e.g., [Cohen, Lotan, Abram, Scarloss, & Schultz, 2002](#)).

The brief description of a successful application of abstract knowledge gained through basic research glosses over many studies and the work of many researchers and teachers in the messy, sometimes trial and error, application process. It does, however, show the ongoing interrelationships among theory growth, basic and applied research, and program development. We propose to exploit those interrelationships in developing a program to mitigate the problems faced by women and minority group members as they advance to leadership positions in organizations. Moreover, following Elizabeth Cohen's lead, we will integrate educational components at both the undergraduate and graduate levels to facilitate the interactions among theory, research, and the development of a leadership-training program.

LEADERSHIP IN DIVERSE ENVIRONMENTS PROGRAM DEVELOPMENT

Our goals are to advance (1) theories related to leadership, (2) basic and applied research, (3) education both graduate and undergraduate, (4) recruitment of diverse students to the university, and (5) a leadership training program for students at three levels of education: high school, university undergraduate, and graduate. At first glance, these goals seem too disparate to successfully coordinate into one program. As [Berger and Zelditch \(1998\)](#) have shown, theoretical research programs can be highly effective when a group of loosely organized researchers work to develop basic theory and research supporting it. Some researchers may focus on theory, others on research or a little of both. Theory growth occurs as theoretical advances spur research to test them and that then raises new problems for further theoretical development. Our own theoretical research program on power and status currently functions that way. Moreover because it uses laboratory research (although not exclusively) to test theoretical advances, it employs numerous graduate and undergraduate students. Thus the theoretical,

research, and educational foundations of the comprehensive theoretical and applied research program are already in place.

Having identified problems of leadership diversity as the core of the program, we developed the outlines of a leadership-training program that would be self-sustaining. Beginning with a graduate research seminar in spring 2005, we decided on a structure designed to bring a steady flow of diverse leadership trainees to the university. As those trainees developed their leadership skills, they would recruit others like them to the university and the process would become self-sustaining. That is, part of the training would be to identify others with leadership potential and begin to train them. The training program, then, would operate at three levels: (a) graduate students would research effective leadership techniques and (b) teach those techniques to undergraduate students interesting in becoming leaders, and who as part of the program would (c) go to high schools to identify students with leadership potential who might otherwise not consider continuing their education through college. High school students recruited into the leadership-training program would then be brought to the university to engage in meaningful leadership-building experiences, while becoming familiar with university culture.

The first graduate research seminar had the daunting task of relating basic power and status research to the interdisciplinary research literature *and* developing the outlines of a leadership-training program. A preliminary list of leadership readings was assembled (see the appendix). An immediate lesson from the leadership literature is that there is no single style of effective leadership. Rather, leaders develop a number of different ways to lead effectively in the situations they encounter, sometimes changing their leadership style dramatically to adapt with the changing conditions. That is, effective leaders seem to have few traits in common, an insight that suggests diverse leaders can find ways to overcome the resistance they will inevitably encounter.

Seminar students then received a brief overview of the theoretical principles in the power and status research programs. With that foundation in place, the seminar consisted of discussion about the relationship between basic research and leadership that might produce effective leadership training techniques and brainstorming about how to implement those techniques in a viable training program.

The research seminar was most effective in advancing the goals of basic theory and research development. Numerous research proposals were produced and several projects are now well developed. They range widely in terms of research area, methodology, and potential for application. Projects

in development include the uses of humor for effective leadership, how leaders use fear and encouragement to motivate, and which leadership styles are most effective for diverse leaders. One basic research project developed especially, rapidly. It extends status characteristics theory to explain the glass ceiling that women encounter as they are promoted in their careers.

BASIC RESEARCH: STATUS CHARACTERISTICS AND THE GLASS CEILING²

The idea that women bump against a glass ceiling as they rise toward top leadership positions in organizations has interesting implications for extending basic theory and research for two reasons: First, it implies that the higher women rise in an organization, the greater the resistance to their further advancement. Rather than a linear decline in the proportion of women as they progress up the corporate hierarchy, the glass ceiling predicts an increased rate of decline at higher levels. Second, minority men do not seem to face increasing resistance as they rise in organizations. Rather, minority men face similar barriers to advancement at each hierarchical level (Cotter et al., 2001). Their declining representation up the corporate ladder is predicted to be linear, a slippery glass escalator rather than a rigid glass ceiling. But gender and race are both status characteristics. That minority men may not encounter a glass ceiling presents a challenge to explanations using status characteristics and expectations states theories for problems faced by women leaders. If women encounter a glass ceiling as a result of their status, then why do African-American men not encounter one? To pose the question another way, why would the barriers to women increase as they rise in an organization whereas the barriers for African-American men remain steady?

Ridgeway (2001) uses status characteristics and expectations states theories to explain the problems faced by women leaders of mixed gender groups. These theories propose that an individual's *status* in a group is determined by expectations for that member's competent contribution to group goals. Those members expected to make more valuable contributions are ranked higher in the group's status hierarchy (Berger, Fisek, Norman, & Zelditch, 1977). Because group members have limited information on which to predict future performance, status characteristics such as gender, race, and age are used to form expectations for members' relative value to the group. Status characteristics have corresponding states, one of which is higher than the other. In the case of gender, male is the higher state of the

characteristic, while female is lower. That is, in a wide variety of group tasks deemed important, men are expected to contribute more to a successful outcome than are women. These often unconscious expectations become embedded in a culture as *status beliefs* that link greater competence and general worth to those individuals who possess the more highly valued state of a status characteristic (Ridgeway, 2001; Wagner & Berger, 1997).

Ridgeway's theoretical development can be used as effectively to explain barriers to leadership for minority men. The straightforward use of status characteristics theory would seem to predict a similar trajectory of advancement for women and minority men in organizations. We propose that the aggregate effects of the status characteristics gender, race, and age interact in ways that can explain a glass ceiling specific to women.

Does a Glass Ceiling Specific to Women Exist?

On balance, research supports the idea that women face a glass ceiling in organizations and that the phenomenon does not extend to minority men.

There is little doubt that women face barriers to career success and advancement. Women are less likely than men to currently be in a senior management position (Steinberg, Haignere, & Chertos, 1990; Morrison, White, Van Velsor, & The Center for Creative Leadership, 1987; Daily, Certo, & Dalton, 1999; U.S. General Accounting Office, 2002), women are less likely than men to be promoted to a management position (Cannings & Montmarquette, 1991; Cox & Harquail, 1991; Steinberg et al., 1990; Olson & Becker, 1983), women are likely to have less authority in management positions than men if they are promoted (Tomaskovic-Devey, 1991, 1993; Reskin & Padavic, 1994, p. 96; Elliott & Smith, 2001; Wolf & Fligstein, 1979b), and women are likely to earn less than men in the same position (U.S. Bureau of the Census, 2004; Dipboye, 1987; Halaby, 1979; Olson & Frieze, 1987; Roman, 1990). And, indeed, these trends are apparent not only in the United States but in other industrialized countries, such as Japan, Sweden, Canada, the United Kingdom, Australia, and Norway (Wright, Baxter, & Birkelund, 1995; Albrecht, Bjorklund, & Vroman, 2003; Baxter & Wright, 2000).

The most relevant factors in career success and promotion are education, relevant work experience, continuous employment history with no gaps in between jobs, job tenure within the same company, and willingness to relocate (Stroh, Brett, & Reilly, 1992). However, even when these factors are held constant, women's wages, promotional opportunities, and achieved

levels of authority remain lower than men's (Stroh et al., 1992; Wolf & Fligstein, 1979a, b; Cox & Harquail, 1991; Haberfeld, 1992; Halaby, 1979; McGuire & Reskin, 1993, p. 494; Hill, 1980).

The phenomenon of gender discrimination in the workforce is particularly intriguing because the trajectory of occupational inequality that women experience is different than that faced by other disadvantaged workers. Minority men, for example, also face barriers to advancement in organizations but those barriers appear to remain constant as minority men advance to higher levels in organizations (Cotter et al., 2001). That is, whereas the gap in occupational outcomes for minority men remains constant throughout their careers, the gender gap worsens as women progress up the occupational hierarchy (Maume, 2004; Lyness & Judiesch, 1999; Hartmann, 1987; Wolf & Fligstein, 1979b; Cotter et al., 2001; Wright et al., 1995). Thus, the glass ceiling is an unusual form of inequality encountered by women and characterized by increased inequality at higher levels of a hierarchy (Albrecht et al., 2003; Cotter et al., 2001).

Some researchers have disputed the existence of a glass ceiling (e.g., Bridges & Miller, 1979; Morgan, 1998; Powell & Butterfield, 1994; Baxter & Wright 2000; Wright et al., 1995). Many of these studies, however, did not utilize appropriate designs for detecting glass-ceiling effects. For example, some studies relied on cross-sectional data (e.g., Baxter & Wright) or did not contain an adequate sample of managers at the highest levels of the occupational hierarchy (e.g., Wright et al., 1995). In contrast, a large number of the studies which have employed longitudinal data and samples of managers at all levels of the occupational hierarchy have concluded that there exists an "unseen, yet unbreachable barrier that keeps ... women from rising to the upper rungs of the corporate ladder, regardless of their qualifications or achievements" (Federal Glass Ceiling Commission, 1995, p. 4) and that the discrimination and inequality women experience becomes more severe at higher levels of the occupational hierarchy (e.g., Cotter et al., 2001; Maume, 2004; Lyness & Judiesch, 1999). Thus, the best evidence available supports the existence of a glass ceiling phenomenon for women but not for minority men (Cotter et al., 2001).

Extending Status Characteristics Theory to Explain the Glass Ceiling

We propose that an unusual interaction between two status characteristics, gender and age, can explain a glass ceiling effect specific to women because a similar interaction between race and age is proposed to not occur. If status

increases with age up to a certain point but then levels off or declines, and if the age associated with peak status is lower for women than it is for men, then women would be disadvantaged in seeking leadership positions that require many years of experience.

Basic status characteristics research has shown both gender and age to be diffuse status characteristics (Freese & Cohen, 1973; Pugh & Wahrman, 1983). That is, gender and age, have at least two differentially evaluated states that convey expectations about individuals' abilities and likelihood to contribute to group goals on a wide variety of tasks deemed significant (Webster & Foschi, 1988). Individuals who possess the higher state of a status characteristic have more influence in task groups and are given higher evaluations for their performances. More generally, an individual's status in a group can be conceptualized as that individual's expected value to the group (Thye, 2000; Podolny, 1993).

Such performance expectations operate on an unconscious level to affect behavior in work groups. Status characteristics also generate status beliefs that are widely held – for example, that men are more logical, especially when it matters. Hundreds of studies have investigated the status implications of gender consistently finding a strong status advantage for men over women (see Wagner & Berger, 1997).

There is some evidence that the general effects of gender as a status characteristic may be changing. Foschi and LaPointe (2002) found no differences in influence between women and men in her sample of Canadian university students. In the United States, however, another study conducted at about the same time found the predicted status characteristics effect of gender: women were a disadvantage in terms of influence (Hopcroft, 2002). The differing results emphasize the point that status characteristics, such as gender and age can have differing effects in different social contexts.

Fewer studies examine the status implications of age. The Freese and Cohen (1973) research that established age as a status characteristic examined only young adults. In early life, the status advantages of age are strong and obvious. Young children look up to and depend on adults, older siblings and other older children. As Freese and Cohen (1973) showed, the association of older age with higher status holds for people into their twenties. Does status, however, continue to rise with age throughout adulthood? Or, is there an age at which it peaks, thereafter remaining steady or declining?

The relationship between age and occupational outcomes is on average curvilinear for both men and women (Miech, Eaton, & Liang, 2003). That is, the level of earnings and promotions for both genders increases with age up until a certain point; then it begins to level off and decline (U.S. General

Accounting Office, 2002; Miech et al., 2003; Shore, Cleveland, & Goldberg, 2003; Barnum, Liden, & DiTomaso, 1995).

Controlled studies of perceptions of older and younger adults have shown declining evaluations for older adults. O'Connell and Rotter (1979) asked respondents to rate men and women at three age points – 25, 50, and 75. They found that both men and women were perceived to decline in effectiveness and autonomy across those ages. A recent meta-analytic review concurs, finding that older adults are perceived to be less competent and less valuable than the younger adults with a number of relevant variables controlled such as age of respondent (Kite, Stockdale, Whitley, & Johnson, 2005). It is important to note that the effects of status characteristics are culture specific. In China, for example, known for its veneration of elders, results might differ. A cross-national comparison could yield interesting results.

Despite considerable theoretical justification that advancing age in adulthood has an earlier and more negative impact on perceptions of women than men (Eagly, 1987), Kite et al. (2005) conclude that evidence for the phenomenon so far has proven elusive. Research has shown that men have an advantage over women in the sense of personal control, and further that the gap between men and women in the perception of personal control increases as adults age (Ross & Mirowsky, 2002). Thus, as they age, women perceive themselves to be at an increasing disadvantage compared to men. Further research is needed to determine whether the phenomenon extends to others' expectations that as women age they become increasingly less valuable to work groups than do men. To explain the glass ceiling, a woman's age must begin to negatively impact her perceived value and competence earlier than does a man's age. More specifically, peak age for women must occur in mid-career when candidates are being considered for high-level leadership positions in organizations.

Beauty is another status characteristic that may interact with gender (Webster & Driskell, 1983). Attractive people are promoted more and receive higher salaries than unattractive people (Stone-Romero, Stone, & Dipboye, 1992; Morrow, McElroy, Stamper, & Wilson, 1990; Frieze, Olson, & Russell, 1991; Roszell, Kennedy, & Grabb, 1989). In most industrialized societies, older women are perceived as less attractive than older men (McLellan & McKelvie, 1993; McKelvie, 1993). Insofar as attractive people are accorded higher status in society, this perception of older women as less attractive than older men, combined with the lower gender status that women generally have, likely means that occupational earnings, chances for promotion, and levels of authority peak at a younger age for women than men.

In terms of status characteristics theory, three hypotheses must be supported to justify using the interaction of age and gender as a valid explanation for the glass ceiling.

Hypothesis 1. Expectations for an individual's ability and willingness to make competent contributions to group goals will peak at a lower age for women than for men.

Hypothesis 1 predicts an interaction effect for age and gender such that expectations for the contributions of both women and men rise with age early in their careers but at some point expectations for women will peak and begin to decline at an earlier age than do those of men.

Hypothesis 2. Expectations about women's ability and willingness to make competent contributions to group goals will begin to decline at a point in mid-career when individuals are candidates for top leadership positions.

Promotion to executive positions in the occupational hierarchy often requires at least 20 years of continuous, relevant, steadily advancing work experience (Cordtz, 1994). Keeping in mind that women are more likely than men to delay start of career or take time off in the early part of their careers to care for children (Alpern, 1993; Schneer & Reitman, 1997), and that women are more likely than men to experience hiring discrimination (Perry, Davis-Blake, & Kulik, 1994), not only are women less likely than men to have 20 years of employment experience, much less continuous and steadily advancing employment experience, but if a woman is fortunate enough to have it, her status may already be declining due to her age just when she would likely be considered for such a promotion. Similarly aged men, however, are predicted to be in a better status position, having yet to age into their peak.

Top leadership positions are located above the glass ceiling and require many years of experience, thus expectations and status beliefs about the legitimacy of white male occupation of these positions are particularly strong. The current debate in the United States about whether we are ready for a woman to be President emphasizes the point. We predict that the gender gap in age will be especially pronounced for leadership positions.

Hypothesis 3. The difference in age at which male and female leaders are expected to reach peak performance and value will be greater for top leadership positions than for lower ranked occupations.

We conducted a classroom exercise to see whether a sample of undergraduate students would report the predicted gender gap for aging. While results are sample (369 students) dependent and not generalizable, a positive result would help to justify the expense of a similar survey of a representative national sample. As predicted by Hypothesis 1, a variety of items about when the contributions of men and women peak at work produced gender gaps with deficits for women ranging from 3.17 to 3.53 years. As predicted by Hypothesis 3, an item asking about the ideal age for male and female bosses produced the biggest gender gap, a deficit of 5.49 years for women, controlling for respondent's gender, age, and mother's education. The age at which a male worker makes the best boss was 39.32 years, which suggests that Hypothesis 2 might also receive support in a more systematic study. That is, peak age for a woman boss was 33.83, before a woman would be considered for a top management position in most organizations. Because this was a sample of young adults, the result from a national sample might produce an older peak age. Nonetheless, with this restricted sample, a gender gap for leadership positions was apparent. Furthermore, perceived peak performance occurred at an age when workers are becoming eligible for top leadership positions.

RECENT PROGRESS IN PROGRAM DEVELOPMENT

Following the spring research seminar, the second phase of development of the leadership in diverse environments training program began in summer 2005 when two summer research interns arrived at the University of Iowa. The Summer Research Opportunities Program (SROP) brings the best undergraduate students from diverse backgrounds to work on research with professors around the United States. Sheneice Sanders and Charisse Long became interested in the leadership project and joined the research group composed of the spring research seminarians and other interested graduate students on campus for the summer. They then used the students in the SROP program and in a summer sociology course to market-test ideas for elements of an effective leadership training program.

The spring graduate research seminar had identified elements of effective leadership that could be incorporated into a leadership training program including storytelling, multimedia presentation skills, volunteering to help achieve group goals, conflict mediation skills, mentoring and being mentored, cultural competence, and resource development. We developed a survey for undergraduate students that asked how attractive they would find

various elements of a leadership training program. Preliminary results identified these interest areas for a localized sample of diverse undergraduate students (a) travel, (b) earning money for school, (c) raising money to support their community, and (d) mentoring and being mentored.

In fall 2005, we are implementing the next phase of training program development utilizing a special seminar program for first-year undergraduates at the University of Iowa. First-year seminars are limited to 15 students who are interested in some aspect of a professor's research, in this case, leadership in diverse environments. The seminar is organized around discussion of the more accessible readings from the graduate seminar. In addition, the seminar brainstorms ideas about how to implement a program that students will find compelling.

With the input from the graduate research seminar, the summer interns, and the first-year seminar, we have settled on elements of a leadership training program that could be attractive to diverse students, effectively train students for leadership, and be self-sustaining.

- Graduate students train undergraduates in leadership techniques demonstrated to be effective by research.
- High school counselors and teachers identify high school students with leadership potential but who are at risk of discontinuing their education after high school.
- Undergraduate students recruit identified high school students to participate in leadership training at the university.
- High school trainees learn storytelling and multimedia presentation as well as engage in other effective leadership training activities.
- Trainees produce a program of storytelling and multimedia presentation.
- Trainees travel to present their storytelling program to community groups and other interested audiences, as well as to experience places and people of interest.
- Donations from community groups and others who listen to students tell their stories help to fund the program and support students' higher education.

CONCLUSION

While the effective implementation of knowledge gained from basic theory and research is a complex and confusing process, the topic of leadership may be ideal to demonstrate the potential of social theory, well supported by

research, to solve important social problems. Leadership is an important area of interdisciplinary research with widespread application. It has critical problems to solve such as the glass ceiling for women in leadership positions. Furthermore, it is enormously attractive as a personal goal and area of study. It is one of those traits that produces an extreme Lake Wobegone Effect. (In Lake Wobegon, Garrison Keillor's mythical small town, all grade school students are above average.) When we ask our students to rate their leadership potential, nearly all of them report being above average. Thus, a theory, research and application program in leadership is capable of attracting the numerous students and researchers with varied interests and backgrounds needed to pursue all the interrelated elements of the program.

The progress made so far shows that the process of applying basic theory to an important social problem need not detract from further advances in basic research. The first outcome of the leadership seminar was a proposal that can advance basic research in status characteristics theory by identifying age as a possibly unique, curvilinear status characteristic. Further, the proposal has the potential to explain an important social phenomenon, the glass ceiling, if it can show that peak status occurs at an earlier age for women at work than it does for men.

There is much work ahead. In addition to implementing the proposed leadership in diverse environments training program, we also must begin the applied research that is a crucial element in a comprehensive program of theory, research, and application. In Bernard P. Cohen's (1989) terms, applied research finds new uses for the knowledge produced by basic science. How can we adapt our increasing knowledge of effective leadership to problems in other organizations? Here too, the elements of the comprehensive program are likely to produce synergy. Leadership research and training attracts individuals who want to go out to apply it to other organizations. Some want to do the applied research needed to adapt fundamental knowledge to a particular environment.

NOTES

1. Status characteristics theorists use the term *observable power and prestige order* of the group to encompass behavior produced by status differences including opportunities to perform, performances, evaluations, and influence. Thus the observable power and prestige order result from the interaction of group members, each with an individual status in the prestige hierarchy.

2. Abigail Darwin, University of Iowa, researched and wrote the first draft of this section.

REFERENCES

- Albrecht, J., Bjorklund, A., & Vroman, S. (2003). Is there a glass ceiling in Sweden? *Journal of Labor Economics*, *21*, 145–177.
- Alpern, S. (1993). In the beginning: A history of women in management. In: E. A. Fagenson (Ed.), *Women in management: Trends, issues, and challenges in managerial diversity* (pp. 19–51). Newbury Park, CA: Sage.
- Barnum, P., Liden, R. C., & DiTomaso, N. (1995). Double jeopardy for women and minorities: Pay differences with age. *Academy of Management Journal*, *38*, 863–880.
- Baxter, J., & Wright, E. O. W. (2000). The glass ceiling hypothesis: A comparative study of the United States, Sweden, and Australia. *Gender and Society*, *14*, 275–294.
- Berger, J., Fisek, M. H., Norman, R. Z., & Wagner, D. G., Jr. (1985). Formation of reward expectations in status situations. In: J. Berger & M. Zelditch (Eds), *Status rewards and influence* (pp. 215–261). San Francisco, CA: Jossey-Bass.
- Berger, J., Fisek, M. H., Norman, R. Z., & Zelditch, M., Jr. (1977). *Status characteristics and social interaction: An expectation states approach*. New York: Elsevier.
- Berger, J., & Zelditch, M., Jr. (1998). Theoretical research programs: A reformulation. In: J. Berger & M. Zelditch, Jr. (Eds), *Status, power and legitimacy: Strategies and theories* (pp. 71–96). New Brunswick, NJ: Transaction Publishers.
- Bierstedt, R. (1950). An analysis of social power. *American Sociological Review*, *15*, 161–184.
- Bridges, W. P., & Miller, B. (1979). Sex and authority in the workplace: A replication and critique. *American Sociological Review*, *46*, 677–683.
- Cannings, K., & Montmarquette, C. (1991). Managerial momentum: A simultaneous model of the career progress of male and female managers. *Industrial and Labor Relations Review*, *44*, 212–228.
- Cohen, B. P. (1989). *Developing sociological knowledge: Theory and method* (2nd ed.). Chicago, IL: Nelson Hall.
- Cohen, E. G. (1993). From theory to practice: The development of an applied research program. In: J. Berger & M. Zelditch, Jr. (Eds), *Theoretical research programs: Studies in the growth of theory* (pp. 385–416). Stanford, CA: Stanford University Press.
- Cohen, E. G., Bianchini, J. A., Cossey, R., Holthuis, N. C., Morphew, C. C., & Whitcomb, J. A. (1997). What did students learn? 1982–1994. In: E. G. Cohen & R. A. Lotan (Eds), *Working for equity in heterogeneous classrooms: Sociological theory in practice* (pp. 137–165). New York, NY: Teachers College Press.
- Cohen, E. G., & Lotan, R. A. (1995). Producing equal-status interaction in the heterogeneous classroom. *American Educational Research Journal*, *32*, 99–120.
- Cohen, E. G., & Lotan, R. A. (Eds) (1997). *Working for equity in heterogeneous classrooms: Sociological theory in practice*. New York, NY: Teachers College Press.
- Cohen, E. G., Lotan, R. A., Abram, P. L., Scarloss, B. A., & Schultz, S. E. (2002). Can groups learn? *Teachers College Record*, *104*, 1045–1068.
- Cohen, E. G., & Roper, S. (1972). Modifications of interracial interaction disability: An application of status characteristics theory. *American Sociological Review*, *37*, 643–657.
- Cordtz, D. (1994). The glass ceiling. *Financial World*, (August 16), 64.
- Cotter, D. A., Hermsen, J. A., Ovadia, S., & Vanneman, R. (2001). The glass ceiling effect. *Social Forces*, *80*, 655–681.
- Cox, T. H., & Harquail, C. V. (1991). Career paths and career success in the early career stages of male and female MBA's. *Journal of Vocational Behavior*, *39*, 54–75.

- Daily, C. M., Certo, S. T., & Dalton, D. R. (1999). A decade of corporate women: Some progress in the boardroom, none in the executive suite. *Strategic Management Journal*, *20*, 93–99.
- Dipboye, R. L. (1987). Problems and progress of women in management. In: K. S. Koziara, M. S. Moskow & L. D. Tanner (Eds), *Working women: Past, present, and future* (pp. 118–153). Washington, DC: BNA Books.
- Eagly, A. H. (1987). *Sex differences in social behavior: A social role interpretation*. Hillsdale, NJ: Lawrence Erlbaum.
- Elliott, J. R., & Smith, R. A. (2001). Ethnic matching of supervisors to subordinate work groups: Findings on bottom-up ascription and social closure. *Social Problems*, *48*, 258–276.
- Federal Glass Ceiling Commission. (1995). *Solid investment: Making full use of the nation's human capital*. U.S. Department of Labor.
- Foschi, M., & LaPointe, V. (2002). On conditional hypotheses and gender as a status characteristic. *Social Psychology Quarterly*, *65*, 146–152.
- Freese, L., & Cohen, B. P. (1973). Eliminating status generalization. *Sociometry*, *36*, 177–193.
- Frieze, I. H., Olson, J. E., Olson, V., & Russell, J. (1991). Attractiveness and income for men and women in management. *Journal of Applied Social Psychology*, *21*(13), 1039–1057.
- Haberfeld, Y. (1992). Employment discrimination: An organizational model. *Academy of Management Journal*, *35*, 161–180.
- Halaby, C. (1979). Job-specific sex differences in organizational reward attainment: Wage discrimination vs. rank discrimination. *Social Forces*, *58*, 108–127.
- Hartmann, H. I. (1987). Internal labor markets and gender: A case study of promotion. In: C. Brown & J. A. Pechman (Eds), *Gender in the workplace* (pp. 59–106). Washington, DC: Brookings Institution.
- Hill, M. (1980). Authority at work: How men and women differ. In: G. J. Duncan & J. Corcoran (Eds), *Ten years of the PSID* (pp. 107–146). Ann Arbor, MI: University of Michigan Press.
- Hopcroft, R. (2002). Is gender still a status characteristic? *Current Research in Social Psychology*, *7*, 339–346.
- Kite, M. E., Stockdale, G. D., Whitley, B. E., & Johnson, B. T. (2005). Attitudes toward younger and older adults: An updated meta-analytic review. *Journal of Social Issues*, *61*, 241–266.
- Lovaglia, M. J. (1994). Relating power to status. In: B. Markovsky, K. Heimer, J. O'Brien & E. J. Lawler (Eds), *Advances in group processes* (Vol. 11, pp. 87–111). Greenwich, CT: JAI Press.
- Lovaglia, M. J. (1995). Power and status: Exchange, attribution and expectation states. *Small Group Research*, *26*, 400–426.
- Lovaglia, M. J., Skvoretz, J., Willer, D., & Markovsky, B. (1995). Negotiated exchanges in social networks. *Social Forces*, *74*, 123–155.
- Lovaglia, M. J., Willer, R., & Troyer, L. (2003). Power, status and collective action: Developing fundamental theories to address a substantive problem. In: S. R. Thye, J. Skvoretz & E. J. Lawler (Eds), *Advances in group processes* (Vol. 20, pp. 105–132). New York: Elsevier.
- Lucas, J. W. (2003). Status processes and the institutionalization of women as leaders. *American Sociological Review*, *68*, 464–480.
- Lucas, J. W., & Lovaglia, M. J. (1998). Leadership status, gender, group size, and emotion in face-to-face groups. *Sociological Perspectives*, *41*, 617–637.

- Lyness, K. S., & Judiesch, M. K. (1999). Are women more likely to be hired or promoted into management positions? *Journal of Vocational Behavior*, *54*, 158–173.
- Madsen, D., & Snow, P. G. (1991). *The Charismatic bond: Political behavior in time of crisis*. Cambridge, MA: Harvard University Press.
- Markovsky, B., Willer, D., & Patton, T. (1988). Power relations in exchange networks. *American Sociological Review*, *53*, 220–236.
- Maume, D. J., Jr. (2004). Is the glass ceiling a unique form of inequality: Evidence from a random-effects model of managerial attainment. *Work and Occupations*, *31*, 250–274.
- McGuire, G. M., & Reskin, B. (1993). Authority hierarchies at work: The impacts of race and sex. *Gender and Society*, *7*, 487–506.
- McKelvie, S. J. (1993). Stereotyping in perception of attractiveness, age, and gender in schematic faces. *Social Behavior and Personality*, *21*, 121–128.
- McLellan, B., & McKelvie, S. (1993). Effects of age and gender on perceived facial attractiveness. *Canadian Journal of Behavioural Science*, *25*, 135–142.
- Miech, R. A., Eaton, W. E., & Liang, K. (2003). Occupational stratification over the life course. *Work and Occupations*, *30*, 440–473.
- Mokken, R. J., & Stokman, F. N. (1976). Power and influence and political phenomena. In: B. Barry (Ed.), *Power and political theory: Some European perspectives* (pp. 33–54). New York: Wiley.
- Morgan, L. A. (1998). Glass-ceiling effect or cohort effect: A longitudinal study of the gender earnings gap for engineers, 1982 to 1989. *American Sociological Review*, *63*, 479–493.
- Morrison, A. M., White, R. P., Van Velsor, E., & The Center for Creative Leadership. (1987). *Breaking the glass ceiling: Can women reach the top of America's largest Corporations?* Reading, MA: Addison-Wesley.
- Morrow, P. C., McElroy, J. C., Stamper, B. G., & Wilson, M. A. (1990). The effects of physical attractiveness and other demographic characteristics on promotion decisions. *Journal of Management*, *16*, 723–736.
- O'Connell, A. N., & Rotter, N. G. (1979). The influence of stimulus age and sex on person perception. *Journal of Gerontology*, *34*, 220–228.
- Olson, C. A., & Becker, B. E. (1983). Sex discrimination in the promotion process. *Industrial and Labor Relations Review*, *36*, 624–641.
- Olson, J. E., & Frieze, I. H. (1987). Income determinants for women in business. In: A. H. Stromberg, L. Larwood & B. A. Gutek (Eds), *Women and work: An annual review*, (Vol. 2, pp. 173–191). Newbury Park, CA: Sage.
- Perry, E. L., Davis-Blake, A., & Kulik, C. T. (1994). Explaining gender-based selection decisions: A synthesis of contextual and cognitive approaches. *Academy of Management Review*, *19*, 786–820.
- Podolny, J. M. (1993). A status-based model of market competition. *American Journal of Sociology*, *98*, 829–872.
- Powell, G. N., & Butterfield, D. A. (1994). Investigating the 'glass ceiling' phenomenon: An empirical study of actual promotions to top management. *The Academy of Management Journal*, *37*, 68–86.
- Pugh, M. D., & Wahrman, R. (1983). Neutralizing sexism in mixed-sex groups: Do women have to be better than men? *American Journal of Sociology*, *88*, 746–762.
- Radzinsky, E. (1996). *Stalin*. New York: Doubleday.
- Reskin, B., & Padavic, I. (1994). *Women and men at work*. Thousand Oaks, CA: Pine Forge Press.

