

Cultural Mosaic Scale Development:

A New Approach to
Multicultural Work Groups

by

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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Abstract

Canadian ideology promotes the concept of a “cultural mosaic,” which encourages groups to maintain their unique cultural heritage in a pluralistic society. However, despite being a popular metaphor, to date, there are only two academic articles on the concept (Chao & Moon, 2005; Eilam, 1999), and the extent to which the cultural mosaic truly represents the Canadian society is undocumented. Furthermore, the challenge facing multicultural organizations is achieving a balance among cultures in the workplace that benefits both individuals and their organizations. To address this challenge for the workplace and work groups, I developed and explored the concept of the Cultural Mosaic—defined as a multicultural work group in which members’ distinct cultural heritages, values, and practices are mutually recognized and accepted by the group, and are leveraged in the group’s activities—and created the Cultural Mosaic Scale (CMS) to measure the construct. In three studies, exploratory and confirmatory factor analyses were used to determine the factor structure of the CMS, and convergent and discriminant validity were demonstrated. The final components that make up the Cultural Mosaic are “Group Diversity,” “Culture Acceptance/Expression,” and “Culture Utilization.” Finally, limitations, future directions, and practical implications are discussed.

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INTRODUCTION

Canada consists of a large number of immigrant and minority groups from around the world and prides itself in this multiculturalism. At the time of the 2006 Canadian census, there were approximately 6 million immigrants representing over 200 ethnic origins (Statistics Canada, 2006). In contrast to the idea of a “melting pot”, which encourages immigrants and minority groups to assimilate to the dominant group, Canadian ideology promotes the concept of a “cultural mosaic,” which encourages groups to maintain their unique cultural heritage in a pluralistic society. Although multiple definitions of “culture” have been proposed (e.g. Hofstede, 1991; Kluckhohn, 1954; Triandis, 1994), the underlying ideas that constitute “culture” are its sharedness, adaptiveness, and transmissibility across time and generations (Triandis, 1994). Here, culture is defined as a set of shared attitudes, values, goals, and practices that characterizes a national or ethnic group (e.g. Berry, Poortinga, Segall, & Dasen, 2002).

The mosaic metaphor offers a vivid image of a social ideology about diversity; each tile, representing either an individual or a culture group, is distinct and unique, but when viewed together as a whole, the tiles combine to create a beautiful image. However, despite being a popular metaphor, there is little scholarly research on the cultural mosaic. To date, there are only two academic articles on the concept: Chao and Moon's (2005) conceptualization of a cultural mosaic at the individual level, used to represent the within person aspects of an individual's multicultural heritage, and Eilam's (1999) conceptualization of a cultural mosaic as the intermediate state before full integration of culturally dissimilar groups in the context of designing educational systems – a state in which the groups still maintain their unique identities as separate tiles but are unified as parts that make up the whole mosaic or the society. Additionally, the extent to which the cultural mosaic truly represents the Canadian society is

undocumented; except for the French culture, there is virtually no country-wide survey evidence to support the notion that culturally dissimilar individuals in Canada are encouraged to retain their unique cultural backgrounds.

Furthermore, multiculturalism has implications for organizations. As the workplace becomes more culturally diverse reflecting the multiculturalism of a society, the challenge facing organizations is achieving a balance among cultures in the workplace that benefits both individuals and their organizations. The ability of a diverse group of individuals to work together is essential to their individual well-being and satisfaction as well as to their ability to cooperate with others, which in turn affects productivity and performance on the job (Chatman & Flynn, 2001; Cox, Lobel, & McLeod, 1991; Earley & Mosakowski, 2000; Harrison, Price, Gavin, & Florey, 2002; Jehn, Northcraft, & Neale, 1999a; van Knippenberg, De Dreu, & Homan, 2004; van Knippenberg & Schippers, 2007; Mannix & Neale, 2005; Milliken & Martins, 1996; Pelled, Eisenhardt, & Xin, 1999; Riordan & Shore, 1997; Swann, Polzer, Seyle, & Ko, 2004; Tsui, Egan, & O'Reilly, 1992). Therefore, it is increasingly important for individuals to have the skills necessary to interact effectively with members of different cultural backgrounds and to be able to recognize the unique skills and experiences that dissimilar others can contribute to their team's performance.

Having a workplace that endorses the cultural mosaic ideology is laudable, but is it practically possible? For example, is it possible to maintain distinct tiles, such that individuals can maintain their cultural distinctiveness? Is it possible to generate brilliant tiles, that is, individuals who are satisfied, trusting, committed, and high performers? All in all, is it possible to have culturally diverse teams that add value to the organization? I begin to address these questions in my research by extending the cultural mosaic metaphor to the workplace,

specifically to work groups. In this paper, I first review the diversity literature, present the conceptual analysis of the Cultural Mosaic as a type of culturally diverse work group, and further refine the measure for the construct. I then describe the limitations of the current research and recommend future directions.

Current State of the Diversity Literature: Mixed Findings and Integration

Implied in the cultural mosaic ideology is the belief that there is value in cultural differences. To understand whether having cultural diversity in the organizational context is in fact beneficial, I examined the diversity literature for current findings. There are mixed data regarding whether or not diversity hurts or helps work teams. Whereas the social categorization perspective has shed a negative light on diverse teams, the information-processing/decision-making perspective has done just the opposite. In this section, I review the findings regarding aforementioned theories on diverse teams, and discuss the categorization-elaboration model (CEM), which is an integration of the conflicting theories.

Diversity Hurts Teams: Social Categorization Processes

Research has shown that diversity can hurt teams by negatively affecting group processes such as social integration, communication, and conflict (Jehn et al., 1999; Pelled et al., 1999; Webber & Donahue, 2001), which could explain the low cooperativeness (Chatman & Flynn, 2001), psychological attachment (Tsui et al., 1992), commitment and perceived productivity (Riordan & Shore, 1997) and group performance (Harrison et al., 2002) found in diverse teams. These negative findings are traditionally explained by the social categorization view of diversity. According to this paradigm, which includes the social-identity theory (Tajfel & Turner, 1986) and self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), people tend to classify the self and others into groups, and categorize those who are similar as part of the

ingroup and those who are dissimilar as part of the outgroup (Brewer, 1979; Tajfel & Turner, 1986). Complementing these theories is the similar-attraction paradigm (Byrne, 1971), which has the basic premise that people are more attracted to those who are perceived to be similar to themselves and are more comfortable interacting with them.

To illustrate these concepts, let's imagine the formation of a new team. When individuals first join a group, they know very little about others. However, group members can use others' salient characteristic, such as ethnicity, gender, and age, to form impressions of each other (Zellmer-Bruhn, Maloney, Bhappu, & Salvador, 2008) and characterize those who possess similar characteristic as ingroup members. For example, in a multicultural group consisting of members from Thailand, Australia, and Nigeria, the Thai members will be attracted to and interact more with each other due to their similarities.

However, categorization itself should not lead to negative effects of diversity; it is the differential evaluation of others that could do so. According to the social categorization paradigm, the ingroup and outgroup members are automatically compared, such that ingroup members are evaluated more positively and are trusted more than outgroup members, leading to ingroup favouritism (Brewer, 1979; Tajfel & Turner, 1986; Turner et al., 1987). Moreover, outgroup members tend to "evoke more disliking, distrust, and competition than ingroup members" (Swann et al., 2004, p. 9), which could lead to discrimination. To complicate matters, if outgroup members come from unfamiliar cultures, their verbal and nonverbal differences may discourage communication and understanding (Hambrick, Davison, Snell, & Snow, 1998; Palich & Gomez-Mejia, 1999). Additionally, the more the group members are different from each other, the less they are psychologically attached to the group (Tsui et al., 1992) and the less they feel psychologically safe (Edmondson, 1999).

