The Language of Bias: A linguistic approach to understanding intergroup relations

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Abstract

This chapter explores the role of language in the relationship between diversity and team performance. Specifically, we consider how a linguistic approach to social categorization may be used to study the social psychological mechanisms that underlie diversity effects. Using the results of a study examining the effects of gender, ethnicity and tenure on language abstraction, we consider the potential implications for team processes and effectiveness. In addition, we propose a revised team input-process-output model that highlights the potential effects of language on team processes. We conclude by suggesting directions for future research linking diversity, linguistic categorization and team effectiveness.

The workforce of the 21st century is characterized by more women and employees with diverse ethnic backgrounds, alternative lifestyles, and intergenerational differences than in the past (Langdon, McMenamin, & Krolik, 2002). In response to increased foreign competition, renewed interest in the quality of work life, and changing task requirements and technologies, firms have moved toward flatter organizational structures featuring groups and teams during this same time (Kozlowski & Bell, 2003). Accordingly, effective interaction among members of diverse teams becomes more critical to smooth organizational functioning (Jackson & Ruderman, 1995). Although researchers have explored group processes in an effort to understand effective interaction among diverse members (see Williams & O'Reilly, 1998 for a review), little attention has been given to the psychology of diversity. Specifically, research has not given much attention to how diversity activates social categorization and other cognitive biases that may impact team functioning.

In the psychology and communications literatures, research has shown that language is a subtle but powerful way to examine cognition in intergroup contexts (Maass & Arcuri, 1992; Maass, Salvi, Arcuri, & Semin, 1989; Semin & Fiedler, 1988, Semin & Smith, 1999). Because people have wide latitude in their use of interpersonal verbs that can be used to describe self and others, and because this word choice is related to their causal attributions and expectations (Semin & Marsman, 1994), linguistic categories can be used to maintain and transmit perceptions of in-group and out-group members (Maass, Milesi, Zabbini, & Stahlberg, 1995). According to linguistic category models, interpersonal verbs can be arrayed on a continuum of concrete to abstract forms (Semin & Fiedler, 1988), the evocation of which are based on differences in causal attributions of, and expectancies for, behavior (Semin & Marsman, 1994). Given the findings of research which demonstrates a link between language and intergroup bias

(Franco & Maass, 1999; von Hippel, Sekaquaptea, & Vargas, 1997), a linguistic category model has several noteworthy implications for understanding diversity within and between groups.

The purpose of this chapter is to explore the role of language in the relationship between diversity and team performance. More specifically, we propose a revised team input-process-output model that highlights the potential effects of language on team processes. First, we review the findings of current research on the relationship between diversity and team performance and discuss social categorization as a theoretical perspective for interpreting and better understanding this relationship. We also consider how a linguistic approach to social categorization may be used to study the social psychological mechanisms that underlie diversity effects. Although there is ample evidence that language plays an important role in intergroup contexts, its relationship to categories and/or types of diversity as well as its subsequent influence on group processes and outcomes has remained relatively unexplored. Thus, we explore the effects of gender, ethnicity and tenure on linguistic categorization and use these findings to articulate the potential implications for team affect, motivation and behavior. Finally, we suggest directions for future research linking diversity, linguistic categorization and team effectiveness.

Literature Review

In their review of research on group composition, Moreland and Levine (1992) note that researchers have adopted three different analytical perspectives when studying team composition. First, some researchers regard composition as a consequence or outcome that needs to be explained. Second, other researchers view group composition as a context that moderates or shapes various behavioral or social phenomena. Finally, most researchers regard group composition as a cause that can influence other aspects of a group, including the team's structure, dynamics, and performance. They note that this final perspective, which traces other

important aspects of group life back to their composition, is particularly exciting because of not only its theoretical importance but also its potential practical implications. For example, a better understanding of group composition effects may help organizations create the ideal group (Moreland & Levine, 1992), or better align group composition with specific types of tasks and goals (Mannix & Neale, 2005).

In the following sections, we adopt this perspective and explore research that has examined the consequences of diversity in team contexts. Because a comprehensive review of this complex and voluminous literature is beyond the scope of the current chapter, our goal is to identify key themes that provide insight into what we currently know about the relationship between diversity and group processes and performance. After reviewing these key findings, we discuss social categorization as a theoretical perspective for interpreting and better understanding diversity-process-performance linkages and consider how linguistic intergroup bias may be used to study the social psychological mechanisms that underlie diversity effects.

Diversity Effects in Team Contexts

Over the years, a significant number of studies have examined the effects of diversity on group performance. In their review of this literature, Jackson, Joshi, and Erhardt (2003) note that most studies have focused on readily-detected, relations-oriented diversity attributes, such as age, sex, and race/ethnicity. Much less attention has been focused on task-oriented diversity attributes, such as function or tenure, or on examining “deep” or underlying diversity (e.g., values, beliefs, attitudes) that the surface-level attributes ostensibly reflect. The focus on visible or readily-detected diversity is likely driven by many factors, including the fact that many of these attributes represent legally protected classes and they are also often easier to measure. While many researchers have called for more attention on underlying diversity (e.g., Lawrence,

1997), others have noted that the changes in the demography of the workforce make it even more important to understand the effects of visible attributes and that these visible attributes are likely to be the most salient markers of diversity in team and organizational contexts (Williams & O'Reilly, 1998). In the current paper, we focus on both observable and non-observable characteristics, including gender, race and tenure.

