DEMOGRAPHIC DIVERSITY AND FAULTLINES: THE COMPOSITIONAL DYNAMICS OF ORGANIZATIONAL GROUPS

DORA C. LAU
University of British Columbia

J. KEITH MURNIGHAN
Northwestern University

In this article we address issues of diversity within organizational groups by discussing and summarizing previous approaches and by introducing a new variable—faultlines—which depends on the alignment of individual member characteristics. By analyzing a group's faultlines, we focus attention on the underlying patterns of group member characteristics, which can be an important determinant of subgroup conflict, particularly when the group's task is related to one of its faultlines. We discuss the dynamics of faultlines from the early to later stages of a group's development and show how they may be strongest and most likely when diversity of individual member characteristics is moderate.

Two obvious trends in current organizations are the increasing diversity of the North American workforce (Kirchmeyer & McLellan, 1991) and the increasing use of teams and groups for both decision making and production (Bettenhausen, 1991; Ilgen, Major, Hollenbeck, & Sego, 1993). The advances and entry of women and racial minorities have diversified the workforce and, in turn, have provided opportunities for creativity and competitive advantage (Milliken & Martins, 1996; Watson, Kumar, & Michaelsen, 1993; Wiersema & Bantel, 1992), as well as communication difficulties and misunderstandings (Jehn, 1995). Increasing dependence on teams has also led to the need for careful coordination and to the awareness of the potential for increased unpredictability, at least in comparison to managing individuals. For instance, Nietzche's old claim that madness is the exception in individuals but the rule in groups becomes even more pertinent in today's organizations. Having to confront diversity within teams suggests that a manager's task will become increasingly complex and that a conceptual analysis of the effects of the developmental processes of diverse work groups may be particularly fruitful.

In this article we discuss current treatments of the concept of demographic diversity and introduce a new concept—group faultlines—which depends on the compositional dynamics of the multiple demographic attributes that can potentially subdivide a group. Faultlines divide a group's members on the basis of one or more attributes. For instance, gender faultlines divide groups into male and female subgroups. We discuss the effects of group faultlines on sensemaking, group and subgroup dynamics, and political processes by following hypothetical groups from their inception to later stages of group development. Just as diversity can vary within a group, so can the strength of its faultlines. In particular, faultlines become stronger as more attributes align themselves in the same way. For instance, when all of the women in a group are over 60 years old and all of the men are under 30, the sex and age faultlines align and form a single, stronger faultline. We suggest that diversity and faultline strength both contribute to important group and subgroup dynamics and development processes. As a result, to understand and explain more about the effectiveness of work groups, analysts must go be-

yond the consideration of individuals' single characteristics to investigate the effects of multiple characteristics and their interrelationships.

We limit our consideration of diversity to demographic differences, focusing particularly on age, sex, race, and job tenure or status. (This is not to say that other characteristics do not contribute to the diversity of a group, for they certainly do. We expect that, over time, they will contribute to group dynamics in ways that are similar to the early effects of easily observed demographics. At this stage of conceptual development, however, these other characteristics introduce more complexity than our analysis requires.) We relax this restriction later, when we explore the effects of other nondemographic attributes.

We also focus on several factors—both endogenous and exogenous to organizational groups—that can affect the developmental process. The key endogenous factors are the presence, stability, and sizes of internal subgroups in terms of demographic attributes. The key exogenous factor is the group's assigned task. Although most of our focus is on how the endogenous factors affect a group's development, we try not to ignore the cautions implicit in Ancona's impressive set of findings (e.g., Ancona & Caldwell, 1992), which show how managing a group's external environment, in addition to its internal conditions, is critical to its organizational success.

In this article we draw from the literature on small groups, group composition, organizational demography, and tasks. We first discuss the current definitions and measures used in the demographic diversity literature. Then we present group faultlines as a new but related approach to diversity and an essential element in a model of the developmental process in diverse groups. Finally, we explore the model's theoretical and practical implications.

DEMOGRAPHIC DIVERSITY

The New Shorter Oxford English Dictionary (1993) defines diversity as "the condition or quality of being diverse, different, or varied; variety, unlikeness." Although this definition is similar to those used in sociology and social psychology, previous researchers' classic definitions of diversity seem, at least in part, to have been determined by their measurement scales. Blau (1977) defines "heterogeneity" (which we use interchangeably with "diversity") as the degree of dispersion of a population in terms of a nominal demographic attribute; his treatment includes such characteristics as race and sex, which can only be categorized nominally: "[F]or any nominal parameter, the larger the number of groups and the more evenly distributed the population is divided among them, the greater is heterogeneity" (Blau, 1977: 9). The first element in this definition is self-explanatory: a group is more diverse, for instance, if its members come from many races. The second element involves the distribution of demographic attributes: a wide and even distribution of characteristics also signifies more diversity.

In contrast, O'Reilly, Caldwell, and Barnett (1989) conceptualize the demographic (dis)similarity of individual group members as the Euclidean distances between a group member and all other members. Their model works well for characteristics that can be measured by ratio scales; not surprisingly, they focus on continuous, rather than nominal, variables, such as age and date of entry into an organization.

Both definitions (Blau, 1977; O'Reilly et al., 1989) generate the same hypotheses: that demographic diversity decreases social contacts and, therefore, reduces social integration. Blau (1977) views diversity in terms of probabilities of intergroup contact and assumes that common group membership will lead to social associations. Highly diverse populations are expected to experience barriers to social interaction, leading to increased social differentiation. Similarly, O'Reilly et al. (1989) argue that demographic dissimilarity will decrease communication frequency within a group, therefore reducing group cohesion.

Both Blau's (1977) and O'Reilly et al.'s (1989) approaches to diversity depend on the measurement of select demographic attributes. In both models the authors implicitly assume that the attributes under investigation represent the dominant, salient, or central criteria for social divisions (Merton, 1972) and that each characteristic is as important as any other. Any individual's array of characteristics, however, may be more or less salient, depending on its context (Kramer, 1991, 1993). As a result, examining only a single demographic attribute or set of attributes singly may cause analysts to miss the

potential impact of other attributes or their interactions.

The empirical evidence for these two approaches to diversity is supportive, but not strong (Lefkowitz, 1994). For instance, age and tenure similarity have led to increased communication frequencies (Zenger & Lawrence, 1989), whereas diversity in experience or functional background has reduced informal communication, group cohesiveness, and social integration (Glick, Miller, & Huber, 1993; O'Reilly et al., 1989; Smith et al., 1994). Tsui and her colleagues (1989, 1992) have found that dyadic differences decreased supervisors' liking for their subordinates, and diversity, in terms of race and gender, reduced individual psychological commitment to the group. Eagly and Wood, however, in a meta-analytic study on gender, have found that whereas some results support the claim that "women are more socially skilled, emotionally sensitive, and expressive than men, as well as more concerned with personal relationships," others indicate that "sex differences exist only in the minds of the perceivers" (1991: 307).