The evidence from this line of research suggests that work groups with more homogeneous members should work more harmoniously together and be more satisfied and attracted to the group (van Knippenberg & Schippers, 2007). Thus, if homogeneous groups cannot be formed, it appears that, to lessen the negative impact of group diversity, it would be beneficial to minimize group member differences and emphasize group member similarities. One way to do so would be to focus on the superordinate group identity rather than what makes individual group members unique. In doing so, there would no longer be an ingroup or outgroup, group members could identify with the entire group, and the negative effects of having outgroups should be lessened or diminished (Phillips, Northcraft, & Neale, 2006; Polzer, Milton, & Swann, 2002). This conclusion does not support the idea of the cultural mosaic because of its emphasis on group homogeneity and its view that maintaining and expressing cultural differences is regarded as a negative practice.

Diversity Helps Group Performance: Information-Processing/Decision-Making Perspective

Research has also shown that diversity can help teams. Studies that support the positive outcomes of diverse teams have demonstrated that culturally diverse teams are more cooperative and perform better than culturally homogeneous groups. Cox and colleagues' (1991) results show that in the Prisoner's Dilemma task, where participants could choose to compete or cooperate with others, culturally diverse groups that included those from both collectivistic and individualistic cultures were more cooperative than homogeneous groups made up of only members from an individualistic culture. In a longitudinal study, Watson, Kumar, and Michaelsen (1993) found that, over time, compared to culturally homogeneous groups, culturally diverse groups scored higher on the range of perspectives and alternatives generated in managerial case studies, although both groups' overall performance levels were the same.

Moreover, in their brainstorming task, McLeod, Lobel, and Cox (1996) showed that ethnically diverse groups produced higher quality ideas (more effective and feasible) than homogeneous groups. Beyond cultural diversity, Jehn et al.'s (1999) investigation of informational, work value, and social category diversity (gender and age) showed that informational diversity was positively related to group performance but this link was stronger under the condition of low value diversity. Informational diversity was also positively related to group efficiency but this link was stronger when social category diversity was low.

These positive findings are explained by what Williams and O'Reilly (1998) termed the information-processing/decision-making perspective. According to this view, a diverse group of people brings with them a wealth of informational diversity, which could be task-relevant (van Knippenberg et al., 2004; Pelled et al., 1999; Zellmer-Bruhn et al., 2008) in addition to possessing a broader range of skills, perspectives, and increased access to information through potential for a broader network (Stahl, Maznevski, Voigt, & Jonsen, 2009). More specifically, in a multicultural group, members bring to the group "different life experiences that have shaped their values, approaches, and perspectives" and "may be more likely than those of homogeneous groups to differ in how they define a problem, structure a discussion, view potential solutions, or come to a decision" (Foldy, 2004, p. 531). Van Knippenberg et al. (2004) also agreed that the larger pool of information and different perspectives in a diverse group can help the group become more creative and innovative because differences can encourage divergent thinking and prevent premature consensus.

Although diversity viewed from this perspective can lead to positive outcomes for groups, there are certain conditions related to the group's task that must be taken into consideration. Research has shown that task complexity, interdependence for task completion,

and level of creativity required for the task are all moderators of the relationship between group diversity and group outcomes. Jehn et al. (1999) looked at task type and task interdependence as moderators and found that informational diversity was more strongly positively related to group performance and efficiency when tasks were complex as opposed to routine. Moreover, in a three-way interaction, the interaction between informational and value diversity was more positively related to group performance when there was task interdependence (group members need to rely on each other to complete the task) rather than task independence (group members do not need to rely on each other to complete the task). Bowers, Pharmer, and Salas (2000) showed in their meta-analysis that group diversity was positively related to group performance on complex tasks but not simple tasks, where the relationship was negative for the latter. For creative tasks, researchers have argued that the “exposure to diverging and potentially surprising perspectives may lead to more creative and innovative ideas and solutions” (Ancona & Caldwell, 1992; Bantel & Jackson, 1989; De Dreu & West, 2001, as cited in van Knippenberg et al., 2004), and studies have confirmed these claims (Bantel & Jackson, 1989, as cited in van Knippenberg et al., 2004; Cox et al., 1991; Jehn et al., 1999). In fact, in a recent meta-analysis by Stahl et al. (2009), the authors found that cultural diversity had a positive effect on creativity, with a significant mean effect size of 0.16 ($p < .05$).

Traditionally, proponents of the information-processing/decision-making perspective of group diversity have investigated less observable types of diversity as opposed to observable types. In an effort to consolidate the different types of diversity, Milliken and Martins (1996) distinguished between the “*observable or readily detectable attributes* such as race or ethnic background, age, or gender” and the “*less visible or underlying attributes* such as educational, technical abilities, functional background, tenure in the organization, or socioeconomic

background, personality characteristics, or values” (p. 403-404). Later, Harrison and collaborators (1998) introduced the terms surface- and deep-level diversity to parallel the observable and less visible types of diversity. Some scholars have argued that deep-level diversity is more task-relevant than surface-level diversity (Pelled et al., 1999) while others contend that demographic or surface-level diversity could also be associated with informational differences (Cox et al., 1991; Tsui & O’Reilly, 1989). However, as research has not shown consistent results linking all types of diversity to outcomes, van Knippenberg and Schippers (2007) propose that researchers move away from classifying types of diversity and from looking at main effects; instead, they should accept that “all dimensions of diversity may in principle elicit social categorization processes as well as information/decision-making processes, because all dimensions of diversity in principle both provide a basis for differentiation and maybe associated with differences in task-relevant information and perspectives” (p. 521).

Nevertheless, in a study by Phillips et al. (2006), the authors argue that surface-level diversity can in fact serve as a cue for deep-level diversity. They found that in a hidden-profile task (a group problem solving task that requires sharing of unique information), ethnically diverse groups spent more time discussing the task than ethnically homogeneous groups, and the amount of time spent discussing was positively related to group performance. The authors posited that the ethnically diverse groups spent more time discussing tasks because cultural or surface-level diversity might serve as cues to group members that there may be informational differences or deep-level diversity in the group. Moreover, the presence of diversity makes it “more expected and legitimate for group members to raise and discuss unique information that may be critical for group performance” (Phillips et al., 2006, p. 477).

Elaborating on Phillip et al.'s (2006) findings, it is not sufficient that diverse group members have different information within the group; if the members are not sharing this information, the positive outcome from a group with a diverse set of information cannot be realized. Mannix and Neale (2005) echoed this thought when they stated "to exchange information, groups must have both the ability and the willingness to engage in constructive, task-focused conflict to integrate their divergent perspectives" (p. 42). Although these and other authors (Jehn et al., 1999) argue for the existence of task-conflict as a precursor for information sharing, the aforementioned findings by Phillip and colleagues (2006) demonstrate that this conflict is not necessary for diverse members in a group to share information. Van Knippenberg and colleagues (van Ginkel & van Knippenberg, 2007; van Knippenberg et al., 2004) label the process of information sharing "information elaboration" and define it as "the exchange of information and perspectives, individual-level processing of the information and perspectives, the process of feeding back the results of this individual-level processing into the group, and discussion and integration of its implications" (van Knippenberg et al., 2004, p. 1011). Van Knippenberg and colleagues (2004) agree with Mannix and Neale (2005) that the benefit of diversity within the group comes not only from the quantity and quality of the available information, but also whether the information is exchanged or elaborated on. Thus, without the sharing of information between group members, the diversity of information would go to waste and any positive outcome of a diverse group would not be realized.

