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Minority Influence in Organizations: Its Origins and Implications for Learning and Group Performance

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Introduction

Social influence is key to managerial effectiveness and an integral part of working in teams and organizations. Members of organizations rely on one another to validate their views of the world, they seek and maintain norms and values about what they deem appropriate or not, and they influence one another to serve their personal or group interests. Some scholars even go as far as defining organizations in terms of social influence processes. For example, Vickers (1967) defines organizations as structures of mutual expectation, attached to roles that define what each of its members shall expect from others and from themselves. Weick (1979, p. 3) argues that "organizing is first of all grounded in agreements concerning what is real and illusory, a grounding that is called consensual validation."

Consensual validation is an ongoing and dynamic activity and the process of gaining consensus constitutes a very basic source of disagreement and social conflict (Taylor, 1992). That is, members of organizations disagree with one another about their views of the world, about their interpretation of facts and figures, about proper norms and values, and about whose interests should prevail. How people deal with opposition has been a core topic in psychology and management science for more than 40 years, starting with now classical studies on bargaining (Deutsch, 1949), norm formation (Sherif, 1936), and conformity (Asch, 1956). A common finding in each of these lines of research is that people tend to yield to the powerful, and align themselves with the majority point of view (Cialdini & Trost, 1998). Studies on bargaining and negotiation show that the more powerful party usually gets the bigger share of the pie, thus reflecting greater and more effective influence (e.g., Rubin & Brown, 1975). Likewise, newcomers in groups quickly adapt to the group norms and values; they side with the majority perspective within their group (e.g., Levine & Moreland, 1998). Evidence suggests that people tend to follow the majority view about reality, even when the majority point of view is obviously wrong (Baron, Kerr, & Miller, 1993). And in organization theory and research, many studies have emphasized compliance and conformity. For example, Yukl and Falbe (1990) examined the effectiveness of certain influence tactics and found that managers produce conformity to a greater extent when they use rational persuasion rather than coercion.

Conformity, however, is but one side of the coin. Because consensual validation is an ongoing and dynamic activity there is, by definition, deviance and dissent. That is, within organizations there always are members who do not conform to the majority perspective, do not comply with organizational policies, rules, and regulations, or do not accept the organization's mission and objectives. Moreover, the mere fact that organizations change suggests that these minority factions are able to influence the majorities' interpretation of the world, the majorities' ideas about proper norms and values, and majorities' position in how resources should be allocated. In other words, in groups and organizations we are likely to encounter minority factions who resist the majority and, to some extent, are able to influence the majority perspective on a number of issues.

In this chapter, our aim is to provide a framework for understanding when and why minority dissent in organizational groups influences attitudes and opinions, group functioning, and group performance. Because minority influence can be seen as the flip side of conformity processes, a better understanding of minority influence brings us one step closer to a comprehensive model of social influence in organizations. Second, modern organizations face an increasing diversity in their workforce. Organization members differ in terms of their demographic, informational, and normative background (Williams & O'Reilly, 1998) and this increases the likelihood of minority factions opposing the dominant majority perspective within organizations. Understanding minority influence helps research and theorizing about the effects of diversity in organizations. Accordingly, we seek answers to three questions. First, what are the origins of minority dissent in groups and organizations — where does it come from? Second, when and why are minority factions able to influence majority attitudes and opinions? And

third, when and how do minority factions influence group and organizational performance?

In the first part of the chapter we review recent empirical studies dealing with the nature and origins of minority dissent. Subsequently, we discuss the influence of minority dissent using judgment and decision making research concerned with the "status quo bias," and social psychological research and theory concerned with opinion change as a function of persuasive arguments attributed to majority and minority factions. In the third part of the chapter we review research on the effects of minority dissent on group creativity, innovation and task performance. We conclude with some avenues for future research.

The Definition and Origins of Minority Dissent in Organizational Groups

Minority dissent can be defined as publicly advocating and pursuing beliefs, attitudes, ideas, procedures, and policies that go against the "spirit of the times" and challenge the position or perspective assumed by the majority (De Dreu & De Vries, 1997). Levine and Kaarbo (this volume) argued that in political decision-making groups four types of minorities may be distinguished. *Progressive* minorities advance a new perspective and seek to convince the majority of its value. *Conservative* minorities attempt to block the majorities' tendency to adopt a new, progressive perspective. *Modernist* minorities try to block the majorities' tendency to return to previously held attitudes and policies, while *reactionary* minorities try to persuade the majority to return to previously help opinions and perspectives. As with political decision-making groups, we may also find examples of each of these four types of minorities in organizational settings. An example of a progressive minority is the newly hired medical assistant who consistently advocates implementation of a novel treatment she was taught about at school. An example of a conservative minority is the small faction of employees who resist the introduction of a computer system thought to enhance internal communication between management and employees. An example of a modernist minority is the minority trying to persuade the majority that with time the recently implemented organizational change program should become beneficial and therefore should not be reversed prematurely. Finally, an example of a reactionary minority is the small group of colleagues insisting on dropping affirmative action policies.

Before turning to a discussion of the consequences of minority dissent in organizations we need to address the origins of minority dissent. De Dreu, De Vries, Franssen, and Altink (in press) focused on the antecedents of *willingness to dissent*. They examined personality differences including extraversion, which was expected to be positively related to the individual's willingness to dissent, and group antecedents including past treatment of dissent, clarity of group objectives, and quality of group communication. Respondents were highly educated, with 74% having a university degree or comparable level of education. About one-third of the respondents worked as consultants, another third worked as engineers, and the remaining respondents were general managers, or worked as financial staff members. Their average age was 35, and 59% were male. Willingness to dissent was reliably measured with four items: "I give my opinions when they disagree with the other members of my team," "I adjust to the group, even when I'm not fully convinced" (reverse scored), "I'm inclined to publicly attack the majority point of view," "I dare to take a minority position within the team" (responses could be given on five-point scales, with 1 = never, to 5 = very often). Results showed that more extraverted individuals displayed greater willingness to voice dissent, and that willingness to dissent was greater when the group had reacted positively to dissent in the past. Moreover, willingness to dissent decreased when the group had higher clarity of objectives, especially among extraverted individuals. Finally, results showed that willingness to dissent increased when the group provided for more communication opportunities. However, extraverted individuals benefited from communication opportunities and introverted individuals did not (see Figure 12.1).

