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## Recent Research on Team and Organizational Diversity: SWOT Analysis and Implications

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*Sixty-three studies published in the years 1997–2002 are reviewed to assess the effects of workplace diversity on teams and organizations. Four major questions are considered: Which personal attributes have diversity researchers studied in recent years? What has been learned about the consequences of diversity for teams and organizations? What has been learned about the role of context in shaping the effects of diversity? How has research addressed the multi-level complexities inherent in the phenomenon of diversity? For each question, we consider the strengths and weaknesses of recent diversity research, point out opportunities for new research, and identify threats to continued advancement. The review concludes by considering practical implications of the accumulated evidence.*

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During the past decade, the domain of “diversity” has grown to encompass a wide range of research on a variety of phenomena. An overview of the debates and history associated with the term recently appeared in this journal (Ashkanasy, Hartel & Daus, 2002) and will not be repeated here. Instead, we begin by simply explaining how we use the term *diversity* in this article and describing the domain of research that is the focus of this article.

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## Domain of the Present Study

### *Meaning of Diversity*

We use the term *diversity* to refer to the distribution of personal attributes among interdependent members of a work unit. The body of research included reflects a perspective that is sometimes referred to as the compositional approach (see Tsui & Gutek, 1999) or the configurational approach (cf. Moynihan & Peterson, 2001). Studies of differences between members of socially-defined groups—such as men and women; Americans, Arabs, and Armenians—are included only if compositional effects also are included in the study (see Kling, Hyde, Showers & Buswell, 1999; Konrad, Ritchie, Lieb & Corrigan, 2000; Roberson & Block, 2001, for recent reviews of research on group differences). Likewise, studies of relational demography (for a review, see Riordan, 2000) are included only if compositional effects also were examined.

The units of interest are organizational groups of at least three people in bona fide work settings. We excluded laboratory studies of students performing artificial tasks and focused instead on studies conducted in more naturalistic settings. The groups studied included production teams, top management teams, corporate boards, temporary task forces, functional departments, divisions, total organizations, and student teams working on required class projects.

### *Attributes*

The attributes of interest were those that can be readily detected upon first meeting a person (e.g., age, sex, racio-ethnicity), underlying attributes that become evident only after getting to know a person well (e.g., personality, knowledge, values), and attributes that fall between these two extremes of transparency (e.g., education, tenure). Some of the attributes we consider had direct relevance to the work (e.g., job tenure) while other attributes were only indirectly relevant to the work (e.g., sex). Rather than identify specific attributes in advance, we included all the attributes that researchers had examined in the studies located for this review. In other words, we adopted the “diluted” meaning of diversity that has gained widespread acceptance by researchers as well as diversity practitioners (see Linnehan & Konrad, 1999).

### *Search for Relevant Studies*

To obtain studies for inclusion, we conducted an electronic search for the years 1997–2002 using numerous relevant key terms. In addition, we manually searched 19 target journals. These two methods of search yielded 63 empirical studies. Given the time frame for this review, it serves as an update of the research covered in several earlier narrative reviews (including Elsass & Graves, 1997; Finkelstein & Hambrick, 1996; Jackson, May & Whitney, 1995; Milliken & Martins, 1996; Reskin, McBrier & Kmec, 1999; Shaw & Barrett-Power, 1998; Tsui & Gutek, 1999; Williams & O’Reilly, 1998). The narrative method used in this review complements the recent meta-analysis conducted by Webber and Donahue (2001).

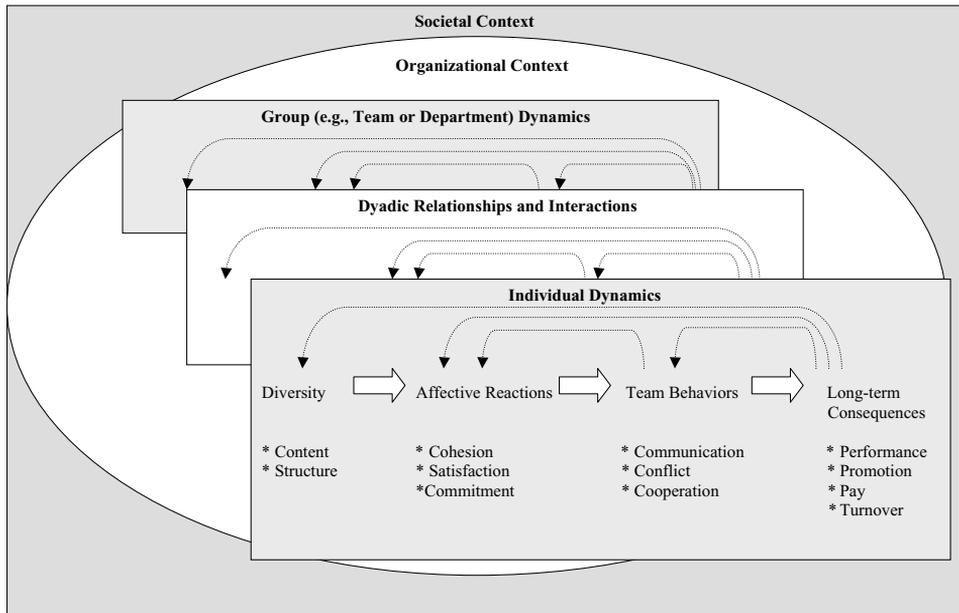


Figure 1. A multi-level framework for understanding the dynamics of diversity.

### Organizing Framework for SWOT Analysis

The model represented by Figure 1 shows the framework that guided our review and evaluation of the literature. Specifically, we address the following questions:

1. Which personal attributes have diversity researchers studied in recent years?
2. What has been learned about the consequences of diversity for teams and organizations?
3. What has been learned about the role of context in shaping the effects of diversity?
4. How has research addressed the multi-level complexities inherent in the phenomenon of diversity?

For each question, our discussion follows the structure of a SWOT analysis (a term we use loosely here). First we consider the strengths and weaknesses of recent diversity research. Then we point out opportunities for new research that could further advance our understanding of the dynamics of diversity, and consider potential threats to continued advancement. To conclude, we consider the practical implications of the accumulated evidence.

### Attributes Studied

Several taxonomies of the *content* of diversity have been offered to describe the array of personal attributes of interest to researchers (e.g., Jehn, Northcraft & Neale, 1999; Milliken

& Martins, 1996). Following Jackson et al.'s (1995) taxonomy, we differentiated between task-related and relations-oriented attributes as well as readily detectable and underlying attributes. Relations-oriented diversity includes demographics such as age, sex and racio-ethnicity, which may shape interpersonal relationships but usually do not have direct bearing on performance. Task-oriented diversity reflects attributes which are likely to be related to knowledge, skills and abilities needed in the workplace (i.e., function, tenure, education).

Typically, detectable attributes such as age, sex and racio-ethnicity have been considered representations of an individual's values, beliefs and attitudes (Fiske, 1993). From a legal perspective these attributes also represent protected categories and are therefore of interest to organizations aiming to comply with Title VII law. Recently there has been a growing interest in other detectable traits because they are thought to be associated with work-related knowledge, attitudes and behaviors.

In addition, there has been a rebirth (cf. Haythorn, 1968; Hoffman, 1959) of interest in the effects of underlying attributes such as personality and attitudes. Several studies incorporated Big Five dimensions of personality, attitudinal diversity or other measures of "deep" or underlying diversity (e.g., Barrick, Stewart, Neubert & Mount, 1998; Harrison, Price, Gavin & Florey, 2002).