Although relational demography studies (O'Reilly et al., 1989; Tsui, Egan, & O'Reilly, 1992; Tsui & O'Reilly, 1989; Wagner, Pfeffer, & O'Reilly, 1984), in which the authors examine the relative differences between group members in terms of a select demographic attribute, present more consistent and significant results, their effect sizes are relatively small. Most recently, Lawrence (1997) notes that demographic variables cannot replace the study of subjective or psychological processes in explaining organizational outcomes. And 26 years ago Merton (1972) suggested that the imposition of researchers' paradigms on selected demographic characteristics fails to represent participants' active identities. We suggest that one way to capitalize on the advantages and to improve on the power of demographic studies is to examine multiple identities simultaneously. To do so, however, we must still address the difficult problems of measurement.

Following Blau (1977) and O'Reilly et al. (1989), we believe that measures of demographic diversity within a group must be dispersion indexes. Although a composite measure that included both ratio-scale and nominal-scale demographic characteristics would be desirable, to create one and still retain each equation's subtle characteristics would be particularly difficult: any combination would be like cross-fertilizing apples and oranges. We propose two possible solutions: (1) describe a group's diversity in terms of each of the two measures and then make a qualitative determination of the group's overall diversity, or (2) reduce ratio-scale variables to nominal categories by arbitrarily grouping members, for example, into low, moderate, and high subsets and then apply Blau's metric: diversity $= 1 - \Sigma p_i^2$, where $p_i =$ the proportion of a nominal-scale group i within the larger group (1977: 78). Neither solution is optimal, but both allow a more complete specification of diversity within a group.

In addition to considering each individual's set of identity attributes, analysts may best conceptualize group composition by considering all of the potential dynamics that group members' attributes can activate. Thus, groups that encompass an identical array of demographic attributes collectively can still have markedly different dynamics if those characteristics are distributed differently among the individuals in a group. For instance, a group of three might include two male Caucasians in their twenties and a 40-year-old Hispanic woman, or it might include a 20-year-old female Caucasian, a 20-year-old Hispanic man, and a 40-year-old male Caucasian. Although the array of demographic characteristics is identical in the two groups, the possibility for a two-against-one coalition (e.g., Caplow, 1968; Murnighan & Brass, 1991) differs considerably, with the first group being more prone to coalitional activity than the second. In this article we suggest that, although current measures might indicate that diversity is identical in these groups, the first group includes a faultline—that is, an alignment of several characteristics—that is absent in the second, which may heighten the possibility of internal subgroup dynamics.

We do not in any way intend to discount the contributions of Blau (1977), O'Reilly et al. (1989), and other diversity researchers. Instead, we propose that diversity be conceptualized in terms of the heterogeneity of individual attributes within a group *and* in terms of group faultlines. Although both concepts can contribute to internal group processes, we suggest that diversity has more potential for performance gains owing to enhanced creativity, and faultlines have more potential for performance losses owing to increased subgroup conflict.

GROUP FAULTLINES

Group faultlines are hypothetical dividing lines that may split a group into subgroups based on one or more attributes. Demographic group faultlines, such as age, tend to divide a group into subgroups of different ages. In addition, faultlines based on other nondemographic characteristics, such as personal values or personality, may also lead to active subgroups within a larger group. We start our modeling of the effects of faultlines by focusing on demographic characteristics, because they are the most easily noted when a new group forms. As groups develop, the variety and potential salience of each member's more subtle characteristics become more likely sources for the alignment of faultlines (cf., Newcomb, 1961).

Depending on the similarity and salience of group members' attributes, groups may have many potential faultlines, each of which may activate or increase the potential for particular subgroupings. Thus, affirmative-action topics may activate racial divisions, retirement and pension issues may activate faultlines based on age, the potential presence of a glass ceiling may generate sex-related antipathies, resource allocation decisions may lead to group fragmentation based on members' occupational roles, and a desire for serious organizational change might pit young liberals against older conservatives (aligning two characteristics—age and political leaning—with a high degree of collinearity). In other words, the activation of a faultline is likely to depend on a group's task context.

Although group members can categorize themselves in many different ways, they typically have a harder time denying their demographic attributes. This is another reason why we focus on demographics. Also, members of new groups are likely to form initial impressions on the basis of group members' outstanding physical characteristics (Fiske & Neuberg, 1990). It is only with additional information that people adjust and form more accurate impressions of each other. When groups newly form, members may use salient demographics to implicitly categorize themselves into subgroups. Unspoken but implicit subgroupings may limit cross-demographic communication and diminish group cohesion. Consequently, demographic dissimilarity may engender less interpersonal attraction and less group cohesiveness.

Faultlines can vary in strength as well. As an extreme example, if a group included five young, white, male shipping clerks who had worked for a company for less than a year and five middle-aged, black, female vice presidents who had been with the company for 20 years or more, the group's potential faultline would be extremely strong, because all of the listed characteristics are perfectly correlated. Any of a wide array of issues, including seniority privileges, vacation time for executives, and overtime policy, could lead to subgroup conflict, with highly predictable memberships in two subgroups.

The strength of group faultlines, then, depends on three compositional factors: (1) the number of individual attributes apparent to group members, (2) their alignment, and, as a consequence, (3) the number of potentially homogenous subgroups. Group faultlines increase in strength as more attributes are highly correlated, reducing the number and increasing the homogeneity of the resulting subgroups. In contrast, faultlines are weakest when attributes are not aligned and multiple subgroups can form. For instance, random selection of two members from groups without strong faultlines would find them having few similar attributes. Different issues would then activate different sets of individuals' characteristics within the group, producing an array of different subgroup possibilities, none of which would be consistent from one issue to the next. When a group with strong faultlines faces different issues, however, the same subgroups can result repeatedly.

THE FAULTLINE ANALOGY

Group faultlines are analogous to geological faults, although, like any analogy, their similarities have limits. Faults are fractures in the earth's crust; without external forces, they can be dormant for years without being observed from the surface. Earthquakes, however, are the result of layers of crust suddenly or sporadically moving along a fault. Faultlines in groups share at least three properties with faultlines in the earth's crust: (1) group members' many demographic dimensions resemble multiple layers;[1] (2) group faultlines can go unnoticed without the

---

[1] We do not intend to rank multiple demographic attributes as the term "layers" may imply. Despite this restriction, we retain the analogy because of its interesting parallels with group compositional dynamics.

presence of external forces; and (3) strong fault-lines provide an opportunity for groups to physically crack, revealing the importance of their "layered" attributes.

The earth's multiple geological layers echo the notion that individuals have multiple identities (Kramer, 1993; Merton, 1972). Examining the distribution of a single demographic attribute within a group or a single layer within the earth's surface can make it impossible to detect the important interplay of different attributes or different layers; in geological terms, it can lead to the failure to predict where and when earthquakes will occur.

The second similarity—alignments and/or irregularities in groups or underneath the earth's surface—may not become salient until external forces appear. Thus, just as environmental forces can accentuate the dangers of some faults but not others, the alignment of attributes within one group may never have an observable impact, whereas an identical alignment in another group that must face an alignment-activating issue may generate considerable subgroup conflict.

Even strong external forces, however, may not lead to a major earthquake if the fault is not deep and strong. Similarly, groups may experience minor conflicts throughout their development, but if those conflicts fail to galvanize most of a group's members, they are easily resolved (relatively) and allow the group to progress successfully. Strong faultlines, however, may magnify both the effects of the external force and the damage done by conflicting subgroups.