What kind of group environment would foster the exchange of information? Mannix and Neale (2005) claimed that without a team atmosphere that is tolerant of different perspectives, group members with unique perspectives "may be unwilling to pay the social and psychological costs necessary to share their viewpoints" (p. 46). Edmondson (1999) introduced the concept of

“team psychological safety” to describe team members’ shared belief that it is safe for members to communicate their ideas and take risks. She emphasizes that this type of team environment will foster team learning and lead to team performance. Roberge and van Dick (2010) propose that a psychological safety climate will moderate the relation between group diversity and positive interpersonal processes (i.e. communication, involvement, etc.). Moreover, van Ginkel and van Knippenberg's (2007) empirical study shows that group psychological safety was related to shared cognition or the extent to which group members think the same about something such as the team’s task, which is an important aspect in group performance. Thus, a diverse group with high levels of team psychological safety will encourage information elaboration, which is the link between diversity and positive group outcomes.

The propositions and studies described in this section all converge on the possibility that diversity and its preservation could be valuable for work teams. Therefore, the implication derived from the information-processing/decision-making perspective is in contrast to that derived from the social-categorization perspective. Recall that the implication from the social-categorization perspective is that to ensure harmonious functioning of a diverse group, group members should focus on the group’s superordinate identity, which makes individual members less unique rather than emphasize the uniqueness of each group member. However, the information-processing/decision-making perspective emphasizes the benefits of the diversity within the group. For example, van Dick, van Knippenberg, Hagele, Guillaume, and Brodbeck (2008) stated that “the benefits of workgroup diversity, such as creativity and elaboration, can only be harvested when differences are preserved” (p. 1464). Thus, although focusing on a common superordinate identity may reduce intergroup biases, the authors argued that this may also diminish the distinctiveness of group members, which is where the source of unique

information and perspectives used in the information elaboration processes originates (van Dick et al., 2008).

Integration: The Categorization-Elaboration Model (CEM)

It appears that social categorization's negative effect on diverse groups is related to the members' interpersonal relations, while information-processing/decision-making's positive effect on diverse groups is related to the group's task performance. In order to integrate these conflicting findings of diversity in teams, van Knippenberg and collaborators (2004) proposed the categorization-elaboration model (CEM). According to the model, team diversity promotes information elaboration (van Knippenberg et al., 2004), and it is the sharing of these potentially task-relevant information and perspectives that leads to positive team performance such as creativity, innovation, and decision-making quality (van Knippenberg et al., 2004). Note that the CEM reiterates the information-processing/decision-making perspective's emphasis on tasks that require information-processing and decision-making such as creative and complex tasks in order to see the benefits of the group's diversity. Van Knippenberg and colleagues (2004) did not expect to see advantages of diverse group in simple and routine tasks.

The CEM also acknowledges that social categorization processes are also at play in a diverse group. However, the authors argue that it is not the social categorization per se that disrupts the information elaboration processes; rather it is the intergroup biases that could result from social categorization (van Knippenberg et al., 2004). In other words, instead of a diverse group exchanging information, intergroup biases could lead to a "closing of the mind" from others' perspectives (van Dick et al., 2008, p. 1466) and the diverse group will not reap the benefits of having informational diversity within the group.

In their argument for the CEM, van Knippenberg and colleagues (2004) emphasize that social categorization processes depend on the salience of the category and that social categorization does not necessarily lead to intergroup biases. For example, work group members may vary on a variety of categories such as gender, age, functional background, and ethnicity. The category a group member classifies their teammates on will be determined by the prominence of the category to that group member. Moreover, van Knippenberg et al. (2004) argue that researchers who use social categorization as an explanation of team diversity's negative outcomes incorrectly assume that social categorization results in intergroup biases – the negative evaluation of outgroups as opposed to ingroups – without actually testing this process. The authors explain that intergroup biases results from threat to the ingroup's identity; therefore, without such threat, social categorization should not automatically lead to intergroup biases (Branscombe, Ellemers, Spears, & Doosje, 1999 as cited in van Knippenberg et al., 2004).

Empirically supporting the CEM, Homan, van Knippenberg, van Kleef, and De Dreu (2007) showed that diversity leads to information elaboration only when diversity does not trigger intergroup biases, such as when group members hold pro-diversity rather than pro-similarity beliefs. Similarly, Kooij-de Bode, van Knippenberg, and van Ginkel (2008) found that “ethnically diverse groups are shown to benefit more from instructions emphasizing information integration than ethnically homogeneous groups when dealing with distributed information” (p. 307). In teams with identical surface-level diversity (2 males and 2 females), Homan, Hollenbeck, Humphrey, van Knippenberg, Ilgen, & van Kleef (2008) created three conditions of diversity salience – salience of two subgroups (diversity “faultline” [Lau & Murnighan, 1998]), salience of differences (“cross-categorization”), and salience of the group as a whole (“superordinate identity”) by manipulating the group reward structure. The authors

demonstrated that not only did the outcome of group diversity depend on the salience condition, it also depended on people's belief about diversity. First, the researchers found that, although the teams had identical surface-level diversity, the teams in different conditions did not undergo similar social categorization processes nor did they perform at the same level, which implies that diversity does not automatically negatively affect group performance. Second, they showed that information exchange occurs "when the salience of subgroups within a team is reduced, but not when subgroup salience is reinforced" (Homan et al., 2008, p. 1217). Together, these findings support van Knippenberg et al.'s (2004) claim that salience of other group members' categories matter and that social categorization does not necessarily lead to intergroup biases.

Repeating the argument from the information-processing/decision-making perspective, the CEM encourages the preservation of group members' diversity. This model is also antagonistic to the social-categorization perspective's recommendation that the only way to encourage functional processes in diverse groups is to focus on the group's superordinate identity. As stated earlier, social-categorization processes do not necessarily lead to intergroup biases, and there is benefit to maintaining diversity in the group for certain types of group tasks.

New Directions in Diversity Research: Diversity Mind-Sets, Value-in-Diversity Hypothesis, and Self-verification Theory

Diversity Mind-Sets and Value-in-Diversity Hypothesis

In contrast to the social categorization paradigm, the information-processing/decision-making perspective and CEM argue that diversity in groups can lead to positive outcomes. The idea that group diversity can lead to positive outcomes also falls under what van Knippenberg, van Ginkle, Homan, and Kooij-de Bode (2005 as cited in van Knippenberg & Schippers, 2007) term "diversity mind-sets," which is related to what Cox and colleagues (1991) call the "value-

in-diversity hypothesis.” The value-in-diversity hypothesis is the general position that diversity can be beneficial to groups and organizations if used properly. Diversity mind-sets are defined more specifically as “people’s understanding of how diversity may affect their work group or organization, their understanding of the appropriate way to deal with diversity, and their associated evaluations of diversity” (van Knippenberg & Schippers, 2007, p. 531). Basically, research that falls under these labels are those that support the idea that when individuals, groups, and organizations have positive beliefs and attitudes regarding diversity, diversity in these contexts should lead to positive outcomes.

At the individual level, van Knippenberg and Haslam (2003) looked at how diversity beliefs, defined as the beliefs about the value of diversity in work groups, moderated a “group member’s reactions to the composition of their group” (p. 69). Van Knippenberg and collaborators (van Dick et al., 2008) also pointed out that diversity beliefs are not general beliefs about diversity but specific to a dimension of diversity (gender, ethnic, etc.) in addition to task contexts. For example, individuals can believe that a culturally heterogeneous group of people bring with them a larger pool of expertise, perspectives, and information, which could benefit group performance. However, the same individuals can also believe that multiculturalism will not aid group performance in routine tasks that require speed.