Numerous observers have noted that there exist very few consistent findings regarding the effects of diversity on group and firm performance (Jackson et al., 2003; Kochan et al., 2003; Mannix & Neale, 2005). Whereas some studies have found that greater levels of heterogeneity or diversity can improve performance (e.g., Bantel & Jackson, 1989; Gladstein, 1984; Joshi & Jackson, 2003), other studies have reported negative results for diversity (Haleblian & Finkelstein, 1993; Jackson, Brett, Sessa, Cooper, Julin & Peyronnin, 1991; Pelled, Esenhardt, & Xin, 1999) or have shown diversity to have no significant effects (e.g., Bunderson & Sutcliffe, 2002; Campion, Medsker, & Higgins, 1993; Wiersema & Bantel, 1992). These mixed findings are not surprising when one considers that the diversity literature has consistently acknowledged the conflicting effects that demographic diversity can have on group processes and performance. On the one hand, the “optimistic” view of diversity, also known as the value-in-diversity perspective, argues that diversity can create value and benefit for team outcomes because diverse groups of individuals have a broader range of knowledge, expertise, and perspectives than homogeneous groups (Hoffman, 1959; Hoffman & Maier, 1961). This information-processing and problem-solving approach suggests that diversity can enhance effectiveness when the team’s task is cognitively complex or requires multiple perspectives (Mannix & Neale, 2005). An alternative perspective, and one that is more aligned with a majority of the extant research on the topic, is that diversity creates social divisions that result in poor social integration and cohesion,

leading to negative outcomes for the group. This “pessimistic” view of diversity is grounded in similarity-attraction and social categorization theories, which we discuss in more detail below. As Milliken and Martins (1996, p. 403) note, “diversity appears to be a double-edged sword, increasing the opportunity for creativity as well as the likelihood that group members will be dissatisfied and fail to identify with the group.” The result is that the effects of diversity depend largely on whether teams are able to leverage the benefits of increased information and perspectives while effectively managing the disruptive effects of their differences on important group processes, such as communication, conflict, and cohesion (Williams & O’Reilly, 1998; Mannix & Neale, 2005).

Most studies examining the effects of demographic diversity in teams either implicitly or explicitly propose an input-process-output (I-P-O) model (Jackson et al., 2003; Kochan et al., 2003; Williams & O’Reilly, 1998). That is, the effects of diversity on group performance are generally explained by the effects of diversity on a range of cognitive (e.g., information processing), behavioral (e.g., conflict), and affective (e.g., liking, cohesion) group processes (Kozlowski & Bell, 2003). Figure 1 shows the basic I-P-O model that has been considered in past research. Jackson et al. (2003) note that relatively few studies have examined the effects of diversity on group processes alone or have examined these processes as mediators of the proposed diversity-to-performance relationship. When these linkages have been examined, the effects of demographic diversity on group processes, much like the effects on group performance, have often been mixed, with attributes such as race/ethnicity having negative effects on group processes in some studies but positive effects in others (Jackson et al., 2003; Williams & O’Reilly, 1998). Further, most studies have failed to support the argument that the effects of diversity on performance are mediated by group processes. In light of this finding,

several researchers have suggested that the effects of diversity on group processes occur somewhat independently of the effects of diversity on performance (Jackson et al., 2003; Kochan et al., 2003). Overall, Mannix and Neale (2005, p. 43) conclude, "...the actual evidence for the input-process-output linkage is not as strong as one might like."

Insert Figure 1 here

It has been suggested that to better understand these linkages future research needs to focus greater attention on the underlying mechanisms that account for diversity's effects. Lawrence (1997), for example, has argued that demographic effects stem from a "black box" logic in which the social psychological mechanisms of diversity have not been well explicated. Williams and O'Reilly (1998) suggest that Lawrence's argument is "forced," but agree that "we need more explicit tests of the underlying theories which permit us to understand how and when demographic diversity will be associated with different outcomes" (p. 117). Mannix and Neale (2005) also suggest that diversity research must be more precise in measuring the actual individual-level underlying constructs, such as personal identity, that are assumed to be driving group-level processes such as the lack of social integration or conflict, which ultimately result in poor performance.

Social-psychological Approaches to Diversity

Although researchers have highlighted different theoretical approaches to examining the effects of diversity and called for an integration of these different approaches to fully understand the diversity-performance relationship (see Mannix & Neale, 2005), a social categorization perspective offers theoretical insight into the social processes of diverse teams. Social-

psychological theories of intergroup relations, such as social identity and self-categorization theory (Tajfel, 1978; Turner, 1985), articulate processes through which individuals make sense of, and locate themselves within, the social environment. Self-categorization theory (Turner, 1985) proposes that as certain social categories become salient, there is a qualitative shift in social perception such that people come to view themselves (and others) more in terms of their group memberships than in terms of their personal identities (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). This categorization process accentuates similarities among individuals belonging to the same group and differences among individuals belonging to different groups (Turner, 1985). As such, people tend to depersonalize and subsequently, stereotype themselves (and others) as representatives of a social category rather than as unique individuals (Turner, 1987). In other words, individuals come to view situations and events in terms of *us* versus *them* rather than in terms of *me* versus *you*.