These geological analogies provide a framework to examine and visualize dormant but potentially active group faultlines and model their progressive dynamics. They also focus our attention on group members' multiple attributes as an important unit of analysis.

HYPOTHETICAL ARCHETYPES

To aid our discussion of the potential effects of diversity and faultlines, we have constructed a set of eight hypothetical groups of four individuals who vary across four demographic characteristics (see Table 1). Varying the number of group members, the number and nature of their attributes, and their combinations could lead to a different set of equally informative examples; we keep the number of attributes and the num-

ber of group members small to facilitate initial comparisons.

The least diverse group in Table 1 (Group 1) includes members with identical demographic characteristics. A group of such similar individuals leads to no faultlines and no diversity for these particular attributes. Groups like this may have been frequent before the surge of women entering the labor market, especially for organizations that recruited cohorts (e.g., newly recruited salesmen hired into the same training program). Research implies that these groups should develop a strong internal network and a common pattern of behaviors (Tsui et al., 1992; Tsui & O'Reilly, 1989.)[2]

Identifying a most diverse group whose members differ on every possible demographic dimension is more difficult. In Table 1 the most diverse group (Group 8) includes people from four different races and four different occupations, with a wide range of ages, equally split between males and females. Although the group might coalesce on the basis of sex, this is a particularly weak faultline since the resulting subgroups would then need to deal with racial, job status, and age differences. Potential coalitions on the basis of status or age would also force subgroups to deal with differences on all three of the other characteristics noted here.

Groups 2, 3, and 4 in Table 1 include both sexes, equally represented, and two races; they span a narrow age range (variance = 0.17) and similar occupational roles (Group 2) or a larger range of age (variance = 0.23) and two different occupational roles (Groups 3 and 4, respectively). In other words, Group 2 is less diverse because at least two members differ in two of the four attributes (sex and race), whereas Groups 3 and 4 have members differing in all four attributes.

Group 3 has a strong faultline because group members' characteristics neatly align. Members of one potential subgroup are white male plant

---

[2] Although the members of this group are very similar, they do not actually represent the least diverse group. Although unlikely, the least diverse four-person group would include four monozygotic quadruplets reared together; their identical genetic structures and similar upbringing would reduce their diversity to a theoretical minimum. Since larger groups tend to be more diverse than smaller groups, a group of identical triplets would be even less diverse. Noting these unusual groups here emphasizes that almost all organizational groups include some diversity.

TABLE 1
The Composition of Four-Person Groups Varying in Diversity and Faultline Strength Across Four Demographic Characteristics: Race, Sex, Age, and Occupational Roles

Group Number	Member A	Member B	Member C	Member D	Diversity[a]	Faultline Strength[b]
1	White	White	White	White	None	None
	Male	Male	Male	Male		
	20	20	20	20		
	Sales	Sales	Sales	Sales		
2	White	White	Asian	Asian	Very low	Weak
	Male	Female	Female	Male	(2 diff.; 2 levels; 0.17)	(1 align; 3 ways)
	20	30	25	20		
	Sales	Sales	Sales	Sales		
3	White	White	Black	Black	Low	Very strong
	Male	Male	Female	Female	(4 diff.; 2 levels; 0.23)	(4 align; 1 way)
	50	55	31	35		
	Plant manager	Plant manager	Clerical staff	Clerical staff		
4	White	White	Black	Black	Low	Weak
	Male	Female	Male	Female	(4 diff.; 2 levels; 0.23)	(1 align; 4 ways)
	50	31	55	35		
	Plant manager	Clerical staff	Clerical staff	Plant manager		
5	White	Asian	White	Black	Moderate	Strong
	Male	Female	Female	Male	(4 diff.; 2–3 levels; 0.29)	(3 align; 2 ways)
	60	30	58	35		
	Plant manager	HR manager	Plant manager	HR manager		
6	White	White	Asian	Black	Moderate	Weak
	Male	Female	Female	Male	(4 diff.; 2–3 levels; 0.35)	(2 align; 2 ways)
	65	35	50	25		
	Plant manager	Plant manager	Account officer	Technician		
7	White	Black	Black	Asian	High	Weak
	Male	Female	Male	Female	(4 diff.; 2–3 levels; 0.39)	(1 align; 4 ways)
	60	20	40	30		
	Plant manager	Plant manager	Secretary	Sales		
8	Native American	White	Black	Asian	Maximum	Very weak
	Female	Male	Female	Male	(4 diff.; 2–4 levels; 0.45)	(1 align; 4 ways)
	20	30	65	50		
	Unskilled	Supervisor	Executive	Machinist		

[a] Diversity is described in terms of three elements: (1) the total number of attributes in which at least two members are different (denoted as "diff."); (2) how those attributes might be organized into similar categories or levels; and (3) the variance of each attribute, as calculated using the O'Reilly, Caldwell, & Barnett (1989) group coefficient of variance (the standard deviation of the selected attribute divided by its mean).

[b] With the number of identified attributes fixed at 4, faultline strength is determined here by the number of demographic attributes that align (denoted as "align") and the possible ways to subdivide the group on the basis on these attributes (denoted as "ways").

managers in their 50s; members of the other are black female clerical staff in their 30s. The faultline splits the group on all four demographic attributes (noted as "4 align" in the table); only one subgroup structure is apparent ("1 way")— that being a two versus two split. Group 4 encompasses the same amount of diversity but has multiple subgroup opportunities ("4 ways") that align only one of the four attributes ("1 align"). We suggest that Group 3's stronger faultline puts it at much greater risk of internal subgroup conflict.

Groups 5 and 6 are both moderately diverse. Members differ on all four attributes, encompassing two or three categories of race, sex, and occupational groups and a moderately wide range of age differences. Although Group 6 might be slightly more diverse than Group 5, Group 5 has a stronger faultline: members A and C in group 5 align on three of their four noted attributes (race, age, and occupational role); B and D share two similar attributes (age and occupational role). Group 6's potential faultlines are weaker: members A and B share race and

occupational role similarities, but they differ in terms of sex and age.

Groups 7 and 8 are very diverse. Group 8's members have no similar characteristics among any two members, except in terms of sex; it also has no clear faultline. Compared to Group 8, some members of Group 7 share similar characteristics: members B and C are of similar race, and members A and B have similar occupational roles. This provides them with some potential, though relatively minimal, for subgroups.

From Table 1 we note that the two most diverse groups provide little basis for forming subgroups: any potential faultlines are fragmented tremendously. In fact, at minimum and maximum diversity, faultlines are either absent or unlikely. By their nature, *faultlines become most likely in groups of moderate diversity*. The presence, then, of a limited variety of attributes creates the greatest chance of alignment and of complete bifurcation of a group—that is, a single, strong faultline. As the number of group member attributes increases, the possibility for multiple alignments also increases, diffusing the likelihood of a single faultline, even if multiple faultlines appear simultaneously. Although turmoil among a number of internal subgroups may be debilitating, it may not generate as much intensity as two competing subgroups that can foment diametric opposition to one another.

CONSEQUENCES OF GROUP DIVERSITY

Although the distribution of diversity within a group contributes to its faultlines, the effects of diversity and faultlines tend to differ. In particular, demographic diversity may be a source of task conflict, interpersonal conflict, and creativity; faultlines may also contribute to various forms of intragroup conflict, but they are likely to have much less impact on creativity.