### *Summary of Findings*

Most studies addressed the effects of readily-detected, relations-oriented traits, such as sex, racio-ethnicity and age. Together, readily-detected attributes accounted for 89% of the diversity effects reported. The relations-oriented attributes that researchers most often included were sex (included in 34% of studies), racio-ethnic diversity (included in 24% of studies), and age (included in 31% of studies) diversity. Of the effects reported, 24% were for task-relevant attributes. Specifically, researchers reported the effects of functional background (24% of studies), education level (19% of studies), and job tenure (13% of studies) diversity. Table 1 provides details of the reported effects of diversity on the three categories of outcomes most often examined in recent research.

Diversity with respect to a single attribute (e.g., sex or racio-ethnicity) may influence attitudes and behavior, but studies that assess only one aspect of diversity fail to capture the full spectrum of diversity found in organizations (Cox, 1993). Nevertheless, approximately 43% of the studies we reviewed focused on one diversity attribute only. Researchers' choices of focal attributes varied greatly.

On average, researchers reported diversity effects for two attributes, with some combinations being more common than others. Of the studies that included sex diversity, nearly 50% also included racio-ethnic diversity. Studies that assessed age diversity also included sex diversity (50%), education level diversity (50%) functional diversity (51%), job tenure diversity (26%) and organization tenure diversity (21%). Task-related attributes, such as functional background and education level were most often examined in combination with age. We found few studies of personality diversity (5%) or diversity in terms of attitudes and beliefs (these studies are grouped under "other" forms of diversity in Table 1). When underlying attributes were studied, researchers were likely to also include measures of readily-detected diversity (e.g., see Barsade, Ward, Turner & Sonnenfeld, 2000; Eby & Dobbins, 1997; Harrison, Price & Bell, 1998; Simons, Pelled & Smith, 1999; Thomas, 1999).

Table 1  
Frequency of attributes and outcomes studied in diversity research<sup>a</sup>

Type of diversity	Performance outcomes	Process outcomes	Affective outcomes	Total
Age	25	1	2	28
Cognitions/mental models	8	–	–	8
Cultural values	2	–	–	2
Education (content)	2	–	–	2
Education (level)	17	–	1	18
Functional background	18	–	–	17
Nationality	1	–	–	1
Personality	3	2	2	5
Racio-ethnicity	11	5	5	21
Sex	23	7	5	35
Tenure (in job/team)	8	–	1	9
Tenure (in organization)	13	–	1	14
Other <sup>b</sup>	13	6	3	22

<sup>a</sup> Values indicate the number of effects reported, not the number of published studies. Values do not total 100% because a study may include more than one attribute and/or outcome.

<sup>b</sup> Includes aspects of diversity such as value diversity or attitudinal diversity (e.g., diversity in collectivistic orientation).

### Strengths

Studies of readily-detected, relations-oriented diversity (sex, racio-ethnicity, and age) predominate empirical work on workplace diversity. The rich theoretical background offered by social identity theory and social categorization theory frames much of this research (Brewer, 1995; Jackson et al., 1995; Williams & O'Reilly, 1998). Social identity theory has been used to predict and understand how diversity influences individual attitudes and behavior as well as team dynamics. To explain the effects of diversity on individual outcomes, the basic argument is that one's similarity on visible and relatively immutable traits influences feelings of identification (Tsui, Egan & O'Reilly, 1992). Within groups, identification based on demographic similarity is associated with in-group biases and team conflict. By extending the logic of theories that explain individual attitudes and behavior, diversity researchers have found a strong theoretical rationale for making predictions about how diversity is likely to influence social processes within teams and organizations (e.g., Jehn et al., 1999; Pelled, Eisenhardt & Xin, 1999). Although social categorization and social identity theory were developed originally to explain the effects of readily-detected diversity, some scholars have used these theories to explain the effects of personality and value-based diversity (e.g., Thomas, 1999).

### Weaknesses

With the exceptions of social categorization and social identity theory, most of the arguments offered to explain the effects of readily-detected attribute diversity assume that readily-detected attributes are associated with underlying attributes, which in turn, drive behavior. For example, explanations for the effects of cultural diversity have pointed to

the behavioral correlates of cultural values and their likely implications for individual behaviors that may influence team performance (Kirkman & Shapiro, 2001; Thomas, 1999). For researchers who study top management teams, a common line of argument is that readily-detected diversity reflects cognitive diversity, which in turn influences team decisions and thus firm performance. Despite compelling pleas for researchers to measure the underlying diversity that is so central to this line of reasoning (Lawrence, 1997), such research remains scarce.

When researchers invoke underlying diversity as an explanation for the effects of readily-detected diversity, encouraging them to include measures of underlying diversity may be appropriate. Nevertheless, it is important to recognize that the established theoretical value of social identity theory justifies research that examines the effects of readily detectable diversity without invoking underlying diversity as the explanation for any observed results. The logic of social identity theory does not presume an empirical relationship between readily-detected and underlying attributes. To the contrary, it asserts that intergroup relations cannot be reduced to individual psychology (Turner & Haslam, 2001). The same is true of other sociological explanations of intergroup relations (e.g., status characteristics, numerical distinctiveness, institutional racism). Lack of familiarity with the variety of legitimate theoretical approaches that may shed light on diversity dynamics also represents a weakness in a community of scholars that should value intellectual diversity.

Another weakness concerns the measurement and conceptualization of an individual's identity or status characteristics, and thus the measurement and conceptualization of team and organizational diversity. Most researchers attempt to identify the unique and independent effects of various dimensions of diversity (e.g., sex, race-ethnicity, age); this is true even when they include multiple dimensions of diversity in a study. Very few studies (less than 5%) addressed the question of whether the effect of a particular dimension of diversity depends on the presence or absence of other dimensions of diversity. A few studies that examined multi-dimension diversity illustrate the potential value of this approach. For example, Jehn and her colleagues (1999) found that informational (education and function) diversity was negatively related to group efficiency when social category diversity (sex and age) was high, but not when it was low. Similarly, Pelled et al. (1999) found that the consequences of diversity for team conflict were best understood by taking into account interactive effects for specific dimensions of diversity.

Recent theoretical contributions to the field call for a multi-dimensional approach to defining diversity (e.g., Jackson & Joshi, 2001; Lau & Murnighan, 1998; Ofori-Dankwa & Julian, 2002). It seems likely that social processes and their outcomes are influenced by the complex confluence of diversity dimensions, not isolated dimensions of diversity. An R&D team member may identify herself as well as her team members using multiple attributes (e.g., "White female engineer" or "Asian male scientist"). The team's outcomes may be determined by the configuration of team members' demographic and/or identity profiles (cf. Frable, 1997). Conceptually, it makes sense that the diversity of *attribute profiles* found within teams is likely to influence individual and team outcomes. Unfortunately, diversity researchers (ourselves included!) have not yet succeeded in tackling the challenge of empirically assessing multi-dimensional diversity.