Research suggests that group identification is a key determinant of individuals' proclivity for defining themselves as members of social groups and engaging in intergroup behavior (Tajfel, 1978; Turner, 1987). Specifically, group identification motivates individuals to maximize the distinction between their in-groups and other social groups and to create a positive group identity (Turner, 1987). Social identity theory (Tajfel, 1978, 1982) describes the derivation and consequences of such group identification. Because individuals are assumed to have a desire to maintain a high level of self-esteem (Turner, 1985), the theory suggests that people engage in social comparisons with others to seek a positively-valued distinctiveness for the social categories to which they belong as compared to other categories. As individuals define themselves in terms of specific group memberships, they come to view and evaluate themselves based on the prototypical characteristics of the group (Tajfel, 1982). By engaging in social

comparisons, people differentiate between their in-groups and relevant out-groups, and are able to evaluate their social identities (Tajfel & Turner, 1979).

Although social categorization processes are motivated by various factors, research suggests that such processes are primarily influenced by contextual factors that accentuate specific interpersonal or intergroup identities (Oakes, 1987). In particular, demographic categories, such as gender and race, are likely to be salient and promote in-group/out-group distinctions within social contexts (Nelson & Klutas, 2000). These social divisions can create poor social integration and cohesion, resulting in negative outcomes for a work group. For example, Wagner, Pfeffer, and O'Reilly (1984) focused on turnover in the top management teams of 31 Fortune 500 companies from 1976 to 1980. At the organizational level, they found that date-of-entry distributions predicted the proportion of turnover in the top management teams. At the individual level, they found that older managers, who were more dissimilar to their team in terms of age, were more likely to turnover. They argued that these findings stemmed from the fact that people who were more dissimilar to others in time of entry were less likely to communicate, resulting in lower levels of social cohesion and higher levels of conflict.

Williams and O'Reilly (1998), however, note that although social categorization is a theory of intergroup relationships, most empirical research on diversity and demography has focused on how individuals within a group differ from one another, often referred to as "relational" demography. Consequently, research has not given much attention to how diversity activates social categorization and other cognitive processes. Similarly, Mannix and Neale (2005) note that while social categorization and group identification help to explain the process effects of diversity, such social-psychological processes have rarely been directly examined. One exception is a study by O'Reilly, Caldwell, and Barnett (1989) designed to examine social

integration in the group as well as individual turnover based on cohort differences. In contrast to the Wagner et al. (1984) study described above, O'Reilly et al. (1989) directly measured the proposed causal psychological construct of social integration. In particular, they showed that heterogeneity in group tenure among team members led to lower levels of social integration, which in turn resulted in higher levels of turnover. In an effort to further stimulate research that directly considers the role of social psychological processes in explaining the effects of diversity on team functioning, we explore how diversity influences the use of language, and the potential impact on teams.

Categorization and Communication

Although social-psychological theories provide a cognitive explanation for the effects of diversity in teams, they also offer a motivational perspective for categorization and intergroup behavior. More specifically, because people use social categorization to preserve and enhance self-esteem (Tajfel & Turner, 1986), social categorization processes activate differential preferences for in-group versus out-group members. Research shows that people who identify with their in-group will show favoritism toward their in-group and sometimes derogate or discriminate against out-groups (Oakes & Turner, 1980; Turner et al., 1987). Consistent with this general bias, people also tend to hold differential expectancies about the behavior of in-group and out-group members. In particular, they expect in-group members to display more desirable and fewer undesirable behaviors than out-group members (Howard & Rothbart, 1980). Furthermore, they are more likely to infer negative dispositions from undesirable out-group behaviors than from undesirable in-group behaviors and are less likely to infer positive dispositions from desirable out-group behaviors than from desirable in-group behaviors (e.g., Hewstone & Jaspars, 1984).

Social psychological research has shown that people's language choices when communicating their own and others' behavior yield considerable insight into their categorizations, evaluations, expectations, and attributions (Maass et al., 1989; Semin & Fiedler, 1988). In other words, there is a linguistic version of the intergroup bias phenomenon. Specifically, researchers have shown that people have wide latitude in their use of interpersonal verbs that can be used to describe the self and others, and that this word choice is related to their attributions and expectations (Semin & Marsman, 1994). Semin and Fiedler (1988) introduce a linguistic category model useful for interpreting people's attributions of causality and responsibility within a given context. Specifically, they put forth a general taxonomy that distinguishes between verb forms at different levels of abstraction. They use the following examples to articulate their taxonomy: "(a) A is *talking* to B; (b) A is *helping* B; (c) A *likes* B; and (d) B is an *extraverted person*" (p. 558). The first example (i.e., talking) demonstrates the most concrete level of language. At this level are *descriptive action verbs*, which provide an objective description of action, offer no interpretation, and typically have one or more physically invariant features. *Interpretive action verbs*, in contrast, include greater depth of interpretation, pronounced evaluative components, and do *not* have physically invariant features – that is, many different actions could lead to use of the same interpretive action verbs. As illustrated in Semin and Fiedler's (1988) second example, "helping" could be physical or psychological and therefore, open for interpretation. Relative to ascriptions of causality and responsibility, accounts using descriptive action verbs are typically attributed to situational factors, while accounts using interpretive action verbs are often attributed to the actor. Consequently, the use of interpretative (rather than descriptive) action verbs suggests a greater expectation of similar future behavior. *State verbs*, which presume knowledge of the actor's state of mind, do not

maintain reference to any specific behavior or incidents (e.g., “likes” as used in the third example). Although state verbs typically evoke causal attributions to the sentence object rather than the actor (Semin & Marsman, 1994), they convey expected similar future states of mind from actors. Finally, *adjectives*, such as “extraverted person” in Semin and Fiedler’s (1988) example, refer to enduring qualities of persons and represent the highest level of abstraction. Because adjectives are typically associated with dispositional attributions, they are indicative of a continued expectation of similar future behavior.