- Ridgeway, C. L. (1982). Status in groups: The importance of motivation. *American Sociological Review*, *47*, 76–88.
- Ridgeway, C. L. (1984). Dominance, performance, and status in groups. In: E. J. Lawler (Ed.), *Advances in group processes* (Vol. 1, pp. 59–93). New York: JAI Press.
- Ridgeway, C. L. (1991). The social construction of status value: Gender and other nominal characteristics. *Social Forces*, *70*, 367–386.
- Ridgeway, C. L. (2001). Gender, status, and leadership. *Journal of Social Issues*, *57*(4), 637–655.
- Ridgeway, C. L., & Berger, J. (1986). Expectations, legitimation, and dominance behavior in task groups. *American Sociological Review*, *51*, 603–617.
- Ridgeway, C. L., Boyle, E. H., Kuipers, K. J., & Robinson, D. T. (1998). Resources and interaction in the development of status beliefs. *American Sociological Review*, *63*, 331–350.
- Ridgeway, C. L., & Diekema, D. (1989). Dominance and collective hierarchy formation in male and female task groups. *American Sociological Review*, *54*, 79–93.
- Ridgeway, C. L., Johnson, C., & Diekema, D. (1994). External status, legitimacy, and compliance in male and female groups. *Social Forces*, *72*, 1051–1077.
- Roman, M. (1990). Women beware: An MBA doesn't mean equal pay. *Business Week*, (October 29), 57.
- Rosenholtz, S. J. (1985). Modifying status expectations in the traditional classroom. In: J. Berger & M. Zelditch, Jr. (Eds), *Status, rewards, and influence: How expectations organize behavior* (pp. 430–444). San Francisco, CA: Jossey-Bass.
- Ross, C. E., & Mirowsky, J. (2002). Age and the gender gap in the sense of personal control. *Social Psychology Quarterly*, *65*, 125–145.
- Roszell, P., Kennedy, D., & Grabb, E. (1989). Physical attractiveness and income attainment among Canadians. *Journal of Psychology*, *123*, 547–559.
- Schneer, J. A., & Reitman, F. (1997). The interrupted managerial career path: A longitudinal study of MBA's. *Journal of Vocational Behavior*, *51*, 411–434.
- Sell, J., Michael, J. L., Elizabeth, A. M., Charles, D. S., & Rick, K. W. (2004). Investigating conflict, power, and status within and among groups. *Small Group Research*, *35*, 44–72.
- Shackelford, S., Wood, W., & Worchel, S. (1996). Behavioral styles and influence of women in mixed-sex groups. *Social Psychology Quarterly*, *59*, 284–293.
- Shore, L. M., Cleveland, J. N., & Goldberg, C. (2003). Work attitudes and decisions as a function of manager age and employee age. *Journal of Applied Psychology*, *88*, 529–537.
- Steinberg, R. J., Haignere, L., & Chertos, C. H. (1990). Managerial promotions in the public sector: The impact of eligibility requirements on women and minorities. *Work and Occupations*, *17*, 284–301.
- Stone-Romero, E. F., Stone, D. L., & Dipboye, R. L. (1992). Stigmas in organizations: Race, handicaps, and physical unattractiveness. In: K. Kelley (Ed.), *Organizational Psychology* (pp. 385–457). Amsterdam: Elsevier.
- Stroh, L. K., Brett, J. M., & Reilly, A. H. (1992). All the right stuff: A comparison of female and male managers' career progression. *Journal of Applied Psychology*, *77*, 251–260.
- Tammivaara, J. S. (1982). The effects of task structure on beliefs about competence and participation in small groups. *Sociology of Education*, *55*, 212–222.
- Thye, S. R. (2000). A status value theory of power in exchange relations. *American Sociological Review*, *65*, 407–432.
- Tomaskovic-Devey, D. (1991). Labor process and the gender and race composition of jobs. Presented to Res. Comm. 28th Int. Sociol. Ass., Columbus, OH.

- Tomaskovic-Devey, D. (1993). *Gender and race inequality at work: The sources and consequences of job segregation*. Ithaca, NY: ILR Press.
- U.S. Bureau of the Census. (2004). *Characteristics of population*. Washington, DC: U.S. Government Printing Office.
- U.S. General Accounting Office. (2002). *A new look through the glass ceiling: Where are the women?* Washington, DC: U.S. General Accounting Office.
- Wagner, D. G., & Berger, J. (1997). Gender and interpersonal task behaviors: Status and expectation accounts. *Sociological Perspectives*, 40, 1–32.
- Weber, M. (1968 [1920]). *Economy and society*. Edited by Guenther Ross, & Claus Wittich. Berkeley: University of California Press.
- Webster, M., Jr., & Driskell, J. E. (1983). Beauty as status. *American Journal of Sociology*, 89, 140–165.
- Webster, M., Jr., & Foschi, M. (1988). *Status generalization: New theory and research*. Stanford, CA: Stanford University Press.
- Willer, D., Lovaglia, M. J., & Markovsky, B. (1997). Power and influence: A theoretical bridge. *Social Forces*, 76, 571–603.
- Willer, R., Troyer, L., & Lovaglia, M. J. (2005). Influence over observers of structural power: An experimental investigation. *The Sociological Quarterly*, 46, 263–277.
- Wolf, W., & Fligstein, N. (1979a). Sexual stratification: Differences in power in the work setting. *Social Forces*, 58, 94–107.
- Wolf, W., & Fligstein, N. (1979b). Sex and authority in the workplace: The causes of sexual inequality. *American Sociological Review*, 44, 235–252.
- Wright, E. O., Baxter, J., & Birkelund, G. E. (1995). The gender gap in workplace authority: A cross-national study. *American Sociological Review*, 60, 407–435.
- Zelditch, M., Jr. (1992). Interpersonal power. In: E. F. Borgatta & M. L. Borgatta (Eds), *Encyclopedia of sociology* (pp. 994–1001). New York: MacMillan.

APPENDIX

Preliminary Readings for a Research Seminar: Power, Status, and Leadership in Diverse Environments

- Augier, M. (2004). James March on education, leadership and Don Quixote. *Academy of Management Learning and Education*, 3, 168–177.
- Bennis, W. G., & Thomas, R. J. (2003). Crucibles of leadership. *Harvard Business Review*.
- Berger, J., Ridgeway, C. L., & Zelditch M., Jr. (2002). Construction of status and referential structures. *Sociological Theory*, 20, 157–179.
- De Cremer, D., & van Knippenberg, D. (2004). Leader self-sacrifice and leadership effectiveness. *Organizational Behavior and Human Decision Processes*, 95, 140–155.
- Ellemers, N., De Gilder, D., & Haslam, S. A. (2004). Motivating individuals and groups at work. *Academy of Management Review*, 29, 459–478.

- Elliot, J. R., & Smith, R. A. (2004). Race, gender and workplace power. *American Sociological Review*, 69, 365–386.
- Halverson, S. K., Murphy, S. E., & Riggio, R. E. (2004). Charismatic leadership in crisis situations. *Small Group Research*, 35, 495–514.
- Howell, J. M., & Shamir, B. (2005). The role of followers in charismatic leadership. *Academy of Management Review*, 30, 96–112.
- Kellerman, B. (2004). Leadership warts and all. *Harvard Business Review*.
- Lovaglia, M. J. (2000). Your place in the workplace. In: M. Lovaglia (Ed.), *Knowing people: The personal use of social psychology* (Chapter 7). New York: McGraw-Hill.
- Lovaglia, M. R. W., & Troyer, L. (2003). Power, status and collective action. In: S. Thye & J. Skvoretz (Eds), *Advances in group processes* (Vol. 20). Amsterdam: Elsevier.
- Lucas, J. W. (1999). Behavioral and emotional outcomes of leadership in task groups. *Social Forces*, 78, 747–778.
- Lucas, J. W. (2003). Status processes and the institutionalization of women as leaders. *American Sociological Review*, 68, 464.
- Maccoby, M. (2004). Leadership and the fear factor. *Sloan Management Review*, Winter.
- Pfeffer, J. (1992). Managing with power. *Harvard Business School Press*.
- Podolny, J. M. (1993). A status-based model of market competition. *American Journal of Sociology*, 98, 829–872.
- Ridgeway, C. L. (2004). Gender, status and leadership. *Journal of Social Issues*, 57, 637–655.
- Ridgeway, C. L. (1982). Status in groups. *American Sociological Review*, 47, 76–88.
- Robinson, D. T., & Smith-Lovin, L. (2001). Getting a laugh. *Social Forces*, 80.
- Shackelford, S., Wood, W., & Worchel, S. (1996). Behavioral styles. *Social Psychology Quarterly*, 59, 284–293.
- Shamir, B., House, R. J., & Arthur, M. B. (1993). The motivational effects of charismatic leadership. *Organizational Science*, 4, 577.
- Thye, S. R. (2000). A status-value theory of power. *American Sociological Review*, 65, 407–432.
- Tyler, T. R. (2002). Leadership and cooperation in groups. *American Behavioral Scientist*, 45, 769–782.
- Walker, H. A., Iardi, B. C., McMahon, A., & Fennell, M. L. (1996). Gender, interaction, and leadership. *Social Psychology Quarterly*, 59, 255–272.
- Willer, D., Lovaglia, M. J., & Markovsky, B. (1997). Power and influence. *Social Forces*, 76, 571–603.

PROCEDURAL JUSTICE AND LEGITIMACY: PREDICTING NEGATIVE EMOTIONAL REACTIONS TO WORKPLACE INJUSTICE

Jody Clay-Warner

ABSTRACT

Research consistently finds that procedural justice affects emotional reactions to inequity. This research, however, has failed to examine the ways in which contextual factors may alter the impact of fair procedures on emotions. Here, I argue that collective legitimacy is one such contextual factor, and I develop hypotheses related to this argument. I also suggest that procedural justice researchers should examine discrete emotions, because the combined effects of legitimacy and procedural justice vary depending upon the emotion in question. In highlighting the interplay between legitimacy and procedural justice, this paper also underscores the necessity of studying procedural justice within the context of the group.

Social Psychology of the Workplace
Advances in Group Processes, Volume 23, 207–227
Copyright © 2006 by Elsevier Ltd.
All rights of reproduction in any form reserved
ISSN: 0882-6145/doi:10.1016/S0882-6145(06)23008-X

Large sociological literatures have developed around the study of emotions in the workplace, as well as around the study of negative emotional reactions to injustice (e.g., Hegtvedt, 1990; Hochschild, 1983; Leidner, 1993; Lively, 2000; Smith & Erickson, 1997; Sprecher, 1986, 1992). These literatures outline the wide range of emotions that individuals experience in the workplace and delineate when and how individuals react emotionally to injustice. Workplace emotions are important both to the individual who may experience psychological harm as a result of on-going emotion management (Erickson & Ritter, 2001; Erickson & Wharton, 1997; Hochschild, 1983; Pugliesi, 1999), as well as to the organization, given the established link between negative workplace emotions and reduced organizational commitment, counterproductive work behaviors, and job dissatisfaction (Fox, Spector, & Miles, 2001; Weiss, Nicholas, & Daus, 1999).

Emotional reactions to workplace inequity are not uniform, however. At least two contextual factors affect emotional reactions to workplace inequity. Procedural justice, which is fairness in the means by which outcome decisions are made (Hegtvedt & Markovsky, 1995), has been shown to alter workplace emotions. According to the group-value model, people view procedurally just treatment as an indication of favorable standing in the group (Lind & Tyler, 1988; Tyler & Lind, 1992). As a result, the positive feelings evoked by procedural justice offset negative emotional reactions to under-reward, while the use of unfair procedures heightens negative emotions (e.g., Cropanzano, Weiss, Suckow, & Grandey, 2000; Hegtvedt & Killian, 1999). Collective legitimacy, which is support for an authority by others in the organization, also reduces negative emotional reactions to unfair workplace events. Johnson, Ford, and Kaufman (2000) found that when authorities were legitimate, subordinates were less likely to anticipate either feeling or expressing negative emotions in the face of unfair outcomes.

To date, the effects of procedural justice and legitimacy on emotional reactions to under-reward have only been examined separately. In fact, few attempts have been made to consider these two factors together in any context, and no such research has been published that examines the effects of both procedural justice and legitimacy on emotions (e.g., Hegtvedt, Clay-Warner, & Johnson, 2003; Hegtvedt & Clay-Warner, 2004). Procedural justice and collective legitimacy, however, are both highly salient processes that are endemic to workplace organizations. As a result, employees are typically aware of the legitimacy of their supervisor, as well as have information about workplace procedures. Procedural justice and legitimacy also provide different types of information to employees. Employees use information about procedures to determine how well-regarded they are in the group, while they examine the

legitimacy of an authority to determine how much power the authority holds. Given the importance of both of these processes in the workplace, it is therefore likely that both procedural justice and legitimacy affect emotional reactions to injustice.

Because studies have failed to include both of these contextual factors, however, a number of questions remain unanswered. For example, it is not known whether procedural justice continues to be important in predicting emotions when collective legitimacy is taken into account or, alternatively, whether the effects of procedural justice overshadow the effects of legitimacy. It is also not known whether procedural justice and legitimacy work independently or together to dampen negative emotional reactions to unfair workplace outcomes. Addressing these questions will not only increase our understanding of emotional reactions to injustice but will also direct our attention to an understudied facet of the workplace – the interplay between procedural justice and legitimacy processes.

Here, I extend previous work on workplace emotions by developing theoretical arguments linking procedural justice and legitimacy. My goal is to demonstrate that procedural justice and legitimacy are not simply independent processes, but that the two also work in concert to evoke emotional reactions to workplace injustice. In particular, I argue that collective legitimacy alters the effects of procedural justice on emotional reactions to under-reward. In examining felt emotions, I highlight the distinction between forward- and backward-looking emotions, thereby advancing procedural justice theory beyond its current focus on aggregated categories of positive and negative affect. I also move beyond previous theoretical analyses by considering the effects of procedural justice on expressions of two backward-looking emotions (anger and resentment). I begin by discussing previous research on emotional reactions to injustice, drawing from equity theory. Next, I review theory and research on both procedural justice and legitimacy and derive predictions from these reviews.

EMOTIONAL REACTIONS TO WORKPLACE INJUSTICE

Kemper (1978) defines an emotion as a “relatively short-term evaluative response essentially positive or negative in nature involving distinct somatic (and often cognitive) components” (p. 47; see also [Kemper, 1987](#)). [Lawler \(2001\)](#) similarly defines emotions as “specific, transitory feelings – positive or negative – that constitute an internal response to an event or object” (p. 326).

As these definitions demonstrate, an emotion is an internal state – a *feeling*. An individual may also *express* emotions, and these emotional expressions may or may not be consistent with the individual's internal state.

Research on emotion management finds that workers are often required to conceal their felt emotions through “surface acting” and that a worker's position in the workforce affects his or her ability to express felt emotions (e.g., Cahill, 1999; Hochschild, 1983; Rogers, 1995; Smith & Kleinman, 1989). Demonstrating this point, Sloan (2004) found that while occupational status did not predict *experiencing* anger at work, those in high status occupations were more likely to *express* anger than those in lower status occupations. Workers were also more likely to express anger when the target of their anger was a subordinate rather than a superior. This research both highlights the distinction between felt and expressed emotions, as well as suggests the particular relevance of this distinction for interactions in the workplace.

Felt emotions are a focus of equity theory. That inequitable treatment in the workplace results in negative emotions is consistent with one of the most basic tenets of equity theory, which states that inequity causes distress (Adams, 1965; Blau, 1964; Homans, [1961]1974). According to equity theory (Adams, 1965; Walster, Walster, & Berscheid, 1978) inequity exists when one's inputs are not equivalent to one's outcomes, or when the ratio of one's inputs to outcomes is not equivalent to those of an exchange partner or that of a comparison other. Extending this perspective, Berger, Cohen, and Zelditch (1972) state that inequity also exists when an individual does not receive the “going rate” for a given activity. This “referential” standard is used in the workplace when individuals compare the market value of their labor to their current compensation. Regardless of the standard invoked, equity theory predicts that workplace inequity results in distress.

Consistent with equity theory, research finds that individuals have strong, negative emotional reactions to under-reward, with anger and resentment as the most commonly reported emotions. Individuals often report feeling “hot” and “inflamed” following experiences of injustice (Bies & Tripp, 1996). These findings have been consistent across a variety of contexts and using different types of research methodologies (e.g., Hegtvedt, 1990; Mikula, 1986, 1987; Mikula, Scherer, & Athenstaedt, 1998). Research on inequity in interpersonal relationships corroborates these findings. Those who perceive themselves to be equitably treated express higher levels of positive emotions and report greater commitment to the relationship than those who believe themselves to be under-rewarded (e.g., Berg, 1984; Cate, Lloyd, & Long, 1988; Sprecher, 1986, 1992; Walster, Walster, & Traupmann, 1978).

Though under-reward is strongly related to negative emotions, the experience of these emotions is far from uniform. Instead, there is variation in the presence and intensity of negative emotions in the face of under-reward. One of the most consistent findings in this research is that those who are treated in a procedurally just manner report lower levels of negative emotions and higher levels of positive emotions than do those who are subject to procedural injustice, even when outcomes are unfair.

PROCEDURAL JUSTICE AND EMOTIONS

In contrast to the focus on outcomes inherent in distributive justice, procedural justice refers to fairness in the processes by which allocation decisions are made (Hegtvedt & Markovsky, 1995). Thibaut and Walker's (1975) early model of procedural justice emphasized the instrumental benefits of fair procedures, arguing that people are largely concerned about fair procedures because they believe that fair procedures lead to fair outcomes. More recent work, however, has focused upon the relational aspects of procedural justice, drawing attention to group dynamics.

In developing this new approach to procedural justice, which they term the group-value model, Lind and Tyler (1988) expand upon core ideas from social identity theory. While social identity theory asserts that individuals seek membership in valued groups, Lind and Tyler argue that individuals also want to be *valued members* of groups. Just as social identity theory suggests that self-esteem increases when people perceive themselves to be members of valued groups, the group-value model proposes that self-esteem increases when people perceive themselves to be highly valued within groups. Lind and Tyler (1988) argue that people examine the procedures to which in-group authorities subject them to determine how well-regarded they are. Specifically they theorize that people interpret procedurally fair treatment by an in-group authority as an indication of their own valued position in the group. Conversely, those who are subjected to unfair procedures see themselves as having little value to the group and, as a result, their self-esteem declines.

Empirical research has since confirmed the core arguments of the group-value model, as well as many of its implications. Tyler, Degoey, and Smith (1996) found that perceived standing in the group mediated the relationship between procedural justice judgments and self-esteem. Moreover, the group-value model suggests that individuals are often more interested in the identity-relevant information conveyed by procedural justice than they are in the

positive outcomes implied by distributive justice. Indeed, research finds that procedural justice is more important than distributive justice in predicting willingness to accept an authority's decision (Tyler, 1994). Procedural justice perceptions are also significantly related to outcome satisfaction, as well as to evaluations of decision makers and organizations. These effects have been widely found in the workplace, as well as in legal and political arenas (Alexander & Ruderman, 1987; Clay-Warner, Hegtvedt, & Roman, 2005; Clay-Warner, Reynolds, & Roman, 2005; Lind & Tyler, 1988; Tyler, 1987, 1984, 1990; Tyler, Rasinski, & McGraw, 1985).

In specifying the characteristics of procedural justice, Lind and Tyler draw upon earlier work by Leventhal, Karuza, and Fry (1980). Leventhal et al. (1980) contend that people generally consider as fair means that allow consistency across individuals and time, suppression of bias, representativeness of the opinions of people affected, information accuracy, mechanisms to correct bad decisions, and conformity with moral and ethical standards. Tyler and Lind (1992) condense these fairness principles into three components of procedural justice: *standing*, *neutrality*, and *trust*. *Standing* refers to polite, respectful, dignified treatment of group members. *Neutrality* involves the suppression of bias, honest behavior, and the use of appropriate facts to make decisions. *Trust* is communicated through showing concern for the needs of group members and through consideration of their views. Tyler (1989) reported in a study of citizen reactions to encounters with the police that ratings of standing, neutrality, and trust are significantly related to procedural justice judgments, even when holding outcome level constant, and subsequent work has confirmed these findings (Tyler, 1994).

Recognition that people value procedural justice for the self-relevant information it conveys has sparked interest in the effects of procedural justice on emotions. In one of the first empirical tests of the effects of procedural justice on workplace emotions, Tyler (1994) found among a random sample of Chicago residents that procedural justice was a significant and strong predictor of affective reactions to workplace events. In fact, procedural justice directly influenced affect, as predicted by the group-value model, and its effects were not mediated through distributive justice. Experimental research supports these findings. Hegtvedt and Killian (1999) reported in their study of negotiated exchange that individuals who rated the process as fair reported lower levels of negativity and depression in the face of under-reward than those with lower procedural justice ratings. Corroborating these findings, Krehbiel and Cropanzano (2000) found that when individuals received unfavorable outcomes, their levels of anger were significantly lower when the procedures were fair than when the procedures were unfair.

Though this research establishes a link between fair procedures and emotional reactions to workplace under-reward, it does not take into account the role of legitimacy. Below I review prior research on collective sources of legitimacy, with a particular focus on research linking legitimacy with emotions.

LEGITIMACY AND EMOTIONS

The concept of legitimacy, as discussed by Max Weber (1968), focuses upon rule-governed behavior (see also Dornbush & Scott, 1975). According to Weber, an action is legitimate if social norms dictate that the action is, indeed, appropriate. Building upon this definition, as well as upon Dornbush and Scott's (1975) theory of authority, Zelditch and Walker (1984; Walker & Zelditch 1993) discuss legitimacy as a multi-dimensional construct, in which some forms of legitimacy are individualistic and others are tied to the group. **Propriety** is the individualistic form of legitimacy, defined as personal support. In contrast, **validity** represents legitimacy at the collective level. Validity is considered a collective process because it is determined by the views and actions of others in the group. Two primary sources of validity are authorization and endorsement. **Authorization** refers to support by those higher in the organization than the focal actor. **Endorsement** refers to support either by those at the same level in the organization as the focal actor or those lower in the organization than the focal actor.

In this way, Zelditch and Walker (1984; Walker & Zelditch, 1993) argue that legitimacy is not simply an issue of individual belief or consent. Instead, it is a collective process in that the legitimacy of any authority is dependent upon authorization and endorsement by others. In keeping with Weber, they argue that individuals tend to comply with decisions made by authorities who are authorized and endorsed even if they personally disagree with the decision, because failing to comply would invite sanctions from superiors and/or colleagues.

Considerable empirical support has been found for Zelditch and Walker's theory. Thomas, Walker, and Zelditch (1986) assigned five actors to a Bavelas communication wheel, in which the central actor controlled the flow of communication and was thus able to gain greater rewards. This resulted in an inequitable distribution among the five actors. The other actors were expected to see this arrangement as improper and seek to mobilize in order to change the situation. As expected, mobilization was less likely to occur when the structure was valid. That these effects existed regardless of the

actors' own perceptions of the propriety of the structure demonstrates a direct effect of validity on compliance.

Collective sources of legitimacy have also been found to affect emotional reactions to injustice. Using vignettes that presented a workplace conflict between a manager and a subordinate in which the subordinate is unfairly denied a raise, [Johnson et al. \(2000\)](#) found that endorsement of the manager significantly reduced the employee's feelings of resentment and excitement, as well as reduced their reported likelihood of expressing anger and resentment. There were no main effects for authorization of the manager, suggesting that endorsement has a stronger effect on felt and expressed emotions than does authorization.

Here, I move beyond [Johnson et al. \(2000\)](#) by arguing that legitimacy not only has direct effects on emotional responses to inequity but that legitimacy also alters the effects of procedural justice on negative emotions. I also suggest that the combined effects of procedural justice and legitimacy vary depending upon the emotion under study. In doing so I advance justice theory by presenting the first analysis that incorporates legitimacy processes into the study of procedural justice and emotion. Before presenting theory and predictions, I discuss the relevant categories of emotional response.

CATEGORIES OF EMOTIONAL RESPONSE

A significant limitation in the work on procedural justice and emotions is its tendency to focus on aggregated categories of positive or negative affect. In doing so, the literature has failed to consider whether procedural justice is equally important in predicting different discrete emotions (e.g., [Hegtvedt & Killian, 1999](#); [Tyler, 1994](#); [De Cremer, 2004](#)). Most sociological theories of emotion, however, distinguish between various discrete emotions, recognizing that different forms of negative affect vary not only in their intensity but also in their antecedents ([Kemper, 1978](#); [Morgan & Heise, 1988](#)). The only published procedural justice research that has examined discrete emotions, however, focused exclusively on emotional feelings and neglected the study of emotional expressions (e.g., [Krehbiel & Cropanzano, 2000](#)). As a result, we have limited research on procedural justice and discrete emotions and neither theory nor empirical evidence to suggest whether procedural justice affects only felt emotions or if it also guides the active display of workplace emotions.

The distinction between felt and expressed emotions is an important one. Emotional expression allows other persons to view one's response,

which may have consequences. As a result, people make decisions about their emotional expressions based upon contextual factors that affect how observers might react to an actor's expression of emotion. Felt emotions, however, are privately held, making the consequences for felt emotions quite different than for expressed emotions. Consistent with other researchers, I argue that both felt and expressed emotions are relevant in the workplace, where power dynamics may put subordinates at risk when they express negative emotions (e.g., Lawler & Yoon, 1996; Johnson et al., 2000). As a result, I include both categories of emotion in this theoretical analysis.

Another important distinction is between backward-looking and forward-looking emotions (Lawler & Yoon, 1996). Backward-looking emotions represent reactions or appraisals of past events, while forward-looking emotions involve anticipation of how the past event may affect future interactions and outcomes (see also Kemper, 1978). For example, anger is classified as a backward-looking emotion because it entails a direct response to an event, such as an unfavorable performance review. Worry, on the other hand, is a forward-looking emotion, because it represents the individual's reaction to the anticipated ramifications of the unfavorable performance review. The distinction between forward- and backward-looking emotions is useful because it recognizes that emotions in the workplace occur within on-going exchange relationships in which emotional reactions to a particular inequity may have consequences for future outcomes, as well as redress (Lawler & Yoon, 1996). This theoretical analysis considers the backward-looking emotions of anger and resentment. The forward-looking emotions are worry and hopelessness.

Though *anger* and *resentment* both involve negative affect, the two are distinguished by their evaluation, potency, and activity (EPA) ratings in the Affect Control tradition. Evaluation refers to the dimension of good/nice versus bad/awful; potency is based upon rating of big/powerful versus little/powerless; and activity level is defined as fast/lively/young versus slow/quiet/old (Morgan & Heise, 1988). Morgan and Heise's analysis indicates that both anger and resentment are similarly rated on the evaluation dimension (bad/awful). The activity ratings differ slightly, with anger rated as somewhat more active than resentment; anger is also rated as significantly more powerful than resentment (see Hegtvedt & Killian, 1999).

Worry and *hopelessness* are the two forward-looking emotions under consideration. Worry connotes a sense of concern and anxiety over future events. Hopelessness, too, involves concern over future events, but it also entails a sense of despair with low expectations for future prospects.

PREDICTIONS: EMOTIONAL REACTIONS TO INJUSTICE

To address the gaps in the literature on procedural justice and emotion discussed above, I develop hypotheses that predict the ways in which procedural justice and legitimacy combine to affect negative emotional reactions to unfair workplace outcomes. In order to present a comprehensive picture of the effects of procedural justice and legitimacy on workplace emotions, I include some hypotheses that already have empirical support, as well as develop new hypotheses regarding the effects of procedural justice on felt and expressed emotion and on forward- and backward-looking emotions. I also develop new theory and predictions regarding the interactive effects of procedural justice and collective legitimacy on emotions in the workplace.

These predictions apply under the following scope conditions. First, I assume a three-level workplace hierarchy in which the focal actor occupies the center position. Second, the focal actor has experienced an objectively inequitable and unfavorable workplace outcome. As defined by equity theory, an unfavorable inequitable outcome occurs when one's inputs are greater than one's outcomes or when the ratio of inputs to outcomes is greater than a comparison other's input/outcome ratio (e.g., Homans, [1961]1974). Inequity also exists when one's compensation for a particular activity is lower than the going market rate (Berger, Cohen, & Zelditch, 1972). Third, the inequitable outcome decision is made by a supervisor, such as a manager, who is a member of the focal actor's work group. Fourth, the actor has access to information regarding the authorization and endorsement of the manager, as well as knowledge of the procedures the manager used in making the allocation decision.

Backward-looking Emotions: Anger and Resentment

Though equity theory predicts that inequitable exchanges result in feelings of anger and resentment, research finds that procedural justice tempers these negative emotional reactions. The group-value model of procedural justice suggests that individuals examine the way in which they are treated by authorities in valued groups to determine their standing within the group. When individuals see that they are treated in a procedurally fair manner by in-group authorities they presume that they are valued members of the group, which increases self-esteem and promotes positive feelings about the group. As a result, individuals who are treated in a procedurally fair manner

have lower levels of negative affect, in general, than those treated in a procedurally unfair manner (Hegtvedt & Killian, 1999; Tyler, 1994). In one of the few studies of procedural justice that has examined discrete emotions, Krehbiel and Cropanzano (2000) found that individuals reported feeling less angry over an unfavorable outcome when procedures were fair than when they were not. Thus, theory and empirical findings suggest that the anger and resentment that workers often feel when faced with unfair outcomes will be mitigated by the positive feelings evoked by procedural justice.

H1. Procedural justice will be negatively related to feelings of anger and resentment.

When managers are authorized by their superiors or endorsed by subordinates, others view them as having greater power than superiors who lack collective legitimacy (Ford & Johnson, 1998). As Johnson et al. (2000) argue, workers generally believe that legitimated superiors are justified in exercising their power (Weber, 1968; Zelditch & Walker, 1984). Therefore, workers are likely to view the use of power by a legitimated manager, even when it results in an unfair outcome, as a less egregious offense than the use of power by a manager who lacks legitimacy. As a result, subordinates will feel less resentful and angry when superiors are endorsed or authorized than when they are not legitimated because the use of power by legitimated authorities is seen as appropriate, even when the outcome, itself, is not.

Johnson et al. (2000) reported mixed support for their hypothesis that sources of collective legitimacy affect emotional reactions to workplace injustice. In their research endorsement did reduce feelings of resentment. Authorization, however, was not a significant predictor of negative emotional reactions to the injustice. Nonetheless, the theoretical arguments apply equally well to both sources of collective legitimacy. Johnson et al.'s (2000) research is also the only published study to examine these effects, which suggests that additional tests should be preformed before dismissing the link between authorization and negative emotional reactions to injustice.