## *Opportunities*

The preceding discussion suggests several opportunities for new research. One apparent opportunity is to incorporate aspects of diversity that were underrepresented. For example, if worldwide conflicts make religion more salient within the U.S., this may have important consequences for workplace dynamics. Furthermore, examining religious diversity may increase the global relevance of diversity research conducted in the United States. It is interesting to note, for example, that the national census in Ireland identifies the number of people with each of several religious affiliations but it makes no attempt to assess racio-ethnicity. Conversely, the U.S. census uses numerous categories to describe ethnicity but it does not assess religion.

Including measures of underlying diversity as well as readily-detected diversity is another opportunity for gaining new insights. The potential value of this approach was demonstrated in a study that assessed both gender and attitudinal diversity (Harrison et al., 2002). The results suggested that readily-detected diversity influenced team functioning when teams had little experience together, but over time underlying diversity was more influential. Although the number of studies considering underlying diversity is still small, such research seems promising. In addition to studies of attitudinal diversity, we hope to see new research on diversity in cognitive/decision-making styles (see Simons et al., 1999), cultural values (Kirkman & Shapiro, 2001; Thomas, 1999), personality (Barrick et al., 1998; Neuman, Wagner & Christiansen, 1999), and mental models (Levesque, Wilson & Wholey, 2001; Rentsch & Klimoski, 2001).

New theoretical developments might also improve our understanding of diversity dynamics. Most research adopts a psychological approach, applying social psychological theories such as social identity theory and social categorization theory to understand the effects of workplace diversity (Brewer, 1995; Northcraft, Polzer, Neale & Kramer, 1995). Including sociological theories of conflict and competition (e.g., Tolbert, Andrews & Simon, 1995) and economic theories of labor markets (e.g., Blau, 1977) would undoubtedly enrich our understanding of diversity dynamics.

Multi-disciplinary work may also stimulate new approaches to measuring diversity. Sociometric techniques such as social network analysis may offer solutions to the problem of measuring diversity's multi-dimensional nature (e.g., see Joshi, 2002). Greater use of qualitative ethnographic narratives offers another avenue for new research (e.g., see Bell & Nkomo, 2001; Li, Xin & Pillutla, 2002; Thomas & Ely, 2001). Content analyses of qualitative narratives may prove useful for understanding which attributes are most closely associated in everyday cognitive stereotypes and self-concepts, and thereby provide a grounded basis for investigating the effects of multi-dimensional diversity.

Overall, for these and other reasons, expanding diversity research to incorporate a greater diversity of disciplinary insights is an exciting and fruitful opportunity.

## *Threats*

Despite researcher's intensive efforts to measure diversity and predict its outcomes, the literature offers few conclusive findings about the effects of diversity in the workplace.

Lack of a common paradigm will make it difficult to accumulate comparable findings over time, while agreement around some issues could accelerate our ability to learn from the accumulating evidence.

One useful element of a common paradigm would be for researchers (and journal editors) to agree to some expectations for research designs. One expectation might be that it is preferable to assess multiple dimensions of diversity. Consider, for example, how quickly our understanding of sex, racio-ethnicity, and age diversity would advance if the majority of studies that assessed any one of these variables also included the other two. Including multiple diversity measures could be accepted as appropriate even if a researcher's primary interest lay elsewhere. Consider how much easier it would be to interpret findings about age or tenure diversity if researchers included measures of both in their studies, rather than one or the other. It would also be worthwhile to provide more sensitive and precise measures of tenure measures, as suggested by [Carroll and Harrison \(1998\)](#).

Another useful element of a common paradigm would involve ensuring that analyses are conducted to control for central tendency composition when assessing the effects of compositional variance. Under certain conditions, measures of variance are influenced by mean values as well as dispersion ([Bedeian & Mossholder, 2000](#)). Furthermore, there is some evidence that central tendency and dispersion-based measures of diversity can have unique effects on team performance ([Barrick et al., 1998](#); [Thomas, 1999](#)). Yet, we found that central tendency indicators were examined in conjunction with variance measures only 35% of the time.

Finally, especially in studies of racio-ethnic diversity, it may be helpful for diversity researchers to consider the specific contours of diversity within a team and pay more attention to the differential experiences of each identity group. It is apparent that individuals respond differently to their minority status depending on whether they are in solo, token, or "tilted" situations (see [De Vries & Pettigrew, 1998](#)), perhaps because these differing situations alter the salience of particular identities. It is also likely that the experience and meaning of being a minority member varies considerably depending on a person's own specific attributes (e.g., see [Tsui et al., 1992](#)). By extension, team processes and team performance also may be influenced by the specific structure and content of diversity present, not simply the degree of heterogeneity or homogeneity ([Randel, 2002](#)).

### **The Consequences of Diversity**

We used three categories to code the effects reported in the studies we reviewed: performance, behavioral processes, and affect. Conceptually, affective reactions such as satisfaction are easily differentiated from social processes, such as conflict and cooperation. Empirically, however, the distinction is less clear. Social processes are frequently measured using self-reported measures, which may be influenced by affective reactions. Perhaps for this reason, [Williams and O'Reilly \(1998\)](#) considered affective reactions to be components of team processes. Despite the potential measurement problems, we differentiated between affective and process outcomes to assess whether the pattern of results differed for these two categories of effects.

### Summary of Findings

Table 1 shows the distribution of effects studied. Diversity researchers have recently shown a clear preference for studying performance outcomes rather than affective reactions and social processes. Consistent with the framework shown in Figure 1, most studies assumed that diversity influences affective reactions and social processes within teams and organizations. Social processes in turn were assumed to provide the explanations for the effects of diversity on team and/or organizational performance.

*Affective reactions.* Decades of research on similarity and attraction indicate that people tend to dislike dissimilar others, all else being equal. By extension, it has been argued that diversity is likely to have negative consequences for affective reactions such as cohesion, satisfaction, and commitment (e.g., see Pfeffer, 1983). Several early studies showing that diversity was associated with higher turnover rates seemed to support that conclusion.

Reflecting the influence of Pfeffer's early work, cohesion, satisfaction and commitment were the most frequently studied affective reactions. Nevertheless, team-level affective outcomes were assessed in only 8% of the studies we reviewed. When affective reactions are measured directly (rather than being inferred from behaviors such as turnover), the pattern of results is much less clear than one might anticipate. The effect of diversity on affective reactions was sometimes nonsignificant, sometimes mixed depending on which dimension of diversity is examined, and sometimes positive (Fields & Blum, 1997; Harrison et al., 1998; Jehn & Mannix, 2001; Jehn et al., 1999). Although diversity was sometimes associated with negative affective reactions, the overall pattern of results was not as clear, nor as discouraging, as some readers may have assumed.

*Team processes.* To explain why diversity might influence outcomes such as turnover rates and performance, most scholars posit a relationship between diversity and team processes such as communication, use of information, cooperation, and conflict. Based on their review of studies linking demographic diversity to team processes, Williams and O'Reilly (1998), concluded that "increased diversity, especially in terms of age, tenure, and ethnicity, typically has negative effects on social integration, communication and conflict." They also noted, however, that the scant evidence concerning the effects of educational and functional diversity suggested that these types of diversity could improve team processes. Approximately 5% of the studies we reviewed examined the effects of diversity on process (e.g., conflict, cooperation) alone. In addition, a few studies (19%) examined team processes as potential mediators of the proposed diversity-to-performance relationship. The general pattern across studies provides little support for the argument that the effects of diversity on performance are due to the effects of diversity on team processes, as depicted in Figure 1. For example, in a study of top management teams, the effect of positive affect diversity on cooperation and conflict depended on the mean level of positive affect present within teams. The overall pattern of interactions was quite complex and showed no overall positive or negative effect of diversity on team processes (Barsade et al., 2000). When the dynamic nature of team processes is considered, diversity's consequences appear to evolve over time and in relation to impending deadlines (Jehn & Mannix, 2001).