Diversity brings more perspectives and ideas to groups and is a source of innovation and creativity (Watson et al., 1993; Wiersema & Bantel, 1992). Hambrick and Mason (1984) note that organizational strategists suffer from bounded rationality: limited cognitive abilities lead to limited innovation and creativity, as well as potentially depressed performance. Members who bring different expertise, perspectives, resources, or knowledge can contribute to more

creative group decisions (Michel & Hambrick, 1992; Wiersema & Bantel, 1992). Thus, creative potential increases with group diversity. Network theorists (Granovetter, 1973, 1982) concur that dissimilar members contribute to creativity: majority members' strong, multiplex networks generate information via overlapping sources, and minority members' weaker networks may generate unique information sources. When minority opinions receive fair hearing, creativity can be enhanced.

Creativity, however, can be undermined by conflict; greater diversity also tends to provide fertile ground for disputes. Jehn (1995) found that *moderate* task conflict was beneficial when tasks were nonroutine: disagreements highlighted task alternatives and stimulated cognitive reevaluations that helped augment a group's performance. Minimal task conflict led to few reevaluations; significant task conflict interfered with performance, as did almost any relationship conflict.

Because group diversity is defined by and necessarily includes multiple perspectives and experiences, it tends to be correlated positively with task conflict and provides the potential for enhanced creativity. But since severe task conflict, and almost any kind of relationship conflict, can reduce satisfaction and performance, coordinating mechanisms such as conflict-accepting group norms and an orientation away from surfacing interpersonal conflicts may be necessary for groups to take advantage of their diversity (Jehn, 1995).

Although group diversity is a potential source for creativity and task conflict, group faultlines may generate relationship conflict and group politics. In the following sections we explore the dynamics of group faultlines in terms of group development.

GROUP DEVELOPMENT

Traditional group development theorists (Hare, 1976; Tuckman, 1965; Tuckman & Jensen, 1977) argue that groups develop through a universal, sequential, and gradual process of forming, storming, norming, and performing. Groups initially form by making sense of their group members and tasks; they use a storming process to challenge each others' opinions; agreements within the groups lead to the evolution of norms, standards, and roles; and the groups then per-

form to complete their tasks. Gersick's more recent data (1988) paints a different picture: a group's first meetings generally set the tone, framework, and structure of the first half of their task. Groups that explicitly agreed on goals and task understandings tended to have smooth, harmonious initial processes, whereas disagreement or task ambivalence led to minimal progress, at least during the first half of the task.

Bettenhausen and Murnighan (1985, 1991) support this logic, finding that group norms typically formed very early. They also identified four essential group development processes: (1) sensemaking, as group members initially approach an unfamiliar task and try to understand both the task and other group members; (2) interacting, when group members enact their individual scripts (i.e., "mental images of how the task should be approached and completed" [Bettenhausen & Murnighan, 1991: 21]) and move toward an appropriate script for the group; (3) challenging, when one or more group members question the group's evolving, dominant script; and (4) cementing, when members feel that a norm has formed and become less willing to entertain challenges but, instead, interpret them as norm violations.

This leads us to (at least) three observations. First, early group actions or decisions critically influence subsequent group processes. Second, members of new groups must find their way together via a sensemaking process of understanding each other and their task. Third, groups differ in whether and how they will experience "storming" and "norming" before they perform. Gersick (1988), for instance, has found that some groups do not experience the storming or norming stages, whereas others go through the stages in a nonlinear or iterative manner. Because we have suggested that diversity and group faultlines are likely to affect many group members' cognitive processes and power struggles, we also suggest that demographic diversity and group faultlines are potential predictors of the sensemaking process, subgroup formation patterns, and the nature of group conflict at various stages of group development.

THE DYNAMICS OF FAULTLINES

Although subgroups may form at any time in a group's history, demographic subgroups are more likely to form at the beginning of the group development process. As we noted, members of new groups try to make sense of both the other group members and the nature of their task. If a new group must face a task that evokes its demographic characteristics—for example, affirmative-action policy when the group's members include minorities—faultlines may be immediately important, and group members may gravitate toward the formation of potent subgroups. Along with our earlier discussion, this leads to a first, basic proposition:

Proposition 1: The formation of conflicting subgroups becomes more likely when the demographic characteristics within a group form a faultline and are related to the group's task.

If subgroups form explicitly and each subgroup meets individually—independently from the larger group—additional forces can contribute to solidify the subgroup structure and strengthen rifts in the larger group. In particular, cohesive subgroups may find themselves polarizing and taking positions that become increasingly extreme. Persuasive arguments theorists (Vinokur & Burnstein, 1978), for instance, suggest that group members who support similar attitudinal positions will find that, as other members support that position using arguments different from their own, they each have more reason to become even more extreme than they were before. For instance, hearing experienced employees provide a variety of reasons to support the need for seniority rights can help make other experienced subgroup members more extreme. This can widen a group's age-based rift, with members of each of the group's opposing subgroups finding themselves farther and farther apart as they continue to talk, primarily amongst themselves, on the issue. Because information from perceived in-group members is more influential than similar information from out-group members (Abrams, Wetherell, Cochrane, Hogg, & Turner, 1990), defining each other as in-group members can seriously isolate subgroups. How people define their membership, as part of the larger group or as part of the subgroup, then, can seriously influence group processes.

An open exchange of information within the larger group, in contrast, can limit the kinds of subgroup polarization that entrench subgroup

conflict. However, open communication in groups may augment group polarization to a further extreme if the entire group's preferences are similar. Thus, depending on the presence and character of diverse subgroups and their patterns of communication, the possibility of polarization can help to unite or divide groups.

The presence of strong group faultlines increases the likelihood of stable subgroups. Highly correlated attributes facilitate the formation of the same subgroups whenever any of the correlated attributes becomes salient. Over time, subgroup identification can grow, augmented by polarization. Subsequent interactions, then, may act to legitimize the subgroups, and conflict between them may continue to be likely. However, weak group faultlines mean that different subgroups are less stable, members' identification with these subgroups is likely to be weaker, and subgroup polarization becomes almost impossible, so it becomes more likely that individual group members will identify with the group as a whole rather than with any of its possible subgroups.

Groups with strong demographic faultlines are likely to have shorter sensemaking processes in their initial stages. When subgroup members are similar on many dimensions (i.e., faultlines are strong), sensemaking can be relatively straightforward because group members will expect that the members of different subgroups will have similar scripts, particularly for tasks that are related to the subgroups' formation. With fragmented, weak faultlines, potential subgroup members may be similar in one attribute but differ in many others. Thus, group members are less likely to expect that others will have similar scripts, and a longer sensemaking process may be necessary.

> Proposition 2: For groups that must perform tasks that highlight potential faultlines, the strength and clarity of the groups' faultlines are likely to accentuate subgroups' salience and lead to relatively short sensemaking processes. Once formed, the subgroups are more likely to persist.

