A conceptual model of the effects of conflict, reactions to conflict and communication openness on innovation in diverse groups

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Abstract

This paper develops a set of predictions in the relationship between diversity and innovation in diverse workgroups. In particular, the paper models conflict events, reactions to conflict and communication openness as mediating the relationship between diversity and innovation. Next, three categories of diversity are discussed and literature in the area of diversity, conflict, communication and innovation are used to advance how conflict, reactions to conflict and communication openness can affect the relationship between diversity and innovation. Finally, the contributions of the model to literature and the implications for further research are discussed.

Key words: Diversity, conflict, communication and innovation
Introduction

Innovation is the source of sustained advantage for most companies operating in complex contemporary business environments (Leonard and Sensiper, 1998). Social scientists and practitioners have therefore become increasingly interested in the central role of innovation as the key to long-term survival of organizations (Ancona & Caldwell, 1987). In recent times, workplace diversity seems to offer organizations a solution for continued innovation as findings in this area suggest that diverse workgroups have greater potential for innovation than homogeneous workgroups (Bantel and Jackson, 1989; Cox & Blake, 1991). However, the potential of diversity for innovation can only emerge if groups are able to manage their processes in order to facilitate interpersonal attractiveness and effective communication (Triandis, 1960, 1965; Williams and O’Reilly, 1998).

Innovation and diversity

Creativity is the production of novel and useful ideas (Mumford & Gustafson, 1988) while innovation is defined as idea implementation (Van de Ven, 1986) and encompasses the adaptation of products or processes from another group (Scott & Bruce, 1994). According to Scott and Bruce (1994), not only can a group’s product be rated as innovative, the process in which a group works may be measured as innovative provided the groups’ outcome or process is different to other groups or outsiders. Prior studies suggest that there is a link between the effect of an organization’s support for innovation (West, 1990), organizational climate and innovation (Abbey & Dickson, 1983; Siegel & Kaemmerer, 1978). In particular, Anderson and West (1998) suggest that support for innovation is important for innovative behaviour.

Previous research indicates that heterogeneity has a positive effect on innovation and creative decision-making (Bantel and Jackson, 1989; Cox & Blake, 1991). Diversity presents different perspectives that enhance problem solving, decision-making and creative abilities (Cox and Blake, 1991). Minority opinions given during group decision-making processes stimulate more innovative solutions to problems (Leonard and Sensiper, 1998). Exposure to minority viewpoints stimulates creative thought processes (Cox and Blake, 1991) and individuals who express their ideas give the group a wider variety of options to consider and improve on previous thoughts. The present research is
focused on the effects of communication openness and conflict in innovation in the context of diverse workgroups.

THEORETICAL BACKGROUND AND PROPOSITIONS

In this paper, we draw on social identity theory (Tajfel & Turner, 1986) to develop a theoretical model, which proposes that conflict and communication openness are critical determinants of innovation in diverse workgroups (See Figure 1). Propositions emanating from this model can be used to predict the outcomes of how conflict and communication openness mediate the impact of differing diversity features (e.g. ethnicity, gender and age) in the relationship between diversity and innovation in diverse workgroups.

Theoretically, the complex interactions, behaviours and processes in diverse workgroups are explained from two major theories: Self Categorization Theory (SCT) and the Similarity / Attraction Theory (SAT). In particular, SCT argues that groups of individuals categorize themselves using prominent characteristics (Tajfel & Turner, 1986). These salient characteristics include age, gender and ethnicity (Williams and O’Reilly, 1998). The categorization process allows individuals to define themselves into a social identity (Williams and O’Reilly, 1998), which produces a sharp distinction between in-groups and out-groups. This in turn, gives rise to cognitive biases (Pelled, 1997) that enhances intra group conflict and frustrates communication openness. Although previous studies have examined heterogeneity and innovation, what is missing from these studies is the systematic examination of the impact of the separate effects of conflict events, reactions to conflict and communication openness on innovation in culturally diverse work group. The model proposed here contributes to this notable gap using social identity theory as an explanation for the conflict events that may emanate from the diverse workgroup. Such work is required to harness the potential of heterogeneity for innovation in organizational workgroups.
Ethnic diversity