Even when diversity is associated with both team processes and team performance, formal tests for mediation sometimes support the hypothesis that team processes mediate the effects of diversity (e.g., Chatman & Flynn, 2001; Elron, 1997), but other results suggest that the effects of diversity on these two outcomes are independent (e.g., Barsade et al., 2000).

*Performance.* Studies of diversity's effects on performance have flourished in recent years. Nearly 75% of the studies we reviewed examined performance outcomes for teams or organizations. Performance was typically measured using financial indicators of firm performance and manager or team-member ratings of team effectiveness.

Our examination of these studies yielded few discernible patterns in the results. For most diversity dimensions, the findings across studies were mixed. For example, in one study, team performance was positively related to diversity on two of the Big Five *personality* dimensions (extraversion and emotional stability), but was unrelated to diversity on three of the Big Five dimensions (Neuman et al., 1999).

A study on the effects of *sex diversity* on the (rated) performance of military officers found that sex diversity influenced the performance (ratings) of women, but not the performance (ratings) of men (Pazy & Oron, 2001). A study of student teams working on a simulation found that sex composition was related to some measures of performance but not others (Fenwick & Neal, 2001). Other studies of sex diversity have found its effects on performance are sometimes positive (Jackson & Joshi, 2003; Rentsch & Klimoski, 2001), sometimes negative (Jehn & Bezrukova, 2003), and sometimes not significant (Richard, 2000; Watson, Johnson & Merritt, 1998).

Findings regarding *age diversity* were also mixed. For example, even if one considers only top management teams, some studies reported positive effects of age diversity on performance (Kilduff, Angelmar & Mehra, 2000), while others reported no significant effects (Bunderson & Sutcliffe, 2002; Simons et al., 1999). In a study of sports teams, Timmerman (2000) found that age diversity was unrelated to performance when the task required little interdependence (baseball) and negatively related to performance when the task required more interdependence (basketball).

The pattern of mixed results also holds for studies of *international diversity*. Some studies found its effects on performance were positive (Earley & Mosakowski, 2000; Elron, 1997), but others found that international diversity was detrimental to performance in the long run (Watson et al., 1998).

There are two exceptions to the general pattern of mixed findings. First, recent results seem to support the conclusion that *functional/occupational diversity* improves at least some types of performance (Barsade et al., 2000; Carpenter, 2002; Jehn & Bezrukova, 2003; Krishnan, Miller & Judge, 1997; Pitcher & Smith, 2000). Teams that engage in vigorous debate may gain the most from functional diversity (Simons et al., 1999; Tjosvold, Hui, Ding & Hu, 2003). Note, however, that the positive effect of functional diversity may be sensitive to the particular measurement approach used in the study (Bunderson & Sutcliffe, 2002).

Second, the evidence that supports the often-made claim that *racio-ethnic diversity* improves performance is limited. One study found no significant relationship (Jehn & Bezrukova, 2003). Some studies reported negative effects of racio-ethnic diversity on performance (Jackson & Joshi, 2003; Kirkman, Tesluk & Rosen, 2001; Leonard, Levine & Joshi,

2003; Townsend & Scott, 2001). One study (Timmerman, 2000) found that racio-ethnic diversity was detrimental to performance for a task that required high interdependence (basketball) and it was unrelated to performance for a task that required little interdependence (baseball). One study (Richard, 2000) found that racio-ethnic diversity was beneficial for firm performance when a growth strategy was being pursued, but it was detrimental for downsizing firms.

### *Strengths*

The body of evidence concerning the effects of diversity on performance has grown substantially in recent years. Studies have been conducted in a wide variety of field settings, and the majority of these studies used comparable research designs. Because multiple dimensions of diversity were often included in these studies, we can be somewhat more confident that effects are accurately attributed to the correct dimension of diversity. In addition, this work is grounded in a set of clearly articulated theoretical perspectives—including social identity/social categorization theory (21%), the upper echelons perspective (14%), and the value-in-diversity approach (11%). As an accepted paradigm emerges, it may become easier to identify empirical trends across studies.

### *Weaknesses*

Despite these strengths, we recognize some notable weaknesses in the research on diversity and performance. One weakness is that researchers have mostly ignored two important dimensions of diversity—status and specific skills. Status and power are often invoked as explanations for the effects of diversity, yet none of the studies we reviewed attempted to measure the status of individual team members or the degree of status differentiation within teams. Similarly, while few diversity researchers would deny the importance of relevant skills and abilities in determining performance (Krishnan et al., 1997), field research on team and organizational performance has usually ignored the content and structure of task-specific skill diversity. Arguably, this criticism is less applicable to research on top management teams, which often includes measures of educational and occupational diversity. But even in these studies, usually no attempt is made to assess the degree of match between the personal backgrounds of team members and the demands of their current jobs.

The preponderance of studies that examine team and organization outcomes, and the paucity of research that considers how diversity affects the performance, pay, promotion, or turnover decisions of individuals with various background attributes is another weakness of the growing body of diversity research. Studies of team and organizational outcomes are surely useful, but the increased attention paid to teams and organizations may have come at the expense of improving our understanding of how diversity shapes the thoughts, feelings, behavior and long-term career outcomes of individuals.

### *Opportunities*

As we noted, researchers often ignore status differentials among team members. They do so even when studying top management teams, where authority hierarchies are usually

quite apparent: CEOs, board members, and executives who do not serve on the board are not all created equal when it comes to status and authority. The large pool of studies that have already been conducted on top management teams (TMTs) present a unique opportunity for testing new conceptual models that incorporate status effects. In many instances, existing data could simply be reanalyzed. By acknowledging status and considering it more explicitly, future research may begin to clarify how various aspects of team composition influence social systems.

With a few exceptions, the interplay between leadership and diversity remains largely unexplored. This is somewhat surprising in light of the blossoming of research that examines leadership and relational demography (e.g., [Pelled & Xin, 1997](#)). Contributions to our understanding of leadership might be made by diversity research that takes into account CEO characteristics and the relational similarity of the CEO to other top management team members (e.g., see [Barsade et al., 2000](#); [Pitcher & Smith, 2000](#)). The absence of relevant theoretical frameworks may be one explanation for the lack of research on leadership and diversity. [Turner and Haslam's \(2001\)](#) recent discussion of the ways in which social identity processes may influence leaders and followers promises to move such theoretical discussion forward, however.

Expanding the range of consequences considered in studies of team diversity is another opportunity. For example, a study of 625 firms found that top management team diversity was associated with corporate ideology ([Goll, Sambharya & Tucci, 2001](#)). Investigating new diversity consequences goes hand-in-hand with conducting research aimed at understanding the dynamics of diversity in larger organizational units. Whereas many studies of team diversity have been reported, we know little about whether conclusions from this research apply to departments, business units, or entire organizations. For example, at the organizational level, diversity dynamics may provide useful insights about how to more effectively manage joint ventures, mergers, acquisitions and various forms of strategic alliances (e.g., see [Hambrick, Li, Xin & Tsui, 2001](#); [Jackson & Schuler, 2003](#); [Li et al., 2002](#); [Schuler, Jackson & Lao, 2003](#)). Diversity dynamics may also be useful for understanding patterns of knowledge flows in organizations (e.g., see [Jackson & Erhardt, in press](#)).