H2a. Subordinates will feel less anger and resentment when their superior is endorsed than when their superior is not endorsed.

H2b. Subordinates will feel less anger and resentment when their superior is authorized than when their superior is not authorized.

A significant shortcoming in the literature on procedural justice and emotions is its failure to consider the effects of legitimacy. In fact, procedural justice theorists have given little attention to the role that group-level

factors, in general, may have on the effects of procedural justice (see Hegtvedt, Clay-Warner, & Johnson, 2003). Group-level authorization or endorsement of a manager, however, would seem to have important implications for how the manager's use of unfair procedures would be received. In particular, the decision maker's legitimacy may moderate the effects of procedural injustice on emotional reactions to inequity. As a result, though unfair procedures are generally expected to exacerbate anger and resentment over inequitable outcomes, these effects may be muted when authorities are legitimated.

Johnson et al. (2000) theorized that workers are likely to view unfair outcome decisions made by a legitimated manager as a less serious infraction than an unfair outcome decision made by a manager who is not legitimated. They argued that workers see legitimate managers as having more of a "right" to make unfair allocation decisions than managers who are not legitimate, and so they predicted that legitimacy would reduce negative emotional reaction to under-reward. Extending this logic, it follows that workers would also see legitimate managers as having more of a right to use unfair *procedures* than managers who are not legitimate. As a result, when a manager is authorized or endorsed, his or her use of unfair procedures should have relatively little effect on emotional reactions to inequity. Conversely, superiors who lack collective legitimacy do not have proper authority to use unfair procedures, resulting in a heightened sense of injustice, as both outcomes and procedures have resulted from the illegitimate use of power.

H3a. Endorsement will moderate the effects of procedural justice such that unfair procedures will have a stronger effect on anger and resentment when endorsement is low than when endorsement is high.

H3b. Authorization will moderate the effects of procedural justice such that unfair procedures will have a stronger effect on anger and resentment when authorization is low than when authorization is high.

Forward-looking Emotions: Worry and Hopelessness

Worry and hopelessness refer to concerns over future interactions and are, therefore, classified as forward-looking emotions (Johnson et al., 2000; Lawler & Yoon, 1996). A basic tenet of procedural justice theory is that individuals believe that over time fair procedures will lead to favorable distributions, even if certain instances of procedurally fair treatment result in less than desired outcomes (Lind & Tyler, 1988). Thus, fairly treated

individuals would experience relatively low levels of worry and hopelessness, knowing that they are likely to be compensated fairly in the future. Procedural justice also confirms a person's value to the group, giving employees treated in a procedurally just manner further reason to feel less worry and concern than those treated unjustly. Alternatively, the realization that a superior used unfair procedures would create concern over future outcomes and one's position in the group, resulting in high levels of worry and hopelessness.

H4. Procedural justice will be negatively related to worry and hopelessness.

Consistent with arguments presented by Johnson et al. (2000), authorization and endorsement are predicted to increase feelings of worry and hopelessness. Ford and Johnson (1998) found that subordinates viewed legitimate authorities as more powerful than authorities who lack legitimacy. Subordinates also perceived their own power to be heightened when their superior was delegitimized. Not surprisingly, workers whose supervisors lacked legitimacy believed they had more options for reversing the negative decision, such as going over the manager's head or forming a coalition (Johnson & Ford, 1996; see also Johnson et al., 2000). This belief that legitimated authorities are more powerful, coupled with the perception that there are few options for redress in a dispute with a legitimate authority, suggest that subordinates would be concerned about future outcomes. Legitimated managers would also have few reasons to alter their behavior on their own, given the support they already receive from others in the organization. As a result, when subordinates of legitimated managers receive unfair outcomes, they will likely worry about future outcomes and feel a sense of hopelessness.

H5a. Subordinates will feel more worry and hopelessness when their superior is endorsed than when their superior is not endorsed.

H5b. Subordinates will feel more worry and hopelessness when their superior is authorized than when their superior is not authorized.

I propose that procedural justice and endorsement/authorization also interact in predicting forward-looking emotions. I argue, however, that these interactions take a different form than in the backward-looking emotions. When unfair procedures result in negative outcomes, individuals have concerns about future interactions. This sense of unease may be *heightened* when managers are legitimated. Workers would not expect legitimate managers to change their behavior in the future, given that legitimacy entails approval of

the manager's actions. As a result, the worker would expect procedural impropriety to cloud future interactions with the manager. The anxiety over future breaches of procedural justice is therefore likely to bring about particularly high levels of worry and hopelessness when a manager is legitimated.

H6a. Endorsement will moderate the effects of procedural justice on worry and hopelessness such that unfair procedures will have a stronger effect when endorsement is high than when endorsement is low.

H6b. Authorization will moderate the effects of procedural justice on worry and hopelessness such that unfair procedures will have a stronger effect when authorization is high than when authorization is low.

Emotional Expression: Anger and Resentment

As previously discussed, emotional expressions are not always consistent with emotional feelings. This is especially true in the workplace, where emotion norms dictate reserve, particularly for subordinates (Hochschild, 1983; Sloan, 2004). The role of procedural justice in shaping emotional expressions in the workplace, however, has not been examined. Nor, of course, have the interactive effects of procedural justice and legitimacy on emotional expressions been considered. In this first attempt to explore the connections between procedural justice and legitimacy and expressions of negative emotion in the workplace, I focus upon backward-looking emotions.

The group-value model suggests that procedurally unjust treatment increases levels of felt anger and resentment. For the reasons discussed below, I predict that procedural injustice increases expressions of anger and resentment, as well. I also argue, though, that the effects of procedural justice on expressions of anger and resentment are not as great as the effects of procedural justice on *feelings* of anger and resentment.

People tend to believe that over the long term, fair procedures will lead to fair outcomes (see Lind & Tyler, 1988). Thus, when they experience an unfavorable outcome in the presence of fair procedures, employees may not express their emotional distress, reasoning that the continued use of fair procedures will lead to better outcomes in the future. On the other hand, when managers reach their outcome decision through procedurally unfair means, employees tend to believe that future outcomes will also be unfair and so are more likely to address the unfair distribution through a display of negative emotions. This suggests a negative relationship between procedural justice and expressions of anger and resentment.

Procedurally unjust treatment, however, is also taken as an indication of one's unfavorable standing within the group (Tyler et al., 1996). A worker who is subject to procedural injustice is likely to assume, as a low-ranking member of the group, that his or her expression of anger/resentment will not be well-received by the manager. As a result, the worker is forced to balance the following: (1) the desire to express anger in the face of an unjust process in order to prevent such procedures from being used in the future, and (2) the knowledge that as a low-ranking member of the group, the expressed anger or resentment is not likely to produce the desired result and may further jeopardize one's already precarious position in the group. This is in contrast to the situation with felt emotions in which the effectiveness of the emotions in evoking change is not an issue because the emotions are privately held. The net result is that while procedural justice is predicted to be negatively related to expressions of anger and resentment, the effects are not likely to be as great as for *feelings* of anger and resentment because one may feel emotions without concern for how one's group standing affects the role such emotions will play in future interactions.

H7. Procedural justice will be negatively related to expressions of anger and resentment.

H8. The effects of procedural justice on felt anger and resentment will be stronger than the effects of procedural justice on expressions of anger and resentment.

Collective sources of legitimacy are also predicted to suppress the expression of negative emotions, as has been found in previous research. Johnson et al. (2000) argued that when a subordinate is authorized or endorsed, the costs associated with expressing negative emotions are high and may include ostracism or retaliation. In contrast, the consequences of expressing anger or resentment toward a manager who lacks legitimacy are not as great because the manager lacks power. In fact, delegitimated managers may reverse decisions or change policies when confronted with an irate employee. Johnson et al. (2000) found, however, that only one form of collective legitimacy, endorsement, reduced the anticipated likelihood of expressing negative emotions in the face of workplace injustice. Consistent with Johnson et al.'s theoretical argument, however, I predict that both endorsement and authorization affect the likelihood of expressing negative emotions to inequity.

H9a. Endorsement will be negatively related to the expression of anger and resentment.

H9b. Authorization will be negatively related to the expression of anger and resentment.

Authorization and endorsement also likely temper the effects of procedural justice on the expression of certain negative emotions. As previously argued, people are more likely to tolerate procedurally unjust treatment at the hands of a legitimate supervisor than at the hands of an illegitimate one. As a result, a procedurally unjust act committed by a legitimate supervisor is likely to evoke less anger and resentment than if the same act were committed by a supervisor who lacked legitimacy (Hypotheses 3a and 3b). Feelings of anger and resentment are also expected to be related to expressions of anger and resentment in the workplace, since anger toward a manager is unlikely to be expressed unless it is also felt. Thus, to the extent that legitimacy reduces the impact of procedural injustice on feelings of anger and resentment, legitimacy should also reduce expressions of anger and resentment in the workplace.

It is not only through felt emotions, however, that legitimacy mitigates the effects of procedural justice on emotional expressions. Instead, I argue that legitimacy plays an even stronger role in reducing the impact of procedural justice on emotional expressions. As [Ford and Johnson \(1998\)](#) have shown, subordinates perceive a legitimated manager as having greater power than a manager who lacks legitimacy. When others in the organization support the manager, there is a high probability that a complaining employee will be punished by colleagues or superiors. This possibility of retaliation, coupled with the already reduced levels of felt negative emotions, greatly decreases the likelihood of an employee expressing anger and resentment. The net result is that legitimacy will have an even stronger assuaging effect on the role of procedural justice on *expressions* of anger and resentment than it does on the role of procedural justice on *feelings* of anger and resentment.

H10a. Endorsement will moderate the effects of procedural justice such that unfair procedures will have a stronger effect on expressions of anger and resentment when endorsement is low than when endorsement is high.

H10b. Authorization will moderate the effects of procedural justice such that unfair procedures will have a stronger effect on expressions of anger and resentment when endorsement is low than when endorsement is high.

H11. The moderating effects of authorization and endorsement on procedural justice will be stronger for expressions of anger and resentment than for feelings of anger and resentment.

The above arguments suggest that procedural justice and legitimacy are both important predictors of workplace emotions. Research, in particular, has demonstrated that procedural injustice exacerbates negative feelings regarding inequity. I propose, however, that the role of procedural justice in shaping emotions may be limited by the authorization or endorsement of superiors and that this limiting effect is stronger for certain emotional expressions than for emotional feelings. I also suggest that procedural justice researchers extend their focus beyond aggregated categories of affect to consider the varying effects that procedural justice may have on different discrete emotions. Such a shift will be necessary if researchers are to consider the joint effects of procedural justice and legitimacy, since I argue that the interactions between procedural fairness and collective legitimacy take different forms depending upon the emotion under study. By incorporating authorization and endorsement into the study of procedural justice and emotions, researchers also better approximate real-world workplaces, where justice and legitimacy processes operate alongside one another.

CONCLUSION

Here, I have suggested that procedural justice researchers incorporate collective legitimacy into their analysis of workplace emotions and expand the array of emotional responses under study. In doing so, my primary goal was to increase our understanding of workplace emotions. To this end, I have developed theoretically driven hypotheses to guide future research. Testing these hypotheses will increase our knowledge of the ways in which authorization and endorsement alter the effects of procedural justice on emotional reactions to inequity, as well as advance procedural justice theory.

My secondary goal was to direct attention to procedural justice as a group process. In this analysis, I have implicitly emphasized the importance of studying procedural justice within the context of the group. Zelditch and Walker's approach to legitimacy stresses the collective nature of legitimacy processes. By arguing that collective legitimacy alters the effects of procedural justice on emotions, I am highlighting the need to examine procedural justice in light of group-level contextual factors.

Though much early research on the group-value model underemphasized the role of the group in procedural justice processes, the theory, itself, focuses upon group dynamics. According to [Lind and Tyler \(1988\)](#), people prefer fair procedures because fair procedures confirm one's favorable position in the group. The very motivation to attend to procedural issues,

therefore, is derived from people's need to affiliate with groups. As a result, people are concerned with procedural justice only to the extent that they care about membership in the given group. Fair procedures are also predicted to enhance positive feelings about the group and promote pro-social behavior. Thus, procedures are especially important within the context of group membership.

Recently, group processes researchers have begun to give attention to the role of the "group" in the group-value model (e.g., Clay-Warner, 2001; Clay-Warner et al., 2005; Hegtvedt et al., 2003; Molm, Takahashi, & Peterson, 2003). Their research, as well as the theoretical analysis presented here, suggests that scholars should consider incorporating procedural justice into their studies of more traditional group processes topics. For example, if collective legitimacy alters the effects of procedural justice as I have suggested, then other forms of power in the workplace, such as power derived from dependence, may similarly reduce the effects of procedural justice on negative emotions. We also have not studied the role of procedural justice in status processes. For instance, it is not known whether high and low status actors respond differently when they experience procedurally unjust treatment, or whether procedural justice may even be used as a tool by which to gain status in undifferentiated task groups. By addressing these types of questions both empirically and theoretically, researchers will be able to enhance existing theories of group processes while also promoting the development of justice theories that acknowledge the importance of the group both inside and outside the workplace.

ACKNOWLEDGEMENTS

I would like to thank Karen Hegtvedt and Cathryn Johnson for their helpful comments on an earlier version of this manuscript.

REFERENCES

- Adams, J. S. (1965). Inequity in social exchange. *Advances in Experimental Social Psychology*, 2, 267–299.
- Alexander, S., & Ruderman, M. (1987). The role of procedural and distributive justice in organizational behavior. *Social Justice Research*, 1, 177–198.
- Bies, R. J., & Tripp, T. M. (1996). Beyond distrust: 'Getting even' and the need for revenge. In: R. M. Kramer & T. R. Tyler (Eds), *Trust in organizations* (pp. 246–269). Newbury Park: Sage.

- Berg, J. H. (1984). Development of friendship between roommates. *Journal of Personality & Social Psychology*, 46(2), 346–356.
- Berger, J., Cohen, B. P., & Zelditch, M. (1972). Status characteristics and social interaction. *American Sociological Review*, 37(3), 241–255.
- Blau, P. M. (1964). *Exchange and power in social life*. New York, NY: Wiley.
- Cahill, S. E. (1999). Emotional capital and professional socialization: The case of mortuary science students (and me). *Social Psychology Quarterly*, 62(2), 101–116.
- Cate, R. M., Lloyd, S. A., & Long, E. (1988). The role of rewards and fairness in developing premarital relationships. *Journal of Marriage & the Family*, 50(2), 443–452.
- Clay-Warner, J. (2001). Perceiving procedural injustice: The effects of group membership and status. *Social Psychology Quarterly*, 64, 224–238.
- Clay-Warner, J., Hegtvedt, K. A., & Roman, P. (2005). Procedural justice, distributive justice: How experiences with downsizing condition their impact on organizational commitment. *Social Psychology Quarterly*, 68, 89–102.
- Clay-Warner, J., Reynolds, J., & Roman, P. (2005). Organizational justice and job satisfaction: A test of three competing models. *Social Justice Research*, 18, 391–409.
- Cropanzano, R., Weiss, H. M., Suckow, K. J., & Grandey, A. A. (2000). Doing justice to workplace emotion. In: M. Ashkanasy & C. E. Hartel (Eds), *Emotions in the workplace: Research, theory, and practice* (pp. 49–62). Westport, CT: Quorum Books/Greenwood Publishing Group.
- De Cremer, D. (2004). The influence of accuracy as a function of leader's bias: The role of trustworthiness in the psychology of procedural justice. *Personality and Social Psychology Bulletin*, 30, 293–304.
- Dornbush, S. M., & Scott, W. R. (1975). *Evaluation and the exercise of authority*. San Francisco: Jossey-Bass.
- Erickson, R. J., & Ritter, C. (2001). Emotional labor, burnout, and inauthenticity: Does gender matter? *Social Psychology Quarterly*, 64(2), 146–163.
- Erickson, R. J., & Wharton, A. S. (1997). Inauthenticity and depression: Assessing the consequences of interactive service work. *Work & Occupations*, 24(2), 188–213.
- Ford, R., & Johnson, C. (1998). The perception of power: Dependence and legitimacy in conflict. *Social Psychology Quarterly*, 61(1), 16–32.
- Fox, S., Spector, P. E., & Miles, D. (2001). Counterproductive work behavior (CWB) in response to job stressors and organizational justice: Some mediator and moderator tests for autonomy and emotions. *Journal of Vocational Behavior*, 59, 291–309.
- Hegtvedt, K. A. (1990). The effects of relationship structure on emotional responses to inequity. *Social Psychology Quarterly*, 53(3), 214–228.
- Hegtvedt, K. A., & Clay-Warner, J. (2004). Linking legitimacy and procedural justice: Expanding on justice processes in organizations. *Research in the Sociology of Organizations*, 22, 213–237.
- Hegtvedt, K. A., Clay-Warner, J., & Johnson, C. (2003). The social context of responses to injustice: Considering the indirect and direct effects of group-level factors. *Social Justice Research*, 16, 343–366.
- Hegtvedt, K. A., & Markovsky, B. (1995). Justice and injustice. In: K. S. Cook, G. A. Fine & J. S. House (Eds), *Sociological perspectives on social psychology* (pp. 257–280). Boston: Allyn and Bacon.
- Hegtvedt, K. A., & Killian, C. (1999). Fairness and emotions: Reactions to the process and outcomes of negotiations. *Social Forces*, 78, 269–302.

- Hochschild, A. (1983). Comment on Kemper's "Social constructionist and positivist approaches to the sociology of emotions." *American Journal of Sociology*, 89(2), 432–434.
- Homans, G. C. ([1961]1974). *Social behavior: Its elementary forms*. New York: Harcourt, Brace.
- Johnson, C., & Ford, R. (1996). Dependence power, legitimacy, and tactical choice. *Social Psychology Quarterly*, 59, 126–139.
- Johnson, C., Ford, R., & Kaufman, J. M. (2000). Emotional reactions to conflict: Do dependence and legitimacy matter? *Social Forces*, 79, 107–137.
- Kemper, T. D. (1978). *A social interactional theory of emotions*. New York: Wiley.
- Kemper, T. D. (1987). How many emotions are there? Wedding the social and the autonomic components. *American Journal of Sociology*, 93, 262–289.
- Krehbiel, P. J., & Cropanzano, R. (2000). Procedural justice, outcome favorability, and emotion. *Social Justice Research*, 13(4), 339–360.
- Lawler, E. J. (2001). An affect theory of social exchange. *American Journal of Sociology*, 107(2), 321–352.
- Lawler, E. J., & Yoon, J. (1996). Commitment in exchange relations: Test of a theory of relational cohesion. *American Sociological Review*, 61(1), 89–108.
- Leidner, R. (1993). *Fast food, fast talk: Service work and the routinization of everyday life*. Berkeley: University of California Press.
- Leventhal, G. S., Karuza, J., Jr., & Fry, W. R. (1980). Beyond fairness: A theory of allocation preferences. In: G. Mikula (Ed.), *Justice and social interaction* (pp. 167–218). New York: Springer.
- Lind, E. A., & Tyler, T. R. (1988). *The social psychology of procedural justice*. New York: Plenum.
- Lively, K. J. (2000). Reciprocal emotion management. *Work and occupations*, 27, 32–63.
- Mikula, G. (1986). The experience of injustice: Toward a better understanding of its phenomenology. In: H. W. Bierhoff, R. L. Cohen & J. Greenberg (Eds), *Justice in social relations* (pp. 103–124). New York: Plenum Press.
- Mikula, G. (1987). Exploring the experience of injustice. In: G. R. Semin & B. Krahe (Eds), *Issues in contemporary German social psychology: History, theories, and application* (pp. 74–96). Thousand Oaks, CA: Sage.
- Mikula, G., Scherer, K. R., & Athenstaedt, U. (1998). The role of injustice in the elicitation of differential emotional reactions. *Personality & social psychology bulletin*, 24(7), 769–783.
- Molm, L. R., Takahashi, N., & Peterson, G. (2003). In the eye of the beholder: Procedural justice in social exchange. *American Sociological Review*, 68, 128–152.
- Morgan, R. L., & Heise, D. (1988). Structure of emotions. *Social Psychology Quarterly*, 51(1), 19–31.
- Pugliesi, K. (1999). The consequences of emotional labor: Effects on work stress, job satisfaction, and well-being. *Motivation & Emotion*, 23(2), 125–154.
- Rogers, J. K. (1995). Just a temp: Experience and structure of alienation in temporary clerical employment. *Work & Occupations*, 22(2), 137–166.
- Sloan, M. M. (2004). The effects of occupational characteristics on the experience and expression of anger in the workplace. *Work & Occupations*, 31, 38–72.
- Smith, A. C., & Kleinman, S. (1989). Managing emotions in medical school: Students' contacts with the living and the dead. *Social Psychology Quarterly*, 52(1), 56–69.
- Smith, D. A., & Erickson, R. (1997). For love or money? Work and emotional labor in a social movement organization. *Social Perspectives on Emotions*, 4, 317–346.

- Sprecher, S. (1986). The relation between inequity and emotions in close relationships. *Social Psychology Quarterly*, 49(4), 309–321.
- Sprecher, S. (1992). How men and women expect to feel and behave in response to inequity in close relationships. *Social Psychology Quarterly*, 55, 57–69.
- Thibaut, J., & Walker, L. (1975). *Procedural justice: A psychological analysis*. Hillsdale, NJ: Erlbaum.
- Thomas, G. M., Walker, H. A., & Zelditch, M., Jr. (1986). Legitimacy and collective action. *Social Forces*, 65, 378–404.
- Tyler, T. R. (1984). The role of perceived injustice in defendant's evaluations of their courtroom experience. *Law and Society Review*, 18, 51–74.
- Tyler, T. R. (1987). Conditions leading to value expressive effects in judgments of procedural justice: A test of four models. *Journal of Personality and Social Psychology*, 52, 333–344.
- Tyler, T. R. (1989). The psychology of procedural justice: A test of the group value model. *Journal of Personality and Social Psychology*, 57, 850–863.
- Tyler, T. R. (1990). Justice, self-interest, and the legitimacy of legal and political authority. In: J. J. Mansbridge (Ed.), *Beyond self-interest* (pp. 171–179). Chicago, IL: University of Chicago Press.
- Tyler, T. R. (1994). Psychological models of the justice motive: Antecedents of distributive and procedural justice. *Journal of Personality & Social Psychology*, 67, 850–863.
- Tyler, T. R., Degoey, P., & Smith, H. J. (1996). Understanding why the justice of group procedures matters. *Journal of Personality and Social Psychology*, 70, 913–930.
- Tyler, T. R., & Lind, E. A. (1992). A relational model of authority in groups. *Advances in Experimental Social Psychology*, 25, 115–191.
- Tyler, T. R., Rasinski, K., & McGraw, K. M. (1985). The influence of perceived injustice on support for political authorities. *Journal of Applied Social Psychology*, 15, 700–725.
- Walker, H. A., & Zelditch, M., Jr. (1993). Power, legitimacy, and the stability of authority: A theoretical research program. In: J. Berger & M. Zelditch, Jr. (Eds), *Theoretical Research Programs* (pp. 364–381). Stanford, CA: Stanford University Press.
- Walster, E. G., & Walster, G. W., Berscheid, E. (1978). *Equity: Theory and research*. Boston, MA: Allyn and Bacon.
- Walster, E., Walster, G. W., & Traupmann, J. (1978). Equity and premarital sex. *Journal of Personality & Social Psychology*, 36, 82–92.
- Weber, M. (1968). *Economy and society*. In: G. Roth & C. Wittich (Eds), (Translated by E. Fischhoff, G. Hans, A. M. Henderson, K. Ferdinand, C. M. Wright, T. Parsons, M. Rheinstein, G. Roth, E. Shils & W. Claus) New York: Bedminster Press.
- Weiss, H. M., Nicholas, J. P., & Daus, C. S. (1999). An examination of the joint effects of affective experiences and job beliefs on job satisfaction and variations in affective experiences over time. *Organizational Behavior and Human Decision Processes*, 78, 1–24.
- Zelditch, M., Jr., & Walker, H. A. (1984). Legitimacy and the stability of authority. *Advances in Group Processes*, 1, 1–25.

LEGITIMATION AND INSTITUTIONALIZATION AS TRUST-BUILDING: REDUCING RESISTANCE TO POWER AND INFLUENCE IN ORGANIZATIONS

Jeffrey W. Lucas and Michael J. Lovaglia

ABSTRACT

The processes of legitimation and institutionalization are difficult to study because they are hard to measure. Instead, theories of legitimacy use its elements to explain various effects. We propose that these effects are due to the trust-building aspects of legitimation and institutionalization. If research can establish the trust-building nature of legitimation, then theoretical research programs in the area may progress more rapidly. Research on leadership in groups can be used to assess fundamental questions of legitimacy and trust because group leadership represents an interface between research on organizations and basic group processes. We describe an experimental setting to investigate legitimation, institutionalization, and trust.

INTRODUCTION

Legitimation is the process by which social behavior, positions, individuals and organizations become accepted as rule governed. Institutionalization is

Social Psychology of the Workplace
Advances in Group Processes, Volume 23, 229–252
Copyright © 2006 by Elsevier Ltd.
All rights of reproduction in any form reserved
ISSN: 0882-6145/doi:10.1016/S0882-6145(06)23009-1

one process that produces legitimation. Neo-institutional theory (Meyer & Rowan, 1977) proposes that group structures, ranging from organizations to nation states, gain legitimacy when they conform to accepted practices in their environment. These practices are called social institutions. Perhaps, because legitimacy applies to individuals and their actions as well as to organizations and nation states, theories of group processes are especially useful for showing how legitimacy anchors individual behavior in the structure of organizations.

We propose that at a fundamental theoretical level legitimation and institutionalization build trust. Individuals come to accept as legitimate those aspects of the social world that they trust will operate to produce outcomes favorable to the group or organization. When an individual accepts that an action or outcome is legitimate, however, it does not imply the expectation of individual benefit. Legitimated social structures, then, gain compliance and even acceptance from individuals who expect outcomes detrimental to themselves. Through a process of legitimation individuals come to trust that their needs will be met.

Leadership in organizations is a strategic research site for the study of legitimation and trust because leadership positions in organizations are occupied by individuals that not only influence those they lead but that are also authorized to use power to distribute resources. Understanding problems of leadership positions in organizations requires melding theories of group processes that explain the emergence of influence in work groups with theories of legitimation that explain how positions of authority overcome the resistance of individuals.

The following sections describe theories of legitimation and institutionalization and show how those theories have been applied to group processes of power and influence. We then incorporate recent research on trust to propose that legitimation and institutionalization are primarily trust-building processes. Then, we propose new research to investigate whether legitimation and institutionalization can build trust in the decisions of leaders who redistribute organizational resources.

LEGITIMACY AND INSTITUTIONALIZATION

A legitimated social order is one that actors treat as a desirable model of action or that actors believe is valid (Weber, 1968). Central to this definition of legitimacy is that social orders become legitimate when they become normative. Legitimacy plays a central role in theories of

organizations, although it is not often well-defined (Stryker, 1994, 2000). According to Bacharach and Lawler (1980), organizations have low legitimacy when their authority structures are not congruent with members' beliefs about who should be able to make decisions in the organization. In population ecology, age is the determining factor producing legitimacy (Freeman & Hannan, 1989; Hannan & Carroll, 1992). When an organizational field is young, the density of an organizational population is low and as it ages, increased density is accompanied by increased legitimacy. In resource dependence theory, organizations attain legitimacy when they successfully justify their rights to exist (Pfeffer & Salancik, 1978).

Dornbusch and Scott's (1975) theory of formal authority refines the study of legitimacy to the point where it can predict individual behavior in groups. The legitimacy of an organizational structure is composed of the legitimacy of structural positions, the individuals in those positions, and the acts of those individuals. Dornbusch and Scott focus on hierarchies in organizations and the rights associated with positions of formal authority. In the simplest case, consider a 3-person organization with a boss, a supervisor, and a worker. The supervisor, being in the middle layer of the hierarchy, has *authority* to the extent that she is acting in accord with the rules of the organization set out by the boss. Thus, the legitimacy of authority is conveyed from the top of a hierarchy down through its layers. In the Dornbusch–Scott theory, propriety is the obverse of authority. *Propriety* refers to members' beliefs that norms of conduct describe desirable patterns of action. The legitimacy of propriety is confirmed at the lowest level of the hierarchy when the worker conforms to a directive believing that it is the right thing to do. That is, the worker has *endorsed* it. *Validity* is an idea that connects authority and propriety. *Validity* refers to norms that group members feel obligated to follow even though they do not necessarily personally approve of them. Propriety, then, is evaluative (Ridgeway & Walker, 1995), and concerns actor's beliefs. *Validity*, on the other hand, is both evaluative and constitutive. Valid rules are constitutive because they describe rules of conduct for individuals who occupy certain positions. Group members comply with valid rules not because they feel that the rules represent the best course of action, but because they represent the way activity "should" be conducted. *Validity* is evaluative in that it influences beliefs about propriety. Dornbusch and Scott argue that group members, when confronted with valid rules, are more likely to believe that the rules are desirable than are members who are confronted with rules that are not valid.

A key problem for theories of legitimacy is the lack of a process by which legitimation occurs. Dornbusch and Scott's (1975) theory of formal authority

delineates components of legitimacy but does not specify how an organization obtains it.

Institutionalization

Institutional theory takes as its core problem the process of legitimation. The institutional approach to organizations (also called neo-institutional theory) proposes that organizations are compelled to incorporate the practices defined by prevailing concepts of organizational work that are institutionalized in society (Troyer & Silver, 1999). Institutionalization is the process by which social processes or structures come to take on a rule-like status in social thought and action (Meyer & Rowan, 1977). The theory proposes that group structures gain legitimacy when they conform to the accepted practices in their environment. These practices are called social institutions.

According to institutional theory (see DiMaggio & Powell, 1983), organizations exist in fields of other organizations. When these fields mature (and “structurate”), they influence organizations within them. In the approach, as fields become increasingly structured, the organizations within them become increasingly homogenous. In an effort to attain legitimacy, organizations adopt institutionalized structures and practices that conform to their environments. Research in institutional theory (e.g., D’Aunno, Vaughn, & McElroy, 1999; Gooderham, Nordhaug, & Ringdal, 1999; Guthrie & Roth, 1999; Woodruff, 2000) supports the contention that organizations do select institutionalized practices.

Organizations, according to institutional theory, operate within cultural frameworks and select the practices that they adhere to from among various alternatives (Ingram & Clay, 2000). When they select institutionalized practices, organizations are argued to increase their legitimacy and survival prospects. In the theory, the process by which organizations structure in order to conform to their environments is conceptualized as isomorphism, which is the process that leads one unit in a population to resemble other units that face the same set of environmental conditions (Hawley, 1968).