According to research using the linguistic category model, verb forms play a significant role in the transmission and maintenance of intergroup stereotypes, in the form of the *linguistic intergroup bias* (Maass et al., 1989). The linguistic intergroup bias reflects a tendency for speakers to describe the negative behavior of out-group members and positive behavior of in-group members using abstract verbs (suggesting expected stability), whereas they characterize the positive behavior of out-group members and negative behavior of in-group members using concrete verbs (implying little expected stability). Two distinctive mechanisms are assumed to underlie these effects. Research provides evidence of an in-group protection motive (Maass, Ceccarelli, & Rudin, 1996). Consistent with social identity theory, research shows that under conditions of threat to an in-group’s identity or perceived competition, linguistic intergroup bias serves to maintain a positive group image even in the presence of disconfirming evidence (Maass et al., 1989, Maas et al., 1996). However, research has also highlighted an expectancy motive (Maass et al., 1995). Specifically, the findings of such research suggests that expectancy-consistent behavior is described using abstract verbs given that such behavior is considered to be lasting and typical, while expectancy-inconsistent behavior is described in concrete terms given that such behavior is considered to be transitory and atypical (Maass et al., 1996).

Regardless of the underlying psychological mechanisms for linguistic intergroup bias, strong support for its occurrence has been found in both experimental and field research, across a broad range of different intergroup contexts (e.g., demographic groups, political parties, sports teams), and in different languages (e.g., English, Italian, and German) (for a review, see Maass & Arcuri, 1992, 1996). In addition, linguistic intergroup bias effects have been detected using both open-ended and close-ended response formats. Researchers have also found linguistic intergroup bias to occur among children (Werkman, Wigboldus, & Semin, 1999), thus suggesting that such effects are not dependent upon language proficiency.

Beyond the external validity of linguistic intergroup bias, its prevalence has been shown to correlate consistently with measures of implicit prejudice (Franco & Maass, 1999; von Hippel, Sekaquaptea, & Vargas, 1997). In fact, research has shown implicit measures of prejudice based on biased language to predict reactions to demographic minority groups (von Hippel et al., 1997). Consequently, the linguistic category model has important implications for understanding intergroup behavior – in particular, the effects of diversity in teams. Surprisingly, however, the role of language has largely been ignored in this context. Although there is ample evidence that language plays an important role in intergroup contexts, its relationship to categories and/or types of diversity as well as its subsequent influence on group processes and outcomes has remained relatively unexplored. Here, we explore the effects of gender, ethnicity and tenure on language abstraction and consider the potential implications for team processes and effectiveness.

Demography Diversity and Linguistic Intergroup Bias

As part of the identity maintenance process, individuals categorize themselves and other people into groups and use those groupings to help interpret social situations. Research suggests

that the characteristics on which people tend to focus when categorizing others are those that are salient or distinctive within the social context (Nelson & Klutas, 2000). Thus, in diverse teams, the distinctive differences between team members may activate categorization processes.

Harrison and his colleagues (1998, 2002) distinguish between two types of differences – surface-level and deep-level diversity. Surface-level diversity includes demographic characteristics that are typically reflected in physical features, such as gender, race, age, and physical ability. In contrast, deep-level diversity refers to differences in attitudes, beliefs, and values. Given that such diversity tends to be less observable, information about these differences is communicated through verbal and nonverbal behavior patterns and is only learned through extended, individualized interaction and information gathering (Harrison, Price, & Bell, 1998; Harrison, Price, Gavin, Florey, 2002). Because people tend to notice and rely on visually prominent physical features or personal characteristics to aid sensemaking processes (Fiske & Taylor, 1991), surface-level diversity may be more likely than deep-level diversity to draw attention and serve as a basis for spontaneous categorization (Jackson, Stone, & Alvarez, 1993). Moreover, categorizations based on surface-level characteristics are identity-relevant (McCann, Ostrom, Tyner, & Mitchell, 1985) and as such, tend to confer higher or lower status on members of particular social groups (Berger, Cohen, & Zelditch, 1972; Brewer, 1979; Brewer & Kramer, 1985).

Research suggests that membership in groups that have been relegated to lower status motivates stronger in-group protective tendencies and thus more pronounced linguistic intergroup bias effects (Maass et al., 1996). Because the social advantages of higher-status group membership are stable and not easily threatened, members of high status groups exhibit less pronounced linguistic intergroup bias tendencies (Maass et al., 1996). In their perception of

ambiguous intergroup interactions, men and Caucasians are less likely to interpret such events as involving prejudice (Inman & Baron, 1996), suggesting that people with fewer expectancies for or experiences with prejudice have less developed schemas for recognizing such treatment directed toward their group. Inasmuch as members of historically excluded identity groups may more frequently experience threats to their identity, we would expect them to describe diversity-related situations in more abstract terms than majority group members. Accordingly, we anticipated that women and racial minorities would describe diversity scenarios more abstractly than would men and racial majority members. We also explored the effects of a non-observable characteristic, organizational tenure, on linguistic categorization. As a salient dimension of diversity in our research context, we expected that members of the minority group – in this case, employees with less than 20 years at the company – would describe diversity scenarios more abstractly than majority group members.