According to Cox, Lobel and McCleod (1991), heterogeneity promotes the breadth of perspectives, viewpoints, cognitive resources, experiences and the general problem solving ability of the group, which enhances performance. In particular, research shows that demographically different people have multiple perspectives that are valuable in approaching and solving problems (Jackson, 1992). These multiple perspectives (Jackson, 1992) increase the opportunity for creativity (Milliken & Martins, 1996). In particular, people from different ethnic backgrounds possess different attitudes, values and norms that reflect their cultural heritages (Cox et al., 1991). These differences are expected to affect group members’ behaviours (Cox et al., 1991). Cultures can be individualistic or collectivistic in orientation (Hofstede, 1993). Groups comprised of people from collectivistic cultures will display more cooperative behavior than groups composed of people from individualistic cultures (Hofstede, 1993; Cox et al., 1991). In addition, prior research suggests that the proportions of ethnic diversity in a group will impact group processes (Riordan & Shore, 1997; Tsui, Egan & O’Reilly, 1992; Wharton & Baron, 1987). Thus, groups that are only slightly ethnically diverse may experience fewer problems than groups that are highly ethnically diverse. Also, findings from previous research suggest that the degree of cultural diversity impacts on the level of conflict in the workgroup. Based on the SCT and SAT, ethnic diversity is predicted to have negative effects on group process, leading to low cohesion, increased conflict (Linville & Jones, 1980; Williams & O’Reilly, 1998; Wagner, Pfeffer & O’Reilly, 1984; Jehn, Chadwick & Thatcher, 1997). Given the above discussion, it is anticipated that groups with higher levels of ethnic heterogeneity will experience higher levels of conflict than groups that are low on this dimension.

**Proposition 1a:** Groups high in ethnic diversity will experience higher level of conflict than groups low in this dimension.

**Proposition 1c:** Intragroup conflict will mediate the relationship between ethnic diversity and innovative outcomes.

In addition, literature establishes that heterogeneous and homogeneous groups experience different levels of communication openness. While homogeneous groups members feel comfortable and at ease with each other thus allowing for easy communication, heterogeneous workgroups have less
communication (Williams & O’Reilly, 1998). Especially, diverse workgroups initially experience communication problems (Watson et al., 1993). Also, Milliken & Martins (1996) reported that diverse groups initially communicate more formally and are less well integrated. This pattern of group processes hamper groups’ ability for optimal solutions (Milliken & Martins, 1996). Thus, it is argued in the present research that the degree of ethnic diversity will determine the extent of communication openness in a given workgroup.

*Proposition 1b: Groups high in ethnic diversity will experience lower levels of communication openness than groups low in this dimension.*

Earlier studies show that ethnic diversity is related to the higher levels of conflict in workgroups (Jehn, Chadwick & Tatcher, 1997; Pelled, 1996; Williams & O’Reilly, 1998; Wagner, Pfeffer & O’Reilly, 1984). However, ethnically diverse groups develop a higher quality end product than ethnically homogeneous groups (Milliken & Martins, 1996; Williams & O’Reilly, 1998, Cox, Lobel & McCleod, 1991; O’Reilly, Williams & Barsade, 1997). In particular, ethnic diversity is expected to enhance the breadth of perspectives, viewpoints and cognitive resources that can help enhance performance (Cox, Lobel & McCleod, 1991). The current research proposes that conflict mediates the effect of ethnic diversity on innovation (see Figure 1). Given the above discussion, the present research depicts ethnic diversity as giving rise to varying levels of communication openness and conflict, which in turn, will impact groups’ innovative outcomes. It is therefore proposed that:

*Proposition 1d: Communication openness will mediate the relationship between ethnic diversity and groups’ innovative outcomes.*

**Gender diversity**

Studies indicate that process loss is associated with gender diversity (Clement & Schiereck, 1973; Pelled, 1997). The relationship between gender diversity and process loss is likely to be dependent upon the proportions of men and women in the group (Ely, 1994; Abrams, Thomas & Hogg, 1990). If a group is highly diverse in terms of gender it is expected that group processes will be more complex. Research also reveals that the amount of gender diversity in groups can have different effects on males and females (Fairhurst & Snavely, 1983; Spangler, Gordon & Pipkin, 1978). Groups comprised of primarily males tend to stereotype more than those comprised of predominantly females
(Williams & O’Reilly, 1998). When males are in the minority of a group they are socially integrated and treated fairly, but they are less satisfied (Tsui et al., 1992). However, when women are in the minority they are treated less fairly (Tsui et al., 1992). In addition, gender diversity facilitates creativity (Milliken & Martins, 1996) and higher levels interpersonal tension and conflict (Williams and O’Reilly, 1998; Pelled (1997).