Multiple studies support diversity beliefs as a moderator of outcome variables. Van Knippenberg, Haslam, and Platow (2007) examined whether individuals’ value-in-diversity beliefs moderated the relationship between the work groups’ diversity and the individuals’ identification with the group. In a field study with gender diversity and a lab study on bogus “cognitive style” diversity, the researchers found that the more individuals believed in the value of diversity (high pro-diversity beliefs), there was a more positive link between group diversity

and group identification. In another study, van Dick and colleagues (2008) also looked at the moderating role of diversity beliefs on the relationship between group diversity and group members' identification with their work group, but this time in relations to ethnic diversity. The authors found support for their predictions; those who held pro-diversity beliefs identified more with groups that are high in ethnic diversity than those with pro-similarity beliefs. Moreover, Homan et al. (2007) demonstrated that, in faultline groups with gender and informational diversity, manipulating pro-diversity beliefs in group members led to better group performance than inducing pro-similarity beliefs.

At the group level, Ely and Thomas (2001) identified a type of work group diversity perspective they call the integration-and-learning perspective. The authors explained that a work group's diversity perspective "provides the cognitive frames within which group members interpret and act upon their experience of cultural identity differences in the group" and that in using these frames, "members of culturally diverse work groups collectively construct and participate in intercultural identity group relations within the group, which influences members' sense of how much others in the group value and respect them, as well as their sense of what their own cultural identity means at work" (p. 266). Based on their study of three culturally diverse U.S. organizations, Ely and Thomas (2001) found that the integration-and-learning perspective (as opposed to the access-and-legitimacy and discrimination-and-fairness perspectives) is the only perspective that provided groups with a framework to attain benefits from diversity and to sustain these benefits. Specifically, the authors established that employees who had an integration-and-learning perspective regarding their diverse work groups saw culturally diverse others as a source for diverse experiences, knowledge, skills, and perspectives in addition to a valuable source for "learning and adaptive change" (Ely & Thomas, 2001, p.

240). The researchers propose that this diversity perspective is “grounded in the notion that cultural identity shapes how people experience, see, and know the world. Hence, cultural differences can be a source of insight and skill that can be brought to bear on the organization’s core tasks” (p. 241). Those who endorse this perspective not only see diversity as an opportunity to expand their knowledge on new ways to conceptualize their work but also as a chance to expand their networks. Additionally, members in these groups use differences in others to learn how best to accomplish their work and use the experiences and perspectives tied to members’ cultural identity in their tasks. Furthermore, members in groups with an integration-and-learning perspective will feel psychologically safe by feeling valued and respected in their group in addition to trusting and feeling that their cultural self-identities will receive validation.

Self-verification Theory

Another theory that did not originally evolve from diversity research but has more recently been applied to support the value in diversity paradigm is the self-verification theory (Swann, 1983). According to Swann (1983), people want to self-verify, that is, they want others to know and understand them in the way that they see themselves. Central to this theory is one’s self-view, which is the “lens” through which individuals perceive their worlds. People are motivated to keep their self-views stable to maintain “a sense of continuity and coherence” (Swann, Milton, & Polzer, 2000, p. 239). Therefore, individuals would strive to confirm these self-views or self-verify by seeking relationships with others who verify or reinforce their self-concept and by acting in ways that communicate their self-view to others. Some individuals would even go so far as to confirm their negative self-views. For example, Swann, Stein-Seroussi, and Giesler (1992, as cited in Swann et al., 2004) found that those with negative self-

views prefer to interact with evaluators who also had negative impressions of them as opposed to evaluators who had positive impressions of them.

Self-verification can alleviate the sometimes difficult interaction between different group members, which is a potential problem in diverse teams. Polzer and colleagues (2002) maintained that self-verification processes can lead to interpersonal congruence, that is, the degree of agreement between an individual's self-view and his or her group members' views of the same individual. In this case, the researchers use interpersonal congruence as an indicator of self-verification. Interpersonal congruence should facilitate harmonious interactions because group members would feel reassured that their self-views are accurate, which would lead to feelings of "coherence, predictability, and control" (Polzer et al., 2002, p. 299). Moreover, if interpersonal congruence is achieved, individuals would know that others recognize who they are as they see themselves, and the individuals will know how to behave towards others and how others will react towards them, which will also lead to smoother interaction. Additionally, group members who feel that their self-views have been verified would identify with the group and feel safe to express their unique ideas and insights (Swann et al., 2004).

In support of this theory, Swann et al. (2000) found that over the course of the semester, when ethnically, gender, and functionally diverse groups of MBA students achieved high interpersonal congruence (measured by the difference between the target's own ratings of personality and skill dimensions and the average of the group members' ratings of the target), the students felt more integrated and identified with the group in addition to experiencing less emotional conflict. Polzer and colleagues (2002), using the same sample of students, showed that in groups with high interpersonal congruence, diversity improved performance on creative tasks.

However, this was not the case with diverse groups with low congruence where instead diversity was associated with negative outcomes.

Both proponents of the self-verification theory and value-in-diversity theories disagree with the idea that the only way to manage diversity in a group is to create group cohesiveness by encouraging members to downplay their differences and focus on their group identity (Polzer et al., 2002; Swann, 1983; Swann, Kwan, Polzer, & Milton, 2003; Swann et al., 2000; Swann et al., 2004). Researchers of the self-verification theory would argue that with diversity comes uniqueness associated with the diversity and if diverse groups were to dampen the differences, “it may also discourage individuals from thinking and acting in ways associated with their unique category memberships (Gaertner et al., 1989). Yet it is precisely these unique ways of thinking and acting that constitute the potential positive contribution of a diverse workgroup” (Polzer et al., 2002, p. 297). This claim has been supported by the researchers’ findings with diverse MBA teams mentioned above.

Together, the diversity mind-sets, value-in-diversity hypothesis, and self-verification theory suggest a novel conceptualization of a type of multicultural work group, which I call the Cultural Mosaic, introduced in the next section.

The Cultural Mosaic: Conceptualizing a New Type of Multicultural Work Group

Based on the aforementioned theories, I define a new type of multicultural work group that fosters an environment for self-verification through the group members’ acceptance of others’ cultural identity and self-views. In a culturally diverse group that is accepting of members’ distinct cultural background, it logically follows that this type of group will lay the groundwork for group members to self-verify and maintain their cultural distinctiveness. Moreover, having group members accept others’ cultural identities and allowing for the

maintenance of cultural distinctiveness imply that group members' cultural category/membership will be salient. Although this salience could lead to social categorization processes, van Knippenberg et al.'s (2004) CEM is drawn upon to argue that this type of group does not necessarily lead to negative interpersonal processes, and that diverse group members can work together for positive group outcomes (as long as there are no faultlines or subgroup salience). Also, with group members' cultural distinctiveness preserved, benefits of diversity can be realized. Furthermore, in line with diversity beliefs, members that make up this group should believe in the value of diversity.

Moreover, I conceptualize a multicultural work group that displays Ely and Thomas's (2001) integration-and-learning perspective. Diverse groups that endorse this perspective see diversity as an opportunity for learning and utilize the differences and insights of culturally different others to improve their work. Members in this type of group would thus feel psychologically safe to elaborate on information important to the group's task.

In sum, this type of work group is called the Cultural Mosaic, which is defined as a multicultural work group in which members' distinct cultural heritages, values, and practices are mutually recognized and accepted by the group, and are leveraged in the group's activities. Related to the self-verification theory, the Cultural Mosaic provides an environment for cultural self-verification through the group's acceptance of differences. Cultural self-verification could, in theory, lead to intergroup biases due to the group members' cultural identity salience, but, based on the CEM, intergroup biases is not the default condition. Moreover, members that make up a Cultural Mosaic would have positive diversity beliefs regarding their work group's cultural diversity. Similar to the integration-and-learning perspective, the Cultural Mosaic is a type of group that uses the different cultural insights and work styles in the group's task. Finally, in line

with past research findings, this group conceptualization is most applicable to decision-making, problem solving, top management, product design, and R&D teams, which require diversity in thought styles and approaches to problem solving to generate creative and innovative solutions.