Similar findings were obtained by LePine and Van Dyne (1998) when they examined the antecedents to voice in work groups. *Voice* is related to minority dissent and refers to expressing views and searching for alternative methods and strategies to perform the task (Van Dyne & LePine, 1998; see also Rusbult, Farrell, Rogers, & Mainous, 1988). Contrary to voice, minority dissent is explicitly seen as challenging the majority perspective and it is not necessarily constructive and intended to improve. Nevertheless, research and theory on voice may be useful in understanding minority dissent and vice versa. LePine and Van Dyne (1998) discuss two broad classes of antecedents to voice in work groups – person-centered antecedents and situation antecedents. *Person-centered antecedents* are those variables that are rooted in personality and individual differences. An example is satisfaction with one's work. Using Hirschman's (1970) framework, LePine and Van Dyne argued that satisfaction should be positively related to voice in work groups. In addi-
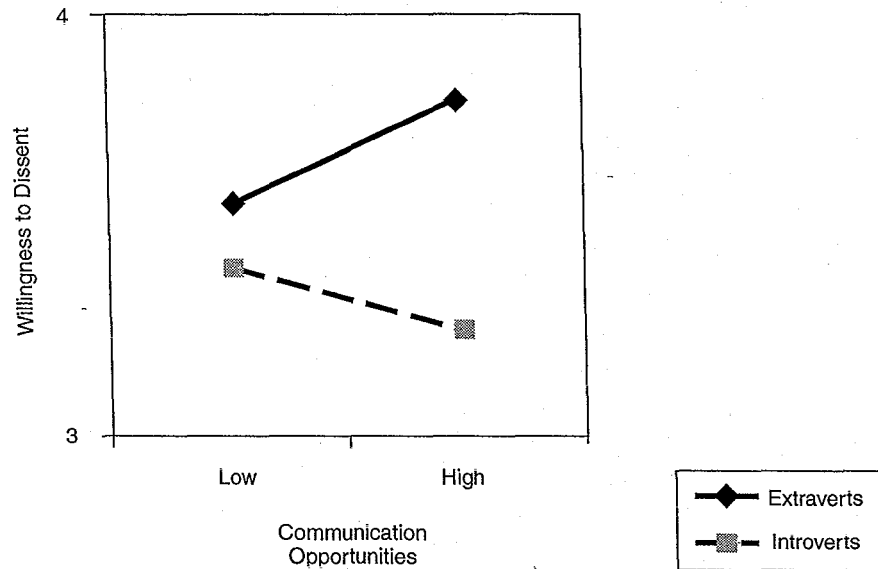
Figure 12.1 *Willingness to dissent as a function of opportunities for communication and individual differences in extraversion (based on De Dreu et al., in press).*

tion, they proposed that global self-esteem – the degree of positive self-worth that individuals ascribe to themselves – is positively related to voice in work groups. *Situation antecedents* are those variables that are independent of the individual but rooted in the situation, including the group to which one belongs. Because larger groups increase anonymity and make individual contributions to group work less identifiable, LePine and Van Dyne expected group size to be negatively related to voice. In a field study involving 95 work groups from 21 firms, they obtained support for their predictions. Satisfaction with the work group predicted voice especially in smaller groups, and global self-esteem predicted voice especially in larger groups.

The research by LePine and Van Dyne (1998) and De Dreu et al. (in press) provides some first insights into the origins of minority dissent in organizations. Person-centered antecedents include extraversion, satisfaction with the work group, and global self-esteem. Situation antecedents include group size, clarity of group objectives, and opportunities for communication. Interestingly, both studies provide good evidence that person-centered and situation antecedents interact to produce willingness to dissent and to voice one's

deviant opinions and viewpoints. It is important to realize, however, that these studies were conducted in organizational settings using cross-sectional designs. We need to be cautious with conclusions about causality, although this seems less of a problem with regard to the person-centered antecedents discussed above.

One may speculate about the different origins of different types of dissent. For instance, certain personality characteristics such as high levels of authoritarianism may make it more likely that someone aligns with a reactionary rather than progressive minority. Likewise, individuals with high levels of uncertainty avoidance (Sorrentino & Short, 1986) may be more likely to join modernist and conservative minorities than progressive minorities, while those people with high levels of openness to experience (Barrick & Mount, 1991) may be likely to form a progressive minority. Again, we expect interactions with the situation, and research is needed to examine these issues in more detail. We believe such research is important because it may provide those seeking to enhance or reduce the occurrence of minority dissent in work groups with the tools to do so.

Minority Dissent and Social Influence

Moscovici (1980, 1985) argued that people depend on each other to validate their views of the world, and majority and minority influence should be understood in terms of dependency and social power, the majority being the dominant and the minority being the dominated party. When it comes to the validation of information, consensus provides a solid cue as to whether a particular position, attitude, or preference is correct, appropriate, or justifiable (Chaiken & Stangor, 1987). Seen as such, majority factions have a power advantage over minority factions because of the larger number of people endorsing a majority rather than minority position.

Power affects social attention in ways that predispose powerful individuals to be more biased judges and less powerful individuals to be less accurately judged (Fiske, 1993; Fiske & Depret, 1996). Powerful individuals tend to rely on judgmental heuristics to a greater extent and base their judgments about powerless individuals on social stereotypes. Keltner and Robinson (1997) indeed showed that factions defending the status quo were more prone to polarize the opposing faction's attitudes and underestimate the preferences they shared with their opponents.

The cognitive and motivational processes outlined above translate into behavioral strategies that are likely to be preferred by minority and major-

ity factions in organizations. Research on marital relations reveals that defendants have a strong tendency to withdraw from the debate and remain inactive, while complainants engage in increasingly strong forms of demanding behavior. From a strategic perspective, this demand–withdrawal pattern makes sense, in that complainants often have the best chance of "winning" the dispute by demanding, while defendants often "win" by remaining inactive, that is, by not changing (Kluwer, Heesink, & Van de Vliert, 1997). Rubin, Pruitt, and Kim (1994), in discussing the attack–defend model of escalation, argue that in this kind of conflicts the attacker is assigned blame for the negative consequences of the conflict, and is more easily perceived in negative, derogative terms.

Fighting or defending the status quo

The relative disadvantage due to faction size may be increased or reduced by the type of position the minority faction is advocating. Disagreement between minority and majority factions is often asymmetrical in that one faction (the minority) wants change while the other faction (the majority) wants to maintain the status quo. This is the case for reactionary and progressive minorities alike but not for modernist and conservative minorities that defend the status quo against a majority faction seeking to change it.

Situations in which one party defends and another party seeks to change the status quo are similar to complainant–defendant disputes (Pruitt, 1998). Research on judgment and decision making provides evidence for the status quo bias: the individual's tendency to attach greater subjective weight to the current rather than prospective situation (Samuelson & Zeckhauser, 1988). This status quo bias exists for several reasons. One is that change involves transaction costs including broker's fees, search costs for identifying alternatives, learning costs associated with familiarizing oneself with alternatives, and activity costs involved in motivating a change (Schweitzer, 1994). Second, change involves risk and ambiguity – "the proof of the pudding is in the eating" – and this makes it more difficult to justify the costs of change. Third, change involves gains as well as losses, but losses loom larger and receive greater weight in judgment (Kahneman & Tversky, 1979). Finally, individuals have more knowledge about, and access to, information concerning the current state of affairs than about the prospective situation (Ritov & Baron, 1995). This means that those defending the status quo have an information advantage compared to those seeking to change the status quo. Taken

together, change is likely to be evaluated in negative terms while the status quo is likely to be evaluated in positive terms. Defending rather than trying to change the status quo provides one with a relative power advantage and one has an easier task justifying one's position.