Linguistic Categorization Differences across Groups

To explore differences in linguistic categorization based on demographic group membership, we used survey responses from 287 managers of a large utility company who participated in a diversity leadership training program. The survey included a diversity scenario taken from Bucher (2004), which has been used to explore and develop diversity consciousness, and asked respondents to briefly describe the key issues in the scenario. We also assessed respondents' gender, race and length of service. The majority of respondents were white (94.7%) and male (78.9%). In addition, the greatest concentration of managers (48.4%) had more than 20 years of service with the company. Among the remaining managers, 38.6% had between 11 and 20 years of service, 10.9% had between 2 and 10 years of service, and 2.1% had less than 2 years of service. Because the sample included few non-white managers, we combined the responses of

various ethnic minority groups and conducted analyses based on gender (male, female) and racial status (majority, minority). In addition, we dichotomized the length of service variable by combining the responses of employees with less than 20 years and conducted analyses based on tenure (less than 20 years, more than 20 years).

Respondents' scenario descriptions were coded using a scheme employed by Roberson and Stevens (2005). The coding scheme, which was derived from Semin and Fiedler (1988) and Maass et al. (1989), identifies the degree of language abstraction in people's descriptions of experiences. In prior research using their coding scheme, participants have been directed to write brief, complete sentences to describe a clearly identifiable target's actions or behavior. Each sentence is then coded for its verb form and the codes for multiple sentences are averaged (for examples of this system, see Maass et al., 1989, 1995, 1996; Semin, de Montes, & Valencia, 2002; Semin & Smith, 1999; Wigboldus, Semin, & Spears, 2000). In contrast, our data were open-ended, natural language descriptions of a diversity scenario that frequently did not follow grammatical rules. For example, statements often did not include subjects or verbs or identify a target person or situation. Thus, following Roberson and Stevens (2005), we used a three-category coding system (see Table 1), which was used to code the entire description as a whole rather than by averaging the codes for individual sentences.

We anticipated that minority group members (women, racial minorities, employees with less than 20 years tenure) would describe the diversity scenario more abstractly than would majority group members (men, racial majority, employees with more than 20 years tenure). Although we did not find any effects for racial status, our findings showed that women were more likely to use abstract language than were men, and employees with less than 20 years service to the company were more likely to use abstract language than were employees with

more than 20 years of service. In general, these results provide evidence of a linguistic intergroup bias effect, which may be the result of both in-group protection and expectancy motives. From a social identity perspective, the low representation of women and less tenured people in the organization may have facilitated conditions of competition and/or identity threat. Thus, members of such groups may have been more likely to use more abstract language in an effort to maintain their unique group identities or status within the organization. Alternatively, the pattern of results may provide insight into the cognitive processes of in-group or high-status members of the organization. Greater use of concrete language by men and tenured employees may indicate that members of these groups held expectations for fewer positive or more negative behaviors from out-group members in the organizations (i.e., women and less tenured employees). Thus, simultaneous identity and expectancy processes may have pulled employees toward group differences in language use.

Overall, these results suggest that linguistic categorization processes have important implications for diverse teams. Because abstract descriptions are considered to provide more information about an actor, and are seen as stable over time, which induces an expectation that the behavior will be repeated, the use of such language may influence subsequent information processing of both the source and receiver of communication. Research has shown that stereotypes shape the expectations group members have about one another's behavior and may, in turn, lead to differential treatment of group members (McGrath, Berdahl, & Arrow, 1995). Given that demographic factors are likely to trigger stereotypical inferences, biased behavior directed toward out-group members and favoritism and preference directed toward in-group members is likely to result (Brewer, 1979, 1995). As the value in diversity is through an enhanced capacity for problem-solving and decision-making (Cox, Lobel, & McLeod, 1991),

linguistic intergroup bias may limit the potential value of diverse teams. Variability in linguistic categories used to describe people and situations may create, maintain or aggravate intergroup biases in team settings, which may lead to subtle forms of prejudice and discrimination that subsequently diminish team functioning. Thus, language may serve as a mediating mechanism in the relationship between team diversity and effectiveness.

Language and the Input-Process-Outcome Model

Given our findings, we propose a revised input-process-outcome (I-P-O) model that highlights the role of language (see Figure 2). As suggested by our results, minority team members may be more likely to use abstract language to describe member behavior due to cognitive and motivational factors relating to their social identity. Further, because such biased language may communicate their level of group identification and expectations for member future behavior, it may influence team processes. Majority group members may also exhibit linguistic bias due to their expectation of fewer positive or more negative behaviors from minority group members in the organization, furthering social divisions and undermining team functioning. We discuss these effects below. Given research on work groups and teams which highlights process mechanisms related to team effectiveness (for a review, see Kozlowski & Bell, 2003), we articulate the relationship between linguistic categorization and two affective-motivational constructs – cohesion and conflict – and three behavioral constructs – communication, cooperation, and coordination.