Previous work by Lowe (2010) has examined the Cultural Mosaic and related constructs (Table 1). In addition to the theories proposed above, Lowe (2010) stated that the Cultural Mosaic was also inspired by the concepts of acculturation (Berry, 1997), pluralism (Cox, 1991), biculturalism (Benet-Martínez, Leu, Lee, & Morris, 2002; LaFromboise, Coleman, & Gerton, 1993), diversity climate (Kossek & Zonia, 1993; Mor Barak, 1998), and multicultural organization (Cox, 1991). Based on the definition of the Cultural Mosaic and the supporting theories, I introduce the five components of the Cultural Mosaic as “Group Diversity,” “Diversity Beliefs,” “Culture Acceptance,” “Culture Accommodation,” and “Culture Utilization,” which are described in detail in the next sections.

Table 1

Relationship of Related Constructs to the Cultural Mosaic

Construct	Theme	Specifics	Similar to Cultural Mosaic	Distinct from Cultural Mosaic
Acculturation	Maintaining cultural distinctiveness	Process of adaptation and change	Acknowledge cultural differences	Mosaic is a goal, not an intermediate stage
Biculturalism	Maintaining cultural distinctiveness	Two distinct identities, choice based on context	Maintain distinctness	Dominant native cultural identity
Diversity Perspective, Beliefs, Mind-set	Valuing cultural differences	Degree of value and appreciation of diversity	Value in diversity	Accommodation, utilization, behaviours
Diversity Climates	Valuing cultural differences	Shared perceptions of fairness/equality, & value in diversity	Value in diversity	Accommodating differences, procedures not equal Utilization
Multicultural Organization	Valuing cultural differences	Eradicate prejudice and discrimination, integration, inclusion	Inclusion	Accommodation, utilization, behaviours

Note. From “Examining the concept of a Cultural Mosaic in the workplace: Developing a measure for work groups,” by M. Lowe, 2009, unpublished master’s thesis, Queen’s University, Kingston, Ontario, Canada.

Group Diversity

This component measures a necessary feature of a Cultural Mosaic; perception of cultural diversity within the group is a prerequisite for the existence of a Cultural Mosaic. Because research has shown that “there is no one-to-one relationship between objective and perceived diversity” (Strauss, Barrick, & Connerley, 2001; Zellmer-Bruhn, Maloney, Bhappu, & Salvador, 2008 as cited in Homan, Greer, Jehn, & Koning, 2010, p. 478), I use “perceived” diversity rather than “objective” diversity in my conceptualization. Some researchers support the notion that perceived diversity “may have unique and more proximal explanatory power than actual diversity, as a stream of organizational research suggests individuals’ perceptions of their social environment have stronger, more direct influences on behaviour than does the social environment itself (Eisenberger, Huntington, Hutchison, & Sowa, 1986; Krackhardt, 1990 as cited in Harrison & Klein, 2007, p. 1216). However, Harrison and Klein (2007) argue that measures of perceived diversity should not replace measures of objective diversity, but that the two concepts should be operationalized distinctively. Ideally, the group should in fact include members from at least two distinct cultural backgrounds.

Diversity Beliefs

This component draws directly from van Knippenberg and Haslam’s (2003) idea of diversity beliefs, and it measures group members’ values regarding cultural diversity in their work group. It also taps into their views about how diversity either helps or hinders the performance and efficiency of the group.

Culture Acceptance

As the metaphor of a cultural mosaic implies, group members must be able to maintain their distinctiveness. Thus, a group characterized as a mosaic is one in which members feel that

they can “be themselves” and are not pressured to blend with dominant cultural norms. This component thus measures the extent to which group members feel that they can be themselves and retain their heritage cultural identity while still feeling part of the group. Moreover, based on Swann’s (1983) self-verification theory, another aspect of cultural acceptance involves the verification of group members’ cultural identity and heritage. Therefore, this component also implies that members are able to attain confirmation of their self views from other group members.

Culture Accommodations

The definition of the Cultural Mosaic includes acknowledgement and acceptance of group members’ cultural heritages; this acceptance should lead to accommodation by members of the group. Therefore, this behavioural component of the scale refers to the practices and behaviours used or demonstrated by group members to illustrate acknowledgement and acceptance of other group members’ cultural heritages in addition to their accommodations.

Culture Utilization

This component of the scale measures the degree to which the group utilizes the unique insights and experiences of its members in its group work, similar to Ely and Thomas’s (2001) group with an integration-and-learning perspective. In a Cultural Mosaic group, not only will diverse backgrounds be valued and accepted, but they will also be used as an asset in the group’s activities.

Overview of the Research

The overall aim of this research is three-fold: (1) to develop and explore the concept of a Cultural Mosaic as it applies to work groups, (2) to develop a measure of the Cultural Mosaic in work groups, and (3) to test antecedents and consequences of a Cultural Mosaic. Previous work

by Lowe's research (2010) focused on the first and second aspects, and the current studies focus on the second and third aspects, developing a Cultural Mosaic Scale (CMS) while refining the concept of a Cultural Mosaic.

I followed the scale development guidelines proposed by DeVellis (2003) and Hinkin (1998). Following the item generation phase (Lowe, 2009), Study 1 reports exploratory factor analysis of the CMS with a worker-adult sample to determine the factor structure in addition to the scale content, internal validity, and scale reliability. Study 2 presents confirmatory factor analysis (CFA) of the CMS. Finally, Study 3 demonstrates construct validity by testing for convergent and discriminant validity of the CMS with theoretically related and non-related constructs.

ITEM GENERATION

In a previous study, Lowe (2009) used both deductive and inductive methods of item identification and construction. Based on the definition of the construct, items were selected and adapted corresponding to the five proposed components using existing scales related to openness to diversity, diversity mind-sets, perceived dissimilarity, and acculturation acceptance (Berry, Kim, Power, Young, & Bujaki, 1989; Hobman, Bordia, & Gallois, 2004; Kossek & Zonia, 1993; Mor Barak et al., 1998; van Dick et al., 2008). Additionally, new items were generated based on semi-structured interviews with students who were part of culturally diverse work teams from a Canadian university's graduate management program. These processes resulted in 57 items included in the original version of the CMS. Lowe (2009) constructed both positively and negatively worded items and used a 7-point Likert scale response format (1 = *Strongly disagree* to 7 = *Strongly agree*). Respondents were instructed to respond to the items in regards to their work group. Although a preliminary exploratory factor analysis was conducted on a sample of working adults, the sample size of 89 was very small, and the factors uncovered might not prove to be stable and could be due to sampling error. There are many recommendations for an adequate sample size for exploratory factor analysis, (DeVellis, 2003; Henson & Roberts, 2006; Worthington & Whittaker, 2006) although a sample size of at least 300 appears to be the recurring recommendation. Therefore, Study 1 offers more complete exploratory factor analysis using a separate, larger sample.

STUDY 1: EXPLORATORY FACTOR ANALYSIS (EFA)

Survey Development

Of the 57 items developed from Lowe's (2009) study, some items were removed, new items were added, and some double-barrelled items were split-up, resulting in 62 items. Items were removed from the Group Diversity factor (e.g. "My cultural background is Canadian") due to their irrelevance to the component, and items were added to the Culture Acceptance (e.g. "Members of my work group express their cultural backgrounds") and Cultural Utilization (e.g. "Members of my team are encouraged by each other to challenge the typical Canadian way of thinking") components to better capture the construct. The phrase "work group" was added to some of the existing items to better fit the specific work group context (e.g. "My cultural background makes me different from others in my work group").

Method

Participants. I recruited respondents online through a market research company, Global Market Insite (GMI), whose Canadian panel consisted of over 420,000 individuals. From this panel, adults aged 18 years and older living in Canada with the following characteristics were targeted: (1) currently part of a work group or has been part of a work group in the past 5 years, (2) work or have worked in a group whose members belong to at least two different cultures, (3) spend or spent at least 10 hours per week in this work group, and (4) work or have worked face-to-face with members of the work group. A total of 377 participants met these criteria. The sample consisted of 46.9% females with a mean age of 41.91 years ($SD = 14.44$).