The status quo bias is pervasive in organizations. As Weick argues:

> The thick layering of routines in most organizations, coupled with the fact that departures from routine increase vulnerability, mean that discrediting is rare . . . organizations are said to be accountable and . . . must continually give the impression that . . . the organization *knows* what it is doing. Doubts, hesitance, or reevaluation of past enactments are treated . . . as evidence that an organization is unsure of itself rather than as evidence that it is reflecting, preserving adaptability, or preparing for an even more diverse set of circumstances. The moral would seem to be that if you're going to discredit, keep quiet about it. (1979, pp. 225–6)

Weick's observation is supported by research showing that organizations and their employees tend to go to great length to eliminate minority dissent. Minority dissent disrupts harmony and social relations in the group (Schweiger, Sandberg, & Rechner, 1989) and this may lead majority factions to put (informal) pressures on minority dissenters to remain silent and to cooperate. Group members direct a substantial amount of their communication toward the dissenting party, press the dissenter to change his or her point of view, or expel the minority from further participation (e.g., Levine, 1980; see also Festinger, Gerard, Hymovitch, Kelley, & Raven, 1952). Frost and Egri (1991) discuss cases in which organizations cover up evidence in support of the dissenter, sabotage the minority's functioning, or manage external committees in ways that automatically silence the dissenter.

Although a minority faction may have a power disadvantage because of its small faction size, this power disadvantage may be bolstered or leveraged depending on whether the minority faction defends the status quo or desires change. We suggest that progressive and reactionary minorities have a double disadvantage (the status quo bias, and a small number) while modernist and conservative minorities blend a power advantage (the status quo) with a power disadvantage (their small number). When minority factions have a (double) power disadvantage, as in the case of progressive and reactionary minorities, their main strategy for getting their way is through increasing use of a demanding, forceful strategy. This reduces their positive image and minority factions are likely to be stereotyped as negative, annoying, and rebellious people. Because change involves costs, and costs tend to loom larger than the potential benefits from change, the arguments advanced by minority factions

are easily derogated and ignored. But when the minority faction defends the status quo it mixes a small faction size with an information advantage and has a position that is relatively easy to defend. We expect conservative and modernist minorities to have a relatively positive image and, consequently, to be relatively influential (see also below).

Taken together, minority factions have a power disadvantage due to their small number and consequently majority members may be inclined to develop and maintain stereotypical views of the minority. The specific type of position advocated by the minority faction depends strongly on whether it defends the status quo. Because seeking to change the status quo is difficult to justify and requires a forceful, aggressive strategy, progressive and reactionary minorities are expected to be seen as more annoying, rebellious, and negative, and to be less influential, than conservative and modernist minorities who seek to defend the status quo.

The Influence of "Powerless" (Progressive) Minorities

Up to this point, our review suggests that minorities have less of a "fighting chance" when it comes to influencing the majority faction, especially when the minority faction seeks to change the status quo. Progressive minorities in particular may be responded to with rather strong reactions by the majority, including tendencies to cover up evidence in support of the dissenter, to sabotage the minority's functioning, and strategies that automatically silence the dissenter (cf. Frost & Egri, 1991). This may be true only, however, when the minority point of view poses an existential threat to the group or organization, as in the case of a whistleblower (Near & Micelli, 1995). When such an existential threat is absent, or when the majority faction needs the minority to cooperate to ensure effective group functioning, the majority reaction is more likely to be ambivalent. Consistent with Crano and Chen (1998; Alvaro & Crano, 1997; Crano, this volume) we suggest that in most cases a minority faction is treated on the basis of a *leniency contract*: Majority members are reluctant to be identified with the minority faction, but at the same time, they want to keep the group together. They listen to the minority, do not derogate its position, but remain inactive as it comes to adopting the minority point of view.

Three categories of variables appear to stimulate the majorities' attention to a minority faction's position and, hence, minority influence (De Vries, De Dreu, Gordijn, & Schuurman, 1996). The first class of variables deals with the behavioral style the minority uses. Social psychological experiments show

that minorities are more influential when they are consistent over time as well as in their argumentation (Moscovici, 1985). Consistency makes it difficult for the majority to condone the minority without really considering the content of the minority message, and more thorough, detailed processing of the minority message is the result. Likewise, when the minority uses solid, good arguments for its position, majority members have greater difficulty ignoring the message compared to situations in which the minority only presents its position, or provides weak arguments that are easy to refute (De Vries et al., 1996).

The second class of variables deals with the issue under debate. Majority members are more likely to consider the minority point of view when the issue is of great importance, is involving, and has clear personal (or organizational) consequences (De Dreu & De Vries, 1996; Trost, Maass, & Kenrick, 1992). However, when the minority position can be attributed to self-interest, majority members are more likely to derogate the message and ignore it, compared to when the minority position cannot be "explained away" in terms of self-interest (Moskowitz, 1996; Moskowitz & Chaiken, this volume). Likewise, when the minority position on a particular issue is highly surprising and unexpected it is more likely to attract majority attention (Baker & Petty, 1994).

The third class of variables deals with the defining characteristics of the minority faction. When the minority is categorized as an ingroup rather than outgroup (e.g., does not belong to "our work unit") it is likely to be more influential (Alvaro & Crano, 1997). In this regard, it is important to distinguish between so-called single and double minorities. Single minorities only differ from the majority faction in terms of their attitude position, while double minorities also differ on some other, social dimensions. Consider, for example, a software design team who are used to following a particular strategy to acquire outside contracts. The team has three female and five male members. A minority of two arguing for an alternative, novel acquisition strategy is more likely to be influential when it consists of a man and a women (i.e., is a single minority) rather than when it consists of two women. In the latter case, the deviating position is quickly attributed to a "female bias," thus rendering the minority faction less influential (Maass & Clark, 1984). Finally, expectation states theory (De Gilder & Wilke, 1995) suggests that high status minorities are more likely to be influential than low status minorities. In the example of the software design team, a minority consisting of two males is likely to be more influential than an all-female minority because men tend to be assigned greater expertise and knowledge.

Minority dissent and levels of influence

Minority influence, when it occurs, may result in either one of two types of change in the majority. The first type of change is overt and public – majority members publicly accept the minority position. The second type of change is covert and private – majority members privately accept the minority position but fail to acknowledge it in public. This type of change is much more likely than the first. Public acceptance increases the likelihood that other members of the organization identify the changing majority member as part of the deviating minority faction. Because deviant minority factions have low power, are vulnerable, and in danger of persecution people tend to avoid identification with a minority faction. Therefore, they are reluctant to openly adopt the minority position even when they privately agree (Crano & Chen, 1998; De Dreu, De Vries, Gordijn, & Schuurman, 1999; Mugny, Kaiser, Papastamou, & Pérez, 1984; Wood, Pool, Leck, & Pervis, 1996). A meta-analysis of social psychological research on minority influence supports this reasoning by showing that minority influence is much stronger on private rather than public measures of attitude change (Wood, Lundgren, Ouellette, Busceme, & Blackstone, 1994).