External forces, such as pressing deadlines and competing groups, are likely to increase group cohesiveness and draw members' attention away from their subgroups and to the group as a whole (Heilman & Hornstein, 1982; Sherif,

1966). Individual or subgroup differences may be put aside to complete a project on time or to compete with a major competitor. In the short run this can minimize the impact of faultlines. However, whether the effects of such experiences can continue after a crisis has been resolved is open for investigation.

When demographic faultlines are not activated, their strength may naturally decrease over time. Increased knowledge of one's fellow group members and greater familiarity or experience with the task make unactivated faultlines less salient. Stereotypes and initial impressions fade as people obtain more specific information about each other. For instance, the initial stereotype of a young, female Asian secretary may suggest that she will be submissive and caring. If, instead, she is outspoken and displays expertise in group tasks, her fellow group members may not be able to immediately accommodate her behaviors with their stereotypes.

Fiske & Neuberg (1990) suggest that a person who does not fit into established subcategories will lead perceivers to form a new subcategory. This reevaluation process means that, without the emergence of demographic subgroups, the importance of a group's initial demographic faultlines will diminish over time. Knowledge of others' values, personalities, hobbies, or political preferences will fragment and weaken a group's initial faultline structure. In essence, similarities among otherwise diverse group members are bound to surface, as are differences among seemingly similar group members. Stable subgroups, then, should become less likely as familiarity increases among all of a group's members (Murnighan & Brass, 1991).

When group members have worked together, their task-oriented scripts are likely to be more potent in determining subgroup formation than their demographic characteristics. Feldman (1984), for instance, predicts that past history or established norms strongly influence group processes; Bettenhausen and Murnighan (1985) have shown that early task behavior was a strong predictor of subsequent behavior in similar tasks. Joint task familiarity provides group members with knowledge of each other's backgrounds and preferred scripts, and should obviate the need for extended sensemaking.

> Proposition 3: Groups that have not subdivided on the basis of demo-

graphic faultlines will find that the salience of demographic faultlines will decrease as group members' common task experiences and mutual understandings accumulate.

These three propositions identify two markedly different paths: (1) greater internal conflict among subgroups when demographic faultlines have been activated and (2) dormant and less salient demographic faultlines when demographic faultlines have not been activated.

When subgroups do form and persist early in a group's development, they become an important part of members' memories and provide the foundation for group norms (Bettenhausen & Murnighan, 1985; Feldman, 1984). Subgroups also tend to emerge when subsequent conflict arises. Groups with strong faultlines are characterized by few, but relatively large and distinct, subgroups. Individuals who try to enact their scripts are likely to expect support from the members of their subgroup. With either perceived or explicit support, they become more willing to vocalize, support, and protect their scripts. In addition, if in- and out-group perceptions become salient within subgroups, social identity theorists (Tajfel & Turner, 1986) suggest that individuals will become more biased toward their in-group members. In other words, each subgroup's position will be strengthened, and making agreements within the entire group will become more difficult. Strong emotional subgroup attachments may then become potential sources for interpersonal or relationship conflict (Jehn, 1995) with members of other subgroups.

The underlying assumption here—one common to many forms of human interaction—is that history is likely to repeat itself, in this case in the form of particular subgroupings. In other words, faultlines tend to reinforce themselves through time if they become active in a group's early development. Otherwise, faultlines remain dormant, and their strength will decrease as increasing social dimensions are realized; thus, stable subgroups increasingly become less likely.

Subgroup Size, Status, and Power

The presence of faultlines may lead to splits that cut a group into subgroups of various sizes.

Size, in turn, can contribute to a subgroup's power and the likelihood of its members voicing their opinions. In most cases an individual cannot enact a suggestion without the support of other group members (Crott & Werner, 1994). Subgroups of demographically similar members provide natural sources of support. With all else equal, larger subgroups can provide more support and act with more power so that their members are able to overcome resistance from minority subgroups and enact their suggestions (Pfeffer, 1981).

Relative subgroup sizes and/or a disparity in subgroup power also can generate a variety of group dynamics. The presence of few subgroup members suggests a lack of social power and less internal support, leading to reduced confidence and less frequent opinion voicing. When members of less powerful subgroups do voice their opinions, they are likely to experience more opinion suppression than the members of more powerful subgroups. The suppressing or hiding of minority opinions makes the group process seem smooth, since overt conflict is kept to a minimum.

But this does not imply that less powerful subgroup members agree with the dominant subgroup's opinions. Members of minority subgroups may neither identify with nor internalize the majority's enacted suggestions (Kelman, 1958). Unbeknownst to the members of the powerful subgroups, a seemingly smooth group process may mask considerable disagreement. When these disagreements surface, they may seem unexpected and last longer because of a lack of understanding among the members of different subgroups. Consequently, smaller minority subgroups may be likely to use covert power tactics (Kabanoff, 1991), whereas subgroups of equal power and size may be more likely to use power tactics openly. Larger subgroups, especially those including a majority of a group's members, should be able to dominate a group's observable processes. If a majority subgroup overpowers a smaller subgroup, group processes may seem smooth and fast to most of the group's members.

Besides social power, relative subgroup size is important for network connections. Ely's (1994) study of networks among female lawyers, for instance, found that women's minority status, in terms of their numbers and hierarchical levels, endangered their relationships with other junior

women lawyers and their identification with senior women lawyers. A negative group identity and the tokenism status of female lawyers prohibited the formation of positive ties. Structural factors, such as the gender composition of organizations and the relative positions of female employees, may influence the nature, strength, and effectiveness of both the networks and the subgroups females create (Ibarra, 1993; Kanter, 1977). In addition, subgroups of relatively small size and/or low status may have difficulty gaining acceptance from stronger, larger subgroups.

> Proposition 4: Compared to smaller subgroups, larger subgroups tend to reduce the vocalization of minority opinions within the group and to create infrequent, latent, and covert conflicts that, when they surface, last longer than members of the larger subgroup might expect.

In contrast, when two subgroups are comparable in size and power, they tend to experience more intense and overt power dynamics (Lawler, 1986, 1993): there is no longer any need to hide dissent since members of either subgroup can expect to be supported when they disagree with the other subgroup. Subgroup polarization also becomes more likely. When both subgroups stake out strong positions and no creative solution surfaces, agreements may become extremely difficult, and the successful completion of group tasks may be jeopardized. However, if major conflicts are managed well and/or resolved, the intersubjective meanings of a group's norms may be clarified (Bettenhausen & Murnighan, 1985, 1991), and the group may be less susceptible to future conflicts. For instance, if the potential subgroups in Group 3 of Table 1 actually form, their equal sizes might mean their members would have equal opportunities to voice their opinions; the fact that one subgroup includes two plant managers and the other includes two members of the clerical staff, however, should lead to more voice opportunities for the managers. When subgroups of relatively equal size and equal power form, conflict may become so extreme that dissolution into two separate entities becomes more probable.

> Proposition 5: Groups that split into subgroups of comparable power are likely to experience intense, overt con-

flict. If they successively resolve their disagreements, members will increase understandings of each other and their mutual tasks and will become less susceptible to future conflict.