According to the theory, organizations search for legitimacy, and this search can explain much organizational activity. In the theory, organizations require legitimacy in order to survive and so they institutionalize, seeking already accepted organizational forms to build on as a method to increasing legitimacy. In institutional theory, institutionalization is the primary process through which organizations acquire legitimacy.

GROUP PROCESSES AND LEGITIMACY

Group processes researchers study small groups of workers that may be undifferentiated in terms of formal position, or the group may have a formal leader. Group processes research, then, is usually concerned with at most the bottom two levels of hierarchy required for Dornbusch and Scott's (1975) theory of formal authority. The theory, however, is concerned almost entirely with the legitimacy of acts rather than rules or the structure of the hierarchy (Zelditch & Walker, 1998). Thus, it is well-suited to the study of leaders and the effect of their acts on followers.

Leaders in a position of formal authority wield legitimate power over their followers. For example, a supervisor may be in a position to award a bonus or a recommend promotion for a worker. The ability of a position in a social structure to control resource flows to other positions is the defining characteristic of *power* in network exchange research (Emerson, 1962; Cook & Emerson, 1978; Cook, Emerson, Gilmore, & Yamagishi, 1983; Markovsky, Willer, & Patton, 1988; Willer & Anderson, 1981). Early research reviewed by Zelditch and Walker (1998) showed that individuals can distinguish legitimate from illegitimate power use and consider proper the acts of individuals when those acts fall within the authorized scope of a leader who (a) holds a legitimate position and (b) is qualified for that position. Zelditch and Walker propose, however, that the fundamental assumption of any theory of authority is that propriety increases voluntary compliance. Legitimacy, then, should increase compliance with and decrease resistance to power use. Orders become legitimate when systems of inequalities are transformed in the minds of individuals to systems of rights and obligations; from what is to what *should* be (Ridgeway & Walker, 1995).

Zelditch and colleagues (Zelditch & Walker, 1984, 1998; Walker, Thomas, & Zelditch, 1986; Zelditch, 2001; Zelditch & Floyd, 1998) extend the Dornbusch and Scott formulation to groups with fewer than three levels of hierarchy. In empirical tests, they have investigated the effects of propriety and validity on compliance. That research has not been able to demonstrate convincingly that propriety alone increases compliance. It has shown, however, that a collective process of social validation does (Zelditch & Walker, 1998).

Status and Legitimacy

Group processes researchers have shown how legitimacy comes to adhere to the acts of workers in groups that start out with no formal hierarchy. Work

groups with no formal leadership position develop status hierarchies based on expectations group members have for each others' competent contributions to group goals (Berger, Cohen, & Zelditch, 1966). Although high-status members of task groups may not be authorized to use power, they do have more influence over group decisions. That is, they become informal leaders of previously undifferentiated task groups. Meeker and Weitzel-O'Neill (1977) propose that acts signaling competent contributions are presumed to be legitimate when made by a high-status group member. The same act, however, is seen as illegitimate coming from a low-status group member. Status characteristics such as gender, race, age, and education thus become important aspects of the legitimacy of a leader's directives.

Status in Groups

Status is a position in a group based in esteem, honor, and respect. Dating to the work of Bales and colleagues, substantial evidence indicates that initially status undifferentiated task groups organize themselves into hierarchies of prestige (Bales, 1950, 1953; Bales & Slater, 1955; Heinecke & Bales, 1953). The most well-developed theoretical account of these processes is the expectation states program of Berger and colleagues. *Status characteristics theory* (Berger, Cohen, & Zelditch, 1966, 1972; Berger, Fisek, Norman, & Zelditch, 1977; Berger, Wagner, & Zelditch, 1985) relates characteristics of an individual such as gender and race to that person's rank in a status hierarchy based on the esteem in which the person is held by self and others. The theory proposes that members of a group form expectations about each other's competence to contribute to group goals based on their status characteristics. Individuals expected to contribute more are more highly valued by the group, held in higher esteem (Berger, Fisek, & Norman, 1989; Podolny, 1993).

Two scope conditions limit the domain of status characteristics theory – task orientation and collective orientation (Berger et al., 1977). Task orientation means that the group is formed for the purpose of solving some problem, rather than for social or other reasons. Collective orientation means that group members consider it necessary to take into account the input of every group member in solving the task. For all groups that meet these two scope conditions, the theory makes predictions about the process through which observable status characteristics lead to behavioral inequalities. Although many organizational leadership situations satisfy these scope conditions, some do not. Our goal, however, is not to test

the principles of status characteristics theory but instead to use the theory to inform predictions about relationship between legitimacy and trust in leadership.

According to status characteristics theory, group members (often outside their conscious awareness) develop expectations for the performances of themselves and other group members. In the theory, these expectations are developed based on *status characteristics*, which are any characteristics around which expectations and beliefs come to be organized (Berger et al., 1989). Examples of status characteristics include race, gender, education, and task expertise. Individuals holding status characteristics that produce higher expectations for performance than those of other group members are held in higher esteem and have higher positions in the group's status order. One consequence of the status order is that high-status group members are expected to make more competent contributions to the group. In this way, the status order of the group becomes self-fulfilling, with the contributions of high-status members evaluated as more competent despite their objective merit, perpetuating the status order.

Status characteristics theory specifies two types of status characteristics. For both, one category of a characteristic is socially considered to be more desirable and highly valued than another. A status characteristic is *specific* if it carries expectations for competence in a narrow range of situations. Presentation skill is a specific characteristic because it only leads to expectations for competence in a limited range of settings. A characteristic is *diffuse* if it carries with it expectations for competence in a wide variety of situations. Age, gender, race, and social class are examples of diffuse characteristics. In the theory, both diffuse and specific status characteristics contribute to determining group members' relative status by altering expectations for competence that members hold for one another. Diffuse status characteristics, however, have a moral component not possessed by specific status characteristics, with high status on the characteristic being viewed as broadly superior to low status on the characteristic (Berger, Rosenholtz, & Zelditch, 1980).

In status characteristics theory, status characteristics produce rank in a status hierarchy through a chain of four logically connected assumptions. First, the theory assumes that any characteristic will become salient to group members if it is known or believed to be related to the task or if it differentiates among the members of the group. Second, the burden-of-proof assumption states that all salient characteristics will be treated as relevant by group members unless specifically disassociated from the task. Therefore, in a mixed-sex group, the theory assumes that gender will be relevant to group

members (i.e., cognitively related to the task) unless it is specifically proven that gender is not indicative of ability at the group's task.

The theory's third link between status characteristics and behavioral inequalities in groups is the formation of aggregated expectation states assumption. In simple terms, this assumption holds that when group members are confronted with more than one relevant characteristic, they act as if they aggregate, or combine together, the expectations associated with each characteristic. The fourth assumption in the link between status characteristics and a group's power-prestige order is the basic expectation assumption. According to this assumption, a member's rank in the group's status hierarchy will be a direct function of the group's expectations for that member's performance. With this assumption, the status order of the group will be determined by the aggregated expectation states that each group member has for herself and for other group members.

Status characteristics theory, then, suggests that leaders with the low states of relevant status characteristics will be viewed as less competent than leaders with the high states of relevant characteristics. Double standards theory, another well-supported theory of status processes in groups, provides further evidence that competency standards differ based on status characteristics (Foschi, 1992, 1996, 1998). Research in the theory finds that successful performances by low-status persons are more closely scrutinized and held to a stricter standard than performances by high-status persons.

An individual's high status is based on group members' expectations for that individual's competent contributions to group goals. Ridgeway (1982) noted that to increase an individual's status, such expectations must go beyond the assumption of task ability. In addition, group members must expect the individual to contribute to the group the products of that ability, that the individual be group-motivated as opposed to selfishly motivated. Ridgeway (1982) proposed that group members assume that high-status individuals will make contributions with the interests of the group in mind, while low-status individuals will be selfishly motivated. She found that when both men and women presented themselves as selfishly motivated, men had more influence over group decisions than did women. When men and women presented themselves as group motivated, however, gender differences in influence disappeared. These findings imply that even when higher-status men were presenting selfish motivations, group members assumed that the behaviors were carried out with the interest of the group in mind. This work was later replicated and extended by Shackelford, Wood, and Worchel (1996). Low-status group members, then, are perceived to be more selfishly motivated, and less group oriented, than high-status members. This

finding may be particularly interesting in the study of leadership legitimacy because effective leadership requires minimizing the concern that leaders are pursuing personal aggrandizement to the detriment of group goals.

Legitimation and Delegitimation of Status Orders

The self-fulfilling nature of status processes in groups – wherein high-status members receive higher evaluations for comparable performances than do low-status members thus ensuring continued high-performance expectations – signals that legitimacy adheres in work groups as well as organizational hierarchies. The expectation advantages of the status characteristics of European–American men have given them a traditional near-monopoly on leadership positions even when those positions are awarded based on merit. Status characteristics theorists have developed an explanation not only for the relative ease with which European–American men obtain leadership positions, but also for their performance advantages in those positions (Ridgeway, 2001).

Ridgeway and Berger (1986) propose that status hierarchies that emerge because of differentiation in status characteristics are stable because they are legitimate. That is, a traditional work group led by a European–American man is seen as a valid arrangement that group members of different races and genders find comfortable to support. Newly formed work groups, then, come to resemble the status structures found in the larger organization or society, which Ridgeway and Berger term *referential structures*.

Notice that the explanation for legitimacy in groups parallels to some extent the institutionalization explanation for legitimacy in society. Just as organizations gain legitimacy from copying institutionalized structural forms and practices, status hierarchies in groups gain legitimacy when isomorphic with referential structures of larger society.

Berger, Ridgeway, Fisek, and Norman (1998) explicate the process through which status hierarchies become legitimated or de-legitimated. They propose that as a status hierarchy emerges consistent with referential structures, the greater the expectation advantage held by a member, the greater the likelihood that group members will engage in congruent deferential and status affirming behavior. Furthermore, group members who observe those behaviors and do not object to them implicitly validate the status structure. Through enacted status differences, the assumption develops among group members that the status hierarchy is normatively prescriptive and thus legitimate.

Legitimate hierarchies have a moral component that promotes stability. Ridgeway and Berger (1986) propose that group members will resist attempts to alter status hierarchies. Competent contributions to the group made by high-status members are welcomed in part because they conform to expectations. Competent contributions made by low-status members are devalued or ignored because they are seen as an illegitimate attempt to gain status, in a word, uppity. This explains the resistance that minority group members and women face when they attempt to perform their duties in leadership positions.

Status and Institutionalization

The next step in our theoretical development was to specify a process by which institutionalization occurs, which might then suggest ways to intervene in the legitimation of status hierarchies. Lucas (2003) developed ways to institutionalize nontraditional status hierarchies by drawing on links between the concept of isomorphism in institutional theory and status characteristics theory. He proposed that if a particular form of group structure is institutionalized, then group members should feel pressure to become isomorphic with that structure. Moreover, the structure should attain increased legitimacy in the minds of group members, and members should expect adoption of the structure to increase the group's likelihood of success. Lucas proposed that institutionalizing female leadership might offer a route toward improving the effectiveness and legitimacy of women as leaders.

Lucas (2003) institutionalized women as leaders in a business setting through a video presentation that emphasized established procedures communicated from a higher authority to group members. Study participants were informed that the research was sponsored by the Center for Leadership, Work, and Organizations (CLWO, a fictional research institute). Participants read that a video would explain the purposes of CLWO. The video was a training film of a type that might be produced by a large research institute. Participants, like new employees in an organization, watched the film and saw trappings of authority; the narrator of the video had an authoritative voice and the video contained footage of executives interacting in a boardroom, logos of Fortune 500 companies, and professional graphics. The video presented a modern history of women in leadership going back to World War II when leadership positions in businesses and organizations were going unfilled because of a lack of qualified men. The Center was formed, the narrator said, to find ways to smoothly integrate women into

leadership positions. Through the video, participants learned of studies carried out at CLWO that found different tasks required different kinds of leaders, and that when groups are working on creative, idea-generating tasks, women as leaders are particularly effective. The narrator explained that in organizations today, idea-generating groups (IGGs) nearly always have women in leadership positions. Participants learned that female leadership of IGGs has a valid history, that it is the common course of action among current organizations, and that Fortune 500 companies have followed CLWO's advice in choosing female leadership for IGGs.

Work in institutional theory (e.g., Dey, Milem, & Berger, 1997; DiMaggio & Powell, 1983; Han, 1994; Scheid & Suchman, 2001) suggests that groups will adopt institutionalized practices when external regulations mandate them to adopt the practices, when they see that successful groups adopt the practices, and when they see that groups similar to their own adopt the practices. After watching the video, participants in the Lucas (2003) study read that because they would be participating in an IGG, a female group member would be assigned to a high-status leadership position. With this step, participants saw that successful groups have female leaders, learned that groups similar to their own have female leaders, were required to adopt a woman as leader, and saw that it is proper and valid for women to take high-status leadership positions in groups such as their own; that is, female possession of high-status positions was institutionalized.

Lucas (2003) found that institutionalizing women as leaders overcame the influence advantages of men such that institutionalized women in leadership positions were evaluated as highly as otherwise similar men. Institutionalization may provide a particularly effective route toward increasing trust in leaders with the low states of diffuse status characteristics. Creating an environment in which people feel that leadership by women has been endorsed, authorized, and normative, for example, should produce perceptions that these leaders will be competent, fair, and group-oriented. Further, because of pressure to adopt institutionalized practices, efforts to take leadership positions away from women should become less likely.

INSTITUTIONALIZATION AS TRUST-BUILDING

To support our main proposition that institutionalization promotes legitimacy by increasing the trust of members in social structures, we examine recent theoretical development of trust by group processes researchers. Trust has recently become a major topic of interest among group processes

researchers who point out that it is a fundamental requirement for the development of social exchange (Cook, Rice, & Gerbasi, 2004). We briefly describe the development of theoretical accounts of trust before linking it to research on legitimacy and institutionalization in subsequent sections.

Definitions of Trust

Trust is a commonly used word with many meanings. Its multiplicity of meanings hampers progressive research because of the difficulty of arriving at a shared meaning of the concept. Cook (2005) note that most writing on trust is theoretically vague and leaves the concept undefined or loosely defined. She defines trust discursively. "If we value maintenance of a particular relationship, we will behave in a trustworthy manner toward the other, and if the other recognizes our interest in being trustworthy, the other will trust us ... we are unlikely to harm those we trust or take advantage of them" (p. 6).

Yamagishi and Yamagishi (1994) were perhaps the first group processes researchers to identify the strategic importance of trust for understanding fundamental social processes. They define trust as expectations of benign behavior based on inferences about a partner's personal traits and intentions. Similarly, Molm, Takahsahi, and Peterson (2000) define trust as expectations that an exchange partner will behave benignly, based on the attribution of positive dispositions and intentions to the partner in a situation of uncertainty and risk.

Cook (2005) distinguishes generalized trust from relational trust. Generalized trust is a default belief in the benign nature of humans in general or some optimism about the trustworthiness of others, trust as a personality trait. Cook (2005) prefers to conceptualize trust in relational terms: actor A trusts actor B with respect to x in situation S. She treats trust as an aspect of a social relation.

Definitions of trust as a trait and as a component of a relationship can both be found in the organizations literature. Rousseau, Sitkin, Burt, and Camerer (1998) define trust as "a psychological state comprising the intention to accept vulnerability based on positive expectations of the intentions or behavior of another." Mayer, Davis, and Schoorman (1995) define trust as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control the other party." Dirks and Ferrin (2001) note that researchers tend to operationalize trust as an expectation or belief that one can rely upon another

person's actions and words, and/or that the person has good intentions toward oneself.

Our preference is to approach the concept of trust as an aspect of a relationship that has measurable effects. Our definition extracts from others' usage.

Actor A *trusts* actor B with respect to x in situation S to the extent that A expects B to behave in ways that contribute to the attainment of A's goals or the goals of a group to which A belongs.

Theoretical Explanations of Trust

Among those in the group processes tradition, Cook and colleagues provide the most detailed theoretical accounts on the development of trust. Cook et al. (2005) lay out the process by which trust develops as follows: Two people realize that they can potentially gain from engaging in social exchange. Each party knows that she will gain if the other party turns out to be trustworthy, but there is a risk of loss if the partner is not trustworthy. In this way, an initial lack of trust is a major obstacle to trust-building. The key to breaking this deadlock is a strategy in which one actor begins by cooperating unilaterally, entrusting only a small amount to the partner, and then increasing the amount entrusted over time as the partner demonstrates her trustworthiness. This effective trust-building strategy has become known as GRIT (graduated reciprocation in tension reduction). Matsudo and Yamagishi (2001), in an experimental study, found that the most successful exchange participants used a GRIT strategy.

Cook et al. (2004) also give a theoretical explanation for the development of trust. They propose that trust developed locally in environments in which the background institution offered little recourse for exploitation or failed transactions. Tight-knit networks rooted in bonds of trust emerged to facilitate everyday interaction and cooperation.

Molm et al. (2000) lay out a process through which trust develops in exchange. They distinguish between trust (expectations that a partner will behave benignly) and assurance (expectations based on knowledge of an incentive structure that encourages benign behavior). They propose that negotiated exchanges with binding agreements produce assurances, while reciprocal exchanges encourage trust. Trust develops in reciprocal exchanges, to Molm et al., when the partner reciprocates and with the development of frequent, stable exchanges between two actors.

Risk is a key element in group processes treatments of trust. Cook (2001) argues that trust always involves some level of risk, but that risk taking in

trust-building relations has largely been overlooked. In her view, relationships begin with a mutual lack of trust, but one party must take the risk of trusting for an exchange relationship to begin. Molm et al. (2000) argue that trust arises in response to uncertainty and risk. Lawler and colleagues do not explicitly address risk, but the theory argues that commitment to a social unit develops to the extent that the unit fosters a “sense of control” (Thye, Yoon, & Lawler, 2002).

Lawler and colleagues also do not explicitly address trust, but their work has clear implications. They propose that both frequent exchanges and successful exchanges produce positive emotion. Positive emotion produced by exchange leads to increased solidarity or commitment. Commitment is empirically manifest in people staying in a social unit despite alternatives (Lawler, 1998, 2001; Lawler & Yoon, 1993, 1996; Lawler, Thye, & Yoon, 2000; Thye et al., 2002). Critical for links among trust, legitimacy, and leadership is the discovery that exchange relationships characterized by unequal power hamper the development of commitment and positive emotion (Lawler & Yoon, 1996). Leaders by our definition are in positions of power over others and also must motivate them to volunteer their energy and commitment while maintaining morale. Thus trust-building as well as legitimacy is a crucial element of effective leadership. In the next section, we propose that this coincidence of trust and legitimacy is more than mere correlation.

LEGITIMACY AS TRUST-BUILDING WITH APPLICATION TO LEADERSHIP IN ORGANIZATIONS

With the basic theoretical components in place – legitimacy, institutionalization, and trust – we now propose that legitimacy produces its effects by increasing the trust of individuals in a social structure. Further, we propose that institutionalization is primarily a trust-building process that produces legitimacy. We will justify those propositions to the extent possible using relevant group processes and organizations research.

A problem in the development of theoretical research programs on legitimacy is the inability to measure it. Morris Zelditch, Jr., has noted that legitimacy is a research area without a dependent variable (pers. comm.). Instead, the theories of legitimacy we have described use legitimacy as the explanation for various behavioral consequences of social structures that have characteristics identified with legitimacy. We asked why legitimacy

might have these particular effects and arrived at trust as the likely explanation. We then examined relevant research to see whether the consequences of legitimacy might reasonably be explained by increased trust.

We chose group leadership as a social structure suitable to illustrate our theoretical development and to pursue research testing it because: (a) it can be simplified to facilitate controlled research in the laboratory and in organizations; (b) legitimacy and trust are important elements of effective leadership; and (c) leadership is an important element of most work relations and thus understanding the elements of effective leadership is important to many people.

Leader Legitimacy and Trust: Relevant Research

Leaders in positions of authority to distribute resources link the formal hierarchy of an organization to the informal status hierarchy of work groups. Legitimacy is essential to a leader's effective performance. Despite holding some degree of power, a leader's position may become untenable without at least the tacit support of a large proportion of subordinates. The impotence of pure power is a basic assumption of most legitimacy theories (Zelditch & Walker, 1998).

Group processes theories are well-suited to advance understanding of the relationship between legitimacy and trust in leaders because of their focus on basic social processes. For example, it is reasonable to assume that lessons learned from status processes that produce emerging, informal leaders who wield influence in task groups will produce insight into the processes of effective leadership for individuals entrusted with formal authority. We must keep in mind, however, the key difference between emerging and formal leadership positions: Emerging, informal leaders – i.e., high-status members of work groups – lack structural power to command compliance.

A consistent finding in the group processes literature is that low-status individuals are viewed as illegitimate occupants of leadership positions (e.g., Butler & Geis, 1990; Eagly, Makhijani, & Klonsky, 1992; Ridgeway & Berger, 1986). An important implication is that women will often be considered less legitimate candidates than men for high-status positions (e.g., Fennell, Barchas, Cohen, McMahon, & Hilderbrand, 1978). A well-supported proposition of status characteristics theory is that status results from expectations for an individual's competent contributions to group goals (Berger et al., 1972), the main components of which are expectations for ability and group motivation (Ridgeway, 1982). It seems reasonable that group members would not only find leaders with high ability and group

motivation more legitimate, but also that they would trust those leaders more.

A large volume of research in the group processes and leadership traditions has shown the importance of legitimacy for leader success (e.g., [Butler & Geis, 1990](#); [Johnson & Ford, 1986](#); [Rodriguez-Bailon, Moya, & Yzerbyt, 2000](#)). Legitimated leaders are evaluated more favorably and more effectively influence subordinates than do leaders who are not legitimated ([Ford & Johnson, 1998](#); [Pfeffer, 1981](#); [Ridgeway, Johnson, & Diekema, 1994](#); [Ridgeway & Walker, 1995](#)). Evidence further indicates that legitimacy is particularly important for leaders with low social status, such as women and minority group members ([Yoder, 2001](#)). Moreover, resistance to the use of power becomes less likely when the power is viewed as legitimate ([Bell, Walker, & Willer, 2000](#)). Influence, positive evaluations, and acceptance of a leader's power use could all be indicators of the trust produced by legitimacy.

The relationship between status and trust has a number of implications in organizational settings, notably with respect to gender and leadership. The challenges faced by women in organizational settings are extensively documented ([Cannings & Montmarquette, 1991](#); [Cox & Harquail, 1991](#); [Daily, Certo, & Dalton, 1999](#); [Elliott & Smith, 2001](#)). In particular, women face hurdles to promotions in organizations, with evidence indicating increasing disadvantage the higher they rise in the workplace hierarchy ([Elliott & Smith, 2004](#); [Steinberg, Haignere, & Chertos, 1990](#)). These difficulties may reflect less trust in women in leadership positions compared to men in such positions. Both women and men, for example, report trusting male supervisors more than female supervisors ([Jeanquart-Barone, 1993](#); [Jeanquart-Barone & Sekaran, 1994](#)). Furthermore, [James \(2000\)](#) found that black managers are trusted less than their white counterparts.

In contrast to high-status members of work groups, the problem of trust may be exacerbated for leaders in a position of formal authority that have the capacity to use power. [Zelditch and colleagues](#) propose that power is likely to be viewed as legitimate when others expect the power to be used fairly and to be used for collective, rather than selfish reasons ([Zelditch & Floyd, 1998](#); see also [Yorges, Weiss, & Strickland, 1999](#)). [Zelditch \(2001\)](#) further proposes that power is likely to be perceived as legitimate when the powerholder is viewed as competent. And, [Zelditch and Walker \(1984\)](#) argue that actors perceive power to be legitimate when they believe that its use conforms to the rules regulating the exercise of power. The power held by formal leaders, then, may produce concern about its legitimate use. We propose that the legitimacy of a leader's power use as indicated by perceptions of fairness,

unselfishness, competence, and willingness to abide by rules is due to the increased trust in leaders perceived to hold these traits.

To this point, we have catalogued research identifying the behaviors and characteristics expected of a legitimate leader: ability, fairness, unselfishness, willingness to abide by the rules, influence, and acceptance by the group of a leader's power use. If our main proposition that legitimacy is ultimately produced by increased trust, then we can hypothesize that each of the catalogued legitimacy indicators will increase the trust in a leader.

The process of institutionalization used by Lucas (2003) to institutionalize women leaders would also be predicted to increase trust. If legitimacy works through trust, we can hypothesize that the elements of institutionalization – authorization by important institutions, a valid history of success, endorsement by enthusiastic followers of women leaders, and valid rules requiring the adoption of women leaders – will increase trust further.

A RESEARCH SETTING TO EXAMINE LEGITIMACY AS TRUST-BUILDING

Because of the difficulty in measuring leadership directly, experimental research settings have created the basic theoretical elements of legitimacy and measured their effects. We used the elements of legitimacy from previous research to design a setting capable of testing for the effects of legitimacy and institutionalization on trust.

Read (1974) varied endorsement by having the group elect a leader, authorization by having an expert appoint a leader, and less legitimately, having the leader usurp the position. He then measured participants' perceptions of the leader's legitimacy as well as the leader's perceived competence and influence. Participants also voted whether to retain the leader in office. Results showed that the elected leader had the most legitimacy and the usurper the least. Zucker (1977) attempted a mild form of institutionalization by having group members communicate group standards to new members. She then measured the persistence of those standards. Walker and his colleagues (Walker et al., 1986; Walker, Rogers, & Zelditch, 1988) created endorsement by telling participants that communication structure that advantaged one group member was endorsed by other group members who had "highly approved" it. They found that participants were less likely to attempt to change the communication structure and more likely to consider it proper. And as described above, Lucas (2003) created a strong form of institutionalization and then measured influence.

An Experimental Setting for Leader Legitimacy

Consider a simplified leadership setting in which a leader is appointed to supervise a group completing a task. Success on the task requires that everyone work together. The task is such that performance on it is easily measurable and verifiable. One example would be an anagram task where group members make as many words as possible using the letters in a large word. After completion, the group is awarded a bonus based on performance. The leader receives the bonus and distributes it to group members and himself based on their relative contributions to the group's success.

Such a setting could be used to create all of the elements of legitimacy previously investigated. Leaders, for example, could be elected by group members or institutionalized using the Lucas (2003) procedure. Previously, documented effects of legitimacy and institutionalization such as leader influence could be measured to replicate previous results.

To test predictions derived from the proposition that the effects of legitimacy and institutionalization are related to their production of trust, experiments could measure trust using both self-report instruments and behavioral measures developed by trust researchers. For example, the "trust game" (Dasgupta, 1988; Snijders, 1996) is a prisoners' dilemma in that rational strategies by both actors leads to a suboptimal outcome. However, the researchers make trusting behavior clearly distinct from cooperative behavior. An actor can behave in a trusting manner by putting her fate in the hands of another player. In a prisoners' dilemma, defection is always better than cooperation. In the trust game, in contrast, trusting is better than not trusting *if* the partner acts in a trustworthy manner. For example, actor A might be given the option of allowing actor B to determine pay distributions for a study. If A declines, both actors receive \$10. If A trusts B and B acts fairly, then A and B both get \$20. If A trusts B and B acts unfairly, then B gets \$30 and A gets nothing (Cook et al., 2005).

Another behavioral measure of trust is the investment game (Berg, Dickhaut, & McCabe, 1995), like the trust game but participants can entrust none, all, or any amount of their resources to the other actor. That is, the investment game does not involve a dichotomous choice as does the trust game. Cook et al. (2005) used something similar to the investment game. Participants could trust any number of 10 coins to a partner. Participants received double value for any coins given back by the partner, and the partner received double value for any coins given back by the participant. Participants and partners received face value for any coins they chose not to return. Trust was measured by number of coins given to partners.

If a succession of studies using established elements of legitimacy finds that legitimacy produces trust as well as the already reported consequences of legitimacy, then we can proceed with a research program based on the theory that legitimacy has its effects because of the trust it engenders.

DISCUSSION AND CONCLUSION

Understanding the processes of legitimation and institutionalization is important because the ability to legitimate would increase the speed with which new and more effective social structures can be implemented. The best-established aspect of legitimation is simple survival, hence the term, venerable institution (Hannan & Carroll, 1992). The glass ceiling and other lingering social inequities, however, create pressure to increase the pace at which new social forms become accepted.

Research on legitimacy has established a varied array of its consequences. When the basic elements of legitimacy such as endorsement and authorization are in place, beneficial results for organizations and individuals in positions of power include decreased resistance to influence and power use, increased acceptance of the social structure, and perceptions of fairness. After examining the research on legitimacy, we proposed that all of the consequences of legitimacy can be subsumed under the heading of trust. That is, legitimation and institutionalization primarily may be processes that build trust. If future research confirms the fundamental relationship between legitimacy and trust, then research on legitimation can be accelerated because of the presence of an easily measured dependent variable, trust, which would reliably signal changes in legitimacy.

We selected leadership in groups as a strategic research site for investigating the possibility of a fundamental relationship between legitimacy and trust because it lies at the nexus between the informal, emergent properties of small groups (such as status and influence), and the formal social hierarchies of organizations characterized by positions authorized to use structural power.

While the design of a research setting on which to find a theoretical research program is relatively straightforward, much work needs to be done. Demonstrating, for example, that trust is produced along with all of the previously established consequences of power is not sufficient to demonstrate that legitimation is primarily a process of trust-building. Increased trust will also have to be shown to produce all of those consequences independent of the elements of legitimacy. The ultimate payoff, however, is

potentially large. Understanding the process of legitimation could lead to new organizational forms characterized by greater effectiveness, fairness, and stability.