An interesting and robust observation is that private attitude change following minority influence not only occurs on the issue that is under consideration, but spreads to related issues as well. Pérez and Mugny (1987) conducted an experiment in which Spanish schoolgirls were exposed to a minority influence agent advocating in favor of abortion. The authors measured attitude changes on two topics – abortion and birth control. Results revealed that while the minority message had some influence on the girls' attitudes towards abortion, substantial change occurred on attitudes concerning birth control (for replications and extensions, see Crano & Chen, 1998; De Dreu & De Vries, 1993). The meta-analysis cited above found that this pattern – substantial change on related issues – was robust and independent of attitude topics and measurement issues (Wood et al., 1994). Thus, it appears that minority influence provokes deep and thorough processing of information, focused not only on the topic under consideration but also on underlying organizing principles.

Minority Dissent and Group Performance

Earlier we quoted Weick (1979), whose observations pointed to the fact that minority dissent in organizations has to counter an immense pressure to

conform and to maintain the status quo, but also reflects the inherent value accorded to dissent – increased reflection and adaptation. Indeed, mounting evidence suggests that organizational groups open to minority dissent perform better. In this section we argue that minority dissent contributes to organizational learning, stimulates creativity and divergent thought, and increases the quality of group decision making.

Minority dissent and learning in organizations

In the section on minority dissent and social influence we reviewed research showing that minority dissent may promote deep and systematic rather than shallow and heuristic processing of information. Deep versus shallow thinking relates to the distinction between single-loop and double-loop learning (Argyris, 1991; Weick, 1979). In *single-loop learning*, individuals focus on identifying and correcting errors in the external environment. In *double-loop learning*, however, managers and employees look inward and reflect critically on their own behavior, identify the ways they often inadvertently contribute to the organization's problems, and then change how they act. In double-loop learning, managers and employees "learn how the very way they go about defining and solving problems can be a source of problems in its own right" (Argyris, 1991, p. 100).

Double-loop learning requires independent thinking, and several studies indicate that the occurrence of minority dissent may stimulate independent thinking in majority members. Nemeth and Chiles (1988) showed that exposure to minority dissent increases individual courage to resist pressures to conformity and the tendency to polarize attitudes toward extreme viewpoints that are undesirable in their consequences. Smith, Tindale, and Dugoni (1996) found that in decision-making groups in which a minority advocated a deviating position, less extreme and less polarized strategy decisions were made than in groups in which such a resisting minority was absent. Another indication comes from a study by Van Dyne and Saavedra (1996) who used a longitudinal design with natural groups who had to analyze two ambiguous cases that emphasized divergent thinking and idea generation. Some group members were given private instructions to adopt a deviant position, that is, to act as a minority dissenter. Results showed that designated minority agents reported their roles to be stressful, yet they received relatively positive evaluations from their peers and received substantial admiration and respect. Also minority agents promoted and facilitated role differentiation and concomitant specialization. Thus, minority dissent may provide an example of courage,

may stimulate role differentiation and may counter the polarization of attitudes. Each of these processes stimulates, in turn, independent thinking, and double-loop rather than single-loop learning in organizations (cf., Argyris, 1991; Weick, 1979).

Minority dissent, divergent thought, and team innovation

Research by Nemeth (1986) suggests that being confronted with minority dissent elicits "divergent" thinking. When recipients focus on the dissenter's message they attempt to understand why the minority thinks this way as well as to falsify and counterargue its position. As a result, recipients take into account multiple perspectives and consider various aspects of the issue under debate (Butera & Mugny, 1996, this volume; De Dreu & De Vries, 1993; Gordijn, De Vries, & De Dreu, 2000; Martin & Hewstone, 1999; Nemeth & Kwan, 1985, 1987; Nemeth, Mayseless, Sherman, & Brown, 1990; Nemeth, 1995; Van Dyne & Saavedra, 1996). For example, the study by Van Dyne and Saavedra (1996) discussed earlier showed that work groups with a minority influence agent produced more creative ideas and had more divergent perspectives on the task than groups lacking a minority influence agent.

Related to the divergent thinking research by Nemeth and others is research concerned with integrative complexity. Gruenfeld, Thomas-Hunt, and Kim (1998) studied integrative complexity in majority and minority factions within freely interacting groups. Integrative complexity refers to the individual's tendencies to exhibit (a) conceptual differentiation such as the recognition of multiple alternatives, and (b) conceptual integration such as the recognition of possible tradeoffs among alternatives. Research revealed that majority members tend to have greater integrative complexity than members of minority factions (Gruenfeld, 1995) but this evidence was based on archival materials. Gruenfeld et al. (1998) conducted an experiment to see whether the greater integrative complexity of members of a majority faction was due to their being confronted with minority dissent, or whether it was the result of a communication strategy aimed at converting the minority faction. Results were consistent with the first explanation and showed that members of majority factions scored higher on integrative complexity regardless of whether this integrative complexity was strategically useful or not (i.e., whether their communications would reach the minority faction or not).

That minority dissent in teams increases originality suggests that minority dissent may contribute to *innovation*, defined as the introduction or appli-

cation within a team of ideas, processes, products, or procedures which are new to that team and which are designed to be useful (cf., Amabile, Conti, Coon, Lazenby, & Herron, 1996; West & Farr, 1990). Examples of team innovations include the development of a computer program to keep track of holidays and sick leave within the team, a protocol for handling complaints, a new strategy to (re)introduce a product in the market, and a new and complementary service for valued customers. De Dreu and West (2000) argued, however, that creativity is a necessary but not sufficient condition for team innovation. In addition to being creative, groups need to process creative ideas critically so as to drop those that appear useless and implement those that have promise, thereby helping the group to adapt to its environment. Thus, group members need to share information and insights, and work together to transform creative ideas into workable methods, products, and services.