Adding New Members

The addition of new members into established groups introduces the possibility of the resurfacing of old faultlines; the creation of new faultlines; and changes in the group's basic, underlying dynamics. Existing members share some understandings of group norms, past group history, and group tasks; newcomers rarely have this kind of knowledge. Jackson, Stone, and Alvarez (1992) propose that a single newcomer tends to experience strong pressures to conform unless he or she shares some demographic similarities with at least one existing group member. Thus, the first member of a noticeable societal minority who enters an established group of similar societal majority members may not be in a strong position to alter existing group norms.

One way to conceptualize the dynamics that follow changes in group membership is to consider the possibility of a faultline that divides new and old group members. Past members are likely to far outnumber newcomers, whose potential subgroup may rarely be able to mount significant challenges to the status quo. Indeed, as Hollander (1964) suggests in his analysis of group entry, new members typically keep quiet until they have established themselves enough to have their ideas heard.

When newcomers share similarities with established group members, the new versus old member distinction becomes less important, and, should subgroups exist or form, new members may join old members with whom they share important similarities. Indeed, single newcomers may latch onto any possible similarity and any available subgroup to provide themselves with some interpersonal security. The flip side is also possible: minority subgroups may seek support from new members to allow them to reintroduce controversial issues that had been rejected by the group, especially when they have not internalized the stronger subgroup's positions. New members then hold the

promise of possible support for minority subgroup members' suppressed desires.

When important members leave and/or influential members join an existing group, the changes in a group's dynamics can be truly significant. Although we might be tempted to suggest that these groups look like newly formed groups, their previous histories make them qualitatively different in many important ways. Such fundamental changes, then, are deserving of more treatment than we can provide in this article.

DISCUSSION AND CONCLUSIONS

Demographic diversity is a multifaceted concept that affects individual, group, and organizational outcomes (Jackson, May, & Whitney, 1995; Sessa & Jackson, 1995). Diversity within a group can be uncomfortable, because people often prefer working with similar others (Byrne, 1971). The up side is that diverse groups may possess the potential for enhanced creativity (Watson et al., 1993). Other aspects of diversity, however, may cause not only interpersonal but political conflict.

In this article we have introduced a new concept of group composition that we call faultlines. We have outlined their potential impact on the group developmental process, and we have discussed their relationship with diversity. Group faultlines represent a potential for the formation of subgroups and the acceleration of subgroup conflict within a group. The actual formation of subgroups, rather than just their potential, can have a number of negative effects on internal communications and general group functioning. Demographic faultlines are likely to have their strongest effects at the beginning of a group's life—its most important formative stage. When faultlines lead to subgroup formation, conflict becomes more prevalent and more serious, and the process sets a precedent for subsequent group processes.

Investigation of these processes may help illuminate the black box between demographic variables and organizational outcomes noted by Lawrence (1997). Hopefully, the combined study of group diversity and faultlines will provide new insights into how group composition affects group developmental processes, subgroup politics, and conflict, which, in turn, may be key predictors of group outcomes. In particular, a combined focus on both the task and individual group members' multiple characteristics fits Wharton's (1992) recommendation that diversity researchers should consider contextual influences because demographic identities are socially constructed.

The concept of faultlines also may be useful in explaining the formation and maintenance of coalitions and social identities. Social identity researchers (e.g., Rabbie & Horwitz, 1988) have discussed when group members will perceive themselves as a category. We propose that strong faultlines may lead to recurring and salient subgroups, which then may become a more likely basis for self-identity and social categorization.

Faultlines and the process of coalition formation are intimately connected. Psathas and Stryker (1965) suggest that coalitions stabilize as people develop similar definitions of their task situation: coalition partners tend to be those who, ultimately, define the situation similarly. In our model of faultlines, the presence of demographic characteristics acts as a signal of other group members' potential definitions. (In terms of the political models of coalition formation [Murnigham, 1978], which form on the basis of similar ideologies, demographics act as a signal of a particular ideology, particularly for demographically relevant tasks.) Thus, a model of faultlines can contribute significantly to an understanding of the early formation process of coalitions. In addition, strong faultlines that may lead to the consistent formation of the same subgroups (coalitions) provide a contrast to Murnighan and Brass's (1991) hypothesis that organizational coalitions tend to form and dissolve rapidly; this may only be true when faultlines are weak.

In this article we have analyzed faultlines that are based on readily observable demographic attributes. The formation of subgroups along demographic faultlines opens up a group to a variety of conflict-increasing forces. Network theorists, for instance, suggest that people with similar demographic attributes tend to socialize together (Ibarra, 1993). This homophilous relationship between people with similar identities, then, can aggravate faultline dynamics: off-work activities can enhance understanding and relationships among subgroup members so

that they can become more internally cohesive,[3] thus increasing divisions within the larger group.

In contrast, when groups do not divide along their faultlines in the early stages of their development, and group members eventually get to know each other, other attributes, such as personality, social and religious affiliations, hobbies, and many other dimensions, may become key determinants of a group's faultline structure. Dynamics then become more complex, as salient attributes become less apparent. Nevertheless, demography-related tasks may still renew the importance of dormant demographic faultlines.

IMPLICATIONS

Analyzing a group on the basis of its diversity and its faultlines generates a variety of both theoretical and practical implications. Theoretically, a singular focus on diversity misses many of the critical, early dynamics that can lead to the formation of conflicting subgroups and an emergent structure that is inclined toward predictable subgroup conflict. Subtle differences in the composition of members' characteristics, which cannot be detected by a standard analysis of diversity, can have substantial effects on a group's development and subsequent actions. More fine-grained qualitative methods may be able to further faultline analyses by incorporating each group's unique arrangement of individual attributes. Previous research on the impact of single and related demographic characteristics provides an essential foundation for this important future work.

Analyses that include the concept of faultlines also suggest that, at least in some respects, moral and pragmatic philosophers who have often recommended moderation in all things (i.e., the Golden Mean) may not be entirely accurate. In particular, moderate levels of diversity within organizational groups can increase the likelihood of faultlines, the formation of subgroups, and the emergence of inefficient infighting. Diversity's effects may not be strictly linear, since moderate levels of diversity may provide the grounds for intense conflict.

A third implication, not new, is that groups' early actions are critical in determining their character and that the group development process, including the possibility of subgroup formation, deserves tremendous attention and care. We have based our analysis on this assumption and believe our analysis further emphasizes it.

A final set of implications concerns how managers might compose groups to maximize productivity and creativity and limit the factors that can impede a group's progress. For instance, managers may be able to use the insight that faultlines exist only at low and moderate levels of diversity to compose groups in a way that maximizes their functioning. Recruiting group members with different and/or unique combinations of attributes may reduce the probability of subgroup formation and the kinds of intragroup conflicts they can foster. Managers who recruit only candidates from a small number of ethnic, age, and occupational groups, in contrast, can cause a moderate level of group diversity, with the risk of stronger faultlines and more complex conflict—even though they might facilitate a swift development process if subgroups do not form.

At times, organizations may not have much choice when composing groups. If a group has a single, strong faultline that leads to subgroups of different sizes, power tactics may become more probable. Although minority influence may not be verbal and majority members may be unwilling to comply, evidence shows that consistent minority opinions can stimulate cognitive processes and can convert majority opinions implicitly, especially after an influence's source is forgotten (Moscovici, 1994). Minority members with strong opinions are sources of stimulation and innovation; their ideas and styles create conflict (Moscovici, 1980, 1994), typically task related, and stimulate groups "to take in more information, to think about information in more divergent ways, to perform better, to think more creatively, and to detect correct solutions that otherwise would have gone undetected" (Nemeth, 1994: 11). If minority opinions are encouraged and respected, creativity and decision-making quality can improve (Jehn, 1995).