REFERENCES

- Bacharach, S., & Lawler, E. J. (1980). *Power and politics in organizations: The social psychology of conflict, coalitions, and bargaining*. San Francisco, CA: Jossey-Bass.
- Bales, R. F. (1950). *Interaction process analysis: A method for the study of small groups*. Cambridge, MA: Addison-Wesley.
- Bales, R. F. (1953). The equilibrium process in small groups. In: T. Parsons, R. F. Slater & E. A. Shils (Eds), *Working papers in the theory of action* (pp. 111–161). Glencoe, IL: Free Press.
- Bales, R. F., & Slater, P. E. (1955). Role differentiation in small decision-making groups. In: T. Parsons & P. E. Slater (Eds), *The family, socialization, and interaction processes* (pp. 259–306). Glencoe, IL: Free Press.
- Bell, R., Walker, H. A., & Willer, D. (2000). Power, influence, and legitimacy in organizations: Implications of three theoretical research programs. *Research in the Sociology of Organizations*, 17, 131–177.
- Berg, J., Dickhaut, J., & McCabe, K. A. (1995). Trust, reciprocity, and social history. *Games and Economic Behavior*, 10, 122–142.
- Berger, J., Cohen, B. P., & Zelditch, M., Jr. (1966). Status characteristics and expectation states. In: J. Berger, M. Zelditch, Jr. & B. Anderson (Eds), *Sociological theories in progress* (Vol. 1, pp. 29–46). Boston, MA: Houghton Mifflin.
- Berger, J., Cohen, B. P., & Zelditch, M., Jr. (1972). Status characteristics and social interaction. *American Sociological Review*, 37, 241–255.
- Berger, J., Fisek, M. H., & Norman, R. Z. (1989). The evolution of status expectations: A theoretical extension. In: J. Berger, M. Zelditch, Jr. & B. Anderson (Eds), *Sociological theories in progress: New formulations* (pp. 100–130). Newbury Park, CA: Sage.
- Berger, J., Fisek, M. H., Norman, R. Z., & Zelditch, M., Jr. (1977). *Status characteristics and social interaction: An expectation states approach*. New York: Elsevier.
- Berger, J., Ridgeway, C., Fisek, M. H., & Norman, R. Z. (1998). The legitimation and delegitimation of power and prestige orders. *American Sociological Review*, 63, 379–405.
- Berger, J., Rosenholtz, S. J., & Zelditch, M., Jr. (1980). Status organizing processes. *Annual Review of Sociology*, 6, 477–508.
- Berger, J., Wagner, D. G., & Zelditch, M. (1985). Introduction: Expectation states theory: Review and assessment. In: J. Berger & M. Zelditch (Eds), *Status, rewards, and influence* (pp. 1–72). San Francisco, CA: Jossey-Bass.
- Butler, D., & Geis, F. L. (1990). Nonverbal affect responses to male and female leaders: Implications for leadership evaluations. *Journal of Personality and Social Psychology*, 58, 48–59.
- Cannings, K., & Montmarquette, C. (1991). Managerial momentum: A simultaneous model of the career progress of male and female managers. *Industrial and Labor Relations Review*, 44, 212–228.
- Cook, K. S. (Ed.) (2001). *Trust in society*. New York: Russell Sage.
- Cook, K. S. (2005). Networks, norms, and trust: The social psychology of social capital. *Social Psychology Quarterly*, 68, 4–14.

- Cook, K. S., & Emerson, R. M. (1978). Power, equity, and commitment in exchange networks. *American Sociological Review*, 43, 721–739.
- Cook, K. S., Emerson, R. M., Gilmore, M. R., & Yamagishi, T. (1983). The distribution of power in exchange networks. *American Journal of Sociology*, 89, 275–305.
- Cook, K. S., Rice, E. R. W., & Gerbasi, A. (2004). The emergence of trust networks under uncertainty: The case of transitional economies – insights from social psychological research. In: S. Rose-Ackerman, B. Rothstein & J. Kornai (Eds), *Creating social trust in post-socialist transition* (pp. 193–212). New York: Macmillan.
- Cook, K. S., Yamagishi, T., Cheshire, C., Cooper, R., Matsuda, M., & Mashima, R. (2005). Trust building via risk taking: A cross-societal experiment. *Social Psychology Quarterly*, 68, 121–142.
- Cox, T. H., & Harquail, C. V. (1991). Career paths and career success in the early career stages of male and female MBAs. *Journal of Vocational Behavior*, 39, 54–75.
- D'Aunno, T., Vaughn, T. E., & McElroy, P. (1999). An institutional analysis of HIV prevention efforts by the nation's outpatient drug abuse treatment units. *Journal of Health and Social Behavior*, 40, 175–192.
- Daily, C. M., Certo, S. T., & Dalton, D. R. (1999). A decade of corporate women: Some progress in the boardroom, none in the executive suite. *Strategic Management Journal*, 20, 93–99.
- Dasgupta, P. (1988). Trust as a commodity. In: D. Gambeta (Ed.), *Trust: Making and breaking cooperative relations* (pp. 49–72). Oxford: Blackwell.
- Dey, E. L., Milem, J. F., & Berger, J. B. (1997). Changing patterns of publication productivity: Accumulative advantage or institutional isomorphism? *Sociology of Education*, 70, 308–323.
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48, 147–160.
- Dirks, K. T., & Ferrin, D. L. (2001). The role of trust in organizational settings. *Organization Science*, 12, 450–467.
- Dornbusch, S. M., & Scott, W. R. (1975). *Evaluation and the exercise of authority*. San Francisco, CA: Jossey-Bass.
- Eagly, A. H., Makhijani, M. G., & Klonsky, B. G. (1992). Gender and the evaluation of leaders: A meta-analysis. *Psychological Bulletin*, 111, 3–22.
- Elliott, J. R., & Smith, R. A. (2001). Ethnic matching of supervisors to subordinate work groups: Findings on bottom-up ascription and social closure. *Social Problems*, 48, 258–276.
- Elliott, J. R., & Smith, R. A. (2004). Race, gender, and workplace power. *American Sociological Review*, 69, 365–386.
- Emerson, R. M. (1962). Power–dependence relations. *American Sociological Review*, 27, 31–40.
- Fennell, M. L., Barchas, P. R., Cohen, E. G., McMahon, A. M., & Hilderbrand, P. (1978). An alternative perspective on sex differences in organizational settings: The process of legitimation. *Sex Roles*, 4, 589–604.
- Ford, R., & Johnson, C. (1998). The perception of power: Dependence and legitimacy in conflict. *Social Psychology Quarterly*, 61, 16–32.
- Foschi, M. (1992). Gender and double standards for competence. In: C. L. Ridgeway (Ed.), *Gender, interaction, and inequality* (pp. 181–207). New York: Springer-Verlag.
- Foschi, M. (1996). Double standards in the evaluation of men and women. *Social Psychology Quarterly*, 59, 237–254.

- Foschi, M. (1998). Double standards: Types, conditions, and consequences. In: J. Skvoretz & J. Szymanski (Eds), *Advances in group processes* (Vol. 15, pp. 59–80). Greenwich, CT: JAI Press.
- Freeman, J., & Hannan, M. T. (1989). Setting the record straight on organizational ecology: Rebuttal to young. *American Journal of Sociology*, *95*, 425–429.
- Gooderham, P. N., Nordhaug, O., & Ringdal, K. (1999). Institutional and rational determinants of organizational practices: Human resource management in European firms. *Administrative Science Quarterly*, *44*, 507–531.
- Guthrie, D., & Roth, L. M. (1999). The state, courts, and maternity policies in US organizations: Specifying institutional mechanisms. *American Sociological Review*, *64*, 41–63.
- Han, S. (1994). Mimetic isomorphism and its effects on the audit services market. *Social Forces*, *73*, 637–663.
- Hannan, M. T., & Carroll, G. R. (1992). *Dynamics of organizational populations: Density, legitimation, and competition*. New York: Oxford University Press.
- Hawley, A. H. (1968). Human ecology. In: D. L. Sills (Ed.), *International encyclopedia of the social sciences* (pp. 328–337). New York: Macmillan.
- Heinecke, C., & Bales, R. F. (1953). Developmental trends in the structure of small groups. *Sociometry*, *16*, 7–38.
- Ingram, P., & Clay, K. (2000). The choice-within constraints new institutionalism and implications for sociology. *Annual Review of Sociology*, *26*, 525–546.
- James, E. H. (2000). Race-related differences in promotions and support: Underlying effects of human and social capital. *Organization Science*, *11*, 493–508.
- Jeanquart-Barone, S. (1993). Trust differences between supervisors and subordinates: Examining the role of race and gender. *Sex Roles*, *29*, 1–11.
- Jeanquart-Barone, S., & Sekaran, U. (1994). Effect of supervisor's gender on American women's trust. *Journal of Social Psychology*, *134*, 253–255.
- Johnson, C., & Ford, C. (1986). Dependence, power, legitimacy, and tactical choice. *Social Psychology Quarterly*, *59*, 126–139.
- Lawler, E. J. (1998). Network structure and emotion in exchange relations. *American Sociological Review*, *63*, 871–894.
- Lawler, E. J. (2001). An affect theory of social exchange. *American Journal of Sociology*, *107*, 321–352.
- Lawler, E. J., Thye, S. R., & Yoon, J. (2000). Emotion and group cohesion in productive exchange. *American Journal of Sociology*, *106*, 616–657.
- Lawler, E. J., & Yoon, J. (1993). Power and the emergence of commitment behavior in negotiated exchange. *American Sociological Review*, *58*, 465–481.
- Lawler, E. J., & Yoon, J. (1996). Commitment in exchange relations: Test of a theory of relational cohesion. *American Sociological Review*, *61*, 89–108.
- Lucas, J. W. (2003). Status processes and the institutionalization of women as leaders. *American Sociological Review*, *68*, 464–480.
- Markovsky, B., Willer, D., & Patton, T. (1988). Power relations in exchange networks. *American Sociological Review*, *53*, 220–236.
- Matsuda, M., & Yamagishi, T. (2001). Trust and cooperation: An experimental study of PD with choice of dependence. *Japanese Journal of Psychology*, *72*, 413–421.
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review*, *20*, 709–734.

- Meeker, B. F., & Weitzel-O'Neill, P. A. (1977). Sex roles and interpersonal behavior in task oriented groups. *American Sociological Review*, 42, 92–105.
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83, 340–363.
- Molm, L. D., Takahashi, N., & Peterson, G. (2000). Risk and trust in social exchange: An experimental test of a classical proposition. *American Journal of Sociology*, 105, 1396–1427.
- Pfeffer, J. (1981). *Power in organizations*. Boston, MA: Pitman.
- Pfeffer, J., & Salancik, G. (1978). *The external control of organizations*. New York: Harper and Row.
- Podolny, J. M. (1993). A status-based model of market competition. *American Journal of Sociology*, 98, 829–872.
- Read, P. B. (1974). Source of authority and the legitimation of leadership in small groups. *Sociometry*, 37, 189–204.
- Ridgeway, C. L. (1982). Status in groups: The importance of motivation. *American Sociological Review*, 47, 76–88.
- Ridgeway, C. L. (2001). Gender, status, and leadership. *Journal of Social Issues*, 57, 637–655.
- Ridgeway, C. L., & Berger, J. (1986). Expectations, legitimation, and dominance behavior in groups. *American Sociological Review*, 51, 603–617.
- Ridgeway, C. L., Johnson, C., & Diekema, D. (1994). External status, legitimacy, and compliance in male and female groups. *Social Forces*, 72, 1051–1077.
- Ridgeway, C. L., & Walker, H. A. (1995). Status structures. In: K. S. Cook, G. A. Fine & J. S. House (Eds), *Sociological perspectives on social psychology* (Chapter 11). Needham Heights, MA: Allyn and Bacon.
- Rodriguez-Bailon, R., Moya, M., & Yzerbyt, V. (2000). Why do superiors attend to negative stereotypical information about their subordinates? Effects of power legitimacy on social perception. *European Journal of Social Psychology*, 30, 651–671.
- Rousseau, D. M., Sitkin, S. B., Burt, R. S., & Camerer, C. (1998). Not so different after all: A cross-discipline view of trust. *Academy of Management Review*, 23, 393–404.
- Scheid, T. L., & Suckman, M. C. (2001). Ritual conformity to the Americans with disabilities act: Coercive and normative isomorphism. *Research in Social Problems and Public Policy*, 8, 105–140.
- Shackelford, S., Wood, W., & Worchel, S. (1996). Behavioral styles and the influences of women in mixed-sex groups. *Social Psychology Quarterly*, 59, 193–284.
- Snijders, C. (1996). *Trust and commitments*. Utrecht: Interuniversity Center for Social Science Theory and Methodology.
- Steinberg, R. J., Haignere, L., & Chertos, C. H. (1990). Managerial promotions in the public sector: The impact of eligibility requirements on women and minorities. *Work and Occupations*, 17, 284–301.
- Stryker, R. (1994). Rules, resources and legitimacy processes: Some implications for social conflict, order and change. *American Journal of Sociology*, 99, 847–910.
- Stryker, R. (2000). Legitimacy processes as institutional politics: Implications for theory and research in the sociology of organizations. In: S. B. Bacharach & E. J. Lawler (Eds), *Research in the sociology of organizations: Organizational politics*. Greenwich, CT: JAI Press.
- Thye, S. R., Yoon, J., & Lawler, E. J. (2002). The theory of relational cohesion: Review of a research program. In: S. R. Thye & E. J. Lawler (Eds), *Advances in group processes* (Vol. 19, pp. 139–166). Greenwich, CT: JAI Press.

- Troyer, L., & Silver, S. D. (1999). Institutional logics and groups environments: Toward an open systems perspective on group processes. In: S. R. Thye, E. J. Lawler, M. W. Macy & H. A. Walker (Eds), *Advances in group processes* (Vol. 16, pp. 219–252). Greenwich, CT: JAI Press.
- Walker, H. A., Rogers, L., & Zelditch, M., Jr. (1988). Legitimacy and collective action: A research note. *Social Forces*, *67*, 216–228.
- Walker, H. A., Thomas, G. M., & Zelditch, M., Jr. (1986). Legitimation, endorsement, and stability. *Social Forces*, *64*, 620–643.
- Weber, M. (1968). *Economy and society*. In: G. Roth & C. Wittich. Berkeley, CA: University of California Press.
- Willer, D., & Anderson, B. (Eds) (1981). *Networks, exchange, and coercion*. New York: Elsevier/Greenwood.
- Woodruff, D. M. (2000). Rules for followers: Institutional theory and the new politics of economic backwardness in Russia. *Politics and Society*, *28*, 437–482.
- Yamagishi, T., & Yamagishi, M. (1994). Trust and commitment in the United States and Japan. *Motivation and Emotion*, *18*, 129–165.
- Yoder, J. D. (2001). Making leadership work more effectively for women. *Journal of Social Issues*, *57*, 815–828.
- Yorges, S. L., Weiss, H. M., & Strickland, O. J. (1999). The effect of leader outcomes on influence, attributions, and perceptions of charisma. *Journal of Applied Psychology*, *84*, 428–436.
- Zelditch, M., Jr. (2001). Processes of legitimation: Recent developments and new directions. *Social Psychology Quarterly*, *64*, 4–17.
- Zelditch, M., Jr., & Floyd, A. S. (1998). Consensus, dissensus, and justification. In: J. Berger & M. Zelditch, Jr. (Eds), *Status, power, and legitimacy: Strategies and theories* (pp. 339–368). New Brunswick, NJ: Transaction Publishers.
- Zelditch, M., Jr., & Walker, H. A. (1984). Legitimacy and the stability of authority. In: E. J. Lawler (Ed.), *Advances in group processes* (Vol. 1, pp. 1–25). Greenwich, CT: JAI Press.
- Zelditch, M., & Walker, H. A. (1998). Legitimacy and the stability of authority. In: J. Berger & M. Zelditch (Eds), *Status, power, and legitimacy: Strategies and theories* (Chapter 15). New Brunswick, NJ: Transaction.
- Zucker, L. G. (1977). Institutionalization and cultural persistence. *American Sociological Review*, *42*, 726–743.

SELECTIVE IDENTITY PREFERENCES: CHOOSING FROM AMONG ALTERNATIVE OCCUPATIONAL IDENTITIES[☆]

Christopher D. Moore and Dawn T. Robinson

ABSTRACT

Affect control theory describes a process in which individuals work to maintain existing situated identities. In this paper, we extend affect control theory to explain selective identity preferences in occupational settings. We argue that individuals form preferences about potential future identities with an eye to maintaining consistency between their potential experiences and their existing biographical identities. In particular, we suggest that occupational identity preferences reflect work-specific biographical identities called worker identities. We then predict that individuals who are seeking alternative or additional occupational identities will prefer those that evoke sentiments that are similar to those evoked by their worker identities. We find that current worker sentiments predict reports of desired and undesired future occupational identities, to include

[☆]Manuscript prepared for publication in *Advances in Group Processes* is edited by Shane Thye. The present research is based on work completed as part of the first author's M.A. requirements at the University of Iowa.

Social Psychology of the Workplace
Advances in Group Processes, Volume 23, 253–281
Copyright © 2006 by Elsevier Ltd.
All rights of reproduction in any form reserved
ISSN: 0882-6145/doi:10.1016/S0882-6145(06)23010-8

generalized military identities, to a remarkable degree. We discuss the implications for research on occupational mobility, work, and life course, as well as for existing identity theories.

Since the terrorist attack on the World Trade Center and the Pentagon on September 11, 2001, public attention has focused increasingly on the sacrifices of American National Guardsmen and Reservists, whose lives revolve around simultaneously meeting the demands of their civilian jobs while also voluntarily serving as members of the United States military. Why do some individuals volunteer to take on positions in the Reserve or National Guard in addition to their civilian occupations, particularly when a mobilization of one's Reserve or National Guard unit to active duty (full-time) military status involves an interruption to one's usual ways of life? What factors determine the particular military branch (Army, Navy, Air Force, or Marine Corps) that these individuals choose; especially given the virtually identical benefits offered by each branch? While such queries could be posed about any number of potentially competing identities, the timeliness and import of efforts comparing military identities and (civilian) occupational identities is unlikely to be overstated, making it an obvious topic to investigate.

In this paper, we draw from contemporary symbolic interaction theories to offer a partial explanation for choices individuals make about available alternative identities. We then present a test of this explanation using data on the occupational preferences of college students. Finally, we illustrate the potential relevance of linking occupational preferences to identity by conducting a smaller analysis of choices among a subset of individuals who expressed potential interest in adopting military identities. This sub-analysis demonstrates the potential utility of an affect-based preference argument for helping us understand when and why civilians adopt and retain military identities.

We begin with a basic question: Other than the relative amount of tangible benefits they provide (e.g. a paycheck), what is it about occupations (jobs) that compel us to either want to adopt or avoid them? Clearly, when an individual identifies herself with a particular occupational identity, she can reasonably expect to lay claim not only to a certain number of dollars, but also to a complex array of social meanings and expectations. Generalized social and subjective assessments of these factors contribute to the relative desirability of occupational identities. Some researchers suggest that our subjective evaluations of occupations are largely captured by measures of relative prestige and social status (Treiman, 1977; Duncan, 1984; Nakao, 1992). Other researchers suggest that a more complete picture of the

substantive meanings believed to be represented by indices of relative social status and prestige is better captured by assessing occupational identities according to the sentiments they evoke (MacKinnon & Langford, 1994).

Existing research on identity processes and structures focuses heavily on situated identity management. There is little attempt to explain how individuals make decisions about the adoption of *new* identities. Here, we present and test an extension to affect control theory that allows it to make predictions about which alternative or additional (new) identities individuals are likely to choose, in light of their available alternatives. Specifically, we test whether the sentiments individuals associate with occupational identities may be used to differentiate those that they are likely to prefer adopting from the rest.

The focus on *available* alternatives is important, for clearly aspirations alone are unlikely to be perfect predictors of behavior (Park, 1955; Merton, 1968; Turner, 1978; Rindfuss, Cooksey, & Sutterlin, 1999). Some research discounts the role of occupational identity expectations when it comes to actual behavioral outcomes (Rindfuss et al., 1999). As sociologists, we fully recognize that individuals' occupational choices are highly constrained by their social structures (Howell & Reese, 1986; Mayhew, 1968; Kalleberg, Knoke, Marsden, & Spaeth, 1996; Reskin & Roos, 1990). While recognizing that predictions about individuals' actual behavior must take into account the structural limitations (available alternatives) placed upon them, we maintain that knowledge of their occupational identity preferences remains an essential factor in understanding occupational stratification (Padavic, 1991). In fact, we argue that preferences are one of the means through which individual's occupational trajectories are constrained. Structural factors condition available opportunities, while preferences help determine which of these available opportunities individuals will pursue.

The research presented in this paper draws from the larger identity maintenance literature. Our predictions stem from the notion that individuals manage their identity preferences so that they will favor the adoption of a new identity to the extent that it is consistent with their existing self-views (Stryker, 1968, 1980; McCall & Simmons, 1978; Heise, 1979, 1987; Wiggins & Heise, 1987; Burke, 1980, 1991; Alexander & Wiley, 1981; Burke & Reitzes, 1991; MacKinnon, 1994; Hewitt, 1999). Our understanding of the relationship between occupational identity preferences and behavioral outcomes may be improved if we employ strategies that define occupational identity preferences and outcomes in ways that incorporate the affective sentiments they evoke. Until now, researchers have relied primarily on purely cognitive categorical strategies to characterize and operationalize

occupational identity preference and outcome variables (Rindfuss et al., 1999). In such a classification scheme, occupational identities are grouped according to an occupational field or category within which they appear to have some degree of commonality. For example, according to the coding scheme used by Rindfuss et al. (1999), the occupational identities of bank teller, bookkeeper, secretary, typist, mail carrier, and ticket agent are all classified clerical (type) workers. Alternatively, we focus on the affective sentiments evoked by occupational identities to achieve a richer assessment of their comprised meanings.

BACKGROUND

Early scholars in the symbolic interactionist tradition emphasize the process of assigning cognitive meanings to our perceptions of the world (Cooley, 1964 [1902]; Mead, 1934). Individuals' identities are the reflexive self-views that result when they identify themselves with particular groups or positions in groups (Cooley, 1964 [1902]; Mead, 1934; Alexander & Wiley, 1981; Higgins, 1987, 1989; Higgins et al., 1994; Heise, 1979, 1987; MacKinnon, 1994; McCall & Simmons, 1978; Burke, 1980, 1991; Burke & Reitzes, 1991; Stryker, 1968, 1980). Affect control theory (Heise, 1977, 1979; Smith-Lovin & Heise, 1988; MacKinnon, 1994) is premised on the notion that (a) all cognitions produce affective responses (evoke sentiments), (b) that individuals have (varying degrees of) ability to act according to their own volition, and (c) that individuals are thus influenced by affective information when making decisions that lead to subsequent behavior.

Identity theory (Stryker, 1968, 1980, 1989; Stryker & Burke, 2000) and role-identity theory (McCall & Simmons, 1978) argue that individuals acting in the context of a structured society identify one another (including themselves) as occupants of social positions. Each of a society's named social positions contains prescriptions for behavior (roles) and imparts self-referent meanings onto its occupants. Occupations are examples of named social positions (professor, construction laborer, homemaker). Occupational identities are defined in terms of their labels (job title) and the sentiments that are attributed to individuals who perform the roles appropriate to them. Performing a specific type of work, wearing a particular uniform or attire, even exhibiting the appropriate demeanor are all parts of an individual's performance of an identity.

One of the defining characteristics of modern industrialized societies is that individuals spend a large part of their lives "at work." Certainly, the

importance of an individual's occupational identity(s) to her overall view of herself is seldom understated. In addition to being an important topic of inquiry, the nature of occupational identities is such that they represent identities that are highly socially recognizable and institutionally clear (MacKinnon, 1994). As such, the sentiments associated with occupational identities often show less within and cross-cultural variance than do many other types of identities (Osgood, Suci, & Tannenbaum, 1957; Osgood, 1962; Osgood, May, & Miron, 1975; Heise & MacKinnon, 1987; MacKinnon, 1994; MacKinnon & Keating, 1989). While occupational identities certainly vary with respect to the degree of "role clarity" that characterizes them (Troyer, Mueller, & Osinsky, 2000), the relatively higher degree of precision that characterizes occupational identity profiles over most other types of identity profiles is the core reason we have chosen to test our theoretical extension to affect control theory on occupational identity preferences before extending it to other types of identity preferences.

In this study, the general social setting in which all such work is carried out is called the work setting. For example, the activities of homemakers, employees, employers, volunteers, and conscripts, all reside within the work setting. Subsets of the work setting can be created in order to group together occupations that have certain aspects in common with each other. These aspects may refer to the physical setting or the institutional culture in which the works takes place. For example, it is not uncommon to hear people speak of certain occupational identities as belonging to either "blue collar," "white collar," or in some cases, "no collar" work settings. Likewise, military and non-military work settings often contain occupational identities that are typically found only in one of these settings, but not the other. Because this study is aimed in part at comparing the occupational identity preferences of current and potential future military Reserve and National Guard members, we consider military occupational identities in addition to non-military occupational identities.

The role-theory perspective of Robert E. Park suggests that an individual's self concept is largely based on what constitutes his "vocation" and, generally speaking, the way that he wishes to be viewed in the communities and social groups in which he is a member (Park, 1955). This implies that individuals seek out positions in society that they believe will provide them with the identities that match their existing self-views. While individuals occupy many social positions throughout their lives, their current locations in the social structure limit the number and type of positions that are available to them (Merton, 1968; Turner, 1978). The set of positions that individuals occupy signify their "status set" and provide them with guidance

and limitations about the positions that will or will not fit concurrently within their status set (Merton, 1968).

Hewitt (1999) proposed distinguishing between situated identities and biographical identities. Situated identities are those activated in social settings. These identities provide information about how to behave, think, and feel in the context of specific places, role relationships, and contexts. Biographical identities are more general, transsituational identities that give us information about who we are, have been, and will be, across time, place, and relationships. Biographical identities are more diffuse and more stable than situated identities, but are not static. They grow and develop with cumulated life experiences and are subject to refinement or even reformation.

THEORY

We capitalize on Hewitt's distinction by conceptualizing the process of selective identity adoption as one of choosing new situated identities that are concordant with pre-existing biographical identities. An individual's generalized self-view, within the context of the work setting, represents the biographical identity we define as his or her worker identity. Worker identities operate as biographical identities in that they span the course of individuals' actual (past and present) and anticipatory (future) work experiences. Worker identities are more general than occupational identities, with any number of occupational identities being potentially consistent with a particular worker identity. Consider someone who has a worker identity of an *entrepreneur*. A host of specific occupational identities (e.g., bar owner, inventor, real estate broker) may be consistent with this particular higher order identity. Each of these specific occupational identities will carry their own specific meanings and scripts, but each serves as a potential means for enacting the generalized identity of *entrepreneur*.

Individuals enter situations with pieces of information used to help them identify themselves (Heise, 1979, 1987; Heise & MacKinnon, 1987). Among these pieces of information are their biographical identities. For individuals anticipating situations where they expect to take on additional or alternative occupational identities, their worker identities function as the biographical identities that influence their choices about which occupational identities they will seek or avoid.

The notion that when individuals enter a social situation, they bring with them their memories of past interactions and experiences is not a new one. It is, in fact, a fundamental precept of the symbolic interactionist tradition

(Mead, 1934; Cooley, 1964 [1902]). There is ample empirical support for the idea that individuals behave in ways that confirm existing identities (Wiggins & Heise, 1987; Lovaglia, Younggreen, & Robinson, 2005) and even actively seek out interaction partners whom they believe will confirm their existing (even negative) self-views (Robinson & Smith-Lovin, 1992; Swan, Wenzlaff, Krull, & Pelham, 1992). Researchers have paid considerably less attention, however, to the question of how individuals make choices between the vast array of new identities that are potentially available to them. We turn now to a consideration of how (biographical) worker identities might drive choices among alternative occupational identities.

Occupational Identities as Affect Control

To develop our explanation of how occupational preferences might be shaped by biographical worker identities we make use of affect control theory (Heise, 1979; MacKinnon, 1994; Smith-Lovin & Heise, 1988). This theory provides us with a framework for operationalizing our concepts of worker and occupational identities as well as logic for relating them. Affect control theory is fundamentally a theory of situated action and so will require a slight extension to apply to our current question. We begin with a brief overview of relevant aspects of the theory. For a more detailed overview of affect control theory and recent empirical work, see Robinson and Smith-Lovin (2006). For more in-depth information about the history of the theory and its relationship to other traditions, see Heise (1979), MacKinnon (1994) and Smith-Lovin and Robinson (2006).

According to affect control theory, the labels we assign to identities, be they occupational titles (e.g., “plumber,” “vice president,” or “Army officer”) or other labels (e.g., “mother,” “child,” or “friend”) symbolically represent the affect evoked by them. Affect can be indexed according to how good or bad, powerful or powerless, lively or quiet, an individual feels that she and the other individual(s) in a social interaction are supposed to be based on her perception of the identities of herself and the other(s). These sentiments correspond, respectively, to the dimensions of evaluation, potency, and activity (EPA) found in the semantic differential scale of affective meaning developed by Osgood and colleagues (Osgood, 1962; Osgood et al., 1957, 1975). In research spanning a wide variety of language cultures, these researchers established the relative universality and stability of these dimensions of affective association (Osgood et al., 1975). Affect control theory uses this multidimensional scale to assign meanings to the actors, object-persons, behaviors, and settings that comprise social situations.

Affect control theory distinguishes between the established culturally determined affective associations (called *fundamental sentiments*) individuals associated with cultural concepts at large and the immediate feelings produced by the events in the given social situation (called *transient impressions*). The theory proposes that individuals attempt to construct social events in order to confirm pre-existing definitions of themselves and others in a given situation. The extent that an event does not confirm an individual's pre-existing definitions is called *deflection*. Conceptually, deflection refers to the amount of disruption in fundamental sentiments that is produced by the transient impressions generated in a particular interaction. Operationally, deflection is the squared distance between the transient impressions produced by an event and the fundamental sentiments associated with its constituent components of the event. For example, as a culture we associate a certain amount of goodness, powerfulness, and liveliness with the identity of attorney, with the behavior to defend someone, and with the identity of stock broker. When we observe the event attorney defends stock broker, our immediate feelings about that attorney, that stock broker, and even what it means to defend someone, might be somewhat different than those shared cultural meanings. The difference between those out-of-context *fundamental* meanings, as a set, and the in-context *transient* meanings, as a set, gives us a sense of (un)likelihood or deflection. When deflection is high, we perceive the events as unlikely and unsettling and we work hard to restore fundamental meanings by choosing new behaviors that bring transients back in line with our original sentiments. In order to reduce anticipated future experiences of deflection, individuals try to construct or reconstruct social events through altering their behavior, or through cognitive processes of redefining the various situational components.

A key application of affect control theory that provided some of the insight used to formulate our argument is found in Robinson and Smith-Lovin's (1992) research on selective interaction as a strategy for situated identity maintenance. Robinson and Smith-Lovin's (1992) research demonstrates that the control process found in affect control theory may be successfully applied to explain interaction partner/other-seeking behavior. The key factor in such a process is an individual's expectations and prior knowledge about how others like those she is considering are likely to behave (towards her). Specifically, this research underscores individuals' capacity for forward-looking thinking and preference formation based on anticipated experiences. In short, individuals are guided in their decisions about which social interactions (situations) to enter, by the affect

control process – that is, individuals construct social events (to include self-identification) in order to minimize deflection. Robinson and Smith-Lovin (1992) show that individuals with existing low social self-esteem prefer the company of those they expect will reinforce their depreciative social self-images rather than those who they expect are likely to try to enhance them (since such enhancement would produce initially positive affect, but also produce deflection). Similarly, we argue that individuals will prefer to adopt particular new situated identities to the extent that such identities are expected by them to confirm their existing and relevant (biographical) identities.

Activated identities matter not just because of the meanings they generate in the actor, but because of the meanings they generate in other interaction partners. Another way to interpret Robinson and Smith-Lovin's (1992) findings is that they demonstrate that individuals can manage their experiences by choosing to enter or avoid situations according to the types of interaction partners they believe will be present within them. This interpretation offers an analog to individuals seeking out or avoiding certain occupations according to the sentiments associated with how individuals identified by their corresponding occupational identities are viewed and treated. Research on second-order status expectations offers evidence further supporting the notion that individuals' expectations for what others are likely to expect of, and act toward, them are highly influential to their behavior (Troyer, Younts, & Kalkhoff, 2001; Webster & Whitmeyer, 1999; Troyer & Younts, 1997; Moore, 1985).