De Dreu and West (2000) hypothesized that participation facilitates integration of information and commitment to team decisions (Bowers & Seashore, 1966; Coch & French, 1948; Lawler & Hackman, 1969). To the extent that information and influence over decision making are shared within teams, and there is a high level of interaction amongst team members, cross-fertilization of perspectives is more likely to occur. Through participation, creative ideas and solutions may be critically examined and adopted or rejected on the basis of arguments and evidence. Participation also provides the social support needed for newly adopted ideas to be pursued and implemented. In other words, participation may be key to turning (minority dissent-induced) originality into innovative methods, products, and services. Thus, De Dreu and West (2000) predicted more innovations in teams under high rather than low levels of minority dissent, but especially when these teams had high rather than low levels of participation in decision making. They tested this prediction in two studies. Minority dissent and participation in decision making was assessed through questionnaires filled out by team members. In Study 1 innovations were traced by interviewing team coaches about the innovations in their teams, and in Study 2 team innovation was assessed through questionnaires filled out by the team supervisors. Study 1 involved 21 self-managed teams from a parcel service in The Netherlands. Study 2 involved 28 teams from various organizations involved in a diverse set of tasks, including controlling, consulting, health care, and manufacturing. Results of both studies provided good support for the hypothesis. Innovation was higher when teams had high rather than low levels of minority dissent, but especially when they also had high levels of participation in decision making. Figure 12.2 represents, as an illustration, the results of Study 1.
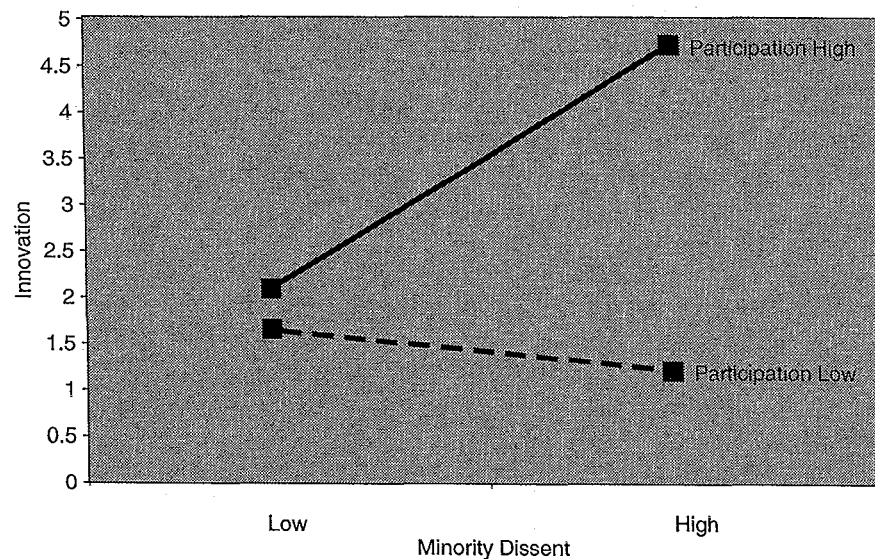
Figure 12.2 *Minority dissent, participation in decision making, and innovations (based on De Dreu & West, 2000).*

Minority dissent and group decision making

As we argued at the outset of this chapter, group leaders often seek compliance and punish deviates (Festinger et al., 1952; Frost & Egri, 1991) and individuals within groups have a strong tendency toward conformity and to align with the majority perspective in their group (Baron et al., 1993; Moscovici, 1980). Although compliance and conformity pressures are functional in that they define the group boundaries and facilitate coordination and task performance, Janis (1972) showed that conformity pressures and (extreme) concurrence seeking may lead to defective decision making with sometimes disastrous consequences (for evidence and reviews, see Aldag & Fuller, 1993; Park, 1990; Tetlock, Peterson, McGuire, Chang, & Feld, 1992; Turner & Pratkanis, 1997). Likewise, Hackman and Morris (1975) noted that an important reason why groups fail to outperform individuals is their premature movement to consensus, with dissenting opinions either being suppressed or dismissed.

The notion that conformity and compliance may be dysfunctional to group decision making has produced three more or less related lines of

research. Based on the assumption that compliance and conformity is more likely in homogeneous rather than heterogeneous groups (Hoffman, 1959; Hoffman & Maier, 1961), research considered the relationship between team diversity in terms of personality, training, background, attitudes, and the quality of group decision making (Bantell & Jackson, 1989; O'Reilly, Caldwell, & Barnett, 1989). Team diversity is likely to have its positive effects on the quality of team decision making when it gives rise to debate and disagreement (Simons, Pelled, & Smith, 1999; Williams & O'Reilly, 1998). For example, job-related types of diversity (i.e., functional background and tenure diversity) in top management teams interacts with the amount of debate within teams to predict the extent to which the team attempted to be exhaustive and inclusive in making and integrating strategic decisions (decision comprehensiveness) (Simons et al., 1999).

That diversity fosters high quality decisions is consistent with a rather large set of studies examining the functionality of appointing a devil's advocate – a team member whose role is to consistently criticize the assumptions and directions suggested by the rest of the team (e.g., Janis, 1972). For example, research by Schweiger, Sandberg, and Ragan (1986) compared decision-making groups that used an expert-based approach to groups with a devil's advocate. Their results showed that appointing a devil's advocate improved the quality of the decision-making process, the quality of the decisions, and the group members' commitment to the decision. Schwenk (1990) conducted a meta-analytic review of the research on devil's advocacy and concluded that through exposure to a devil's advocate, group members question their assumptions and come to realize these to be less than optimal. As a result, the quality of group decision making is improved.

That voicing dissenting views is important for the quality of group decision making is consistent as well with research probing the functions and effects of more spontaneous forms of minority dissent. Authentic minority dissent has been shown to increase the quality of team decision making. For example, Dooley and Fryxell (1999) observed that, provided there was loyalty and competence within teams, dissent was associated with higher decision quality and decision commitment in strategic decision-making teams in US hospitals. Peterson (1997) showed that the quality of team processes and outcomes depends on whether the leader was open to dissent. Peterson, Owens, Tetlock, Fan, and Martorana (1998) studied top management teams and found that successful teams encouraged more dissent in private meetings. Other research indicates that exposure to minority dissent increases individual courage to resist group pressures to conformity (Nemeth & Chiles, 1988), and prevents teams from polarizing their attitudes toward extreme viewpoints

that are undesirable in their consequences (Smith, Tindale, & Dugoni, 1996). Frey, Schulz-Hardt, and Stahlberg (1992) showed that minority dissent reduces the tendency in teams to search for confirmation rather than disconfirmation of preferred strategies and solutions. Research by Gruenfeld, Thomas-Hunt, and Kim (1998) showed that in groups composed of majorities and minorities members of the majority showed higher levels of cognitive complexity. Butera and Mugny (1996; see also Martin & Hewstone, 1999), finally, observed that group members were more likely to find the correct solution for a problem when they were shown a minority rather than majority perspective on the subject matter. Thus, like an appointed devil's advocate, authentic minority dissent appears to prevent teams from biased and defective decision making.

Conclusions and Avenues for Future Research

This chapter sought an answer to three interrelated questions. The first question was what are the origins of minority dissent in teams and organizations. We reviewed research suggesting that minority dissent is the product of person-centered antecedents including extraversion and global self-esteem, and situation antecedents including group size, opportunities for communication, and the clarity of team and organizational objectives. More research on the antecedents of minority dissent is needed, at the least because the evidence to date derives from cross-sectional research designs that do not settle issues of causality. In addition, the theory of minority dissent and minority influence gains practical relevance when we know the conditions that foster or inhibit the occurrence of minority dissent in groups and organizations. One particularly interesting avenue for research is, in our view, the interaction between person-centered and situation variables on the one hand, and the type of minority (progressive, modernist, conservative, or reactionary) they trigger on the other.

The second question we asked was when and why minority dissent influences majority factions in organizational settings. We argued that when minority dissent has to overcome a status quo bias, as in the case of progressive and reactionary minorities, the minority is placed in a relatively powerless position predisposing the minority to use rather forceful strategies to influence the majority. But because the majority often needs the minority to make the organization function effectively, majority factions tend to condone rather than oppress minority factions. Given solid arguments and a consistent behavioral style, minority dissent may be influential although, as ample

research has shown, minority influence will be indirect and latent rather than direct and manifest.