Finally, we encourage diversity researchers to consider the individual-level employment consequences of team and organizational diversity. For example, there is evidence showing that the proportions of men and women within an establishment influence women's outcomes (e.g., [Cohen, Broschuk & Haveman, 1998](#); [Hultin & Szulkin, 1999](#)). Such findings raise the question of whether team or work unit diversity, defined more broadly as we do in this article, predicts pay and other individual employment outcomes. By illuminating the effects of diversity on managers' performance ratings and employment decisions, for example, research on team and organizational diversity could contribute to reducing workplace bias and discrimination (e.g., see [Powell & Butterfield, 2002](#)).

### *Threats*

Failure to consider new theoretical models may represent the greatest threat to advancement. For more than a decade, the predominant model underlying most diversity research is similar to the one shown in [Figure 1](#). While this model may have some merit, the available evidence does not support the assumption that diversity influences performance through

its effects of team processes. Perhaps the effects of diversity on affective reactions and social processes occur somewhat independently of the effects of diversity on performance. For example, members of diverse work teams may evaluate their teams as being less effective even when external evaluators evaluate them as equally effective (Baugh & Graen, 1997). Alternative causal paths should also be considered. For example, perhaps affective conditions and performance influence behaviors and decisions that shape who stays in the team, who leaves, who is attracted to the team, and who is admitted as a new member.

Even small modifications to existing theory could prove useful. For example, diversity researchers typically examine only linear relationships between diversity and outcomes of interest, and ignore possible nonlinear relationships. Departing from this approach, Earley and Mosakowski (2000) found that both homogeneous teams and highly diverse teams developed more positive team dynamics and subsequently performed better, in comparison to moderately diverse teams. In another example, demography was pitted against social influence processes as an explanation for executive belief patterns (Chattopadhyay, Glick, Miller & Huber, 1997). The authors concluded that social influence processes provided a better explanation of executives' beliefs, compared to demography influences.

### The Role of Context

When research is conducted in field settings, context is inescapable—regardless of whether or not researchers pay attention to it. For work teams, departments and even whole organizations, context provides the purpose, resources, social cues, norms, and meanings that shape behavior. Context is where other teams, departments and organizations live (Hackman, 1999).

*Context* is an ambiguous term. Often it is used as a catch-all for contingencies that might shape the contours of the phenomena under investigation. In any study, many aspects of context might be considered (for a detailed description, see Rousseau & Fried, 2001). Some aspects of context describe the social unit under investigation, while other aspects of context describe the larger social systems within which the focal unit is embedded. If teams are the focal unit, then team size and team task are aspects of context, as are various conditions that describe the organization that houses the team. The context of an organization includes its competitive strategy, patterns of social integration (vs. segregation), organizational climate and culture, diversity history (e.g., exposure to discrimination lawsuits), and the presence of specific practices for managing diversity (e.g., affirmative action policies, diversity training programs). For societies, examples of contextual factors include ongoing debates related to laws and regulations, political events, intergroup conflicts within and between societies, and economic conditions.

Context also includes temporal elements. Diversity dynamics among strangers are likely to differ from those among long-time collaborators (cf. Jackson, Stone & Alvarez, 1993). Furthermore, in natural work settings turnover is typically ongoing. As people enter and leave, work units undergo recomposition, which is another temporal element of context (see Hopkins & Hopkins, 2002).

### Summary of Major Findings

Of these potential contextual influences, those that recently received the most attention were task characteristics, organizational culture, strategic context, and temporal context.

*Task characteristics.* Long before management scholars began investigating the effects of workplace diversity, psychologists conducted numerous experiments to investigate the effects of team composition on a variety of individual and team outcomes. Reviews of this earlier research suggested the importance of task characteristics as moderators of diversity effects (see Jackson, 1992a, 1992b). Focusing on task routineness/complexity, Pelled et al. (1999) presented arguments for two competing patterns of moderation. On the one hand, diversity might induce less conflict in teams working on routine (vs. complex) tasks, because such tasks do not require extensive discussion and exchange. On the other hand, diversity might induce more conflict in teams working on routine tasks. Essentially, the rationale presented for the latter effect was that routine tasks are boring so team members seek stimulation and diversity becomes a resource for the team's need for greater stimulation. In their study of 45 work teams, task routineness had a significant moderating effect, but the pattern of results was quite complex: Functional diversity was more strongly associated with task conflict for teams working on relatively routine tasks. Racio-ethnicity and tenure diversity were less strongly associated with emotional conflict for teams working on relatively routine tasks. For age and sex diversity, task routineness showed no significant moderating effects.

For TMTs, essential features of the team task may vary depending on whether the firm is performing poorly or well. Consistent with the argument that task demands moderate the effects of team diversity, top management team diversity was more likely to result in strategic change when teams were under pressure to improve poor performance (Boeker, 1997).

*Organizational culture.* Several authors have argued that organizational cultures shape diversity dynamics. Cox (1993) and Cox and Tung (1997) argued that the consequences of diversity depend on the degree of structure and informal integration present in the organization. Ely and Thomas (2001) argued that diversity is more likely to lead to positive outcomes when the organizational culture emphasizes "integration-and-learning." Empirical studies that examine the effects of dissimilarity (relational demography) in organizations with differing cultures seem to support this general line of reasoning (Chatman, Polzer, Barsade & Neale, 1998; Dass & Parker, 1999; Gilbert & Ivancevich, 2000). However, in a study of several hundred work teams in an information processing firm, the moderating effects of organizational subcultures were limited (Jehn & Bezrukova, 2003).

An effort to explain why the benefits of diversity are more attainable in some organizational cultures led Polzer, Milton and Swann (2002) to reason that organizational cultures may influence the process of identity negotiation. How identity negotiations unfold may establish the level of interpersonal congruence in the team, which then sets the stage for interpersonal conflict (or harmony). A study of first-semester MBA students supported their theoretical arguments. The authors concluded that teams are better able to reap the benefits

of diversity when the individuals in the team have their identities verified by the reflected appraisals of other team members.

*Team climate and team processes.* Just as organizational culture may moderate the effects of organizational diversity, team climates and internal team processes may moderate the effect of team diversity. West (2002) argued that several aspects of team climate must be present in order for teams to effectively use their knowledge for innovation. According to West, favorable conditions include shared team objectives, feelings of safety, effective conflict management, among others. Clark, Anand and Roberson (2000) proposed that member participation levels influence the effects of diversity on team communication processes that are used to resolve conflicts.

*Strategic context.* Researchers interested in the performance-related effects of top management team diversity have been frustrated by the accumulation of conflicting results during nearly two decades of research. One explanation for the mixed findings is that the strategic context of firms moderates the relationship (Priem, Lyon & Dess, 1999; West & Schwenk, 1996). While this explanation seems reasonable, the specific role of strategic context remains unclear. A socio-cognitive perspective suggests that TMT diversity will be more beneficial under conditions of greater strategic complexity, because diversity helps the team deal with the demands of greater complexity (e.g., see Jehn & Bezrukova, 2003; Richard, 2000). In contrast, the behavioral perspective suggests that TMT diversity will be more detrimental under conditions of greater strategic complexity, because diversity makes the necessary coordination among team members more difficult (e.g., see Carpenter, 2002).