Affect control theory offers a way for us to understand the relationship between worker (biographical) identities and occupational (situated) identities. In effect, we can treat them as we treat the difference between fundamental and transient meanings. This analog is not perfect. Fundamental sentiments refer to stable, transsituational, widely shared meanings, while transient impressions refer to temporally located, situation-specific meanings. We conceptualize worker identities as more stable and more transsituational than occupational identities, but not as more widely shared. Rather, worker identities are *internalized* meanings that serve as *latent* identities to be instantiated by specific instances of occupational identities. Consider someone with a worker identity of *hero*. This person considers himself or herself, in the work context, as someone who is very good, very powerful and exceptionally lively. The occupational identities of athlete and firefighter similarly fulfill these sentiment requirements.¹ We can think of hero as the latent identity that can be successfully instantiated by either of those two occupational identities. This conceptualization allows us to extend

affect control theory logic, developed to predict situated interaction, to predict behavior across the life course. It also provides an apparatus by which affect control theory can make predictions about persons, and not just social actors (for a discussion of this issue, see [Robinson & Smith-Lovin, 2006](#)). Our argument is that: *individuals control the affect associated with their latent, worker identities by instantiating specific occupational identities that are affectively concordant.*

Occupations are generally defined in this paper to include any socially recognized position that involves volunteer, domestic, paid or unpaid labor (work). So long as the work involved is socially recognized in part or in whole as that which a particular person “does for a living,” it is considered his/her occupation. Such a conceptualization creates a vast range of occupations to include positions ranging from homemaker to military enlistee, factory laborer to Peace Corps volunteer, or business executive to minister. Further, as noted earlier in this paper, we simplify the language used to articulate the identities individuals assume when taking on occupations by calling them occupational identities. Moreover, for the purpose of clarity in our discussion, the occupational identities individuals assume when entering military occupations are called military identities.

The Goodness, Power, and Liveliness of Occupations

We use the dimensions of evaluation, potency, and activity to define both occupational identities and worker identities. This decision was made in light of two key factors. First, as noted, Osgood and colleagues have shown evidence in support of the universality and parsimony that defining identities in terms of specific dimensions of affect ([Osgood, 1962](#); [Osgood et al., 1957, 1975](#); see also [Thomas & Heise, 1995](#); [Heise, 1990](#)). Second, research shows that the sentiments captured by EPA ratings may capture key information concerning how individuals view themselves and others as (actual and/or potential) occupants of identities ([Kemper, 1978](#); [Kemper & Collins, 1990](#); [MacKinnon & Langford, 1994](#); [Liedka, 1995](#)).

Some researchers suggest that the dimensions of evaluation and potency may correspond to the social-structural dimensions of status and power ([Kemper, 1978](#); [Kemper & Collins, 1990](#)). Others link the activity or liveliness dimension to the subjective manifestation of social expressiveness ([Parsons & Shils, 1951](#)), the degree of task-orientation ([Kemper & Collins, 1990](#)), and to the amount of emotional energy possessed by the incumbent of a role-identity ([Collins, 1990](#)). More generally, [Burke and Tully \(1977\)](#)

show that the (affective) meanings individuals associate with the identities of themselves and others may be reliably measured by semantic differential scales such as Osgood's EPA rating scheme.

Finally, MacKinnon and Langford (1994) propose that scales based on the social sentiments relating to occupational identities (EPA) are more closely attuned to how individuals subjectively view occupational titles than the existing prestige and socioeconomic index scales (Treiman, 1977; Duncan, 1984; Nakao, 1992). Liedka (1995) offered similar scales (status, power, and expressivity), also based on the EPA ratings of occupational identities.

SUMMARY AND PREDICTIONS

Affect control theory argues that individuals attempt to construct social events in order to confirm their pre-existing definitions of themselves and others in social situations (Heise, 1977, 1979; Smith-Lovin & Heise, 1988; Robinson & Smith-Lovin, 1992; MacKinnon, 1994). We extend the argument to suggest that individuals planning to assume new identities will form preferences toward the new identities available to them according to how consistent the sentiments they evoke are to the sentiments evoked by their relevant biographical identities.

In situations where individuals are planning to take on additional or alternative occupational identities, their worker identities will influence their decisions about which occupational identities they will try to adopt. The process by which this influence is developed is the same process that motivates individuals to maintain stable self-views within situations. Specifically, individuals who are considering new occupational identities, engage in an internal process of mentally testing out the various occupational identities available to them in order to determine which evokes sentiments that are the most consistent with the sentiments they associate with themselves as workers (their worker identities). Occupational identities that evoke the most consistent sentiments to individuals' worker identities will be the most preferred when seeking (new) additional or alternative occupational identity.

We use the dimensions of EPA to operationalize all identity sentiments in this study. Accordingly, we predict that individuals are likely to develop preferences toward occupational identities based on how similar they are in EPA to their existing worker identities. Moreover, because a discrepancy between any of the juxtaposed E, P, or A dimensions for two opposing identities is sufficient to create a net inconsistency between the overall EPA

profiles associated with each respective identity, such discrepancies may be independently meaningful with respect to individuals' preference formation. Consequently we also examine these dimensions separately.

We conceptualize the worker identity as a latent identity that is instantiated by specific worker identities. Consequently, this identity is not directly measurable. In view of this, we use a specific instantiation, that of an individual's "dream job" as a proxy for this worker identity. If our theory is correct, the meanings associated with one's *most preferred occupational identity* should be a good proxy for the meanings of the individual's latent worker identity. Further, if our theory holds, this most preferred occupational identity (the worker identity proxy) should be highly related (in EPA space) to an individual's *second most preferred occupational identity*. Recent research by McCall (2003) points out the importance of studying *disidentification* for generating a fuller picture of identity process. Thus, we argue that, if our theory is correct, an individual's worker identity should be highly *unlike* (in EPA space) that individual's *least preferred occupational identity* (or, not-worker identity). Finally, as additional instantiations of the worker identity, military identities ought function as occupational identities within the theory. Thus, for those who have some interest in adopting military identities, their specific military identity preferences ought to be related to their worker identities and unrelated to their not-worker identities.

Hypotheses

Our primary prediction is that individuals will prefer (alternative and/or additional) occupational identities and military identities (including Reserve identities) that evoke sentiments that are more similar (less relative distance) to the sentiments associated with their worker identities (most desired occupational identities), than to the sentiments evoked by their not-worker identities (least desired occupational identities). The formula used to calculate the distance between the EPA profiles is as follows:

Let: "1" and "2" represent opposing occupational identity profiles and "E," "P," and "A" represent the dimensions of evaluation, potency, and activity, respectively:

$[(E_1 - E_2)^2 + (P_1 - P_2)^2 + (A_1 - A_2)^2] = \text{Squared Distance between } (EPA)_1 \text{ and } (EPA)_2.$

Our most general hypothesis suggests that the distance between the sentiments associated with individuals' worker identities and not-worker

identities will be greater than the distance between their worker identities and their second-most desired occupational identities. If the evidence does not support this global hypothesis, it is unlikely that any of our remaining hypotheses will be supported. Specifically, the point represented by an individual’s not-worker identity should locate sentiments more distant from those pertaining to her worker identity than those located by her second-most desired occupational identity measure. We will test this hypothesis using the complete EPA profiles to represent the identities.

H1.1. The EPA profiles of individuals’ worker identities will be closer to the EPA profiles of their second-most desired occupational identities than to the EPA profiles of their not-worker identities.

$$\begin{aligned}
 & (EPA_{\text{worker identity}} - EPA_{\text{second-most desired}}) \\
 & < (EPA_{\text{worker identity}} - EPA_{\text{not-worker identity}}) \\
 \text{Null : } & [(E_{\text{worker identity}} - E_{\text{second-most desired}})^2 \\
 & + (P_{\text{worker identity}} - P_{\text{second-most desired}})^2 \\
 & + (A_{\text{worker identity}} - A_{\text{second-most desired}})^2] \\
 & - [(E_{\text{worker identity}} - E_{\text{not-worker identity}})^2 \\
 & + (P_{\text{worker identity}} - P_{\text{not-worker identity}})^2 \\
 & + (A_{\text{worker identity}} - A_{\text{not-worker identity}})^2] > 0
 \end{aligned}$$

In order to more fully examine the affective dynamics underlying this hypothesis, we will also conduct separate tests for each of the EPA dimensions.

H1.2. The evaluation (E) ratings of individuals’ worker identities will be closer to the evaluation ratings of their second-most desired occupational identities than to the evaluation ratings of their not-worker identities.

$$\begin{aligned}
 & (E_{\text{worker identity}} - E_{\text{second-most desired}}) \\
 & < (E_{\text{worker identity}} - E_{\text{not-worker identity}}) \\
 \text{Null : } & [(E_{\text{worker identity}} - E_{\text{second-most desired}})^2 \\
 & - (E_{\text{worker identity}} - E_{\text{not-worker identity}})^2] > 0
 \end{aligned}$$

H1.3. The potency (P) ratings of individuals' worker identities will be closer to the potency ratings of their second-most desired occupational identities than to the potency ratings of their not-worker identities.

$$\begin{aligned} & (\text{worker identity}_P - \text{second-most desired}_P) \\ & < (\text{worker identity}_P - \text{not-worker identity}_P) \\ \text{Null : } & [(P_{\text{worker identity}} - P_{\text{second-most desired}})^2] \\ & - [(P_{\text{worker identity}} - P_{\text{not-worker identity}})^2] > 0 \end{aligned}$$

H1.4. The activity (A) ratings of individuals' worker identities will be closer to the activity ratings of their second-most desired occupational identities than to the activity ratings of their not-worker identities.

$$\begin{aligned} & (\text{worker identity}_A - \text{second-most desired}_A) \\ & < (\text{worker identity}_A - \text{not-worker identity}_A) \\ \text{Null : } & [(A_{\text{worker identity}} - A_{\text{second-most desired}})^2] \\ & - [(A_{\text{worker identity}} - A_{\text{not-worker identity}})^2] > 0 \end{aligned}$$

The second hypothesis differs only slightly from the first hypothesis and offers a slightly stronger prediction. Hypothesis 2 suggests that the distance between the sentiments associated with individuals' second-most desired occupational identities and worker identities will be less than the distance between their second-most desired occupational identities and their not-worker identities.

H2.1. The EPA profiles of individuals' second-most desired occupational identities will be closer to the EPA profiles of their worker identities than to the EPA profiles of their not-worker identities.

$$\begin{aligned} & (\text{worker identity}_{EPA} - \text{second-most desired}_{EPA}) \\ & < (\text{second-most desired}_{EPA} - \text{not-worker identity}_{EPA}) \\ \text{Null : } & [(E_{\text{worker identity}} - E_{\text{second-most desired}})^2] \\ & + [(P_{\text{worker identity}} - P_{\text{second-most desired}})^2] \\ & + [(A_{\text{worker identity}} - A_{\text{second-most desired}})^2] \\ & - [(E_{\text{worker identity}} - E_{\text{not-worker identity}})^2] \\ & + [(P_{\text{second-most desired}} - P_{\text{not-worker identity}})^2] \\ & + [(A_{\text{second-most desired}} - A_{\text{not-worker identity}})^2] > 0 \end{aligned}$$

Again, separate tests will be performed for each EPA dimension.

H2.2. The evaluation (E) ratings of individuals' second-most desired occupational identities will be closer to the evaluation ratings of their worker identities than to the evaluation ratings of their not-worker identities.

$$\begin{aligned}
 & (\text{worker identity}_E - \text{second-most desired}_E) \\
 & < (\text{second-most desired}_E - \text{not-worker identity}_E) \\
 \text{Null : } & [(E_{\text{worker identity}} - E_{\text{second-most desired}})^2] \\
 & - [(E_{\text{second-most desired}} - E_{\text{not-worker identity}})^2] > 0
 \end{aligned}$$

H2.3. The potency (P) ratings of individuals' second-most desired occupational identities will be closer to the potency ratings of their worker identities than to the potency ratings of their not-worker identities.

$$\begin{aligned}
 & (\text{worker identity}_P - \text{second-most desired}_P) \\
 & < (\text{second-most desired}_P - \text{not-worker identity}_P) \\
 \text{Null : } & [(P_{\text{worker identity}} - P_{\text{second-most desired}})^2] \\
 & - [(P_{\text{second-most desired}} - P_{\text{not-worker identity}})^2] > 0
 \end{aligned}$$

H2.4. The activity (A) ratings of individuals' second-most desired occupational identities will be closer to the activity ratings of their worker identities than to the activity ratings of their not-worker identities.

$$\begin{aligned}
 & (\text{worker identity}_A - \text{second-most desired}_A) \\
 & < (\text{second-most desired}_A - \text{not-worker identity}_A) \\
 \text{Null : } & [(A_{\text{worker identity}} - A_{\text{second-most desired}})^2] \\
 & - [(A_{\text{second-most desired}} - A_{\text{not-worker identity}})^2] > 0
 \end{aligned}$$

The third and fourth hypotheses represent adaptations to the second hypothesis, in order to articulate predictions about military identity preferences and reserve identity preferences. Both of these hypotheses present incrementally stronger and more specific predictions, respectively. Specifically, Hypothesis 3 suggests that the distance between the sentiments associated with individuals' preferred military identities and worker identities will be less than the distance between their preferred military identities and their not-worker identities.

H3.1. For individuals who will consider adopting military identities, the EPA profiles of individuals' preferred military identities will be closer to the EPA profiles of their worker identities than to the EPA profiles of their not-worker identities.

$$\begin{aligned}
 &(\text{most desired}_{EPA} - \text{military}_{EPA}) < (\text{military}_{EPA} - \text{least desired}_{EPA}) \\
 \text{Null : } &[(E_{\text{worker identity}} - E_{\text{military identity}})^2] \\
 &+ [(P_{\text{worker identity}} - P_{\text{military identity}})^2] \\
 &+ [(A_{\text{worker identity}} - A_{\text{military identity}})^2] \\
 &- [(E_{\text{military identity}} - E_{\text{not-worker identity}})^2] \\
 &+ [(P_{\text{military identity}} - P_{\text{not-worker identity}})^2] \\
 &+ [(A_{\text{military identity}} - A_{\text{not-worker identity}})^2] > 0
 \end{aligned}$$

As with the previous hypotheses, separate tests of Hypothesis 3 will be performed for each EPA dimension.

H3.2. For individuals who will consider adopting military identities, the evaluation (E) ratings of individuals' preferred military identities will be closer to the evaluation ratings of their worker identities than to the evaluation ratings of their not-worker identities.

$$\begin{aligned}
 &(\text{worker identity}_E - \text{military}_E) < (\text{military}_E - \text{not-worker identity}_E) \\
 \text{Null : } &[(E_{\text{worker identity}} - E_{\text{military identity}})^2] \\
 &- [(E_{\text{military identity}} - E_{\text{not-worker identity}})^2] > 0
 \end{aligned}$$

H3.3. For individuals who will consider adopting military identities, the potency (P) ratings of individuals' preferred military identities will be closer to the potency ratings of their worker identities than to the potency ratings of their not-worker identities.

$$\begin{aligned}
 &(\text{worker identity}_P - \text{military}_P) < (\text{military}_P - \text{not-worker identity}_P) \\
 \text{Null : } &[(P_{\text{worker identity}} - P_{\text{military identity}})^2] \\
 &- [(P_{\text{military identity}} - P_{\text{not-worker identity}})^2] > 0
 \end{aligned}$$

H3.4. For individuals who will consider adopting military identities, the activity (A) ratings of individuals' preferred military identities will be

closer to the activity ratings of their worker identities than to the activity ratings of their not-worker identities.

$$\begin{aligned}
 &(\text{worker identity}_A - \text{military}_A) < (\text{military}_A - \text{not-worker identity}_A) \\
 \text{Null : } &[(A_{\text{worker identity}} - A_{\text{military identity}})^2] \\
 &- [(A_{\text{military identity}} - A_{\text{not-worker identity}})^2] > 0
 \end{aligned}$$

Finally, Hypothesis 4 suggests that the distance between the sentiments associated with individuals' chosen reserve identities and worker identities will be less than the distance between their reserve identities and their not-worker identities.

H4.1. For individuals who will consider adopting reserve (military) identities, the EPA profiles of individuals' preferred reserve identities will be closer to the EPA profiles of their worker identities than to the EPA profiles of their not-worker identities.

$$\begin{aligned}
 &(\text{worker identity}_{EPA} - \text{reserve}_{EPA}) \\
 &< (\text{reserve}_{EPA} - \text{not-worker identity}_{EPA}) \\
 \text{Null : } &[(E_{\text{worker identity}} - E_{\text{reserve identity}})^2] \\
 &+ [(P_{\text{worker identity}} - P_{\text{reserve identity}})^2] \\
 &+ (A_{\text{worker identity}} - A_{\text{reserve identity}})^2] \\
 &- [(E_{\text{reserve identity}} - E_{\text{not-worker identity}})^2] \\
 &+ [(P_{\text{reserve identity}} - P_{\text{not-worker identity}})^2] \\
 &+ (A_{\text{reserve identity}} - A_{\text{not-worker identity}})^2] > 0
 \end{aligned}$$

Again, separate tests of Hypothesis 4 will be performed for each EPA dimension.

H4.2. For individuals who will consider adopting reserve (military) identities, the evaluation (E) ratings of individuals' preferred reserve identities will be closer to the evaluation ratings of their worker identities than to the evaluation ratings of their not-worker identities.

$$\begin{aligned}
 &(\text{worker identity}_E - \text{reserve}_E) < (\text{reserve}_E - \text{not-worker identity}_E) \\
 \text{Null : } &[(E_{\text{worker identity}} - E_{\text{reserve identity}})^2] \\
 &- [(E_{\text{reserve identity}} - E_{\text{not-worker identity}})^2] > 0
 \end{aligned}$$

H4.3. For individuals who will consider adopting reserve (military) identities, the potency (P) ratings of individuals' preferred reserve identities will be closer to the potency ratings of their worker identities than to the potency ratings of their not-worker identities.

$$(\text{worker identity}_P - \text{reserve}_P) < (\text{reserve}_P - \text{not-worker identity}_P)$$

$$\text{Null : } [(P_{\text{worker identity}} - P_{\text{reserve identity}})^2] \\ - [(P_{\text{reserve identity}} - P_{\text{not-worker identity}})^2] > 0$$

H4.4. For individuals who will consider adopting reserve (military) identities, the activity (A) ratings of individuals' preferred reserve identities will be closer to the activity ratings of their worker identities than to the activity ratings of their not-worker identities.

$$(\text{worker identity}_A - \text{reserve}_A) < (\text{reserve}_A - \text{not-worker identity}_A)$$

$$\text{Null : } [(A_{\text{worker identity}} - A_{\text{reserve identity}})^2] \\ - [(A_{\text{reserve identity}} - A_{\text{not-worker identity}})^2] > 0$$

DATA AND METHODS

The set of occupational identities chosen for this analysis was adapted from the set of occupational titles used by MacKinnon and Langford (1994). There are 105 occupational identities included in this analysis. We selected the set of military identities to represent the three positions of "officer," "enlistee," and "Reservist" found in each of the four US military branches (the Air Force, Army, Marine Corps, and Navy). In addition, we added a set of three generic military identities containing each of these positions to serve as baseline for military, enlistee, and Reservist identities. Thus, there were a total of 15 military identities (regular military and reserve) included in this analysis.

Measuring Identity Meanings

Our extension to affect control theory relies on the sentiments that individuals associate with various occupations in relation to one another. For this reason, we deemed it prudent to collect the entire sample of EPA

profiles for all of the occupational identities and military identities we would be using from the same population. To generate the EPA profiles for each occupational and military identity, we collected EPA ratings by means of a questionnaire. We will refer to this questionnaire and its versions as the “EPA questionnaire.”

Concerns about time constraint and participant fatigue led us to distribute the 120 identities (105 occupational identities and 15 military identities) across five different questionnaires in order to reduce the length of time it would take participants to complete each questionnaire. Each EPA questionnaire contained 21 occupational identities and 3 military identities (for a total 24 identities on each participant’s questionnaire). First, we sorted the occupational identities according to their distribution in EPA space (Robinson, 1996). We then distributed these occupational identities onto specific surveys in such a way that each survey contained a sample of occupational identities from a broad range of predicted EPA profiles.² We further divided these questionnaires into A and B versions to allow for manipulation of poles at the ends of the semantic differential scales used for each occupational identity and military identity. Specifically, in version A, some of the poles on 12 (of 24) items of the questionnaire were flipped (originally, all positive poles were on the right end and all negative poles were on the left end). In version B, the poles that were flipped in version A were returned to their regular positions and some of the poles pertaining to the remaining 12 items were flipped in the same manner as they were for the other items in version A. Thus, we distributed a total of 10 versions of this questionnaire. Finally, each EPA questionnaire contained questions relating to the participant’s year in school, sex, and age in order to allow us to check for systematic variance related to these variables.

Measuring Identity Preferences

We measured individual occupational identity preferences using a different questionnaire. We will refer to this questionnaire as the “Preferences questionnaire.” In the Preferences questionnaire, participants indicated their most preferred and second-most preferred occupational identities. Participants also indicated the occupational identities that they would most wish to avoid. The participants received a list of the 105 occupational identities contained in the EPA questionnaire and were instructed to place the number “1” next to their most preferred occupational identity, the number “2” next to their second-most preferred occupational identity, and the letter “X” next

to the occupational identity they most wished to avoid. Finally, participants were also asked about if, and the degree to which, they would consider voluntarily entering the US military. Questions of this nature sought to assess interest in adopting each of the 15 military identities included in the EPA survey. Like the EPA survey, this survey also contained questions relating to the participant's year in school, sex, and age. Further, this survey also asked participants to choose what substantive major they were pursuing in their degree program from a list of all majors and degree programs offered at this particular university.

To pre-test the Preferences questionnaire, roughly equal proportions of each version were distributed to a class of 66 undergraduate student volunteers at a large public Midwestern university. All student volunteers completed the Preferences questionnaire in slightly less than the mean completion time for the EPA questionnaire. A final review of the completed pre-test Preferences questionnaire suggested that the student volunteers understood its design.

Data

We administered all Preferences questionnaires and EPA questionnaires to a single class of undergraduate students at a large public Midwestern university. The class chosen contained 310 students on the day that the questionnaire was administered. Of those present, 225 students received versions of the EPA questionnaire and the remaining 85 volunteers received the Preference questionnaire. We collected a total of 222 EPA questionnaires and 81 Preference questionnaires, yielding a response rate of approximately 98%. We excluded two EPA questionnaires because, in both instances, participants reported neutral ratings (0.0) for all occupational and military identities. For the analyses of occupational preferences, the EPA profiles used for all participants, all female participants, and all male participants, were paired with the respective group of decision-makers.

ANALYSES AND FINDINGS

We compared the mean distances between sets of occupational identity and military identity pairs in order to assess their relative proximity to one another. Accordingly, our analysis focused on determining whether the relative proximities between the EPA profiles associated with individuals'

most preferred occupational identities and their second-most preferred occupational identities and/or military identities and/or reserve identities (where appropriate), were smaller than the distance between the EPA profiles for their least preferred occupational identities and the EPA profiles all the other types of identities listed. The test of Hypothesis 1 involved comparing the mean distance separating the EPA profiles of individuals' most preferred occupational identities (worker identities) and second-most preferred occupational identities to the mean distance separating their most preferred occupational identities and their least preferred occupational identities (not-worker identities). Similarly, the test of Hypothesis 2 compared the mean distance separating the EPA profiles of individuals' most preferred occupational identities (worker identities) and second-most preferred occupational identities to the mean distance separating their second-most preferred occupational identities and their least preferred occupational identities (not-worker identities). Hypotheses 3 and 4 involved tests similar to the test used for Hypothesis 2. Specifically, the tests were conducted identically except for that the data for individuals' military identities or reserve identities, respectively, replaced the data second-most preferred occupational identities (used in the test of Hypothesis 2).

In order to determine if statistically significant differences between variable pairs do exist in the patterns suggested by our hypotheses, we conducted a paired-samples *t*-test of the mean differences between the relevant variable pairs. The results of this test are displayed in Table 1. These data offer strong support for each of the four main hypotheses. All of the paired mean differences are in the predicted (negative) direction. Further, all but two of the sixteen sub-hypotheses tested, show statistically significant differences ($p < 0.001$, one-tailed *t*-tests) in the predicted directions. A detailed look at these results reveals that all sub-hypotheses pertaining to Hypotheses 1 and 2 are supported. Specifically, these results show that individuals' most desired occupational identities and their second-most desired occupational identities are closer to each other in the affect they invoke, than individuals' least desired occupational identities and their second-most desired occupational identities. Further, the results show that this relationship remains strong regardless of whether we attend to the entire EPA profiles for occupational identities, or only to the individual components (evaluation, potency, or activity).

As noted, the data collected from these individuals shows strong support for Hypotheses 3 and 4, with the exception of the sub-hypotheses concerning the evaluation (E) dimension. Specifically, the results pertaining to Hypotheses 3 and 4 show statistically significant differences between the overall

Table 1. Paired Samples T-Tests of Main Hypotheses.

		Mean Squared Distance	S.D.	<i>t</i>	<i>n</i>
Hypothesis 1 (Worker identity – second-most desired occupational identity) < (worker identity – not-worker identity)					
1.1	EPA	–1.57*	1.31	–10.82	81
1.2	E (only)	–0.58*	1.00	–5.22	81
1.3	P (only)	–1.25*	1.41	–8.02	81
1.4	A (only)	–0.44*	0.84	–4.71	81
Hypothesis 2 (Worker identity – second-most desired occupational identity) < (second-most desired occupational identity – not-worker identity)					
2.1	EPA	–1.36*	1.31	–9.33	81
2.2	E (only)	–0.48*	0.96	–4.50	81
2.3	P (only)	–1.15*	1.37	–7.52	81
2.4	A (only)	–0.33*	0.84	–3.56	81
Hypothesis 3 (Worker identity – military identity) < (military identity – not-worker identity)					
3.1	EPA	–1.38*	1.42	–5.93	37
3.2	E (only)	–0.062	0.93	–0.41	37
3.3	P (only)	–1.33*	1.72	–4.72	37
3.4	A (only)	–0.62*	0.98	–3.86	37
Hypothesis 4 (Worker identity – reserve identity) < (reserve identity – not-worker identity)					
4.1	EPA	–1.26*	0.77	–5.94	13
4.2	E (only)	–0.077	0.92	–0.30	13
4.3	P (only)	–1.47*	1.23	–4.31	13
4.4	A (only)	–0.65*	0.48	–4.91	13

* $p < .05$, one-tailed *t*-tests.

EPA profiles for each of the relevant paired variables, as well as statistically significant differences between the potency (P) and activity (A) dimensions of the same ($p < 0.001$, one-tailed tests). Only sub-hypotheses 3.2 and 4.2 do not show statistically significant results ($p > 0.05$, one-tailed tests).

We consider several possible explanations for the failure of Evaluation sentiments of the worker identity to predict Evaluation sentiments of preferred military and reserve identities. First, the power of these tests was smaller than those in Hypotheses 1 and 2. The size of the sample used to test Hypothesis 3 ($n = 37$) is notably smaller than the sample used to test Hypotheses 1 and 2 ($n = 81$). The sample used to test Hypothesis 4 is smaller still ($n = 13$). The sizes of these samples reflect the number of individuals who indicated on the Preferences questionnaire that they would consider

voluntarily joining the U.S. military (Hypothesis 3) and of these individuals, those who wished to enter as a reservist (Hypothesis 4). Statistical power might provide a partial explanation of our null findings for the Evaluation sub-hypotheses.

Perhaps the failure of our predictions about military identity and reserve identity preferences according to the *evaluation dimension alone* lies in the crudeness of the way in which military identities and reserve identities were conceptualization in this study. Understandably, the military identities and reserve identities of “officer,” “enlistee,” provide only the most basic of distinctions between types of military identities and reserve identities. Some weak evidence in support of this explanation can be found using the unstandard practice of comparing the standard deviations for the E (evaluation) dimensions for military identities and reserve identities with those of all other occupational identities in Table 1. Specifically, the identities of Army officer, Marine Corps officer, Military officer, Marine Corps enlistee, and Army enlistee all ranked in the top 25 out of the 120 (top quintile) if the standard deviations of all the identities in Table 1 are compared (SD_E range = 2.02–1.62). These identities accounted for 16 out of the total 37 individuals who considered entering the military, and 6 out of the 13 total individuals who considered entering the reserves. Accordingly, it is possible that the combination of low numbers of respondents expressing interest in the military and high standard deviations for the evaluation (E) dimension of military identity and reserve identity profiles compromised our ability to accurately capture the sentiments associated with these identities.

CONCLUSIONS AND DISCUSSION

In summary, our hypotheses enjoy almost complete support of the data. The notable exceptions are sub-hypotheses 3.2 and 4.2. Despite the failure of these two sub-hypotheses, Hypotheses 3 and 4 both enjoy strong support on the remaining independent dimensions of affect, as well as strong support on the composite EPA ratings of affect. Such findings lend support to our argument that affect control theory can be used to make predictions about more than just strategies of situated identity maintenance. By incorporating the notion of biographical identities into the affect control theory tool kit, it is possible to construct predictions about which new identities individuals will prefer over others.

Our findings suggest that the ways individuals view themselves in the work setting (their worker identities), limit the kinds of occupational

identities they are likely to consider. We argue that these internalized preferences work within the structural constraints individuals face to help determine occupational identity outcomes. In this way, worker identities contribute to, in the vernacular of Merton, an individual's "status set" (Merton, 1968; Turner, 1978). Yet, beyond this, individuals' worker identities may be highly influential on their decisions about which other non-occupational identities to pursue (e.g. those not related to work settings). Park (1955) argued that an individual's "vocation" or in the terms used in this study, one's worker identity, is paramount to his overall self-concept. It may also be argued that because worker identities are highly important to one's self-concept, it follows that they are likely to be activated in many situations and are thus likely to be important influences on other types of identity preferences. Such possibilities and perspectives merely affirm our decision to focus on occupational identity preferences in this paper.

Because situated identities are by definition, tied to situations, knowing information about individuals' (situated) identity preferences can also help in making predictions about which situations they are likely to try to enter or avoid by virtue of the anticipated or known structurally vacant and available situated identity positions they may contain. As such, many new applications for affect control theory are made possible through the adoption of the theoretical extension we offer in this paper. Perhaps one of the most germane and compelling applications for this new approach lies in its potential to contribute to issues of generalized value and preference formation (Emerson, 1987; Friedman, 1987).