Insert Figure 2 here

Affective-Motivational Team Processes

Cohesion. Cohesion has been defined as “the resultant of all the forces acting on the members to remain in the group” (Festinger, 1950, p. 274), or more simply as members’ attraction to the group (Evans & Jarvis, 1980). Gross and Martin (1952) suggested that cohesion can be separated into two underlying dimensions, task cohesion and interpersonal cohesion. Task cohesion refers to the group’s shared commitment or attraction to the team task or goal, whereas interpersonal cohesion references the team members’ attraction to or liking of the team. More recent research has focused attention on a third dimension of cohesion suggested by Festinger (1950), group prestige or pride (Beal, Cohen, Burke, & McLendon, 2003; Mullen & Copper, 1994).

A number of recent meta-analyses provide support for a positive relationship between cohesion and team performance (Beal et al., 2003; Gully, Devine, & Whitney, 1995; Mullen & Copper, 1994). However, these analyses also suggest that the effects of cohesion depend on several factors. First, the meta-analyses by Gully et al. (1995) and Beal et al. (2003) demonstrated that the relationship between cohesion and team performance is stronger when team task interdependence is high. That is, cohesion is more important for team success when the team task has a more complex workflow and there is greater emphasis on team-member coordination. Second, research also suggests that task cohesion and group pride have a greater impact on team performance than interpersonal cohesion (Beal et al., 2003; Mullen & Cooper, 1994). However, a study by Barrick, Stewart, Neubert, and Mount (1998) suggests that interpersonal cohesion may be particularly important for team viability.

Kozlowski and Ilgen (2006) note that relatively little attention has been given to the antecedents of team cohesion. Further, studies that have examined the relationship between

diversity and social integration provide evidence that heterogeneity often impedes cohesion (e.g., Chatman & Flynn, 2001; Harrison et al., 1998, 2002; Kochan et al., 2003; O'Reilly et al., 1989). However, as we argued earlier, the nature of the relationship between diversity and team processes, such as cohesion, depends largely on the nature of the social psychological processes evoked by diversity. In this regard, linguistic categorization may represent a useful means of gaining greater insight into the effects of diversity on team cohesion. We would expect that as the level of abstraction increases, the resulting stereotypes, favoritism, and other forms of intergroup bias will impede team cohesion. The divergence and divisiveness perpetuated by linguistic intergroup bias is likely to have a particularly potent effect on interpersonal cohesion, although it may also influence, perhaps more indirectly, task cohesion and group pride. Ultimately, heterogeneous teams that suffer from low levels of cohesion will have trouble leveraging the information-processing advantages of their diversity and will exhibit low levels of viability and effectiveness, particularly in situations categorized by a high degree of team task interdependence.

Conflict. Although intra-team conflict is typically seen as the opposite of cohesion (Kozlowski & Ilgen, 2006), there exist a number of different theoretical perspectives on conflict. One perspective argues that rifts or faultlines that fracture teams will undermine member satisfaction and performance (Lau & Murnighan, 1998). While low levels of conflict may stimulate creativity and prevent groupthink, it is more often the case that conflict interferes with team information-processing and, therefore, negatively impacts team performance. However, other researchers argue that there exist different types of conflict and that not all conflict is detrimental to team performance. In particular, one can distinguish between task/cognitive conflict (disagreement about task content) and relationship/affective conflict (interpersonal

incompatibilities) (e.g., Amason, 1996; Jehn, 1995, 1997). Whereas relationship conflict has been shown to be universally detrimental to team performance, under certain conditions task conflict has been shown to contribute positively to team performance by revealing important information, different points of view, or divergent methods and solutions to problems (Kozlowski & Ilgen, 2006). However, a recent meta-analysis by De Dreu and Weingart (2003) showed that both task conflict and relationship conflict were negatively related to team member satisfaction and team performance, raising questions about the beneficial effects of task conflict.

Research on diversity suggests that more heterogeneous teams generally experience higher levels of conflict. Williams and O'Reilly (1998, p. 95), for example, concluded that, "... a consistent finding from field research is the positive association of tenure diversity and conflict in groups." Conflict has also been shown to be related to functional diversity (e.g., Jehn, Northcraft, & Neale, 1999), gender diversity (Alagna, Reddy, & Collins, 1982), and racial diversity (Pelled, 1996; Pelled et al., 1999). Based on our findings regarding the effects of diversity on linguistic intergroup bias, we propose that linguistic categorization processes may mediate the relationship between diversity and conflict. Specifically, the use of abstract language by members to describe the negative behavior of out-group members and positive behavior of in-group members (and more concrete language to characterize the positive behavior of out-group members and negative behavior of in-group members) may highlight distinctions between members, thus reinforcing or emphasizing faultlines within the team. As noted earlier, group differences in language use may result from both in-group protection by minority-group members and/or the negative expectations that majority-group members may hold toward out-group members in the organization. Although the use of such biased language may negatively influence team information exchange and subsequently, its capacity for problem-solving and

decision-making, linguistic intergroup bias may lead to subtle forms of prejudice and discrimination that ultimately manifest in team conflict, particularly relationship conflict. Overall, through its effects on cohesion and conflict, linguistic categorization may inhibit social integration within work teams, thereby leading to negative team outcomes.