*Temporal factors.* Several studies indicate that the effects of diversity are moderated by temporal factors. In a study that followed teams over time, sex diversity had negative consequences for cohesion early in the life of teams, but this effect diminished as teams were together longer. Conversely, attitudinal diversity had weaker effects for teams with little experience working together, but negative effects emerged as teams worked together longer (Harrison et al., 1998). The authors concluded that surface-level attributes have immediate but short-lived consequences for teams, whereas the consequences of deep-level diversity take time to emerge and are more long-lasting. Consistent with this conclusion, the effects of TMT demographic diversity were found to be stronger for teams that had spent less time working together, as indicated by the members' average tenure in the top management team (Carpenter, 2002). Likewise, another study found that the negative effects of race-ethnicity, functional background and organizational tenure diversity were weaker in longer tenured work teams (Pelled et al., 1999). Studies of relational demography reveal similar temporal effects (e.g., Chatman & Flynn, 2001).

Earley and Mosakowski (2000) also considered the consequences of time for diverse teams. Based on their observations of five work teams in the Pacific Rim region, they hypothesized that cultural diversity homogeneity has positive short-term consequences for teams, but that cultural diversity can be more beneficial in the longer term, assuming that the diverse teams eventually develop their own team culture. Follow-up experiments with *ad hoc* teams provided support for their hypothesis.

### Strengths

Perhaps the most obvious identifiable strength of recent research is the sheer number of studies conducted *in the workplace*. The volume of research conducted in the workplace increases our confidence that the research results have external validity. Similar reviews conducted more than a decade ago (Jackson, 1992b; Levine & Moreland, 1990) included mostly research conducted in laboratory and educational settings. Because so few studies of workplace diversity had been conducted, inferences about diversity dynamics in organizational settings were based more on speculation rather than direct evidence.

The *wide variety of work contexts* in which diversity has been studied is another strength of recent research. Work teams of many types (e.g., top management, product development, service, manufacturing) were observed working on many tasks and in many different industries. Because many different establishments participated, it is reasonable to assume that the body of research includes studies conducted in the context of differing organizational cultures, diversity climates, HR practices and so on. To the extent that similar effects begin to accumulate across studies, researchers can be more confident that those effects are robust and generalizable to other establishments within the U.S., where most of the research was conducted.

### Weaknesses

Unfortunately, the moderating effects of context were seldom considered. Furthermore, we found that *researchers usually provided very little information about the context in which a study was conducted*. Not only was context seldom studied explicitly, authors usually provided rudimentary information about team, organizational or societal contexts. When researchers explicitly examined the effects of some contextual elements, they often provided no information about other contextual elements. Lack of information about the context in which research was conducted may impede our ability to understand the reasons for conflicting results found across studies—and even conflicting results within the same study. For example, in a study of the effects of racio-ethnic diversity on team process and performance (Kirkman et al., 2001), the results showed quite different effects for insurance, textile, and high tech manufacturing teams. The authors provided several thoughtful suggestions about why teams in these different settings responded so differently to racio-ethnic diversity. Unfortunately, they could not test these ideas, in part because they did not anticipate—and then measure—potentially important aspects of the three work contexts.

Another challenge arises because there is little theoretical clarity concerning how moderators influence the effects of diversity. Research on the relationship between TMT diversity and firm performance illustrates this problem (see Carpenter, 2002). Strategic management scholars generally accept the view that competitive and strategic conditions interact with firm characteristics to determine firm performance. Predicting that TMT diversity will interact with contextual factors such as industry conditions and strategic context fits easily into existing theory, and several studies have examined the contextual factors as possible moderators of the effects of TMT diversity on performance. It has been nearly 20 years since Hambrick and Mason (1984) first suggested such effects, and several related studies have since been published. Yet, conclusions about how contextual factors moderate the effects of TMT composition remain elusive.

### *Opportunities*

Whether transient or enduring, a variety of contextual factors may shape the effects of diversity observed in a particular study (for an extended discussion, see Frey, 2000). The work itself is perhaps the most frequently cited contextual factor mentioned as a potential moderator of diversity dynamics. The generally accepted assumption is that the potential benefits of diversity for performance are greater when the task requires creativity and innovation. When the task is routine, or when speed is the goal, diversity may interfere with performance (e.g., see Jackson, 1992a, 1992b; Williams & O'Reilly, 1998). Although several laboratory experiments seemed to support this proposition, clear evidence is not yet available from field studies. Within studies, often the predicted relationship is found for some dimensions of diversity but not others. Across studies, there is little consistency in the pattern of moderated diversity effects. Programmatic research is needed to resolve the question of whether the effects of diversity differ systematically for different types of tasks.

The temporal dynamics of diversity also offer interesting opportunities for new research. Several diversity scholars have addressed the issue of how time together as a team shapes the effects of diversity, but other temporal factors have been mostly ignored. Implicit in many studies of diversity has been an idealized view of teams as work units with a definable birth date for the team's formation and task initiation. Researchers often seem to assume that all members of the team are equally dependent on the team's outcomes. Another assumption seems to be that, for members of the teams studied, the team's work is the primary vehicle for team members to achieve their work objectives. This idealized situation may have been present in some studies of diversity, but such situations are rare in work settings. More typical would be teams that emerged over time, which included some peripheral and some core members, working on an ambiguous assignment with objectives that changed over time, with members coming and going, with performance cycles ebbing and flowing, and so on (e.g., see Ancona & Caldwell, 1998; Marks, Mathieu & Zaccaro, 2001).

Finally, studies of team diversity may benefit greatly by attending to the *network structures* in which teams and their members are embedded. Diversity's consequences within a unit may depend on the social and functional linkages that exist between members of the unit and other relevant units (Joshi & Jackson, 2003; Reagans & Zuckerman, 2001). A study of minority board members found that their influence in strategic decisions was greater when they had strong social ties to other boards. In fact, minority members with strong ties to other boards exerted even more influence than majority members (Westphas & Milton, 2000). As another example, a study of Asian employees working a U.S. bank found that Indian and Chinese workers were less able to translate their educational capital into social capital, which in turn explained the lower returns to education that they received (Friedman & Krackhardt, 1997). Understanding how diversity shapes social networks may prove to be central to understanding the longer-term consequences of organizational diversity.

### *Threats*

The two greatest threats to future advancement in our understanding of the role of context may be (a) the large number of potentially important contextual factors to consider in combination with (b) the lack of a strong theory to guide researchers in their choice of which

contextual factors to study, measure and/or control. A discussion of the contextual moderators that may shape the effects of diversity can quickly become overwhelming due to the number of potentially important aspects of context. The sheer number of potentially important contextual factors may be a significant barrier to our ability to generate evidence supporting or disconfirming the existence of any general principles about diversity's consequences.

We have mentioned a few contextual factors that may influence the results of any particular study, but there are many others. Triandis (1995) pointed to the *specific histories of organizations and societies* as factors that shape intergroup relations in today's organizations. Numerous discussions of diversity management interventions imply that diversity dynamics unfold differently depending on an organization's *HR practices*, including socialization practices (Hopkins & Hopkins, 2002), support for network groups (Friedman, 1996; Friedman, Kane & Cornfield, 1998), affirmative action programs (Heilman, McCullough & Gilbert, 1996), diversity training programs (Alderfer, 1992), and other practices that influence the climate for diversity (e.g., see Brief & Barsky, 2000; Burkard, Boticki & Madson, 2002).