The final question we asked was what consequences minority dissent has for group performance. We reviewed research suggesting that minority dissent in organizations may contribute to double-loop learning because it stimulates independent thinking and strengthens majority members' courage to resist conformity pressures. In addition, much research has shown that minority dissent stimulates creativity and divergent thought. We discussed recent research suggesting that minority dissent induces divergent thought which is associated with team innovation, provided there are high levels of participation in team decision making. Finally, research on group diversity, devil's advocacy, and authentic forms of dissent all indicated that minority dissent is likely to prevent premature moving to consensus, to reduce confirmation bias in information processing, to promote cognitive complexity and, therefore, to prevent defective group decision making.

It should be noted that the emerging literature on minority dissent in (organizational) teams tends to focus on just one side of group and organizational performance. In addition to originality and innovation, group performance depends on member satisfaction and mental as well as physical well-being. Social harmony, interpersonal trust, and psychological safety are key to group functioning and performance (Edmondson, 1999; West, Borrill, & Unsworth, 1998) yet minority dissent may negatively influence these factors. Put differently, to fully understand the influence of minority dissent in groups and organizations, researchers need to expand the repertoire of dependent variables. We need to go beyond originality and innovation and consider "soft" performance parameters including the affective consequences of minority dissent to both the dissenters and the members of the majority faction (cf., Hackman, 1983; Van Dyne & Saavreda, 1996).

Another avenue for future research is closer scrutiny of the issue under debate. Minority influence research has predominantly focused on issues of interpretation, with a minority faction disagreeing with the majority about how to view the world. In many instances, however, a minority faction may disagree with the majority about the distribution and allocation of resources, and adopts a particular position to defend its self-interests. The dynamics involved in conflicts of interpretation and conflicts of interests are different at the cognitive, motivational, and behavioral level (De Dreu, Harinck, & Van Vianen, 1999; Druckman, 1994; Harinck, De Dreu, & Van Vianen, 2000; Levine & Thompson, 1996). Research is needed to examine the influence of minority dissent when divergent interests rather than divergent interpretations of reality are at stake.

A final avenue for future research is to examine the moderating influence of the group task. To date, research has considered group tasks in which creativity and independent thinking is useful and helps the group to perform better. We need to study the effects of minority dissent on attitude change and group performance when the group task requires convergence and consensus decision making (Peterson & Nemeth, 1995; see also Smith, Tindale, & Anderson, this volume). Also, we need to study minority dissent at different phases of group work, such as the generation of ideas and information, the exchange of information and arguments supporting or countering particular decision alternatives, and the choice among decision alternatives including its implementation. The general proposition we would like to end with, but which requires empirical testing, is that in simple, routine tasks requiring convergence in thinking and consensus decision making, minority dissent distracts and hurts group performance. In more complex, nonroutine tasks that require a certain degree of independent thinking, thorough information processing, and the full exchange of information, minority dissent may help groups to perform effectively.

In the field of organizational psychology and management science, scholars have argued that any organizational culture that values the process of continuous learning fosters dissent as a necessary and desirable part of organizational life (Argyris, 1982; Schilit & Locke, 1982; Turner & Pratkanis, 1997; West & Anderson, 1996; see also Janis, 1972). The research discussed in this chapter underlines this advice in that we showed that minority dissent stimulates (double-loop) learning, increases creativity and innovation, and prevents defective group decision making. Future research is needed to examine the influence of different types of minority dissent on these performance parameters, to examine the functionality of minority dissent in different group tasks, and to study the influence of minority dissent on "soft" performance parameters including individual well-being and health. Although the evidence for the benefits of minority dissent is increasing, it is necessary to answer these questions to truly assess the value of minority dissent in teams and organizations.

NOTE

REFERENCES

Aldag, R. J., & Fuller, S. R. (1993). Beyond fiasco: A reappraisal of the groupthink phenomenon and a new model of group decision processes. *Psychological Bulletin, 113*, 533–552.

Alvaro, E. M., & Crano, W. D. (1997). Indirect minority influence: Evidence for leniency in source evaluation and counterargumentation. *Journal of Personality and Social Psychology, 72*, 949–964.

Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of Management Journal, 39*, 1154–1184.

Argyris, C. (1982). *Reasoning, learning, and action: Individual and organizational.* San Francisco: Jossey-Bass.

Argyris, C. (1991). *Reasoning, learning, and action: Individual and organizational.* San Francisco: Jossey-Bass.

Asch, S. E. (1956). Studies of independence and conformity: A minority of one against a unanimous majority. *Psychological Monographs: General and Applied, 70*, 1–70.

Baker, S. M., & Petty, R. E. (1994). Majority and minority influence: Source–position imbalance as a determinant of message scrutiny. *Journal of Personality and Social Psychology, 67*, 5–19.

Bantell, K. A., & Jackson, S. E. (1989). Top management and innovations in banking: Does the demography of the top team make a difference? *Strategic Management Journal, 10*, 107–124.

Baron, R. S., Kerr, N., & Miller, N. (1993). *Group process, group decision, group action.* London: Open University Press.

Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology, 44*, 1–26.

Bowers, D. G., & Seashore, S. E. (1966). Predicting organizational effectiveness with a four-factor theory of leadership. *Administrative Science Quarterly, 11*, 238–263.

Butera, F., & Mugny, G. (1996). Conflict between incompetencies and influence of a low-expertise source in hypothesis testing. *European Journal of Social Psychology, 25*, 457–462.

Chaiken, S., & Stangor, C. (1987). Attitudes and attitude change. *Annual Review of Psychology, 38*, 575–630.

Cialdini, R. B., & Trost, M. R. (1998). Social influence: Social norms, conformity and compliance. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 151–192). Boston, MA: McGraw-Hill.

Coch, L., & French, J. R. (1948). Overcoming resistance to change. *Human Relations, 1*, 512–532.

Crano, W. D., & Chen, X. (1998). The leniency contract and persistence of majority and minority influence. *Journal of Personality and Social Psychology, 74*, 1437–1450.

De Dreu, C. K. W., & De Vries, N. K. (1993). Numerical support, information processing and attitude change. *European Journal of Social Psychology, 23*, 647–662.

De Dreu, C. K. W., & De Vries, N. K. (1996). Differential processing and attitude change following majority & minority arguments. *British Journal of Social Psychology, 35*, 77–90.

De Dreu, C. K. W., & De Vries, N. K. (1997). Minority dissent in organizations. In C. K. W. De Dreu & E. Van de Vliert (Eds.), *Using conflict in organizations* (pp. 72–86). London: Sage.

De Dreu, C. K. W., De Vries, N. K., Franssen, H., & Altink, W. (in press). Minority dissent in organizations: Factors influencing willingness to dissent. *Journal of Applied Social Psychology.*

De Dreu, C. K. W., De Vries, N. K., Gordijn, E., & Schuurman, M. K. (1999). Majority and minority influence under convergent or divergent thinking. *European Journal of Social Psychology, 29*, 329–348.