Respondents reported living in Canada, on average, for 35.02 years ($SD = 17.36$) and belong to the following ethnicities: 53.8% Canadian, 20.4% European, 12.7% Asian, 4.0% South Asian, 4.0% Other, 0.8% Latin American, and 0.5% USA. Of all the respondents, 37.2% finished

undergraduate college or university, 29.3% completed some undergraduate college or university, and 15.2% started or completed graduate university, while 18.3% not completed at least some college or university. Participants were most likely to be in one work group, worked 27.79 hours on average ($SD = 16.08$) in this group, and were with this group for approximately 41.07 months ($SD = 64.39$).

Procedure. The CMS was posted on a secure server hosted by a university in Canada. At the start of the survey, participants were informed that anonymity and confidentiality will be maintained and that their participation was voluntary. Participants who consented went on to view the survey. The survey consisted of demographic questions in addition to the revised Cultural Mosaic survey items and took approximately 30 minutes to complete. Participants were awarded MarketPoints¹ by GMI depending on their level of completion on the survey. All participants were debriefed at the end of the study.

Results

Prior to factor analysis, the Kaiser-Meyer-Olkin measure of sampling adequacy (.90) and Bartlett's test of sphericity ($p < .001$) were determined to be satisfactory. The correlation matrix was analyzed using SPSS. To determine the number of factors to retain, I looked at eigenvalues, the scree test, and conducted a parallel analysis. Factor analysis produced 14 factors with eigenvalues more than 1.0. However, a scree test showed that there were seven factors – above the horizontal part of the plot – to be retained. A scree test is known to be superior to the eigenvalue > 1 rule, but a scree test, like the eigenvalue, may tend to over extract factors (Henson & Roberts, 2006). Parallel analysis (Horn, 1965) is known to be one of the most accurate procedures to determine the number of factors to retain (Henson & Roberts, 2006; Humphreys &

¹ GMI panellists receive MarketPoints for both attempting the survey but screening out and for completing the survey. MarketPoints are redeemable for a cheque in the participant's local currency.

Montanelli, 1975; Thompson, 2004; Zwick & Velicer, 1986). I used the SPSS syntax for parallel analysis by O'Connor (2000) to generate 1,000 random data matrices from my data set. I also specified the desired percentile of the distribution and random data eigenvalue to be 95% and chose permutations of the raw data set to be used in the parallel analysis. Factors should be retained if the eigenvalues from the sample are larger than the 95% percentile of the distribution of the random eigenvalues. Figure 1 shows the parallel analysis scree plot and suggests the retention of up to seven factors.

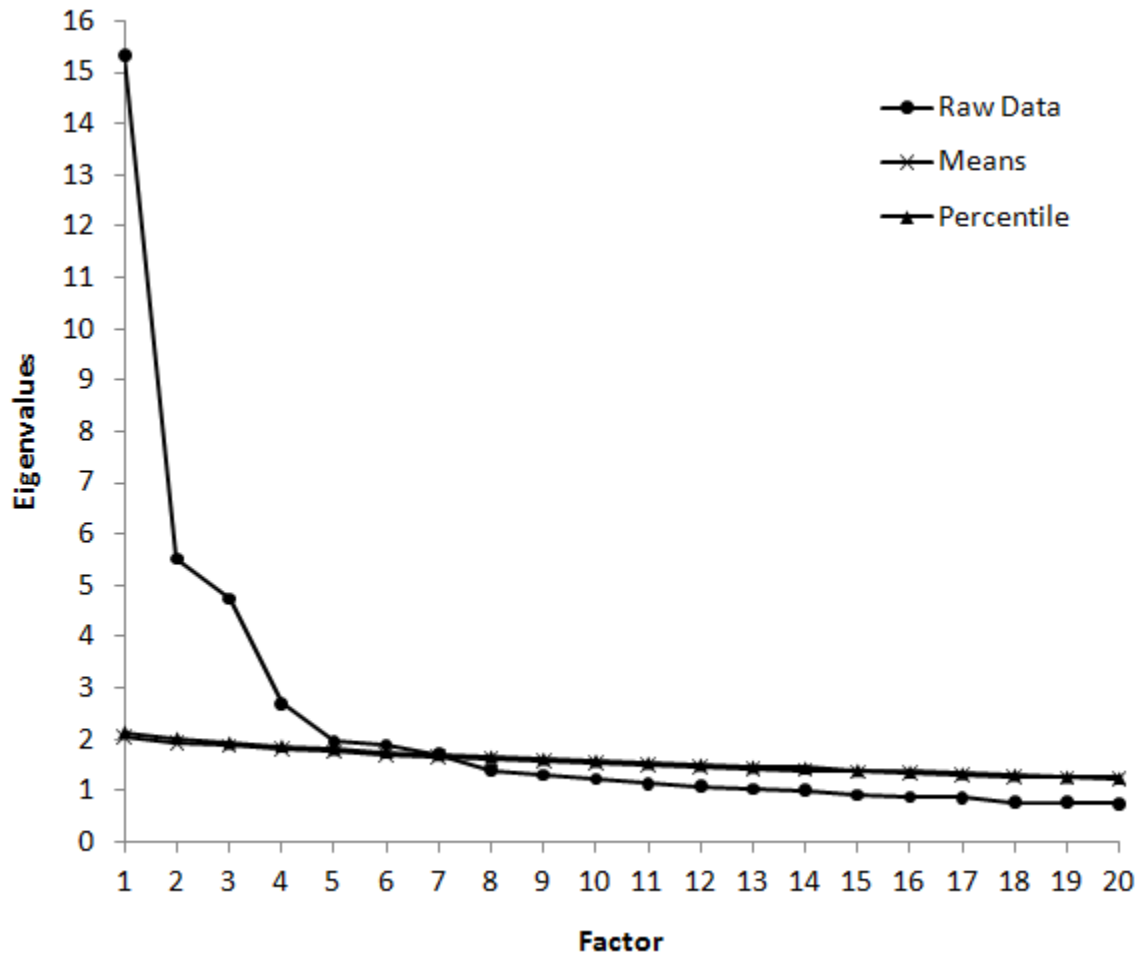


Figure 1. Parallel analysis scree plot.

The 62 survey items were subjected to a principle axis factoring extraction method with Promax rotation. I rotated the factors obliquely because some of the factors were theorized to be correlated. For example, a group that allows for the acceptance and expression of different cultural backgrounds could lead to the perception of the group as being highly culturally diverse. Table 2 shows that the correlations between some factors are high enough to warrant an oblique versus an orthogonal rotation as the factors do appear to be somewhat related.

Table 2

Factor Intercorrelation Matrix

Factor	Factor ^a					
	1	2	3	4	5	6
1	-					
2	.46	-				
3	.44	.22	-			
4	.60	.60	.24	-		
5	-.09	.22	.24	-.00	-	
6	-.03	.00	-.17	-.07	.07	-

^aFactors: 1) Culture Acceptance/Expression, 2) Culture Utilization, 3) Group Diversity, 4) Individual Diversity Values, 5) Individual Distinctiveness, 6) Canadian Team Culture.

Upon examining the items in the seven-factor solution, one factor solely consisted of reverse coded items, prompting my reanalysis with a six-factor solution items. Items with loadings less than $|.50|$ and those that cross-loaded (did not show simple structure) were eliminated. In the end, 38 items remained and are shown in Table 3 with their factor pattern coefficients. The means and standard deviations for these items are presented in Table 4.