*Events in the larger society* also might shape the dynamics of workplace diversity. Examples include Anita Hill's accusations against Clarence Thomas during congressional hearings to evaluate his suitability for appointment to the Supreme Court; the terrorist attacks on the U.S. in September, 2001, and subsequent actions taken to increase homeland security; the debate over whether a club that prohibits women as members should host the U.S. Open golf tournament; and renewed discussions over affirmative action policies that arose when the Supreme Court agreed to judge whether the University of Michigan's college admissions practices were unconstitutional. Anecdotal evidence suggests that such events can alter intergroup-relations in organizations. Undoubtedly, some diversity effects also depend on characteristics of the predominant *national culture* (e.g., see Gomez, Kirkman & Shapiro, 2000).

It is not feasible for diversity scholars to measure, control, or otherwise consider all of these potentially important contextual factors. Yet, if important contextual factors are ignored, our understanding of diversity is likely to progress quite slowly. Thus, whenever possible, researchers should include descriptions of the historical, cultural, temporal and institutional contexts that may have shaped a study's results. Ideally, as the field develops richer theoretical models, researchers will become more attuned to the contextual factors that are likely to be relevant to a particular investigation.

### Multi-level Complexities

Diversity phenomena can be observed at several levels of analysis including the individual, dyad, work group, or the organization as a whole. As Table 2 shows, recent research has focused on the effects of team diversity on team and organizational outcomes (79% of studies). Few investigations of organizational level diversity were found (13% of studies). The societal level of analysis was generally not considered in the studies we reviewed, while individual and dyadic level phenomena were occasionally included.

A few studies incorporated multiple or mixed levels of analysis. Several studies (29% of those we reviewed) examined the effects of team diversity on firm performance. Whether such TMT research qualifies as multi-level is debatable, however. In some studies, both

Table 2  
Units of analysis in diversity research

Units of analysis considered	Team/unit membership				Total
	Nonmanagement	Top management	Students	Other	
Team diversity predicting team outcomes	22	–	8	5	35
Team diversity predicting firm outcomes	–	18	–	2	20
Firm diversity predicting firm outcomes	–	–	–	8	8

individual and team consequences were assessed (e.g., Chatman et al., 1998; Eby & Dobbins, 1997; Jehn et al., 1999).

### Strengths

In the studies we reviewed, multiple levels of analysis were incorporated due to the inclusion of (a) outcomes measured at a different level of analysis than diversity (e.g., studies of top management teams diversity and firm performance), or (b) outcomes measured at two different levels (e.g., individual and team outcomes). Although our review focused on studies that adopted a compositional approach to measuring diversity, numerous studies took other approaches. A long tradition of comparative studies that assess group-based differences (e.g., sex, age, nationality) continues to generate new findings. Recently, research on demographic similarity within vertical supervisor-subordinate dyads (e.g., Vecchio & Bullis, 2001) and horizontal peer-to-peer dyads (see Tsui & Gutek, 1999 for a review) has become more prevalent. Thus, there is an emerging body of closely related research conducted at various levels of analysis.

### Weaknesses

While the opportunities to conduct multi-level diversity research seems apparent, we found relatively few examples of such research. We also found few examples of researchers considering whether their conclusions might have been different if had they chosen other units of analysis for their research (e.g., relational demography as well team composition). A multi-level approach to diversity research would acknowledge the nested character of social systems, which is illustrated in Figure 1. Just as the thoughts, feelings and behaviors of individuals can be shaped by the diversity of work teams, it is possible that dyadic interactions are shaped by both relational demography and team composition (Tsui, Xin & Egan, 1995). Likewise, team processes may be shaped by both team diversity and the composition of the larger work or educational unit in which the team is embedded. Variations in organizational demography may account for some of the mixed findings of past research. The lack of multi-level research parallels the lack of attention paid to context, which we noted earlier.

### *Opportunities*

Recent methodological developments (e.g., see Klein & Kozlowski, 2000a, 2000b) have improved the tools available for exploring multi-level diversity phenomena. Multi-level methodologies such as Hierarchical Linear Modeling (HLM) can be used to simultaneously test hypotheses at different levels of analysis, and they can be used to test hypotheses regarding cross-level effects (Hofmann, Griffin & Gavin, 2000). To illustrate, consider a hypothetical study that examines the performance outcomes of diversity at the team level. If the study included measures of organization culture, demography, and/or HR practices, HLM could be used to assess the cross-level moderating effects of these factors on the team level relationship between diversity and performance. Alternatively HLM could be used to examine whether effects found at the team level also hold for larger organizational units (departments or establishment locations) and smaller social units (dyads).

As another example of using new methodologies, Ruef (2002) used structural event analysis to understand how the composition of management teams evolved over time. The study's results suggest the intriguing hypothesis that homogenous teams tend to add members whose characteristics increase team diversity. In addition to demonstrating the value of structure event analysis, this study ploughs new theoretical ground.

### *Threats*

Clearly, one threat to improving our understanding of diversity is ignoring the need to understand diversity as a multi-level phenomenon. At a minimum, researchers must be careful to match their empirical procedures to the level of their theories. Also, when reporting the results of research (their own and others), they should be careful to avoid language that obscures levels-of-analysis issues. Finally, as noted in our earlier discussion of context, our ability to make sense of diversity research results will be limited to the extent that researchers fail to attend to and report conditions in the macro environment that might shape the diversity dynamics under investigation. Beyond these rudimentary problems are two additional threats that may impede future progress: failure to adequately develop new theoretical models and letting statistical considerations constrain the evolution of new theoretical approaches.

In conclusion, we hope that future studies will explicitly examine diversity dynamics at multiple levels of analysis. Doing so, we believe, is necessary to advance our understanding of the complex and interdependent phenomena that are crowded under the diversity umbrella.

## **Summary of Opportunities and Threats**

Throughout this article, we identified several opportunities for future research, and identified some threats that may slow the speed with which the field accumulates useful new knowledge. For ease of reference, Table 3 summarizes these opportunities and

Table 3  
Summary of research opportunities and threats

<b>The Most Frequently Studied Attributes</b>	
<i>Opportunities</i>	<i>Threats</i>
Incorporate under-represented dimensions of diversity (e.g., religion)  Assess underlying diversity as well as readily-detected diversity  Develop new theory by incorporating research on: Social conflict and competition Labor economics Integrate micro with macro  Use broader array of methods and measures, such as: Social networks Qualitative ethnographic narratives Content analysis	Fail to control for central tendency, or assessing the separate effects of central tendency and diversity  Ignore the specific contours of diversity Specific attribute content Multi-attribute profiles Structural contours (e.g., solos, fault lines, nonlinearity)
<b>The Consequences of Diversity</b>	
<i>Opportunities</i>	<i>Threats</i>
Study status differentials  Examine the interplay between leadership and diversity  Expand the range of consequences studied to include: Organizational units larger than work teams Dynamics between teams (e.g., knowledge flows) Individual employment outcomes	Continue to accept the assumption that diversity → team processes → team outcomes, without supporting evidence  Fail to develop and consider new theoretical models
<b>The Role of Context</b>	
<i>Opportunities</i>	<i>Threats</i>
Include descriptions of context in research reports  Determine which diversity effects differ across types of tasks  Examine the temporal dynamics of diversity  Examine diversity within networks	Inability to assess all important dimensions of context  Not recognizing the role of societal events that may related to workplace diversity  Lack of strong theory to guide researchers who are concerned about acknowledging and understanding the role of context
<b>Multi-level Complexities</b>	
<i>Opportunities</i>	<i>Threats</i>
Assess diversity at multiple or mixed levels of analysis  Incorporate the use of advanced statistical tools to model multi-level phenomena more accurately	Fail to appropriately match measures and methods to the level of stated theory  Allow statistical considerations to constrain research creativity and theory development

threats. Keeping in mind the focus of this review, Table 3 may offer some guidance for scholars interested in advancing our understanding of how the composition of social systems influences the social dynamics of those systems and their longer-term consequences.