De Dreu, C. K. W., Harinck, F., & Van Vianen, A. E. M. (1999). Conflict and performance in groups and organizations. In C. L. Cooper & I. T. Robertson (Eds.), *International review of industrial and organizational psychology* (Vol. 11, pp. 367–405). Chichester, UK: Wiley.

De Dreu, C. K. W., & West, M. A. (2000). Minority dissent and team innovation: The importance of participation in decision making. Manuscript submitted for publication.

DeGilder, D., & Wilke, H. A. M. (1995). Expectation states theory and the motivational determinants of social influence. *European Review of Social Psychology, 5*, 243–270.

Deutsch, M. (1949). A theory of cooperation and competition. *Human Relations, 2*, 199–231.

De Vries, N. K., De Dreu, C. K. W., Gordijn, E., & Schuurman, M. (1996). Majority vs. minority influence: A dual-role interpretation. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 7, pp. 145–172), Chichester, UK: Wiley.

Dooley, R. S., & Fryxell, G. E. (1999). Attaining decision quality and commitment from dissent: The moderating effects of loyalty and competence in strategic decision-making teams. *Academy of Management Journal, 42*, 389–402.

Druckman, D. (1994). Determinants of compromising behavior in negotiation. *Journal of Conflict Resolution, 38*, 507–556.

Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly, 44*, 350–383.

Festinger, L., Gerard, H. B., Hymovitch, B., Kelley, H. H., & Raven, B. H. (1952). The influence process in the presence of extreme deviates. *Human Relations, 5*, 327–346.

Fiske, S. T. (1993). Controlling other people. *American Psychologist, 48*, 621–628.

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. 31–62): Chichester, UK: Wiley.

Frey, D., Schulz-Hardt, S., & Stahlberg, D. (1992). Information seeking among

individuals and groups and possible consequences for decision making in business and politics. In E. Witte & J. H. Davis (Eds.), *Understanding group behavior* (Vol. 2, pp. 211–226). Mahwah, NJ: Erlbaum.

Frost, P. J., & Egri, C. P. (1991). The political process of innovation. In B. M. Staw & L. L. Cummings (Eds.), *Research on organizational behavior* (Vol. 13, pp. 229–295). Greenwich, CT: JAI Press.

Gordijn, E. H., De Vries, N. K., & De Dreu, C. K. W. (2000). *Minority influence: The impact of expanding and shrinking minorities and argument quality on attitudes and information processing.* Unpublished manuscript, University of Amsterdam.

Gruenfeld, D. H. (1995). Status, ideology, and integrative complexity on the U.S. Supreme Court: Rethinking the politics of political decision making. *Journal of Personality and Social Psychology, 68*, 5–20.

Gruenfeld, D. H., Thomas-Hunt, M. C., & Kim, P. H. (1998). Cognitive flexibility, communication strategy, and integrative complexity in groups: Public versus private reactions to majority and minority status. *Journal of Experimental Social Psychology, 34*, 202–226.

Hackman, R. (1983). The design of effective work groups. In J. W. Lorsch (Ed.), *Handbook of organizational behavior* (pp. 315–342), Englewood Cliffs, NJ: Prentice-Hall.

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

Harinck, F., De Dreu, C. K. W., & Van Vianen, A. E. M. (2000). The impact of conflict issue on fixed-pie perceptions, problem solving, and integrative outcomes in negotiation. *Organizational Behavior and Human Decision Processes, 81*, 329–358.

Hirschman, A. O. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states.* Cambridge, MA: Harvard University Press.

Hoffman, L. (1959). Homogeneity and member personality and its effects on group problem solving. *Journal of Abnormal and Social Psychology, 58*, 27–32.

Hoffman, L., & Maier, N. (1961). Quality and acceptance of problem solutions by members of homogeneous and heterogeneous groups. *Journal of Abnormal and Social Psychology, 62*, 401–407.

Janis, I. L. (1972). *Victims of groupthink: A psychological study of foreign-policy decisions and fiascos.* Boston: Houghton Mifflin.

Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica, 47*, 263–291.

Keltner, D., & Robinson, R. (1997). Defending the status quo: Power and bias in social conflict. *Personality and Social Psychology Bulletin, 23*, 1066–1077.

Kluwer, E. S., Heesink, J. A. M., & Van de Vliert, E. (1997). The marital dynamics of conflict over the division of labor. *Journal of Marriage and the Family, 59*, 635–653.

Lawler, E. E., & Hackman, J. R. (1969). Impact of employee participation in the development of pay incentive plans: A field experiment. *Journal of Applied Psychology, 53*, 467–471.

LePine, J., & Van Dyne, L. (1998). Predicting voice behavior in work groups. *Journal of Applied Psychology, 83*, 853–868.

Levine, J. M. (1980). Reaction to opinion deviance in small groups. In P. Paulus (Ed.), *Psychology of group influence* (pp. 375–430). Hillsdale, NJ: Erlbaum.

Levine, J. M., & Moreland, R. (1998). Small groups. In D. Gilbert, S. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (4th ed., Vol. 2, pp. 415–468). Boston, MA: McGraw-Hill.

Levine, J. M., & Thompson, L. L. (1996). Conflict in groups. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 745–776). New York: Guilford.

Maass, A., & Clark, R. D. III. (1984). Internalization versus compliance: Differential processes underlying minority influence and conformity. *European Journal of Social Psychology, 13*, 197–215.

Martin, R., & Hewstone, M. (1999). Minority influence and optimal problem solving. *European Journal of Social Psychology, 29*, 825–832.

Moscovici, S. (1980). Toward a theory of conversion behavior. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 13, pp. 209–239). New York: Academic Press.

Moscovici, S. (1985). Social influence and conformity. In G. Lindzey & E. Aronson (Eds.), *The handbook of social psychology* (3rd ed., pp. 347–412). New York: Random House.

Moskowitz, G. B. (1996). The mediational effects of attributions and information processing in minority social influence. *British Journal of Social Psychology, 35*, 47–66.

Mugny, G., Kaiser, C., Papastamou, S., & Pérez, J. A. (1984). Intergroup relations, identification and social influence. *British Journal of Social Psychology, 23*, 317–322.

Near, J. P., & Micelli, M. P. (1995). Effective whistle-blowing. *Academy of Management Review, 20*, 679–708.

Nemeth, C. (1986). Differential contributions of majority and minority influence processes. *Psychological Review, 93*, 10–20.

Nemeth, C. (1995). Dissent as driving cognition, attitudes, and judgments. *Social Cognition, 13*, 273–291.

Nemeth, C., & Chiles, C. (1988). Modelling courage: The role of dissent in fostering independence. *European Journal of Social Psychology, 18*, 275–280.

Nemeth, C., & Kwan, J. (1985). Originality of word associations as a function of majority versus minority influence. *Social Psychology Quarterly, 48*, 277–282.

Nemeth, C., & Kwan, J. (1987). Minority influence, divergent thinking and detection of correct solutions. *Journal of Applied Social Psychology, 17*, 786–797.

Nemeth, C., Mayseless, O., Sherman, J., & Brown, Y. (1990). Exposure to dissent and recall information. *Journal of Personality and Social Psychology, 58*, 429–437.