It should be noted that what we find in this paper is that *preferences predict preferences*. We noted earlier that some researchers argue that preferences are not predictive of actual occupational outcomes. Specifically, Rindfuss and colleagues argue that individuals' occupational expectations (preferences) are little help in predicting the actual occupations that they will occupy later in their lives (Rindfuss et al., 1999). However, the treatment of preferences in this paper represents a departure from the conventional approach of sorting occupational preferences by sector and job description. For example, in our data, the occupational identities of *Professor*, *Priest*, *Minister*, *Rabbi*, and *Psychiatrist* have nearly identical sentiment profiles. We might even see them as reflecting a latent worker identity of *Enlightener*. On the other hand, these occupational identities rest in completely different employment sectors – education, religion, and health. Whereas, the occupational identities of *Surgeon*, *Chiropractor*, and *Registered Nurse* fall into the same employment sector and yet have very different sentiments associated with them. Using the coding strategy of Rindfuss et al. (1999),

someone who aspired to be a surgeon and became a chiropractor would be a “match” (but not in our scheme). In contrast, using our measurement approach, someone who aspired to be a Priest and became a Professor would be a “match” (but not in Rindfuss et al., 1999 scheme). We suggest that future research revisit Rindfuss, Cooksey, and Sutterlin’s (1999) findings to see if the modification to affect control theory that is presented in this paper, can be used in conjunction with structural information such as individuals’ available occupational opportunities, in such a way that successful predictions can be made about individuals’ occupational outcomes.

Interestingly, the findings of this study suggest that a new strategy of grouping likely occupational identity alternatives according to the affect they invoke, is both possible and perhaps preferable to existing strategies. Such a strategy would be one that emphasizes affect over, but not in isolation from, cognition. This type of an approach incorporates a more comprehensive assessment of the substantive meanings of occupational identities, than that which is used in strategies based only on grouping occupations according to occupational field, required skill-sets, and benefits. Further, this assessment is supported by previous research linking EPA to existing occupational grading indices and favoring EPA for making socially meaningful comparisons between occupations (MacKinnon & Langford, 1994; Liedka, 1995). In the example above, much of what Professors, Priests, and Psychiatrists have in common is captured by the fact that we view them as relatively good, relatively powerful, and relatively quiet occupations. These affective sentiments might matter more than the fact that these occupations are located in the domains of education, religion, or medicine.

In light of the findings presented in this study, we argue that by adding information about the affect invoked by individuals’ worker identities to the information already used to predict occupational identity outcomes, more accurate predictions about individuals’ eventual occupational identity outcomes can be made. Occupational identity preferences, if properly measured, are not unimportant to individuals’ occupational identity outcomes. Rather, if occupational identity preferences are captured according to the affect (EPA) they invoke, they do have the potential of being powerful building blocks in the construction of predictive models of individuals’ occupational identity outcomes.

Knowing how to recruit and retain productive and loyal employees is a concern of all employers. In this paper, we show how knowing which occupational identities are likely to appeal to certain individuals over others might help employers more efficiently achieve this goal. For example, if the

U.S. military were better able to identify Reservists who might be more likely to leave the military after their initial enlistment period expires because they find themselves managing combinations of highly inconsistent military (reserve) identities and full-time (non-military) occupational identities, they would then be on better footing from which to design and launch more effective retention efforts. Efforts guided by this research might take the form of more strategic compensation and incentive packages, or even new specifically targeted advertising campaigns aimed at directly managing the specific EPA dimensions of concern for particularly critical positions.

Historically, efforts to emphasize the evaluation and potency of social meanings pertaining to military identities have been a mainstay of military recruitment posters, commercials, and other media. It is nothing new to try to make any job or product sound “better” through a successfully targeted advertising campaign. However, a better understanding of how individuals’ occupational preference structures operate on the basis of maintaining stable worker identities should guide savvy employers to design recruitment and retention policies that analyze and then target the specific “problem combinations” of the semantic meanings associated with their jobs and their worker pools. Notably, our theory suggests that one particular strategy used in recruiting military might be problematic. At the time of this writing, a television commercial campaign advertises for Reserve volunteers by emphasizing the *complementarity* of a military identity. *You can teach kindergarten during the week and shoot automatic weapons one weekend a month!* If the act of “rounding out” one’s identity by adopting an additional occupational identity that compliments one’s current occupation in some unique way produces stable occupational outcomes, our theory is wrong. Rather, our theory suggests that these choices will produce affective instability, identity conflict, and over time, instability in occupational trajectory.

NOTES

1. The EPA profiles of athlete and firefighter can be found at URL: www.indiana.edu/~socpsy/ACT/data.html. 1
2. The full list of occupational identities, details about the assignment strategy, and questionnaires are available from the first author.

ACKNOWLEDGMENT

The authors would like to thank David R. Heise, Michael Lovaglia, Charles W. Mueller, and Lisa Troyer for helpful comments on earlier versions of this

paper. This work was supported by a grant from the National Science Foundation (SES 0111291) to the second author.

REFERENCES

- Alexander, C. N., & Wiley, M. G. (1981). Situated activity and identity formation. In: M. Rosenberg & R. H. Turner (Eds), *Social psychology: Sociological perspectives* (pp. 269–289).
- Burke, P. J. (1980). The self: Measurement requirements from an interactionist perspective. *Social Psychology Quarterly*, *43*, 18–29.
- Burke, P. J. (1991). Identity processes and social stress. *American Sociological Review*, *56*, 836–849.
- Burke, P. J., & Reitzes, D. C. (1991). An identity theory approach to Commitment. *Social Psychology Quarterly*, *54*, 239–251.
- Burke, P. J., & Tully, J. (1977). The measurement of role and identity. *Social Forces*, *55*, 881–897.
- Collins, R. (1990). Stratification, emotional energy, and the transient emotions. In: T. D. Kemper (Ed.), *Research agendas in the sociology of emotions* (pp. 27–57).
- Cooley, C. H. (1964 [1902]). *Human nature and the social order*. New York: Schocken.
- Duncan, O. D. (1984). *Notes on social measurement: Historical and critical*. New York: Russell Sage Foundation.
- Emerson, R. M. (1987). Toward a theory of value in social exchange. In: K. S. Cook (Ed.), *Social exchange theory* (pp. 11–46).
- Friedman, D. (1987). Notes on toward a theory of value in social exchange. In: K. S. Cook (Ed.), *Social exchange theory* (pp. 47–58).
- Heise, D. R. (1977). Social action as the control of affect. *Behavioral Science*, *22*, 163–177.
- Heise, D. R. (1979). *Understanding events: Affect and the construction of social action*. New York: Cambridge University Press.
- Heise, D. R. (1987). Affect control theory: Concepts and model. *Journal of Mathematical Sociology*, *13*, 1–33. Reprinted In: L. Smith-Lovin & D. R. Heise (Eds). (1988). *Analyzing social interaction: Advances in affect control theory* (pp. 1–33). New York: Gordon and Breach Science Publishers.
- Heise, D. R. (1990). Careers, career trajectories, and the self. In: J. Rodin, C. Schooler & K. W. Schaie (Eds), *Self-directedness: Cause and effects throughout the life course* (pp. 59–84).
- Heise, D. R., & MacKinnon, N. J. (1987). Affective bases of likelihood judgments. *Journal of Mathematical Sociology*, *13*, 133–151. Reprinted In: L. Smith-Lovin & D. R. Heise (Eds). (1988). *Analyzing social interaction: Advances in affect control theory* (pp. 133–151). New York: Gordon and Breach Science Publishers.
- Hewitt, J. P. (1999). *Self and society: A symbolic interactionist social psychology* (8th ed.). Boston: Allyn and Bacon.
- Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review*, *94*, 319–340.
- Higgins, E. T. (1989). Self-discrepancy theory: What patterns of self-beliefs cause people to suffer? In: L. Berkowitz (Ed.), *Advances in experimental social psychology* (pp. 93–136).

- Higgins, E. T., Roney, C. J. R., Crowe, E., & Hymes, C. (1994). Ideal versus ought predilections for approach and avoidance: Distinct self-regulatory systems. *Journal of Personality and Social Psychology*, *66*, 276–286.
- Howell, F. M., & Reese, W. A. (1986). Sex and mobility in the dual economy. *Work and Occupations*, *13*, 77–96.
- Kalleberg, A. L., Knoke, D., Marsden, P. V., & Spaeth, J. L. (1996). *Organizations in America: Analyzing their structures and human resource practices*. Thousand Oaks, CA: Sage.
- Kemper, T. D. (1978). *A Social Interactional Theory of Emotions*. New York: Wiley.
- Kemper, T. D., & Collins, R. (1990). Dimensions of microinteraction. *American Journal of Sociology*, *96*, 32–68.
- Liedka, R. V. (1995). *Status, power, and expressivity as the basis of occupational grading: Multidimensional analysis*. Ann Arbor, MI: UMI Dissertation Services.
- Lovaglia, M., Younggreen, R. R., & Robinson, D. T. (2005). Identity maintenance, affect control, and cognitive performance. *Advances in Group Processes*, *22*, 65–92.
- MacKinnon, N. J. (1994). *Symbolic interactionism as affect control*. Albany, NY: The State University of New York Press.
- MacKinnon, N. J., & Keating, L. (1989). The structure of emotion: A review of the problem and a cross-cultural analysis. *Social Psychology Quarterly*, *52*, 70–83.
- MacKinnon, N. J., & Langford, T. (1994). The meaning of occupational prestige scores: A social psychological analysis and interpretation. *Sociological Quarterly*, *35*, 215–246.
- Mayhew, B. (1968). Ascription in modern societies. *Sociological Inquiry*, *38*, 105–120.
- McCall, G. J. (2003). The me and not-me: Positive and negative poles of identity. In P. J. Burke, T. J. Owens, R. Serpe & P. A. Thoits (Eds), *Advances in identity theory and research*. Heidelberg: Springer.
- McCall, G. J., & Simmons, J. L. (1978). *Identities and interactions: An examination of human associations in everyday life (revised edition)*. New York: The Free Press.
- Mead, G. H. (1934). *Mind, self, and society*. Chicago: University of Chicago Press.
- Merton, R. E. (1968). *Social theory and social structure*. New York: Free Press.
- Moore, J. C., Jr. (1985). Role enactment and self-identity. In J. Berger & M. Zelditch, Jr. (Eds), *Status rewards and influence: How expectations organize behavior* (pp. 262–316). San Francisco, CA: Jossey-Bass.
- Nakao, K. (1992). Occupations and stratification: Issues of measurement. *Contemporary Sociology*, *21*, 658–662.
- Osgood, C. E. (1962). Studies of the generality of affective meaning systems. *American Psychologist*, *17*, 10–28.
- Osgood, C. E., May, W. H., & Miron, M. S. (1975). *Cross-cultural universals of affective meaning*. Urbana, IL: University of Illinois Press.
- Osgood, C. E., Suci, G. J., & Tannenbaum, P. H. (1957). *The measurement of meaning*. Urbana, IL: University of Illinois Press.
- Padavic, I. (1991). Attraction of male blue-collar jobs for black and white women: Economic need, exposure, and attitudes. *Social Science Quarterly*, *72*, 33–49.
- Park, R. E. (1955). *Society*. New York: Free Press.
- Parsons, T., & Shils, E. A. (1951). *Toward a general theory of action*. Cambridge, MA: Harvard University Press.
- Reskin, B. F., & Roos, P. (1990). *Job queues, gender queues: Explaining women's inroads into male occupations*. Philadelphia, PA: Temple University Press.

- Rindfuss, R. R., Cooksey, E. C., & Sutterlin, R. L. (1999). Young adult occupational achievement: Early expectations verses behavioral reality. *Work and Occupations, 26*, 220–263.
- Robinson, D. T. (1996). Identity and friendship: Affective dynamics and network formation. *Advances in Group Processes, 13*, 91–111.
- Robinson, D. T., & Smith-Lovin, L. (1992). Selective interaction as a strategy for identity maintenance: An affect control theory model. *Social Psychology Quarterly, 55*, 12–28.
- Robinson, D. T., Smith-Lovin, L., & Burke, P. (Eds) (2006). *Theories in social psychology*. Stanford, CA: Stanford University Press.
- Smith-Lovin, L., & Heise, D. R. (Eds) (1988). *Analyzing social interaction: Advances in affect control theory*. New York: Gordon and Breach Science Publishers. (Reprint of a special issue of the *Journal of Mathematical Sociology*, Vol. 13, 1987).
- Smith-Lovin, L., & Robinson, D. T. (2006). Control theories of identity, action and emotion: In search of testable differences between affect control theory and identity control theory. In: K. McClelland & F. Thomas (Eds), *Purpose, meaning, and action: Control system theories in sociology*. Heidelberg: Springer.
- Stryker, S. (1968). Identity salience and role performance: The relevance of symbolic interaction theory for family research. *Journal of Marriage and the Family, 30*, 558–564.
- Stryker, S. (1980). *Symbolic interaction: A social structural version*. Menlo Park: Benjamin Cummings Publishing Company.
- Stryker, S. (1989). Further developments in identity theory: Singularity verses multiplicity of self. In: J. Berger, M. Zelditch, Jr. & B. Anderson (Eds), *Sociological theories in progress: New formulations* (pp. 35–57) Newbury Park, CA: Sage.
- Stryker, S., & Burke, P. J. (2000). The past, present, and future of an identity theory. *Social Psychology Quarterly, 63*, 284–297.
- Swann, W. B., Jr., Wenzlaff, R. M., Krull, D. S., & Pelham, B. W. (1992). Allure of negative feedback: Self-verification strivings among depressed persons. *Journal of Abnormal Psychology, 101*, 293–306.
- Thomas, L., & Heise, D. R. (1995). Mining error variance and hitting pay-dirt: Discovering systematic variation in social sentiments. *The Sociological Quarterly, 36*, 425–439.
- Treiman, D. J. (1977). *Occupational prestige in comparative perspective*. New York: Academic Press.
- Troyer, L., Mueller, C. W., & Osinsky, P. I. (2000). Who's the boss? A role-theoretic analysis of customer work. *Work and Occupations, 27*, 406–427.
- Troyer, L., & Younts, C. W. (1997). Whose expectations matter? The relative power of first- and second-order expectations in determining social influence. *American Journal of Sociology, 103*, 692–732.
- Troyer, L., Younts, C. W., & Kalkhoff, W. (2001). Clarifying the theory of second-order expectations: The correspondence between motives for interaction and actors' orientation toward group interaction. *Social Psychology Quarterly, 64*, 128–145.
- Turner, R. H. (1978). The role and the person. *American Journal of Sociology, 84*, 1–23.
- Webster, M., Jr., & Whitmeyer, J. M. (1999). A theory of second-order expectations and behavior. *Social Psychology Quarterly, 62*, 17–31.
- Wiggins, B., & Heise, D. R. (1987). Expectations, intentions, and behavior: Some tests of affect control theory. *Journal of Mathematical Sociology, 13*, 153–169. Reprinted In: L. Smith-Lovin & D. R. Heise (Eds). (1988). *Analyzing social interaction: Advances in affect control theory* (pp. 153–169). New York: Gordon and Breach Science Publishers.

HOW NOT TO BUILD AN ONLINE MARKET: THE SOCIOLOGY OF MARKET MICROSTRUCTURE[☆]

Peter Kollock and E. Russell Braziel

ABSTRACT

This paper examines the attempts to create new online markets for the trading of wholesale standardized goods during the late 1990s. The vast majority of these business-to-business (“B2B”) exchanges failed. These failed attempts provide invaluable data on the necessary underpinnings of online commodity markets and the social dynamics that drive them. Focusing on the US market for propane as our case, we discuss the model that drove the development of many business-to-business exchanges, the social dynamics of the propane industry and the attempts to create an online propane market, the role of informal risk management, and some initial lessons about the design of markets. Ignoring the behavioral realities of markets led to designs and technology that in many cases were incompatible with the needs of market participants.

Very little is known as to how a market actually operates in practice. (Fafchamps & Minten, 2002)

[☆]Earlier versions of this article were presented at the annual meeting of the American Sociological Association, Philadelphia, 2005, and at the Trust and Cooperation in Online Interaction Conference, Amsterdam, 2005.

Social Psychology of the Workplace
Advances in Group Processes, Volume 23, 283–306
Copyright © 2006 by Elsevier Ltd.
All rights of reproduction in any form reserved
ISSN: 0882-6145/doi:10.1016/S0882-6145(06)23011-X

INTRODUCTION

There are precious few studies of markets in practice – the day-to-day details of how buyers and sellers accomplish a transaction and manage their risks and opportunities.¹ This is a great shame for both researchers and market participants, but also understandable. Gaining access to a market can be a serious challenge, both in terms of being accepted into what is often a closed community known to only a few, and in terms of becoming literate in the complex details of the products, industry, and the way deals are done.

Even more difficult is the effort to compare and contrast across a whole range of different markets in order to uncover unappreciated commonalities or to identify key distinguishing characteristics. And rarer still is the ability to observe markets at their birth, studying their emergence and learning from the successes and failures. Remarkably, we have been provided with just such an opportunity in the attempts in the late 1990s to build hundreds of new wholesale business markets online.

The Unplanned Experiment

The attempts to build new online business-to-business markets – termed “B2B” – were fueled by many factors. Recent retail sites such as Amazon, Yahoo, and eBay were enjoying enormous success, and these markets paled in comparison to the size of wholesale business markets, suggesting an enormous opportunity. Cheap capital, in the form of “easily” obtained venture funding, and a land-grab mentality created a manic effort to fund and startup wholesale online exchanges in an astonishing array of industries.² B2B markets were established in dozens of different sectors, including chemicals, metals, electronic components, bandwidth, lumber, paper, and various energy commodities. The hope was that these new exchanges would aggregate and streamline existing fragmented markets, providing much more efficient trading and increasing trading opportunities. There was also the hope that these efforts would generate a huge financial return for shareholders by taking the exchanges public in the IPO market. While the efforts became ludicrous at times,³ there were many serious attempts to create new electronic markets, either as a supplement or a substitute for existing business markets.

The vast majority of these attempts failed. While this was a painful outcome for the employees and investors of these ventures, it also provided a historic opportunity to study the necessary foundations of markets and the social dynamics that drive them.

The first key opportunity the B2B effort provided was an entry into studying the inner workings of traditional business markets that had always operated in the shadows. Both greed and fear helped to open these markets up to study. For startup firms wishing to create new online exchanges, the possibility of fantastic wealth was an effective motivation for enlisting the help and cooperation of industry experts in creating their markets. On the other hand, fear of these new entrants motivated many traditional businesses to create their own competing online exchanges, which required bringing in outside experts in technology and online transactions. Surrounding all of this activity was a roiling cloud of analysts from consultancy firms and investment banks who were turning out research reports on many different industries.

The second key opportunity was the ability to do these kinds of studies across a wide array of different industries. For those involved in the design and construction of B2B markets (which included the authors), there was a chance to study multiple markets simultaneously, which had the potential to uncover structural and cultural factors that accounted for commonalities across different industries.

The third key opportunity was to study the hundreds of attempts to actually launch new online markets. The very failure of most of these attempts points to vital lessons in the necessary underpinnings of markets. The B2B effort was an unprecedented naturally occurring experiment in market creation costing billions of dollars.

Making use of these opportunities, we begin to explore a set of nested empirical puzzles: what can help explain the failure of most of these efforts? What distinguishes the rare markets that thrived? And what can help account for the irregular achievements of even these successful markets? Through this exploration, our goal is to uncover key social dynamics in the microstructure of markets.

Research Setting

Within the broad area of B2B markets, our focus will be on commodity business markets for physical goods (such things as energy products, electronic components, bulk chemicals, lumber, processed food, etc.). These markets are extraordinarily important in the economy, have received relatively little attention from researchers, and exhibit interesting variations both across and within markets.

In particular, for our case study here we will focus on the US market for propane. The propane market was one of the rare examples of a successful B2B exchange. Yet, even here there were notable failures in trying to expand

the exchange into certain geographical areas. Using propane as our initial case study turns out to be especially useful because there is a key difference between the regional markets for propane that permit interesting comparisons.⁴

Below we discuss the model that drove the development of many B2B exchanges, the social dynamics of the propane industry and the attempts to create an online propane market, the role of informal risk management, and some initial lessons about the design of markets.

THE “B2B” MODEL OF THE MARKET

In making the case for the importance, profitability, and inevitability of online B2B markets, both analysts and entrepreneurs turned repeatedly to a particular visual icon, one version of which is reproduced here (Fig. 1).⁵

On the one hand is a depiction of the current state of affairs as a tangled, messy, and inefficient market. On the other hand is the promise of a new efficiency that comes from gathering all the buyers and sellers at one “place” in an online exchange. This was sometimes described as the “Fat Butterfly” model of online markets – the wings of the butterfly corresponding to the group of buyers and sellers, respectively, all brought together at the single point of the B2B exchange. It was known as the *Fat Butterfly* model because of the belief that the online exchange (as the body of the butterfly) needed to provide a whole host of services to be successful, not simply the matching of buyer to seller – services such as logistics and financial clearing.⁶

While other models of B2B markets existed, the Fat Butterfly model drove a great deal of investment and was at the core of the design of many B2B exchanges involving multiple buyers and sellers (e.g., Barlas, 2000; Sculley & Woods, 1999; Ellsworth, 2001).⁷ Because of its central role, it is important to dissect out the assumptions behind it.

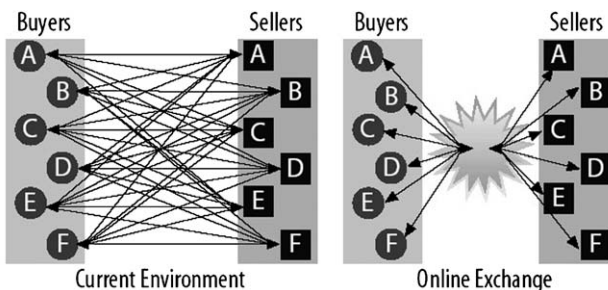


Fig. 1. “Online Exchanges Reduce Marketplace Friction for Both Buyers and Sellers”.

Assumptions in the Market Model

The first assumption of note was the very optimistic belief that deep, radical changes could be instituted in the way industries did business. But there is tremendous inertia in business practices that may have been in place for generations, and there were many reasons for existing market participants to resist. Buyers and sellers realized that B2B markets implied tremendous changes in how information would be disseminated, how transactions would be consummated, even who had the authority to conduct transactions. A key argument at the time was that B2B exchanges would create a level-playing field, which is another way of saying that the powerful would lose some of their privilege. This led to challenges of these initiatives by some market participants looking to protect their market advantage. And the move to an online marketplace also implied great changes in the jobs of market participants in terms of how they were compensated, the personal rewards and satisfaction they derived from their jobs, and the skills that would be required – people who were adept at doing deals by phone and fax would need a different set of skills when trading online.

A second assumption was that it made sense to bring together previously unconnected buyers and sellers into a single market. That is, that it made sense to aggregate trading, which had previously occurred in a dispersed way. Sellers, according to this logic, want to be where there are the greatest number of buyers, and buyers where there are the greatest number of sellers. Thus, the gathering together of fragmented markets into one large pool of liquidity was a key goal. However, this effort assumes that sellers and buyers in fragmented markets are actually trading “the same stuff,” which raises the issue of when goods can be truly commoditized. It turned out that in many cases markets were fragmented for a reason – the goods being exchanged were not in fact substitutable with goods from another sub-market. We discuss this important theme below.

A third assumption related to this point was that the appropriate goal for B2B exchanges was to model mature markets for highly commoditized goods, as exists in financial exchanges such as the Chicago Board of Trade or the New York Stock Exchange. These financial exchanges were often held up as ideal models, and some of these financial institutions started to court B2B exchanges in order to offer partnerships and expertise. The desired goal was a highly liquid market of anonymous buyers and sellers trading commoditized goods.

The idea of bringing together buyers and sellers in a single efficient market driven by price in anonymous exchange reveals an implied fourth

assumption: that identity and the network of social relationships are unimportant to the functioning of a market. This runs counter to one of the defining themes in economic sociology that networks of personal relationships are not simply empirically ubiquitous, but also often important for the healthy functioning of a market (e.g., Granovetter, 1985; Uzzi, 1997).

And there is an additional assumption that is not represented in this particular diagram, but came out clearly in the discussion of the time (Lux, 1996; Mack, 1997; Xavier, 1999; Riley, 1989) – that B2B markets would greatly reduce or eliminate intermediaries (traders, brokers, dealers, etc.) and allow buyers and sellers to transact business directly.

The “Demise” of the Middleman

For a period of time, the theme of disintermediation became a key concept in the discussion of online commerce in general and the promise of B2B markets in particular (Mack, 1997; Taylor, 1998; Kuttner, 1998; Hof, 1999). Intermediaries were assumed to be a source of friction that would be eliminated in the new online exchanges. The presumed cost savings of eliminating intermediaries was supposed to be one of the key returns for buyers and sellers participating in the new online exchanges.

But “disintermediation” is a cold, clinical term, and there was more than dispassionate analyses of efficiency that drove this trend. The love–hate relationship with the middleman across many industries is striking, even carrying with it an emotional and moral tone at times. In our research we repeatedly heard stories disparaging or condemning intermediaries, and those who served as middlemen sometimes went to great lengths to avoid the stigma. In more than one industry we found traders who maintained physical assets (e.g., a lumber yard) even though essentially all their business came from trading goods that they never took delivery on. A key reason was to avoid the hated label of “broker” (Kollock & Braziel, Forthcoming). But as disliked as they may be at one level, clearly brokers, traders, and dealers often provide services that are essential to a market.⁸ Suppliers and end users value these services at the same time they disparage the providers.

Perhaps the most fundamental of these services is the facilitation of transactions which would not otherwise be consummated. Buyers and sellers are often not in synch in terms of the basic elements of a transaction:

- A seller wants to deliver in Seattle, but the buyer wants delivery in Los Angeles.
- A seller wants to move product today, but the buyer is not in the market until tomorrow.

- A buyer is willing to pay a premium over the current price to cover an unexpected shortfall, but does not want any of his/her regular contract suppliers involved.
- A seller wants to move surplus product outside his franchise territory.
- A buyer wants 3,000 tons, but the seller only has 1,000 tons to sell.

In such common situations, intermediaries can step in to consummate a transaction that might otherwise not have occurred. For example, the intermediary might find a way to move the seller's product from Seattle to Los Angeles, store the product today for sale tomorrow, disguise a buyer's or seller's identity, or combine multiple sellers' products to meet the demands of one large buyer. Intermediaries can provide other important services as well, such as supplying market information to clients.

All of these assumptions were wrong in the majority of cases: change was resisted, aggregation often did not make sense, mature financial markets were a poor model to aim toward, and intermediaries were central to the effective functioning of markets. The model that drove much of the development of B2B markets in the 1990s was a grave caricature that ran counter to the behavioral realities of how commodity markets actually function. We use a particularly rich case study to illustrate these points – the US market for propane.

THE SOCIAL LIFE OF PROPANE

The Texas Propane Hub

Propane is one of several hydrocarbons that are isolated from natural gas (known as natural gas liquids, or NGLs). It is used primarily for heating and in *cracking* – the manufacture of plastics. Propane is a true commodity. Essentially all propane is manufactured to a single standard, termed HD5. Who manufactured the propane is irrelevant as long as it meets this standard. The great majority of the propane in the US is stored in gigantic underground salt caverns in Mont Belvieu, Texas. Flowing into and out of this area is a vast network of pipelines, which is by far the cheapest way to transport propane. Transportation by railcars or truck also takes place, but is significantly more expensive.

Underscoring its nature as a commodity, propane from many different sources is stored commingled at this storage facility. When someone buys propane and has it shipped from Mont Belvieu, they have no idea where the

propane originally came from, nor do they care. At this wholesale market level where propane is traded as a commodity, there is no “branded” propane, no “made by” indicator on a quantity of propane. In the commodity market, propane is propane is propane.

Mont Belvieu serves as the most important hub of propane storage and transactions in the US and is the pricing point for both this country and the world. As a result, there are hundreds of buyers, sellers, and intermediaries that do business around this hub.

Altra Online Exchange

It is within this Texas energy market that one of the few successful B2B exchanges emerged – Altra Energy. Altra succeeded at two things that few other B2B exchanges accomplished: it built a liquid market online and it turned a profit.⁹

Altra began as a project with Williams Energy called *Chalkboard* (an allusion to the physical chalkboard that traders used to keep track of prices).¹⁰ There was little interest in the platform at first, but over the course of a number of years, liquidity was built up in the market to the point that the great majority of Mont Belvieu propane transactions were done through the system (other energy products were also traded through Altra).¹¹

Altra approximated a number of the ideals in the B2B model of the market: it dealt with true commodity markets involving many buyers and sellers, meaning that aggregating transactions on a centralized exchange made sense. It permitted market participants to trade anonymously, which had been difficult or impossible before, and which was desired by the market participants so that they could transact without signaling their market activities to their competitors. And trading online did indeed eliminate some of the inefficiencies of phone and fax trading. Altra also provided a number of services beyond simply matching trades, following the logic of the Fat Butterfly model that it helped to establish.

However, there were a number of crucial ways in which Altra’s marketplace differed from the idealized vision of the B2B market. First, even in this commoditized and often anonymous market, social relationships were still important and were not precluded by the online system. The fact that traders were now completing their transactions online did not mean they had suddenly stopped using the phones. Traders continued to be on the phone constantly, talking with other market participants to get a sense of what was going on in the market (“market color”) as well as getting a sense of what a fair current price was by asking around.¹²

Second, while anonymous trading was a key feature of the exchange, the identity and reputation of traders were still taken into account. Altra faced a very interesting design challenge. On the one hand, the buyers and sellers of the marketplace were interested in trading anonymously so as to not communicate their market activities. On the other hand, they were very worried about committing to a transaction with a counterparty who they deemed untrustworthy – something that was not a problem in phone and fax trading where one explicitly chose one’s counterparty based on past experience and reputation. The challenge was how to combine anonymous trading with a concern for reputations. The elegant solution was a system that allowed market participants to rate the possible counterparties in the market prior to a transaction. Participants could go down a list and note for each player whether they would be willing to do a deal with them and even whether they would be willing to extend credit and under what terms. Participants could then go into the anonymous marketplace and complete transactions knowing that the counterparty would be acceptable to them, even if they did not know the actual identity until after the transaction had occurred.

Third, there was no attempt to exclude or eliminate intermediaries from the market. While the system was originally launched to serve the needs of the producer and end user of the commodities, great effort was taken to get the intermediaries involved, and they became by far the biggest users of Altra. This was good for the intermediaries and good for the exchange as the intermediaries were a crucial source of liquidity in the market. Altra was an intermediary friendly B2B exchange, in sharp contrast to the early rhetoric of how B2B markets should be built.

Managers at Altra and users of the system felt strongly that these characteristics – which respected or even encouraged the existing networks of social relationships – were very important in Altra’s success. However, even with all of its experience, Altra had some striking, and instructive, failures.

The Puzzle of California Propane

While most of the country’s propane is stored and traded in Texas, there are other regional markets for propane and it made sense for Altra to encourage those markets to join its B2B exchange and use its trading platform. In particular, many attempts were made to get the buyers and sellers from the California market involved.