Table 3

Factor Loadings for the 38-Item Cultural Mosaic Scale

Subscale and item	Factor loadings					
	1	2	3	4	5	6
Factor 1 (Culture Acceptance/Expression; eigenvalue = 15.33)						
In my work group, I am able to retain my cultural background while still being a full participant in the work group functioning.	.76	-.12	.09	-.08	.12	.21
I am accepting of my work group member's cultural backgrounds.	.79	-.19	.14	.04	.04	.13
I can "be myself" while working with my work group members.	.88	-.13	-.07	-.02	-.01	.16
The atmosphere in my work group is non-threatening.	.76	.02	.07	-.07	-.07	.15
My work group members are accepting of my cultural background.	.83	-.06	.06	-.05	.05	.18
Diverse viewpoints add value.	.50	-.06	.07	.30	.02	.10
In my work group, members can express their "true" selves.	.80	.17	-.18	-.03	.06	-.04
In my work group, each member's cultural background is accepted by the group.	.88	.08	-.14	-.06	.05	.01
In my work group, I feel pressure to suppress my cultural identity. (R)	.63	-.11	-.07	-.02	-.32	-.08
In my work group, all members are treated equally regardless of their cultural background.	.74	.09	-.06	-.13	-.11	.04
The different skills of work group members are used for the benefit of our group.	.50	.28	.09	-.03	-.05	-.02
In my work group, people's ideas are judged based on their quality, and not based on who expresses them.	.67	.08	-.01	-.09	.00	.03
Factor 2 (Culture Utilization; eigenvalue = 5.12)						
My work group takes the beliefs of group members into account when designing plans and procedures.	-.09	.79	-.02	-.02	-.13	-.02
The cultural background of other members of my work group is utilized by the group in doing tasks.	.00	.56	.01	.16	.03	-.02
My work group utilizes the distinct cultural backgrounds of group members in our group's tasks.	.06	.69	-.02	.10	.02	-.03

Subscale and item	Factor loadings					
	1	2	3	4	5	6
Knowledge that comes from work group members' cultural backgrounds is relevant to my group's tasks.	-.09	.75	-.08	.12	.04	-.07
My work group members' cultural backgrounds improve my work group's performance.	-.18	.69	.11	.28	-.15	-.05
My work group takes the cultural practices of group members into account when designing plans and procedures.	-.10	.93	.03	-.17	-.07	.03
My cultural background is utilized by my work group in doing tasks.	-.10	.88	.07	-.10	.02	.02
Members of my team are encouraged by each other to challenge the typical Canadian way of thinking.	-.15	.58	-.04	-.10	-.04	.06
My work group has work practices that reflect my cultural background.	-.04	.50	-.03	.01	-.04	.34
Factor 3 (Group Diversity; eigenvalue = 4.74)						
My work group is culturally diverse.	.02	-.01	.73	.11	-.05	.08
I am different from others in my work group in terms of my cultural background.	-.01	-.04	.53	-.11	.22	-.09
My work group consists of many different and distinct cultures.	-.06	.01	.63	.10	.05	.09
Others in my work group come from cultures that are different from mine.	.05	.05	.76	-.02	-.06	.01
Not everyone in my work group has the same cultural background.	.06	.08	.59	-.07	-.04	.20
My work group is made up of members with different cultural backgrounds.	-.02	.02	.82	.09	-.10	.14
Factor 4 (Individual Diversity Values; eigenvalue = 2.70)						
Increasing cultural diversity among members of the work group is important in promoting cooperation between members.	.29	-.12	-.13	.66	.13	-.02
A work group consisting of members from different cultural backgrounds is more effective than a homogenous work group.	-.12	.08	-.04	.62	.02	.06
Increasing cultural diversity among members of the work group is important in promoting greater cross-cultural understanding between members.	-.02	-.09	.02	.84	-.05	.07

Subscale and item	Factor loadings					
	1	2	3	4	5	6
A good mix of work group members' cultural backgrounds helps to do a task well.	-.09	.14	-.04	.79	.04	.03
If my organization is to remain competitive, it must recruit and retain more culturally diverse employees.	-.14	.04	.06	.62	-.05	.05
Work groups benefit from the involvement of people from different cultural backgrounds.	.13	.19	.09	.53	-.05	-.09
Factor 5 (Individual Distinctiveness; eigenvalue = 1.95)						
I stand out in my work group because of my cultural background.	-.11	-.18	.06	.04	.60	-.25
Others in my work group notice my cultural background.	-.03	.03	.08	-.03	.75	-.25
My cultural background makes me different from others in my work group.	-.11	-.07	.12	.03	.75	-.18
Factor 6 (Canadian Team Culture; eigenvalue = 1.88)						
My work group has a typical Canadian work style.	.20	-.10	.02	.08	-.15	.72
My work group uses typical Canadian work practices.	.07	-.08	.13	.00	-.13	.65

Note. Coefficients greater than $|.50|$ are bold and retained for that factor. R indicates reverse coded items. The eigenvalue of the seventh, discarded factor was 1.70.

Table 4

Means and Standard Deviations for the Final Items

Subscale and item	<i>M</i>	<i>SD</i>
Factor 1 (Culture Acceptance/Expression)		
In my work group, I am able to retain my cultural background while still being a full participant in the work group functioning.	6.06	1.11
I am accepting of my work group member's cultural backgrounds.	6.28	1.06
I can "be myself" while working with my work group members.	6.06	1.20
The atmosphere in my work group is non-threatening.	6.17	1.15
My work group members are accepting of my cultural background.	6.11	1.13
Diverse viewpoints add value.	5.95	1.11
In my work group, members can express their "true" selves.	5.69	1.29
In my work group, each member's cultural background is accepted by the group.	5.93	1.24
In my work group, I feel pressure to suppress my cultural identity. (R)	5.66	1.45
In my work group, all members are treated equally regardless of their cultural background.	5.82	1.42
The different skills of work group members are used for the benefit of our group.	5.54	1.25
In my work group, people's ideas are judged based on their quality, and not based on who expresses them.	5.76	1.32
Factor 2 (Culture Utilization)		
My work group takes the beliefs of group members into account when designing plans and procedures.	4.45	1.53
The cultural background of other members of my work group is utilized by the group in doing tasks.	4.73	1.45
My work group utilizes the distinct cultural backgrounds of group members in our group's tasks.	4.60	1.46

Subscale and item	<i>M</i>	<i>SD</i>
Knowledge that comes from work group members' cultural backgrounds is relevant to my group's tasks.	4.20	1.68
My work group members' cultural backgrounds improve my work group's performance.	4.58	1.43
My work group takes the cultural practices of group members into account when designing plans and procedures.	4.27	1.52
My cultural background is utilized by my work group in doing tasks.	4.18	1.61
Members of my team are encouraged by each other to challenge the typical Canadian way of thinking.	3.91	1.47
My work group has work practices that reflect my cultural background.	4.35	1.37
Factor 3 (Group Diversity)		
My work group is culturally diverse.	5.99	1.16
I am different from others in my work group in terms of my cultural background.	4.94	1.47
My work group consists of many different and distinct cultures.	5.51	1.42
Others in my work group come from cultures that are different from mine.	5.86	1.17
Not everyone in my work group has the same cultural background.	5.86	1.32
My work group is made up of members with different cultural backgrounds.	6.00	1.17
Factor 4 (Individual Diversity Values)		
Increasing cultural diversity among members of the work group is important in promoting cooperation between members.	5.36	1.36
A work group consisting of members from different cultural backgrounds is more effective than a homogenous work group.	4.45	1.44
Increasing cultural diversity among members of the work group is important in promoting greater cross-cultural understanding between members.	5.25	1.33
A good mix of work group members' cultural backgrounds helps to do a task well.	4.81	1.39

Subscale and item	<i>M</i>	<i>SD</i>
If my organization is to remain competitive, it must recruit and retain more culturally diverse employees.	4.66	1.60
Work groups benefit from the involvement of people from different cultural backgrounds.	5.32	1.35
Factor 5 (Individual Distinctiveness)		
I stand out in my work group because of my cultural background.	3.30	1.59
Others in my work group notice my cultural background.	4.01	1.74
My cultural background makes me different from others in my work group.	3.69	1.75
Factor 6 (Canadian Team Culture)		
My work group has a typical Canadian work style.	4.92	1.35
My work group uses typical Canadian work practices.	4.73	1.34

Note. R indicates reverse coded items.