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

O'Reilly, C. A. III., Williams, K. Y., & Barsade, S. (1998). Group demography and innovation: Does diversity help? *Research on Managing Groups and Teams, 1*, 183–207.

Park, W. (1990). A review of the research on groupthink. *Journal of Behavioral Decision Making, 3*, 229–245.

Pérez, J. A., & Mugny, G. (1987). Paradoxical effects of categorization in minority influence: When being an outgroup is an advantage. *European Journal of Social Psychology, 17*, 157–169.

Peterson, R., & Nemeth, C. (1995). Focus versus flexibility: Majority and minority influence can both improve performance. *Personality and Social Psychology Bulletin, 22*, pp. 14–23.

Peterson, R. S. (1997). A directive leadership style in group decision making can be both virtue and vice: Evidence from elite and experimental groups. *Journal of Personality and Social Psychology, 72*, 1107–1121.

Peterson, R. S., Owens, P. D., Tetlock, P. E., Fan, E. T., & Martorana, P. (1998). Group dynamics in top management teams: Groupthink, vigilance, and alternative models of organizational failure and success. *Organizational Behavior and Human Decision Processes, 73*, 272–305.

Pruitt, D. G. (1998). Social conflict. In D. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (4th ed., Vol. 2, pp. 89–150). New York: McGraw Hill.

Ritov, I., & Baron, J. (1995). Outcome knowledge, regret, and omission bias. *Organizational Behavior and Human Decision Processes, 64*, 119–127.

Rubin, J. Z., & Brown, B. R. (1975). *The social psychology of bargaining and negotiation.* New York: Academic Press.

Rubin, J. Z., Pruitt, D. G., & Kim, S. H. (1994). *Social conflict: Escalation, stalemate, and settlement.* New York: McGraw-Hill.

Rusbult, C. E., Farrell, D., Rogers, G., & Mainous, A. G. III. (1988). Impact of exchange variables on exit, voice, loyalty, and neglect: An integrative model of responses to declining job satisfaction. *Academy of Management Journal, 31*, 599–627.

Samuelson, W., & Zeckhauser, R. (1988). Status quo bias in decision making. *Journal of Risk and Uncertainty, 1*, 7–59.

Schilit, W. K., & Locke, E. A. (1982). A study of upward influence in organizations. *Administrative Science Quarterly, 27*, 304–316.

Schweiger, D., Sandberg, W., & Rechner, P. (1989). Experimental effects of dialectical inquiry, devil's advocacy, and other consensus approaches to strategic decision making. *Academy of Management Journal, 32*, 745–772.

Schweiger, D. M., Sandberg, W. R., & Ragan, J. W. (1986). Group approaches for improving strategic decision making: A comparative analysis of dialectical inquiry, devil's advocacy, and consensus. *Academy of Management Journal, 29*, 51–71.

Schweitzer, M. (1994). Multiple reference points, framing, and the status quo bias in health care financing decisions. *Organizational Behavior and Human Decision Processes, 63*, 69–72.

Schwenk, C. R. (1990). Effects of devil's advocacy and dialectical inquiry on decision making: A meta-analysis. *Organizational Behavior and Human Decision Processes, 47*, 161–176.

Sherif, M. (1936). *The psychology of social norms.* New York: Harper & Row.

Simons, T., Pelled, L. H., & Smith, K. A. (1999). Making use of difference: Diversity, debate, and decision comprehensiveness in top management teams. *Academy of Management Journal, 42,* 662–673.

Smith, C. M., Tindale, R., & Dugoni, B. L. (1996). Minority and majority influence in freely interacting groups: Qualitative versus quantitative differences. *British Journal of Social Psychology, 35,* 137–150.

Smith, C. M., Tindale, S. R., & Dugoni, B. L. (1996). Minority and majority influence in freely interacting groups: Qualitative versus quantitative differences. *British Journal of Social Psychology, 35,* 137–150.

Sorrentino, R. M., & Short, J. C. (1986). Uncertainty orientation, motivation, and cognition. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition: Foundations of social behavior* (pp. 379–403). New York: Guilford Press.

Taylor, R. N. (1992). Strategic decision making. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (2nd ed., pp. 651–717). Palo Alto, CA: Consulting Psychologists Press.

Tetlock, P. E., Peterson, R. S., McGuire, C., Chang, S., Feld, P. (1992). Assessing political group dynamics: A test of the groupthink model. *Journal of Personality and Social Psychology, 63,* 403–425.

Trost, M. R., Maass, A., & Kenrick, D. T. (1992). Minority influence: Personal relevance biases cognitive processes and reverses private acceptance. *Journal of Experimental Social Psychology, 28,* 234–254.

Turner, M. E., & Pratkanis, A. (1997). Mitigating groupthink by stimulating constructive conflict. In C. K. W. De Dreu & E. Van de Vliert (Eds.), *Using conflict in organizations* (pp. 53–71). London: Sage.

Van Dyne, L., & LePine, J. (1998). Helping and voice extra-role behaviors: Evidence of construct and predictive validity. *Academy of Management Journal, 41,* 108–119.

Van Dyne, L., & Saavedra, R. (1996). A naturalistic minority influence experiment: Effects on divergent thinking, conflict, and originality in work-groups. *British Journal of Social Psychology, 35,* 151–168.

Vickers, G. (1967). *Towards a sociology of management.* New York: BasicBooks.

Weick, K. E. (1979). *The social psychology of organizing.* New York: Random House.

West, M. A., & Farr, J. L. (1990). Innovation at work. In M. A. West & J. L. Farr (Eds.), *Innovation and creativity at work: Psychological and organizational strategies* (pp. 3–13). Chichester, UK: Wiley.

West, M. A. (1997). *Developing creativity in organizations.* Leicester, UK: British Psychological Society.

West, M. A., & Anderson, N. R. (1996). Innovation in top management teams. *Journal of Applied Psychology, 81,* 680–693.

West, M. A., Borrill, C. S., & Unsworth, K. (1998). Team effectiveness in organizations. In C. L. Cooper & I. T. Robertson (Eds.), *International review of industrial and organizational psychology* (Vol. 13, pp. 1–48). Chichester, UK: Wiley.

Williams, K. Y., & O'Reilly, C. A. III. (1998). Demography and diversity in organi-

zations: A review of 40 years of research. *Research in Organizational Behavior, 20,* 77–140.

Wood, W., Lundgren, S., Ouellette, J. A., Busceme, S., & Blackstone, T. (1994). Minority influence: A meta-analytical review of social influence processes. *Psychology Bulletin, 115,* 323–345.

Wood, W., Pool, G. J., Leck, K., & Purvis, D. (1996). Self-definition, defensive processing, and influence: The normative impact of majority and minority groups. *Journal of Personality and Social Psychology, 71,* 1181–1193.

Yukl, G., & Falbe, C. M. (1990). Influence tactics and objectives in upward, downward, and lateral influence attempts. *Journal of Applied Psychology, 75,* 132–140.