Behavioral Team Processes

Coordination refers to activities required to manage interdependencies within the team workflow (Kozlowski & Bell, 2003). Two important components of coordination are the integration of disparate actions together in concert, and temporal pacing or entrainment (Argote & McGrath, 1993). Research suggests that effective coordination involves several underlying processes (Zalesny, Salas, & Prince, 1995): (1) identifying and setting goals, (2) mapping goals to activities and tasks, (3) assigning tasks to actors/team members, and (4) managing interdependencies through resource allocation, sequencing, and synchronization. Similarly, researchers have defined cooperation as “the willful contribution of personal efforts to the completion of interdependent jobs” (Wagner, 1995, p. 152), and have focused on the issues of free riding and social loafing, investigating factors that may prevent uncooperative tendencies and instead induce cooperation in groups (Kerr & Bruun, 1983). Numerous studies have shown both coordination of effort and cooperation to be important predictors of team performance (e.g., Salas, Stagl, & Burke, 2004; Smith et al., 1994; Stout, Salas, & Carson, 1994).

Communication is often examined as a means of prompting or enabling coordination and cooperation. Glickman et al. (1987) argue that communication can aid task-work, or the exchange of task-related information and the development of team solutions to problems, and teamwork, or the establishment and maintenance of patterns of quality interaction over time. Although communication frequency and quality are generally thought to relate positively to team

performance, prior research has produced somewhat mixed findings. For example, Smith and his colleagues (1994) found that communication frequency was negatively related to the effectiveness of top-management teams, and suggested that greater communication frequency may indicate high levels of conflict. Similarly, Campion et al. (1993) found that inter-team communication did not have a significant impact on productivity, member satisfaction, or managerial ratings of team performance.

Prior research has also primarily focused on the type and frequency of communication, while overlooking other important issues, such as the timing of communication, that influence whether or not communication is helpful for team performance. Indeed, most research in the diversity arena has examined the effects of diversity on the amount of communication within teams (e.g., Ancona & Caldwell, 1992; Glick, Miller, & Huber, 1993; Smith et al., 1994; Zenger & Lawrence, 1989). However, research provides some evidence of a relationship between diversity and quality of communications. For example, O'Reilly, Snyder, and Boothe (1993) found that top management teams with less tenure diversity had more open communication than did teams with more tenure diversity, suggesting that homogeneous groups may have more open communication and less distortion of messages. Consistent with these findings and as posited by Kozlowski and Bell (2003), we argue that it is important for diversity researchers to take a more nuanced approach to studying communication that considers the effects of diversity on not just the amount of communication but also the qualitative nature of communication within teams.

Linguistic intergroup bias may represent a means of building further on this idea of examining how the nature of communication differs in teams based on the heterogeneity of their composition. Within more diverse teams, for example, we would expect minority team members to be more likely to use abstract language to describe member behavior due to cognitive and

motivational factors related to their social identity. This biased language may create, maintain, or aggravate intergroup biases within the team. Thus, diversity may have an important influence on the nature of communication within a team, even when it has very little or no effect on amount or frequency of communication. Linguistic intergroup bias may also help explain how communication shapes coordination and cooperation in diverse teams. For example, while the use of biased language by minority group members may facilitate in-group protection, it may also establish and maintain intergroup differences, which would likely undermine cooperation and coordination activities. Similarly, biased language among members of a majority-group may create stereotypes and expectancies that lead to differential treatment of minority-group members (McGrath et al., 1995). Biased behavior toward out-group members and favoritism toward in-group members will make it more difficult for team members to effectively manage their interdependencies and achieve shared commitment to the team's success.

Directions for Future Research

Given our findings and revised model of diversity in teams, there are a number of potential directions for future research. First, given the lack of consensus in the literature regarding the impact of demography on team processes—and, indeed, the virtual absence of research addressing the mechanisms of such a relationship—empirical research is needed to test the hypothesized links among the linguistic intergroup bias, team processes and team outcomes. Second, while the data presented corroborates previous findings concerning the impact of diversity on linguistic intergroup bias, still more research is needed to elucidate situational factors (and constraints) influencing that relationship. Finally, there is some evidence that the relationship between the linguistic intergroup bias and team processes and outcomes is not unidirectional, but more research is needed to substantiate this early evidence. Thus, there are

many opportunities for future research. In the following sections, three future directions are highlighted: 1) empirically testing the impact of the linguistic intergroup bias on team processes and outcomes, 2) examining the situational factors influencing the relationships outlined in the model and, 3) investigating the likely reciprocal relationship between linguistic intergroup bias effects and team processes and outcomes.

Team Processes and Outcomes

There is minimal research investigating the precise ways in which the linguistic intergroup bias affects everyday conversations, tasks and relationships. Research has mostly focused on illustrating the effect through contrived tasks, rather than commonplace settings, such as the workplace (for an exception, see Watson & Gallois, 2002). This chapter has provided theoretical arguments and some empirical evidence for the ways in which linguistic intergroup bias effects should influence team processes and outcomes, but future research is needed to test the model's specific hypotheses.

It is clear that empirical research is needed to test the hypothesized relationships derived from the model, but the aim of this research should be to go beyond simply establishing the existence of relationships. For example, while there is evidence suggesting that each of the team processes and outcomes addressed will be affected by linguistic intergroup bias, there is no reason to believe that each will be affected equally. Of paramount importance will be determining the team processes that are most susceptible to linguistic intergroup bias effects. It could be, for example, that team cohesion is detrimentally affected by linguistic intergroup bias while collective mood remains relatively uninfluenced. Further, the ways in which team processes and performance will suffer given nuanced manifestations of linguistic intergroup bias should be examined. More plainly, linguistic intergroup bias effects that are largely due to an

underlying bias in expectancy will most likely lead to different team effects than linguistic intergroup bias effects largely due to in-group protection motives. Likewise, effects on team outcomes could depend upon whether linguistic intergroup bias effects are being demonstrated by (a) majority group member(s), (a) minority group member(s), or both simultaneously.