Furthermore, a group’s demographic composition influences communication because people tend to communicate with those who are similar (Zenger & Lawrence, 1989). Also, given SCT and SAP, it is expected that groups comprised of mixed genders will experience less communication openness, which will negatively impact on the groups’ innovative processes and outcomes. Besides, gender diversity is expected to lead to higher levels of conflict (Pelled, 1996; Pelled, 1997; Williams & O’Reilly, 1998). The variety of opinions and experiences available to a group as a result of differences in gender should lead to better group outcomes (Cox, Lobel & McCleod, 1991). However, increased level of information available to a group leads to increase conflict (Pelled, 1997). Consequently, it is expected that gender diversity will result in more conflict. Given the above discussion, gender diversity depicted on the model (see Figure 1) as given rise to communication and conflict which in turn impacts on level of innovative outcomes in the group. The following hypotheses were therefore drawn from these depicted relationships:

**Proposition 2a:** Groups that are heterogeneous in respect to gender will experience more conflict than groups low in this dimension.

**Proposition 2b:** Groups low in gender diversity will experience higher levels of communication openness than groups high in this dimension.

**Proposition 2c:** Communication openness will mediate the relationship between gender diversity and innovative outcomes.

**Proposition 2d:** Conflict will mediate the relationship between gender diversity and innovative outcomes.

**Age diversity**

Age heterogeneity is related to higher levels of conflict (Williams & O’Reilly, 1998; Pelled, 1993; O’Reilly et al., 1997). On the one hand, the SAP and SCT predicts that members who are similar
in age will feel more attracted and comfortable with each other. This, in turn, allows for more communication openness. Earlier findings show that groups that are diverse in age experience less communication openness (Jehn, Northcraft & Neale, 1997; Pelled, Eisenhardt & Xin, 1997). Given the above, it is anticipated that groups that are diverse in age will have less attraction and less shared values, which will lead to divergent opinions and increased conflict. Literature suggests that when group members differ in age, the variety of viewpoints and experiences differ and these enhance performance (Cox, Lobel & McCleod, 1991). Age diversity also provides greater access to a wider set of information and perspectives, which can enhance group decisions (Williams & O'Reilly, 1998).

Based on the above discussion, it is also expected that varying perspectives as available in groups with age diversity will positively affect groups’ innovative outcomes. Prior findings also indicate that age diversity impacts the level of communication openness experienced in workgroups. For example, Zenger and Lawrence (1989) reported that groups with members that were diverse in age were positively associated with communication difficulties (Zenger & Lawrence, 1989). It is thus anticipated that groups with dissimilar individuals with respect to age will produce higher quality ideas than groups low on this dimension; they will however experience less communication openness. In summary, our model portrays age diversity as given rise to varying degrees of conflict and communication openness which will in turn impact the groups innovative outcomes (see Figure 1). The above discussion leads us to the following propositions:

**Proposition 3a:** Groups with higher levels of age diversity will experience more conflict than groups low in this dimension.

**Proposition 3b:** Groups with lower levels of age diversity will experience more communication openness than groups high on this dimension.

**Proposition 3c:** Conflict will mediate the relationship between age diversity and innovative outcomes.

**Proposition 3d:** Communication openness will mediate the relationship between age diversity and innovative outcomes.

**Conflict, communication openness and innovative outcomes**

Studies show that communication affects group performance (Smith et al., 1994). In particular, studies in organizational behaviour reveal that several processes combine to keep minority members
out of networks of information and opportunity (Cox, 1993; Ibarra, 1993). Based on the SAP and SCT theories, employees tend to interact with similar others and the resulting patterns of communication that promotes create in-groups/out-groups, which in turn aggravates exclusionary communicative practices (Blau, 1977). Thus, it is anticipated that in ethnically diverse groups, patterns of communication will include exclusionary behaviours (Larkey, 1996; see also Ibarra, 1993; Tsui & O'Reilly, 1989).