The California market for propane is much smaller than the Texas market as there are no big producers or users of propane. Whereas hundreds of buyers and sellers are involved in the Texas propane market, there are fewer

than two dozen key individuals closely involved in propane transactions in California. It is also geographically isolated, not simply in terms of its physical distance from Texas, but also in regards to the easiest and cheapest way of transporting the commodity: in the vast network of propane pipelines that cross the US and Canada, there are no pipelines that link California to Texas or any of the other propane hubs.

Altra had already created a very successful online propane market centered in Texas. It also had an intimate understanding of the industry and had developed a number of services for its market participants that allowed them to trade anonymously, interact with a greater number of potential counterparties, manage prices more successfully, and effectively organize the large volume of trades that sometimes occurred. Altra took all of this experience and these services into the California market and failed miserably. Whereas the majority of the country's propane transactions occurred on Altra's exchange, almost no transactions ever occurred involving the California market.

The successful trading platform that Altra had developed – incorporating many of the ideals that were put forth for the design of B2B exchanges – was unsuited to the way business was actually conducted in California. Each of the key strengths and services it offered to traders in Texas was in fact irrelevant or actually harmful in the California market.

Altra offered the opportunity to transact with a greater number of buyers and sellers in an aggregated, centralized market. But that is an advantage only if market participants are trading “the same stuff.” While the propane in Texas and the propane in California were physically identical (manufactured to the same HD5 standard), in practice they were different goods because of the great expense of transporting propane to California. The fact that there was plenty of propane at a good price in Mont Belvieu was irrelevant to the buyer in California.¹³

A second key feature of Altra was that it permitted market participants to trade anonymously. This worked well in Texas, where there were a great number of buyers and sellers. However, in a market where there are fewer than two dozen key people involved, it is difficult or impossible to transact anonymously even on an electronic system. While a bid or an offer on Altra's exchange did not explicitly identify the party, in a market like California propane, a knowledgeable participant could guess with a high degree of confidence who was actually behind the trade.

Some signals about the identity of a counterparty were the result of the different physical infrastructure in California. A key feature of Mont Belvieu is that the propane is stored commingled, which means one cannot tell

who owned it from the location of the product one is buying. But in California, there is no similar central storage hub – if the propane is coming from the ExxonMobil Torrance refinery, it is reasonable to assume that it is ExxonMobil who is trying to sell the propane.

Other information about the likely identity of counterparties came from the simple fact that there were only a small number of players involved in California, which meant that everyone knew each other – and their business – extremely well. Like a very small town, everyone knew just about everything. The limited number of alternative trading partners also meant it was very difficult to hide what one did in the market, especially if the transaction was unusual. As one market participant commented: “If I’ve always been a seller and suddenly I call you as a buyer, you know something has happened – probably that a production unit has gone down – and that you’ve got my ass.”¹⁴ It would have been much better to go to a supplier who did not know the trader, in the hope of completing a deal without signaling the situation. In Texas, where the trader might be able to choose from 50 to 80 sellers, that is a real possibility (whether done online or by phone). But in California, everyone knows everyone.

A third advantage Altra offered was the ability to manage a high volume of transactions more efficiently than could be done by phone or fax. In the Texas market this was an important feature, as participants had to deal with a large number of possible trading partners and frequent transactions. However, in California the deal flow is much lower, so the need for automated trade processing is not acute. And in terms of the search costs involved in finding a counterparty for a deal, if there are only 10–20 likely players to contact, it can easily be accomplished the old-fashioned way – by phone.

Altra’s exchange offered a platform that allowed traders to manage the price of their transactions more successfully. But a fourth key difference between the two propane markets was that managing prices turned out to be relatively less important in California than Texas for some very significant reasons.

A key function that market participants fulfill in markets like commodity propane – whether buyer, seller, or intermediary – is solving problems. Inevitably, things go wrong and someone is charged with fixing the problem, typically as quickly as possible and sometimes under great stress. In a market such as Texas, problems can be solved primarily with price, but in a market such as California, problems are frequently solved with favors. Contrasting price-based with favor-based risk management leads to a crucial point in understanding the dynamics of markets and the types of technology that are appropriate.

RISK MANAGEMENT VIA FAVORS

“Things Go Wrong”

Forget the antiseptic, well-lighted budget sets and markets of economics textbooks. Real-life markets are rough, murky, tumultuous places where commodity attributes shift, supply is uncertain, prices volatile, and information imperfect. (McFadden, 2006)

Because there are only about two dozen key people involved in the California propane market, they are able to get to know each other very well. And because they are deeply interdependent, they *have* to get to know each other well and develop strong relationships. The simple reason is that things go wrong, and when they do a key part of the market participant’s job (some have said the most important part) is to solve the problem as quickly and cheaply as possible. Keeping their job – and earning their bonus – is closely tied to solving the problems that inevitably arise. And a key way these risks are managed is through an informal economy of reciprocal favors.

A producer may manufacture isobutane (another NGL) and require 20,000 barrels for the month. If the producer’s isobutanizer goes down, who can he turn to in order to make up the difference? While a large anonymous market exists in Texas, the cost of transporting it by railcars almost certainly rules that out. Instead, the producer turns to a friend from within the California market. As one participant described a typical transaction: “So you call your friend at [another energy company] and ask, ‘Hey Margaret, can I get 10 tank cars of iso from you?’ Margaret says, ‘I can’t do 10, but I can do 5.’ You ask, ‘What do you think the price is?’ Margaret responds, ‘Ah, I don’t know, it’s about 72 cents.’ ‘Fine,’ you say. ‘I’ll take care of you,’ Margaret says.”

Margaret has bought a favor (and it is sometime described in just those terms by the market participants). This is crucial because one day Margaret will have a problem that her boss is looking for her to solve immediately, and she will have someone to turn to. As we have heard participants in this market say, “it’s important to take care of each other.”

Interestingly, viewed from the outside, Margaret may be an employee of a competitor of the company the producer works for. But what is most important for the participants (and their bosses) is that the problem gets solved as quickly as possible. The fact that the problem was solved by going to a friend at a “competitor” is not a concern for the immediate people involved, who are charged with doing whatever it takes to solve the issue. Indeed, there is a strong sense of identity as a member of the NGLs market that is independent of – and sometimes eclipses – one’s identity as an employee in a

particular firm. In terms of their careers in the propane market, many buyers and sellers may switch employers but often remain in the same market. In such cases, they are NGL market people first, and employees of a particular company second.

The behavioral realities of trade in this market are much more fluid than would be suggested by the formal boundaries of companies or their roles as competitors. As one participant in the California propane market said, “Everybody is your customer, your supplier, your competitor.”

Solving Supply Problems

A key use of favors is to manage various supply risks: the problems of having “too little stuff,” “too much stuff,” or “the wrong stuff.” An example of having a shortfall in a needed commodity was discussed above, but there is also the problem of having an excess amount of a commodity.

In a gasoline refinery, one of the by-products is propane, which is held in a storage tank as it is sold off. Propane, and the people who deal with it, are peripheral to the main business of the refinery, which is the production of gasoline. However, if the propane tank gets full, it can shut down the entire operation. As one market participant described the scenario: “The refinery manager will say ‘We’ve got to flare propane in California and have the environmentalist crawling all over us, or we’re shutting the refinery down and we’re already short of gasoline – somebody is going to get fired!’ The problem is usually a lack of railcars and the manager will tell the propane guy, ‘Get me some goddamn tank cars in here tomorrow or I’ll find somebody who can!’ It’s time to call in some favors, and you better have some favors to call in.” Whoever does those favors earn a great deal of gratitude and an informal line of credit they can call on in the future when they are in need.

Another category of problem is physical contamination – ending up with “the wrong stuff.” An example of using favors to manage this type of situation comes from a California manufacturing plant that routinely sent feedstock (petrochemicals used as raw materials) to different refineries by pipeline. The plant had recently laid off many employees and was in the midst of shutting down some of its operations. As a result, a batch of feedstock was contaminated and sent off by mistake to one of the refineries. The refinery was very upset, but ultimately did the manufacturing plant a great favor by agreeing to keep the poor-quality feedstock and slowly use it up. Two weeks later, the plant made the same mistake and was about to send additional contaminated feedstock to the refinery. This occurred

during the weekend, when only the operations staff were working. The head of operations for the plant (who had been there for 30 years) called a friend at a different refinery and asked him if he would be willing to take the shipment, which had already started down the pipeline. His friend was willing to receive the contaminated feedstock, which avoided a grave problem with the first refinery. As one of the participants said: “And now there’s a real chit to be repaid over at [the second] refinery.”

The informality of risk management is at two levels here: first, an operations manager is not “supposed” to make these kinds of decisions, which impact the commercial side of the business. Second, his friend at the second refinery is not “supposed” to accept an unplanned shipment, and certainly not a shipment for contaminated product.

Importantly, in each of these cases the information about what happened does not remain private knowledge – the stories are told within the network of traders and it becomes widely known that Person A took care of Person B (or that Person A *didn’t* take care of Person B).

Favors in the Texas Market

The use of favors as a risk management device dominates the dynamics in the California propane market. In the Texas market there are other alternatives to solving a supply problem – because of the large and often anonymous market, one can solve the problem with price by simply buying or selling into the larger market. Because of the huge and centralized storage facilities, there are a number of ways to solve supply problems, and because there are so many more players involved (trading a product that is generic and substitutable), there are more alternatives to go to, and one may be able to take care of the issue without signaling to the market that you have a problem.

But favors are still important in the Texas market for particularly acute situations and for unusual transactions. Going to the market to solve a problem takes time, and the very reason you have a supply problem may mean you do not have time to deal with it yourself. If a key piece of manufacturing equipment has gone down, you will be held captive in a series of safety meetings as people work to figure out what happened and what the implications are.

The size and composition of the Texas market provides another way of solving this problem. There are a great many intermediaries in the Texas propane market, and there are certain intermediaries with whom one does a lot of business and has a long-term relationship. These more trusted intermediaries can serve a very important problem-solving function (cf. Uzzi, 1997).

Lacking the time to do it himself, the producer contacts a trusted intermediary, tells him what happened, and that he needs 10,000 barrels *today*. While it is implicitly understood that the intermediary will not leak this information to the market, the producer may underscore the point: “If I hear this coming back to me in the next two days, you’ll never get another call from me as long as you live.” The intermediary can turn to the five other traders in the room and have them make the 50 calls that are necessary in short order. Importantly, the intermediary also knows the producer’s decisions rules because of their long-standing relationship (e.g., what range of prices the producer is likely to consider fair, which counterparties he would prefer, which counterparties to never do business with, and so forth). This makes it very efficient for the producer to hand over the problem to the intermediary without having to spend time talking about the different dimensions of the transaction and what combinations would be acceptable.

As one producer recounts a typical example: “I’ll call back and ask ‘How many people did you talk to?’ He might say ‘I talked to 20 in the last hour.’ I’ll ask ‘What kind of range in prices did you get?’ ‘I got everything between 21 to 22.’ I’ll ask, ‘Who’s the 21 from?’ and say OK, do the deal.” The favor is solving the problem at a reasonable price, and in not letting the market know what has happened so that the price does not move adversely. This is not to say that the intermediaries are altruistic. They carefully honor their relationships with core clients, but will also charge for their service.¹⁵

Solving a problem with favors in the Texas market will also occur for unusual situations. All propane is manufactured to one standard specification, but what happens if because of contamination or other reasons one has a quantity of “non-spec” propane that needs to be moved? There is no liquid market for non-spec propane and no producer deals with it enough to know the best way to get rid of it. However, one intermediary in the Texas market has specialized in this issue and figuring out how to deal with non-spec product, so he is the individual producers turn for a favor to “make this stuff go away.”

THE PREVALENCE OF FRAGMENTED MARKETS

If the California propane market was an exotic exception, this would be an interesting story about an outlier, but without greater theoretical or practical importance. However, our experience and research suggests that markets with a structure similar to California propane are the rule rather than the exception. It is markets resembling Texas propane that are the empirically rarer case.

“It’s Not the Same Stuff”

There are many markets that at first glance seem to be large markets involving true substitutable commodities, but in fact when examined at the behavioral level are composed of many sub-markets that rarely trade between each other. An example from the energy industry is motor gasoline.

Through the 1970s gasoline was reasonably standardized, with only three key grades: regular, leaded regular, and premium. As the seasons change, more butane is put into gasoline in areas where it is cold, so there was some customization of the product for different geographic areas, though each of the few geographic areas the country was divided into still represented very large markets.

However, the introduction of the Environmental Protection Agency in the 1970s led to much greater customization of gasoline, involving additional additives such as ethanol and dividing the country into many more geographical areas for which custom blends were produced. What this meant was that gasoline was no longer “gasoline” – buyers and sellers were involved not with a generic product, but with, e.g., “12 Reid Vapor Pressure gasoline with .3% ethanol deliverable in Poughkeepsie.”

At this level of specificity there were typically no more than a dozen key people involved in the buying and selling in each of these sub-markets. By many measures, motor gasoline seemed like a reasonably homogenous and gigantic market – much larger than the propane market, for example. In fact, the market in practice was a set of fragmented specialized markets that resembled California propane more than Texas propane. Altra Energy worked very hard to develop the gasoline market for its B2B exchange, but with only modest results. While it was not appreciated at the time, the challenges Altra faced in gasoline were structurally similar to the challenges for California propane: anonymity was difficult or impossible, given the limited number of players, and identity and reputation were key, especially as problems might have to be solved with favors since there was no large liquid market one could turn to for the particular blend of gasoline one needed.¹⁶

What was true for motor gasoline was true for many other products that seemed at first to be true fungible commodities. There were a number of attempts to create B2B exchanges for steel, for example, but one of the challenges these new markets faced was that there is no such thing as generic steel – it is a very highly customized product with different mills being able to produce only certain grades.

In other industries, long-standing efforts to standardize products through detailed specifications led to the hope that aggregating transactions on an

online exchange would be both valuable and a natural extension of the existing market. As an example, this was attempted in the wholesale food industry (Kollock & Braziel, Forthcoming). There is a national market for chicken parts that flow to grocery stores and restaurants. The attempt to build a B2B exchange in this sector assumed that, e.g., chicken wings were standardized enough that bringing together dispersed buyers and sellers from different geographic areas could create new opportunities and a more efficient market. In practice, the products turned out to be less standardized than anticipated. Even though many processing plants produced chicken wings, they were not simply substitutable in the eyes of the buyers. Processing plants differed in terms of the kind of growers from which their supplies came, how the chicken was cut, and the quality of the end product. There were certain plants buyers preferred not to do business with, and for other plants buyers varied the amount they were willing to pay depending on where it came from. This meant that information about the identity of their counterparty was crucial, and the fine-grained knowledge they had acquired about the quality of different processing plants did not transfer to other geographic region. Again, the market more closely resembled California propane rather than Texas propane, and the design elements that were suitable for a large commodity market with fungible goods were not a good fit here.

LESSONS IN THE SOCIOLOGY OF MARKET MICROSTRUCTURE

The Importance of the Middle Ground

Up to now, economists have focused primarily on individuals and institutions For a long time they did well by ignoring the middle ground, the networks of personal relationships that oil the system and bring it to life. (Fafchamps, 2002)

The middle ground of social networks has been neglected not only by analysts of markets, but also by those who attempted to build new markets. Investors and entrepreneurs often ignored networks of social relationships in markets or considered them the source of friction from which B2B exchanges would emancipate us. Certainly there were cases of true friction to be dealt with, and cases of market participants resisting these initiatives for the sole purpose of maintaining their imbalanced market power. But aside from underestimating the inertia and resistance to change in various industries, efforts to create unmediated markets ignored the many key functions provided by middlemen and social networks that support the market.

As has been discussed, buyers and sellers are often not in synch with regard to time, location, or amount, and an intermediary can facilitate transactions that would otherwise not occur. Intermediaries also provide important market information to their clients, provide a means of trading anonymously, can solve acute problems (for at least favored clients), and can serve as a buffer in case of supply or price shocks.

The interconnected networks of relationships were important because of the structural roles of intermediaries, but these networks were also key because of the informal economy of favors that flowed through these social relationships. Solving problems is a central function of many market participants, and the key risk the individual is concerned with is career risk – the extent to which their job or their bonus is on the line. Having friends in the network to turn to for favors in order to solve problems is critical. Economies of goods rest on economies of favors.¹⁷

The informal insurance that comes from the flow of favors is a particularly important example of relational contracting – “informal agreements sustained by the value of future relationships” (Baker, Gibbons, & Murphy, 2002; cf. Macaulay, 1963). Contracts can be a formal means of dealing with some of the risks of transactions, but informal means of managing risks are fundamentally important for at least two reasons. First, contracts simply cannot cover all the possible things that can go wrong.¹⁸ Second, formal approaches to dealing with the risks of transactions can be exceedingly, even prohibitively, expensive. A transaction that does not rest at least in part on trust and the flow of favors is an expense that can rarely be afforded.

This social capital approach to risk management is an important feature even in the centralized Texas market, and dominates the dynamics of sub-markets such as California propane. To date, the study of the informal economy and informal risk management has focused more on such settings as traders in the slums of Ghana (Hart, 1988) or agricultural traders in Madagascar (Fafchamps & Minten, 2001), but first-world energy markets may have more in common with third-world agricultural traders than might first be thought. This is not to say that markets in the US are more “backwards” than is commonly thought, but to make the point that an informal layer in markets is both inevitable and often provides key functions for the successful operation of the market. As the former CEO of a B2B bandwidth exchange commented

Somewhere around the peak of the boom we forgot something. That lowly phone broker who knew how to make money in the market They didn't talk about efficient systems. They talked about talk, [the] guy they knew they could extend credit or cut a deal [with] because they knew they would get it back when they needed it. Just like the phone

brokers from a couple of years before, they knew markets were relationships. Markets are social. (Mayfield, 2005)

Different Markets Require Fundamentally Different Structures

Stated so boldly, this point seems like a simple truism. But the extent to which markets differ and the dimensions along which they differ has not been fully appreciated. Our research and experience repeatedly showed that true fungible commodities were much less common than had been expected in the effort to create online exchanges. When examined at the behavioral level, many markets were “fragmented” not because of antiquated practices or inefficient communications, but because the markets were trading goods that were not (or rarely) substitutable. Aggregating such markets in a centralized exchange made little sense, at least as it was operationalized on many B2B exchanges. The design requirements for the more common sub-markets were vastly different than what was needed in the large centralized markets.

Even true fungible commodity markets (propane, DRAM, grain, financial instruments) seem to require different structures at their birth. The designs, tools, and infrastructure for mature high-volume markets may be inappropriate or even harmful for nascent markets.¹⁹ Even for financial instruments, the very early days of a market may be closer to a negotiation over a very wide variety of products than a continuous double auction of generic, standardized contracts. The user interface, technology, hours of operation, and market design are likely to be very different in a nascent market than in a mature one.²⁰

The Technology Needs to Match the Sociology

The behavioral realities of markets and how people actually trade were ignored by many of the efforts to create online B2B exchanges. The goal in many cases was to create something approximating a mature financial market, and the technology was built with this in mind, assuming high-volume, centralized, anonymous trade. The technology did not match how many markets operate, and even for true fungible commodities, did not acknowledge that the early days of a market may require a different structure than a mature market.

Certainly there is a place for technology to augment how trading is done in sub-markets. Interestingly, ad hoc solutions were cobbled together by the traders themselves. Rather than technology that resembled the trading screens of financial markets, what was needed was something closer to instant messaging (IM), which preserves the identities and network relationships that are so important. In fact, both gasoline traders and crude oil

traders have come to use IM for trading a significant portion of their deals.²¹ One of the motivations for doing so is that many companies have been downsized, meaning that one person is doing the work that used to be done by several others. With more people to contact, telephone calls can become cumbersome, but IM makes it possible to stay in touch with a larger circle of traders.²²

Future Work

This study represents an initial effort to explore the lessons that come out of the online market-building efforts of the 1990s, and to use this opportunity to tease apart the social dynamics of market microstructure.

It is important to extend this analysis in two directions. First, to examine the details of this particular case study in greater depth, documenting the practices of the market and addressing such concerns as liquidity, commoditization, the role of trust and fairness, and the effects of different compensation systems. The second direction is to conduct these analyses for different industries in order to identify how general these processes are and to identify distinguishing characteristics. We explore both these directions in a forthcoming study.

NOTES

1. Important exceptions include the work of Baker (1984), Abolafia (1996), Uzzi (1996), Beunza and Stark (2004), and Bestor (2004).

2. One venture capital firm at the time reported that their goal was to fund at least one new B2B exchange every week (personal conversation, 1999).

3. Online business markets for such esoterica as Ferris wheels were even created. As we heard in hindsight, "Cheap capital makes you stupid."

4. This study is based on several years of participation and analysis of commodity markets in the United States, in particular physical commodity markets in the energy industry. The first author has been involved as an observer and analyst in commodity markets (both physical and financial sectors) since 1997. For a three-year period (1999–2001), he worked full time at a Boston-based startup company focused on designing and building online commodity markets. A cofounder of the firm, he served as head of research and strategic planning. The second author has spent his career in the energy industry and in 1996 founded and became the Chairman of Altra Energy, a position he held until 2001. He was involved on a day-to-day basis with the actual launching and running of a number of online markets in the energy sector. These periods in industry correspond to the most intensive activity in the attempts to create new B2B online exchanges. Detailed research and interviews were conducted across a range of industries as both new entrepreneurs and traditional businesses worked to create online exchanges. Field observations of select markets were also

conducted. This primary material was supplemented with information obtained through analysts at investment banks and consultancies, entrepreneurs, and venture capitalists, both one-on-one as well as at national and international conferences at the time on the topic of B2B exchanges. We examine a larger array of commodity markets in a forthcoming study (Kollock & Braziel, Forthcoming).

5. This version of the diagram comes from an analyst's report in 1999 from Deloitte Consulting (Roddy, 1999).

6. The term was invented by the second author in an essay from 1999 (Braziel, 1999), and prefiguring some of the arguments here, was "killed off" as a concept in a later essay (Braziel & McAfee, 2001).

7. Note that our focus here is on markets involving multiple buyers and sellers, in contrast to one-sided auctions or purchasing systems.

8. A point that journalists and analysts came to realize as well (e.g., Alsop, 1999; Hammer, 2000).

9. A market is liquid if there are enough transaction opportunities to give buyers and sellers the ability to get a deal done quickly at a "fair" price. More formally, liquidity is composed of two elements: (1) the ability to immediately execute a standard size market order (termed *immediacy*), and (2) the ability to execute a large order without a large change in price (referred to as *price resiliency*) (Kollock & Jaycobs, 2001; Braziel, 2001).

10. Chalkboard remains an important fixture of the market for propane and other NGLs. Currently the market is operated by Chemconnect.

11. How liquidity in a market is actually created is a separate discussion, though we note in passing that the dynamics of getting a market started are typically very different (and much more capricious) than the dynamics of maintaining liquidity in a market. The long period of time it takes to achieve the inflection point in liquidity is a common feature in the history of many markets, although this fact was "forgotten" during the most manic period of funding and building B2B exchanges.

12. Note that arriving at a sense of "what-the-market-is-doing" is a social, conversational process, and that traders are concerned with evaluating the fairness of posted prices, not simply a direct economic evaluation of the bids and offers. We deal with the issues in detail in Kollock and Braziel (Forthcoming).

13. On rare occasions, propane is in fact shipped to or from Texas to California via railcars, but because of the expense this only occurs when there is a very significant price difference between the two markets.

14. Quotes in this paper from market participants come from field observations and interviews by the authors.

15. Sometimes covertly – the intermediary may "front-run" the client a little, by completing a trade for their own account prior to the client's trade in order to take advantage of the anticipated price move. The market in Texas is large enough that the client is unlikely to find out about this (although they understand it sometimes happens), as long as the intermediary acts with restraint. Front-running would be very unlikely in the California market because the client would almost certainly find out, leading to a very angry response.

16. The view of the gasoline market as a large homogenous market was encouraged by the fact that a very successful futures contract on the price of crude oil (the key ingredient in gasoline) is traded at the New York Mercantile Exchange (NYMEX). The contract is successful because although the different blends of

gasoline are not substitutable in use, their prices move in a highly correlated way, meaning one can have a single, liquid futures contract that allows various market participants to manage price risk. From the perspective of those trading the financial instrument, it is all one huge market. But for the buyer in Poughkeepsie who has to deal with the actual physical good, it is not the same product at all – he needs a particular, customized blend of gasoline. The prices move the same across the different sub-markets, but the product is not the same in actual use.

17. This phrase is thanks to Paul DiMaggio, from his comments during a presentation of an earlier draft.

18. More formally, contracts are necessarily incomplete “if human agents are subject to bounded rationality and if contracts are executed under conditions of uncertainty” (Williamson, 1985, pp. 181–182), as will inevitably be the case.

19. Portions of this discussion are taken from Kollock and Jaycocks (2000).

20. Ironically, this is a case in which the very efficiencies of the Internet led to inappropriate designs. The fact that the Internet makes it possible to create a market that is open all-day-everyday led many to design their markets in this fashion as a “feature.” But of what use is an always-open market if the few initial users do not find each other? Historically, markets often emerge at first as call markets, in which “all traders trade at the same time when the market is called” (Harris, 2003, p. 90). More than 50 years passed between the emergence of call markets at the New York Stock Exchange and the establishment of continuous trading. Call markets served to concentrate transaction density in order to create periods of liquidity and lower the participation costs of traders.

21. Though on different systems: AOL IM is used in the gasoline market, while Yahoo IM is used in the crude oil market.

22. An attempt to build online technology that matched the trading behavior in sub-markets was attempted by the second author in 2001, though the economic climate at the time was unfavorable to new technology initiatives.

ACKNOWLEDGMENTS

We thank Angela Jamison for her help in this project and Russell Sage Foundation for financial support. We also thank Paul DiMaggio for comments on an earlier draft.

REFERENCES

- Abolafia, M. Y. (1996). *Making markets: Opportunism and restraint on Wall Street*. Cambridge, MA: Harvard University Press.
- Alsop, S. (1999). Is there an Amazon.com for every industry. *Fortune*, 139(1), 159–160.
- Baker, W. (1984). The social structure of a national securities market. *American Journal of Sociology*, 89, 775–811.
- Baker, G., Gibbons, R., & Murphy, K. J. (2002). Relational contracts and the theory of the firm. *Quarterly Journal of Economics*, 117(1), 39–83.

- Barlas, D. (2000). Dell debuts B2B marketplace: Enterprise named strategic partner. *Line56*, 20 September. <http://www.line56.com/articles/default.asp?ArticleID=1376>. Retrieved 20 August 2005.
- Bestor, T. C. (2004). *Tsukiji: The fish market at the center of the world*. Berkeley, CA: University of California Press.
- Beunza, D., & Stark, D. (2004). Tool of the trade: The socio-technology of arbitrage in a Wall Street trading room. *Industrial and Corporate Change*, 12(2), 369–400.
- Braziel, E. R. (1999). Fat Butterfly: Understanding dynamic trade exchanges. *NetMarket Makers*, <http://www.netmarketmakers.com>. Retrieved 12 July.
- Braziel, E. R. (2001). Delivering liquidity: Intermediaries gain new respect. *@Markets*, January/February, pp. 20–24.
- Braziel, E. R., & McAfee, A. (2001). *Death of the Fat Butterfly*. White paper, Netrana. http://www.netrana.com/Documents/Butterfly_822.PDF. Retrieved 20 August 2005.
- Ellsworth, M. (2001). B2B exchanges have lost \$1 billion. *Stratvantage*, <http://www.stratvantage.com/news/041601.htm>. Retrieved 20 August 2005.
- Fafchamps, M. (2002). Spontaneous market emergence. *Topics in Theoretical Economics*, 2(1, article 2), <http://www.bepress.com/bejte/topics/vol2/iss1/art2>. Retrieved 20 August 2005.
- Fafchamps, M., & Minten, M. (2001). Property rights in a flea market economy. *Economic Development and Cultural Change*, 49(2), 229–268.
- Fafchamps, M., & Minten, M. (2002). Returns to social network capital among traders. *Oxford Economic Papers*, 54(April).
- Granovetter, M. (1985). Economic action and social structure: The problem of embeddedness. *American Journal of Sociology*, 91, 481–510.
- Hammer, M. (2000). The myth of disintermediation. *InformationWeek Online*, 10 July, <http://www.informationweek.com/794/94uwmh.htm>. Retrieved 20 August 2005.
- Harris, L. (2003). *Trading and exchanges: Market microstructure for practitioners*. New York: Oxford University Press.
- Hart, K. (1988). Kinship, contract, and trust: The economic organization of migrants in an African city slum. In: D. Gambetta (Ed.), *Trust: Making and breaking cooperative relations* (pp. 176–193). New York: Basil Blackwell.
- Hof, R. (1999). A new era of bright hopes and terrible fears. *Business Week*, 4 October, 84–98.
- Kollock, P., & Braziel, E. R. (Forthcoming). *Markets in Practice*. Manuscript in progress.
- Kollock, P., & Jaycobs, R. (2000). Liquidity countdown. *Futures and Options World*, September, pp. 10–15.
- Kollock, P., & Jaycobs, R. (2001). Liquidity myths. *@Markets*, January/February, pp. 15–19.
- Kuttner, R. (1998). Bill Gates, Robber Baron. *Business Week*, 19 January. <http://www.businessweek.com/1998/03/b3561030.htm>. Retrieved 20 August 2005.
- Lux, H. (1996). Shaw chairman predicts major impact from Internet; new products and services seen for retail investors. *Investment Dealers' Digest*, 8 July, 11.
- Macaulay, S. (1963). Non-contractual relations in business: A preliminary study. *American Sociological Review*, 28, 55–67.
- Mack, G. (1997). Is trading without the market maker possible?: Living in the strange world of disintermediation. *Traders Magazine*, 10(120), 42, 46, 49.
- Mayfield, R. (2005). Relationships over transactions: A learning from the bubble. *Weblog*, 9 March, http://ross.typepad.com/blog/2005/03/relationships_o.html. Retrieved 20 August 2005.
- McFadden, D. (2006). *Free markets and fettered consumers*. Boston, MA: American Economic Association Presidential Address.

- Riley, B. (1989). The long view; cutting out the piggy in the middle. *The Financial Times*, 20 May, 1.
- Roddy, D. J. (1999). Online B2B exchanges: The new economics of markets. White paper, Deloitte Research.
- Sculley, A., & Woods, W. (1999). *B2B exchanges: The killer application in the business-to-business internet revolution*. New York: HarperBusiness.
- Taylor, P. (1998). Middle men deleted as the word spreads: Paul Taylor looks at how far electronic information will erode the role of broker between producer and consumer. *The Financial Times*, 27 October, 15.
- Uzzi, B. (1996). The sources and consequences of embeddedness for the economic performance of organizations: The network effect. *American Sociological Review*, 61, 674–698.
- Uzzi, B. (1997). Social structure and competition in interfirm networks: The paradox of embeddedness. *Administrative Science Quarterly*, 42, 35–67.
- Williamson, O. (1985). Assessing contract. *Journal of Law, Economics and Organization*, 1(1), 177–208.
- Xavier, M. J. (1999). Disintermediation – a new buzz word in business. *Businessline*, 12 May.