Situational Factors

There is any number of situational factors that could potentially affect the presence and extent of linguistic intergroup bias effects within a team context. Theory suggests that any situational factor influencing cognitive expectations, in-group protection motives, or both, may impact language use (Maass et al., 1996). For example, the findings of this study may highlight the influence of organizational climate on the cognitive expectations of high status individuals, which subsequently gave rise to linguistic intergroup bias. Alternatively, perceived social threat among low status individuals may have sparked a desire to protect one's in-group identity, thus leading to linguistic intergroup bias. Empirical research is needed to examine these conjectures.

Team-level characteristics, such as type of group or type of activity, may also influence linguistic intergroup bias within diverse teams. For example, there is evidence to suggest that contact with an out-group decreases stereotyping (Aberson & Haag, 2007), which may alter cognitive expectations such that linguistic intergroup bias is reduced in interactive teams. Similarly, research suggests that particular tasks might be more likely to stimulate linguistic intergroup bias in teams. For example, stereotype threat literature finds that completing a task about which there is a known group stereotype poses a great threat to individual group members (e.g., Steele & Aronson, 1995). Other research has shown that certain interracial interactions can cause performance hindering self-presentational concerns for majority group members (Richeson & Shelton, 2003). These presentational concerns might, in turn, lead to an increased LIB effect.

Perhaps the ultimate irony is that group tasks designed expressly to enhance diversity sensitivity potentially could lead to subtle, yet damaging, enhancement of stereotyping effects. In general, future research is needed to determine both the types of relevant situational factors that are likely to be present in team contexts and how they might influence language use.

Causality

While this chapter has focused on the causal influence of linguistic intergroup bias on team processes and team effectiveness, the idea that situational factors influence the linguistic intergroup bias highlights a reasonable alternative hypothesis – that linguistic intergroup bias effects might be the result, rather than the cause, of team processes and outcomes. That is to say that a situation in which team cohesion, communication and effectiveness are poor could create the sort of environment in which stereotypes are likely to be activated and thus expressed through language. What seems most likely, though, is that linguistic intergroup bias effects and team processes and outcomes function dynamically to reinforce one another. In other words, linguistic intergroup bias effects might interrupt team processes and negatively impact team outcomes, which in turn might serve to validate and solidify linguistic intergroup bias effects.

There is some evidence for such a bi-directional relationship. For example, a study by de Montes, Semin, and Valencia (2003) suggests that reducing the quality of a working relationship influences the type and extent of linguistic intergroup bias effects manifested. In their study, they largely found support for their hypotheses that 1) when individuals share a “negative” relationship in a situation that requires cooperation, an out-group linguistic bias effect emerges (i.e., positive behaviors are described concretely); and 2) when individuals share a “positive” relationship in the same situation, an in-group linguistic bias effect emerges (i.e., positive behaviors are described abstractly). Taken together these findings suggest that linguistic

intergroup bias may be the result of team processes, which differs from the directional relationship described in much of this chapter. Further research is needed to illuminate the nuanced and potentially dynamic nature of the relationship between the linguistic intergroup bias and team processes.

Conclusion

As a number of competitive pressures have influenced the emergence of teams as basic building blocks of organizations, they have also highlighted a need for diverse skills, expertise and experience. Although such diversity may enhance team effectiveness, it also impacts the team's social context. Consistent with prior diversity research, we highlight the characteristics of team members as an important part of this social context. However, the research and model presented here suggest that contextual aspects of diverse teams may be reflected in the linguistic tools members use to communicate. Individuals' language choices when communicating their own and others' behavior may provide insight into their social identity, attributions and expectations. Further, such choices may impact interpersonal and intergroup relations and subsequently, communication outcomes, beyond individual members' intentions. Thus, when considering diversity in teams, the old adage still holds true: *It's not what you say, it's how you say it.*

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Table 1
Coding Rules and Examples of Language Abstraction Categories

<i>Dimension</i>	<i>Definition</i>	<i>Sample Accounts</i>
1. Description of incident only	Objective description of a specific and observable behavior with clear beginning and end; refers to specific situation and object with physically invariant features	“Ligua’s supervisor never communicated what she needed to do to be promoted. The supervisor discussed Ligua’s work style with her co-workers. The supervisor assumed Ligua was satisfied with her current position rather than discussing whether she wanted to advance to a position with more responsibility”
2. Incident and interpretation	Describes a general class of behaviors with clear beginning and end, but refers to a specific situation; provides interpretation beyond mere description	“Ligua’s supervisor has not conducted a clear and inclusive work evaluation of her. This should also include Ligua’s goals and objectives in her career.”
3. State or trait of person or organization	Enduring states with reference to specific behaviors or situation; no beginning and end; interpretive; also describes dispositions with no referent, highly interpretive, detached from specific behaviors.	“Ligua’s supervisor is uncomfortable with Ligua. She is different so he ignores her. He then becomes defensive when she approaches him.”

Figure 1
Input-Process-Output (IPO) Model

Figure 2

The Role of Language in the Input-Process-Output (IPO) Model