Also, workgroup members with different cultural backgrounds may differ in expression of opinions or points of view. These variations will stimulate the communication of more ideas and more creative solutions (Cox & Blake, 1991; Nemeth, 1986). However, these differing ideas when perceived through categorization lens may be perceived negatively in workgroups, and may result in the suppression of divergent points of view and conformity toward normative views in decision-making (Fine, 1991; Nemeth & Staw, 1989). Besides, categorization creates interpretations that have narrow range of perceptions and expectations. This aggravates miscommunication and misunderstanding because of differences in ways in which language is used (e.g. different patterns of linguistic cues, values and belief systems, or cognitive incongruities (Akinnaso & Ajirotutu, 1982; Coupland, Wiemann, & Giles, 1991). Consequently, it is expected that open communication will be positively related to innovation as individuals possess a wide variety of ideas and opinions that must be communicated to facilitative innovation (Johnson, La France, Meyer, Speyer & Cox, 1998).

Related to communication openness is conflict. Conflict can be defined as perceived incompatibilities or perceptions by the parties involved that they hold discrepant views (Boulding, 1963). A group can experience two forms of conflict, relationship and task conflict (Jehn, 1995; Ayoko & Hartel, 2002). Severity and degree of conflict differs between groups, with the different forms arising pending on the various dimensions of diversity on which groups differ. Conflict can be both functional and dysfunctional to a group’s workings (Robbins, Millett, Cacioppe & Waters-Marsh, 1998). Previous research suggest that diversity based upon visible differences such as gender, ethnicity and age will lead to more emotion or relationship based disagreements, while non-observable forms of diversity such as educational background, personality, functional background and values are more likely to lead to task disagreements (Pelled, 1996). Process conflict also includes
disagreements about task allocation that may encourage members’ discussion about skills (Jehn, 1997) that may lead to better group performance (Hackman & Oldham, 1975). In research conducted by Jehn and Chatman (2000) in workgroup and management teams, when task dominated proportional conflict composition, increased cohesiveness, group performance and satisfaction in production units resulted.

Furthermore, previous research indicates that individual’s dispositions are rooted in their early social and cultural experiences (Oerter, Oerter, Agostiani, Kim, & Wibowo, 1996). This in turn, will impact individuals interpret and reacts to conflict behaviours. Extant literature suggests that group member’ views about conflict impact group and individual outcomes (Deutsch, 1969; Kabanoff, 1985; Levine & Moreland, 1990). In the same vein, group members differing perceptions and reactions to conflict are proposed to cause dissatisfaction and misunderstanding and eventually reduce group performance (Jehn & Chatman, 2000). The foregoing discussion suggests that diverse workgroups are typified by communication difficulties, conflict as well as differing reactions to conflict which are expected to impact group innovative outcomes. Thus, it is propose that:

Proposition 5a: Groups that experience high level of conflict will be positively associated with higher level of innovation.

Proposition 5b: Diverse workgroups with higher levels of productive reactions to conflict will be positively associated with increased innovation

Proposition 5c: Diverse workgroups with higher levels of destructive reactions to conflict will be negatively associated with increased innovation

Proposition 5d: Diverse workgroups with higher levels of communication openness will experience increased innovative outcomes.

Summary of proposed model, implications and applications

In this paper, we outlined the development of a model of the effect of conflict and communication in diverse workgroups. This model depicts the link between diversity conflict events, reactions to conflict, communication openness and innovation. Specifically, it is proposed that diversity in workgroups has the potential for innovation but whether or not diversity generates innovation will depend in part on the types of conflict and reactions to conflict and
communication openness in the groups. This means that conflict, reactions to conflict and communication openness will intervene in the relationship between diversity and innovation.

The proposed model contributes to management, research and practice in three major ways. First, the model contributes to the diversity literature by specifically identifying the role of communication openness, conflict and reactions to conflict in the relationship between diversity and innovation in workgroups. Findings from the proposed model should facilitate a better understanding of the mixed results from previous research on the impact of diversity and group outcomes.

Secondly, the model and the research emanating from it contributes to conflict literature by proposing conflict events and reactions to conflict as having separate effects on group innovative outcomes. Although prior studies isolated conflict as an intervening variable between diversity, group processes and outcomes, (Jehn, 1995, 1997; Jehn et al, 1999; Pelled, 1997; Pelled et al, 1999), our model takes this a step further by modelling conflict types and reactions to conflict separately. The understanding of separate effects of conflict types and reactions to conflict events on innovation will in turn, extend the body of knowledge on the role of conflict in generating innovative outcomes in workgroups. This should further assist organizational leaders in managing diversity for innovation and performance. Future research is needed to test the propositions developed in the model presented in the current paper.
References


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**Figure 1.** The effects of conflict, reactions to conflict and communication openness on innovation in diverse groups