## Practical Implications

Many organizations claim to support a variety of initiatives aimed at managing diversity effectively. Most recently, some of these initiatives have been relabeled as aiming to increase “inclusion” (e.g., Gilbert & Ivancevich, 2000). Research that evaluates the effectiveness of such initiatives remains scarce, however (see Bezrukova & Jehn, 2001, for a review). When such research is conducted, successful initiatives are defined as those that reduce inequalities (e.g., in pay, turnover, and promotion) among demographically defined groups (see Ragins, Townsend & Mattis, 1998) and/or those that employees simply evaluate as useful. Seldom is the focus on improving the effectiveness of diverse teams. Thus, it is risky to make recommendations about the steps organizations should take to reduce potential negative consequences of team and organizational diversity, or leverage diversity to achieve positive outcomes. This caveat notwithstanding, there is no shortage of recommendations for how to improve diversity management. Among the many possible initiatives, many organizations begin (and sometimes end) with training interventions.

### *Training*

Employer surveys of training practices reveal that diversity training has mushroomed in the past decade. Fifteen years ago, it was absent from lists of the most common form of training being offered. Ten years ago, diversity training was being offered in an estimated 50% of large firms. Between 1992 and 1996, the percent of members of the American Management Association who reported having training as a formal component of the diversity management program rose from 46% to 50% (AMA, 1995). A 1995 survey of the 50 largest industrial firms in the U.S. reported that 70% had formal diversity management programs with training as a component and an additional 8% were developing such a program (Lynch, 1997). A more recent report found that 67% of employers surveyed conducted ethnicity or race related diversity training (Sweeney, 2002). In the aftermath of September 11th, a recent article reported that several companies were increasing their budgets for diversity training although exact figures were not reported (Lee, 2002).

How effective are these training programs? Based on a review of 20 empirical studies (many of them unpublished dissertations), Bezrukova and Jehn (2001) concluded that such training can result in meaningful intercultural understanding, attitude change and even behavioral change. Perhaps if more research is conducted to understand how the design and context of diversity training influences program effectiveness (e.g., Roberson, Kulik & Pepper, 2001), diversity training will eventually be as useful as it is popular.

Regardless of the specific training content, organizations generally seem to favor training that targets individual attitudes and behavior. This approach may give too little weight to the powerful social dynamics that arise within natural work units, which increasingly emphasize teamwork. Future interventions might shift the focus of training from the individual to the team level. Training teams to manage and leverage their own diversity may prove more effective than training individuals.

### *Systemic Change*

Targeted training efforts may be the most common form of diversity intervention adopted by organizations, but many organizations combine training with other diversity initiatives. The general consensus seems to be that managing diversity effectively often requires pervasive changes in organizational policies, practices and cultures. This viewpoint is consistent with the assumption that diversity dynamics are shaped by the organizational context. The objectives of such change efforts is to go beyond creating an organizational context characterized by structural integration and minimal institutional bias to achieving a context in which cultural differences are valued, intergroup conflict is minimized (Cox, 1993), and differences are used to facilitate learning new ways to work that lead to improved organizational performance (Dass & Parker, 1999; Thomas & Ely, 1996).

Compiling a list of the many specific actions adopted by benchmark organizations is one approach to developing a comprehensive blueprint for change. For example, based on intensive case studies of one “plural” and one “multi-cultural” organization, Gilbert and Ivancevich (2000) developed guidelines for change that integrated specific changes in human resource practices with suggestions for managing the change process. With the goal of understanding how to effectively manage the diversity present in cross-functional new product teams, Jassawalla and Shaittal (1999) also conducted intensive case studies as a means to generating practical recommendations. These suggestions may also be appropriate for teams in which diversity is created due to differences in racio-ethnicity, sex, age, and so forth.

Pettigrew (1998) used a very different approach to developing a blueprint for creating organizational change. Based on a comprehensive review of a large body of research conducted in a variety of settings, Pettigrew identified the conditions needed to reduce intergroup bias and its negative consequences, and described several processes that could be engaged to create these conditions. To the extent an organization’s diversity initiatives support these processes, they will encourage the development of positive intergroup relations, employee commitment, and improved productivity (see also Gaertner & colleagues, 2000).

*Learning about the other group(s)* was one key process identified by Pettigrew. Inaccurate stereotypes resist change for a variety of reasons, but inaccurate stereotypes can be modified if people receive sufficient disconfirming evidence. Such learning is often the objective of diversity awareness training, so Pettigrew’s analysis supports these initiatives.

*Behavioral change* is a second key process that is needed to promote positive intergroup relations. Engaging repeatedly in positive behavior with members of an outgroup can lead to long-term attitude change toward outgroup members. Thus, a recommendation is for organizations to design interventions to encourage repeated positive interactions with members of another group. Providing training in the behavioral competencies needed to work effectively in organizations characterized by diversity is one way to encourage people to engage in positive behavior toward outgroup members.

*Creating positive emotions associated with the outgroup* is a third key process identified by Pettigrew. For example, mentoring programs may encourage the development of intergroup friendships. The positive feelings associated with close friendships with members of an outgroup are likely to generalize to the entire group. The value of personal friendships may help explain the apparent success of informal mentoring programs (cf. Friedman et al., 1998; Thomas, 1999).

Pettigrew also argued that change is facilitated when *people gain new insight about their own ingroup* and come to understand that the ingroup's norms and customs represent one of many possible approaches. In other words, organizations should support true dialogue among the groups; awareness training, for example, should provide insights about oneself as well as about others.

Finally, in addition to creating conditions that encourage these four processes, Pettigrew noted that another necessary condition for positive intergroup relations is the *presence of social sanctions*. Results from a study of several hundred organizations were consistent with this principle. Diversity programs were reported to be more successful in organizations that required managers to attend training programs and tied compensation and other rewards for success in meeting goals for recruiting, hiring, developing, and promoting people from diverse backgrounds (Rynes & Rosen, 1995).

In conclusion, it seems likely that active diversity management will be required in order for organizations to realize the potential benefits locked up within their diverse work forces. Research-based principles for achieving these benefits and minimizing potential losses have been offered. Some organizations are, undoubtedly, experimenting with practices that are consistent with these principles. Unfortunately, diversity researchers have not yet focused much attention on understanding how to create the changes that appear to be needed. By the end of this decade, perhaps another review of diversity research will yield useable suggestions for *how* to create the organizational conditions called for by Pettigrew's analysis.

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