Although consistent minority opinions can be beneficial to group performance, their challenges may be suppressed or penalized—a pro-

---

[3] We thank an anonymous reviewer for suggesting this point.

cess detrimental to group performance. As a result, either a strong and effective leader or a norm of appreciating minority opinions may be needed to ensure majority support for the contributions of minority members (Alderfer, 1991; Jehn, 1995).

In many ways, new members are like minority subgroup members: they may not agree with existing group norms, and they can be a source of creativity and conflict. As with minority members, extra efforts by other group members or the group leader may be necessary to ensure that new members' opinions are heard and that their potential for improving group performance is realized (Murnighan & Conlon, 1991).

Polarization within subgroups, in contrast, may be more difficult to resolve. Thus, managers might try to avoid the costs of subgroup formation. One technique is to use external forces to draw members' attention back to the group as a whole. This strategy, however, may be effective only temporarily; when pressing deadlines pass or competitive out-groups disappear, subgroups and their conflicts may resurface.

A different approach to minimizing subgroups might be to focus on fragmented faultlines. Since members may be similar in some attributes (e.g., date of entry) and different in others (e.g., occupational ranks), increasing their weak links may reduce the likelihood of long-term subgroupings. This strategy is more effective for familiar groups who have more knowledge of each other's many attributes. For new groups, having group members discuss their opinions openly—prior to proceeding to action (Hackman & Morris, 1975)—can be helpful in two ways: (1) sharing information allows groups to pursue many possible means for the ends they seek, and (2) during this process, group members may be able to get to know each other well enough to get beyond their demographics and to establish important interpersonal understandings. Finally, avoiding demographically related group tasks is one more way to reduce the salience of faultlines.

In this article we initiate the examination of group compositional patterns in group development. In the future, researchers might also explore the impact of diversity and faultlines on other aspects of group processes, such as group integration and group decision-making processes. Watson and his colleagues (1993) have found that time- and group-facilitating activities were important to get the most out of group diversity. Murnighan and Conlon (1991) have found that successful string quartets knew how to avoid conflict by avoiding personal confrontations and by focusing more on the group's larger tasks.

Conflict avoidance reduces the possibility of relationship conflict; focusing on group tasks draws attention away from possible subgroup emergence. If groups develop smoothly, they can function well, produce efficiently, and adapt to ever-changing environments. Analyzing diversity *and* faultlines up front may help facilitate this process in important ways.

REFERENCES

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

Alderfer, C. 1991. Changing race relations in organizations: A critique of contact hypothesis. *Canadian Journal of Administrative Sciences,* 8: 80–89.

Ancona, D. G., & Caldwell, D. F. 1992. Bridging the boundary: External activity and performance in organizational teams. *Administrative Science Quarterly,* 37: 634–665.

Bettenhausen, K. L. 1991. Five years of groups research: What we have learned and what needs to be addressed. *Journal of Management,* 17: 345–381.

Bettenhausen, K. L., & Murnighan, J. K. 1985. The emergence of norms in competitive decision-making groups. *Administrative Science Quarterly,* 30: 350–372.

Bettenhausen, K. L., & Murnighan, J. K. 1991. The development of an intragroup norm and the effects of interpersonal and structural challenges. *Administrative Science Quarterly,* 36: 20–35.

Blau, P. M. 1977. *Inequality and composition: A primitive theory of social structure.* New York: Free Press.

Byrne, D. E. 1971. *The attraction paradigm.* New York: Academic Press.

Caplow, T. 1968. *Two against one: Coalitions in triads.* Englewood Cliffs, NJ: Prentice-Hall.

Crott, H. W., & Werner, J. 1994. The norm-information-distance model: A stochastic approach preference change in group interaction. *Journal of Experimental Social Psychology,* 30: 68–95.

Eagly, A. H., & Wood, W. 1991. Explaining sex differences in social behavior: A meta-analytic perspective. *Personality and Social Psychology Bulletin,* 17: 306–315.

Ely, R. J. 1994. The effects of organizational demographics and social identity on relationships among professional women. *Administrative Science Quarterly,* 34: 565–581.

Feldman, D. C. 1984. The development and enforcement of group norms. *Academy of Management Review,* 9: 47–53.

Fiske, S. T., & Neuberg, S. L. 1990. A continuum of impression formation, from category-based to individuating process: Influences of information and motivation of attention and interpretation. *Advances in Experimental Social Psychology,* 23: 1–74.

Gersick, C. J. G. 1988. Time and transition in work teams: Toward a new model of group development. *Academy of Management Journal,* 31: 9–41.

Glick, W. H., Miller, C. C., & Huber, G. P. 1993. The impact of upper echelon diversity on organizational performance. In G. P. Huber & W. H. Glick (Eds.), *Organizational change and re-design: Ideas and insights for improving performance:* 176–214. New York: Oxford University Press.

Granovetter, M.S. 1973. The strength of weak ties. *American Journal of Sociology,* 78: 1360–1380.

Granovetter, M. S. 1982. The strength of weak ties: A network theory revisited. In P. V. Marsden & N. Lin (Eds.), *Social structure and network analysis:* 105–130. Beverly Hills, CA: Sage.

Hackman, J. R., & Morris, C. G. 1975. Group tasks, group interaction process and group performance effectiveness: A review and proposed integration. *Advances in Experimental Social Psychology,* 8: 45–99.

Hambrick, D. C., & Mason, P. A. 1984. Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review,* 9: 193–206.

Hare, A. P. 1976. *Handbook of small group research* (2nd ed.). New York: Free Press.

Heilman, M. E., & Hornstein, H. A. 1982. *Managing human forces in organizations.* Homewood, IL: Irwin.

Hollander, E. P. 1964. *Leaders, groups, and influence.* New York: Oxford University Press.

Ibarra, H. 1993. Personal networks of women and minorities in management: A conceptual framework. *Academy of Management Review,* 18: 56–87.

Ilgen, D. R., Major, D. A., Hollenbeck, J. R., & Sego, D. J. 1993. Team research in the 1990s. In M. M. Chemers & R. Aymen (Eds.), *Leadership theory & research: Perspectives and research:* 245–270. San Diego: Academic Press.

Jackson, S. E., May, K. E., & Whitney, K. 1995. Understanding the dynamics of diversity in decision-making teams. In R. A. Guzzo & E. Salas (Eds.), *Team effectiveness and decision making in organizations:* 204–261. San Francisco: Jossey-Bass.

Jackson, S. E., Stone, V. K., & Alvarez, E. B. 1992. Socialization amidst diversity: The impact of demographics on work team oldtimers and newcomers. *Research in Organizational Behavior,* 15: 45–109.

Jehn, K. A. 1995. A multimethod examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly,* 40: 256–282.

Kabanoff, B. 1991. Equity, equality, power and conflict. *Academy of Management Review,* 16: 416–441.

Kanter, R. M. 1977. Some effects of proportions on group life: Skewed sex ratios and responses to token women. *American Journal of Sociology,* 82: 965–990.

Kelman, H. C. 1958. Compliance, identification and internalization: Three processes of attitude change. *Journal of Conflict Resolution,* 2: 51–60.

Kirchmeyer, C., & McLellan, J. 1991. Capitalizing on ethnic diversity: An approach to managing the diverse workgroups of the 1990s. *Canadian Journal of Administrative Sciences,* 8: 72–79.

Kramer, R. M. 1991. Intergroup relations and organizational dilemmas: The role of categorization processes. *Research in Organizational Behavior,* 13: 191–228.

Kramer, R. M. 1993. Cooperation and organizational identification. In J. K. Murnighan (Ed.), *The social psychology of organizations: Advances in theory and research:* 244–268. Englewood Cliffs, NJ: Prentice-Hall.

Lawler, E. J. 1986. Bilateral deterrence and conflict spiral: A theoretical analysis. In E. J. Lawler (Ed.), *Advances in group processes,* vol. 3: 107–130. Greenwich, CT: JAI Press.

Lawler, E. J. 1993. From revolutionary coalitions to bilateral deterrence: A nonzero-sum approach to social power. In J. K. Murnighan (Ed.). *The social psychology of organizations: Advances in theory and research:* 269–295. Englewood Cliffs, NJ: Prentice-Hall.

Lawrence, B. S. 1997. The black box of organizational demography. *Organization Science,* 8: 1–22.

Lefkowitz, J. 1994. Sex-related differences in job attitudes and dispositional variables: Now you see them, ... *Academy of Management Journal,* 37: 323–349.

Merton, R. K. 1972. Insiders and outsiders: A chapter in the sociology of knowledge. *American Journal of Sociology,* 78: 9–47.

Michel, J. G., & Hambrick, D. C. 1992. Diversification posture and top management team characteristics. *Academy of Management Journal,* 35: 9–37.

Milliken, F. J., & Martins, L. L. 1996. Searching for common threads: Understanding the multiple effects of diversity in organizational groups. *Academy of Management Review,* 21: 402–433.

Moscovici, S. 1980. Toward a theory of conversion behavior. *Advances in Experimental Social Psychology,* 13: 209–239.

Moscovici, S. 1994. Three concepts: Minority, conflict, and behavioral style. In S. Moscovici, A. Mucchi-Faina, & A. Maass (Eds.), *Minority influence:* 233–251. Chicago: Nelson-Hall Publishers.

Murnighan, J. K. 1978. Models of coalition behavior: Game theoretic, social psychological and political perspectives. *Psychological Bulletin,* 85: 1130–1153.

Murnighan, J. K., & Brass, D. J. 1991. Intraorganizational coalitions. Research on negotiation in organizations. In M. H. Bazerman, R. J. Lewicki, & B. H. Sheppard (Eds.), *Handbook of negotiation research,* vol. 3: 283–306. Greenwich, CT: JAI Press.

Murnighan, J. K., & Conlon, D. E. 1991. The dynamics of

intense work teams: A study of British string quartets. *Administrative Science Quarterly,* 36: 165–186.

Nemeth, C. J. 1994. The value of minority dissent. In S. Moscovici, A. Mucchi-Faina, & A. Maass (Eds.), *Minority influence:* 3–15. Chicago: Nelson-Hall Publishers.

Newcomb, T. M. 1961. *The acquaintance process.* New York: Holt, Rinehart, and Winston.

O'Reilly, C. A., III, Caldwell, D. F., & Barnett, W. P. 1989. Work group demography, social integration and turnover. *Administrative Science Quarterly,* 34: 21–37.

Pfeffer, J. 1981. *Power in organizations.* Cambridge, MA: Ballinger.

Psathas, G., & Stryker, S. 1965. Bargaining behavior and orientations in coalition formation. *Sociometry,* 28: 124–144.

Rabbie, J. M., & Horwitz, M. 1988. Categories versus groups as explanatory concepts in intergroup relations. *European Journal of Social Psychology,* 18: 117–123.

Sessa, V. I., & Jackson, S. E. 1995. Diversity in decision-making teams: All differences are not created equal. In M. M. Chemers, S. Oskamp, & M. A. Costanzo (Eds.), *Diversity in organizations: New perspectives for a changing workplace:* 133–156. Thousand Oaks, CA: Sage.

Sherif, M. 1966. *In common predicament: Social psychology of intergroup conflict and cooperation.* Boston: Houghton Mifflin.

Smith, K. G., Smith, K. A., Olian, J. D., Sims, H. P., O'Bannon, D. P., & Scully, J. A. 1994. Top management team demography and process: The role of social integration and communication. *Administrative Science Quarterly,* 39: 412–438.

Tajfel, H., & Turner, J. C. 1986. The social identity theory of intergroup behavior. In S. Worchel and W. G. Austin (Eds.), *Psychology of intergroup relations:* 7–24. Chicago: Nelson-Hall Publishers.

Tsui, A. S., Egan, T. D., & O'Reilly, C. A., III, 1992. Being different: Relational demography and organizational attachment. *Administrative Science Quarterly,* 37: 549–579.

Tsui, A. S., & O'Reilly, C. A., III, 1989. Beyond simply demographic effects: The importance of relational demography in superior-subordinate dyads. *Academy of Management Journal,* 32: 402–423.

Tuckman, B. W. 1965. Developmental sequence in small groups. *Psychological Bulletin,* 63: 384–399.

Tuckman, B. W., & Jensen, M. A. C. 1977. Stages of small-group development revisited. *Group & Organization Studies,* 2: 419–427.

Vinokur, A., & Burnstein, E. 1978. Novel argumentation and attitude change: The case of polarization following group discussion. *European Journal of Social Psychology,* 8: 335–348.

Wagner, W. G., Pfeffer, J., & O'Reilly, C. A., III. 1984. Organizational demography and turnover in top-management groups. *Administrative Science Quarterly,* 29: 74–92.

Watson, W. E., Kumar, K., & Michaelsen, L. K. 1993. Cultural diversity's impact on interaction processes and performance: Comparing homogeneous and diverse task groups. *Academy of Management Journal,* 36: 590–602.

Wharton, A. S. 1992. The social construction of gender and race in organizations: A social identity and group mobilization perspective. *Research in the Sociology of Organizations,* 19: 55–84.

Wiersema, M. F., & Bantel, K. A. 1992. Top management team demography and corporate strategic change. *Academy of Management Journal,* 35: 91–121.

Zenger, T. R., & Lawrence, B. S. 1989. Organizational demography: The differential effects of age and tenure distributions on technical communication. *Academy of Management Journal,* 32: 353–376.

Dora C. Lau is currently a doctoral student at the University of British Columbia, Vancouver, Canada. She received her MBA from Simon Fraser University. Her main research interests include demographic diversity, small group dynamics, interpersonal trust, and negotiations.

J. Keith Murnighan is the Harold H. Hines Jr. Distinguished Professor of Risk Management at the J. L. Kellogg Graduate School of Management, Northwestern University. He received his Ph.D. in social psychology from Purdue University. His research focuses on negotiation, groups, and interpersonal interaction and currently addresses altruism, ethics, fairness, self-interest, repentance, and cooperation.