Factor 1 “Culture Acceptance/Expression.” This factor included 12 items such as “My work group members are accepting of my cultural background” and “In my work group, people's ideas are judged based on their quality, and not based on who expresses them.” This subscale had an alpha of .93.

Factor 2 “Culture Utilization.” This factor contained nine items such as “My work group takes the beliefs of group members into account when designing plans and procedures” and “My cultural background is utilized by my work group in doing tasks.” The factor had an alpha of .88.

Factor 3 “Group Diversity.” This factor included six items such as “My work group is culturally diverse” and “Others in my work group come from cultures that are different from mine” and had an alpha of .84.

Factor 4 “Diversity Beliefs.” This factor included six items such as “Increasing cultural diversity among members of the work group is important in promoting cooperation between members” and “A good mix of work group members' cultural backgrounds helps to do a task well.” The alpha reliability was .86.

Factor 5 “Perceived Dissimilarity.” This factor included three items, “I stand out in my work group because of my cultural background,” “Others in my work group notice my cultural background,” and “My cultural background makes me different from others in my work group,” which had an alpha of .84.

Factor 6 “Canadian Team Culture.” This factor is composed of two items, “My work group has a typical Canadian work style” and “My work group uses typical Canadian work practices” and had an alpha of .82.

Discussion

In Study 1, I conducted a full-scale exploratory factor analysis to determine the factors underlying the proposed items for the CMS. Results showed that of the original 62 items, 38 items held up to factor analysis and showed satisfactory internal reliability. The final factor structure revealed six factors: “Culture Acceptance/Expression,” “Culture Utilization,” “Group Diversity,” “Diversity Beliefs,” “Perceived Dissimilarity,” and “Canadian Team Culture.”

Culture Acceptance/Expression (Factor 1) is related to the level of acceptance felt on behalf of work group members in addition to the extent to which group members are able to express their “true” selves. These two concepts go hand in hand as there would probably be less expression if there were no acceptance. This factor measures how individuals perceive themselves as being accepted by the group and perceive that they can express themselves. Additionally, it measures the perception that other members of the group are also accepted and are able to express themselves. This factor is related to Swann’s (1983) self-verification theory, which states that people are motivated to self-verify or let others know and understand them in the way that they see themselves. Thus, in a multicultural team context, culturally different group members would thrive in a group environment that supports cultural self-verification through acceptance.

The factor Culture Utilization (Factor 2), one of the originally proposed components, emerged from the exploratory factor analysis. This factor measures the degree to which the group members’ distinct cultural backgrounds are leveraged in the group’s tasks. Transcending mere acceptance of cultural differences and actually using these differences is a key feature of a Cultural Mosaic. The idea of utilizing differences and insights of culturally different others was inspired by Ely and Thomas’s (2001) integration-and-learning diversity perspective; work groups

that endorse this perspective view cultural diversity as a source of knowledge, skills, and perspectives important for the group's tasks.

Group Diversity (Factor 3), also part of the original conceptualization of cultural mosaic, measures the perceived diversity within the group. Regardless of the level of objective cultural diversity within a group, members of a cultural mosaic work group must perceive cultural diversity within the group. If the group were in fact culturally diverse but group members do not perceive cultural differences, the group would be unable to accept/express or utilize the differences.

Diversity Beliefs (Factor 4) deals specifically with the individual's opinions and values of diversity in work groups. The items in this factor gauge whether the individual believes that diversity is valuable at the group or organization level. As previously mentioned, this component reflects van Knippenberg and Haslam's (2003) idea of diversity beliefs.

Perceived Dissimilarity (Factor 5) was not originally proposed but emerged from the factor analysis. Items in this factor pertain to the individuals' perception that they are culturally distinct from other group members. The emergence of this factor and the low correlation with Group Diversity ($r = .24$) suggest that although the work group can be perceived as diverse, group members might not necessarily see themselves as dissimilar to the group. For example, of the six group members, there could be a Japanese member, Lebanese member, and four Canadian members; and the Canadian members might endorse the items that reflect Group Diversity, but not see themselves as culturally distinct from this group.

The last factor, Canadian Team Culture (Factor 6), was also not originally proposed. This factor measures whether the group uses Canadian work style or practices. Note that this factor is

distinct from (and not just the opposite of) the Culture Utilization factor (Factor 2) as reflected in the factor intercorrelation matrix ($r = .00$).

Refining the Cultural Mosaic Concept. The EFA results identified several areas where the CMS could be refined and improved. The results of the item generation phase led to items both at the individual- and group-levels. For example, the Culture Acceptance/Expression factor included the items, “I am accepting of my work group member’s cultural backgrounds” (individual-level item) and “In my work group, each member’s cultural background is accepted by the group” (group-level item). However, according to Kozlowski and Klein (2000), scale items should be consistent and reflect the level of the construct. Thus, in this case, as the Cultural Mosaic construct is conceptualized at the group-level, the items in the scale should also be at this level. Therefore, before I proceeded to the next study, I eliminated all items at the individual level from the scale.

Additionally, the Diversity Beliefs, Perceived Dissimilarity, and Canadian Team Culture factors were removed from the CMS. According to van Knippenberg and Haslam (2003), diversity beliefs should moderate the link between diverse groups and group outcomes. If we consider a Cultural Mosaic a group outcome, then it should be affected by members’ beliefs about diversity. Hence, this factor was removed and reserved for future research identifying antecedents and consequences. Perceived Dissimilarity was also eliminated from the conceptualization of the Cultural Mosaic. According to Jackson, May, and Whitney (1995 as cited in Hobman et al., 2004), “dissimilarity refers to the degree to which an individual and some second entity differ in terms of various characteristics” (p. 562). Although Perceived Dissimilarity, the subjective measure of the degree to which the group member sees his- or herself as dissimilar from other group members, is related to the dynamics of a Cultural Mosaic,

it is a distinct construct and should instead be used as a moderator or antecedent. Moreover, most items in this factor were at the individual level, which were previously eliminated for the consistency between item and construct levels. For example, the Cultural Mosaic could lead to positive group outcomes only when individuals experience low perceived dissimilarity with other group members. Finally, the emerged Canadian Team Culture factor was not conceptualized a priori and is not congruent with the concept of the Cultural Mosaic, as it refers to the extent to which the group uses Canadian work styles. This factor would also operate better as a moderator or antecedent of a Cultural Mosaic. For example, groups that score high on Canadian Team Culture would tend to score low on the CMS as the emphasis of the Cultural Mosaic is that all members' distinct cultural work styles are utilized in the groups' tasks.

The final factors that make up the Cultural Mosaic are Group Diversity, Culture Acceptance/Expression, and Culture Utilization. These retained factors are the most relevant to the original conceptualization of the Cultural Mosaic as a group-level construct and are mainly drawn from the self-verification theory (Swann, 1983) and integration-and-learning perspective (Ely & Thomas, 2001) as previously described.

STUDY 2: CONFIRMATORY FACTOR ANALYSIS (CFA)

The purpose of Study 2 was to confirm the dimensionality of the measure by conducting a CFA on the CMS. As noted above, the Cultural Mosaic is composed of three-correlated factors of Group Diversity, Culture Acceptance/Expression, and Culture Utilization (see Figure 2). I also tested this model against alternative models.

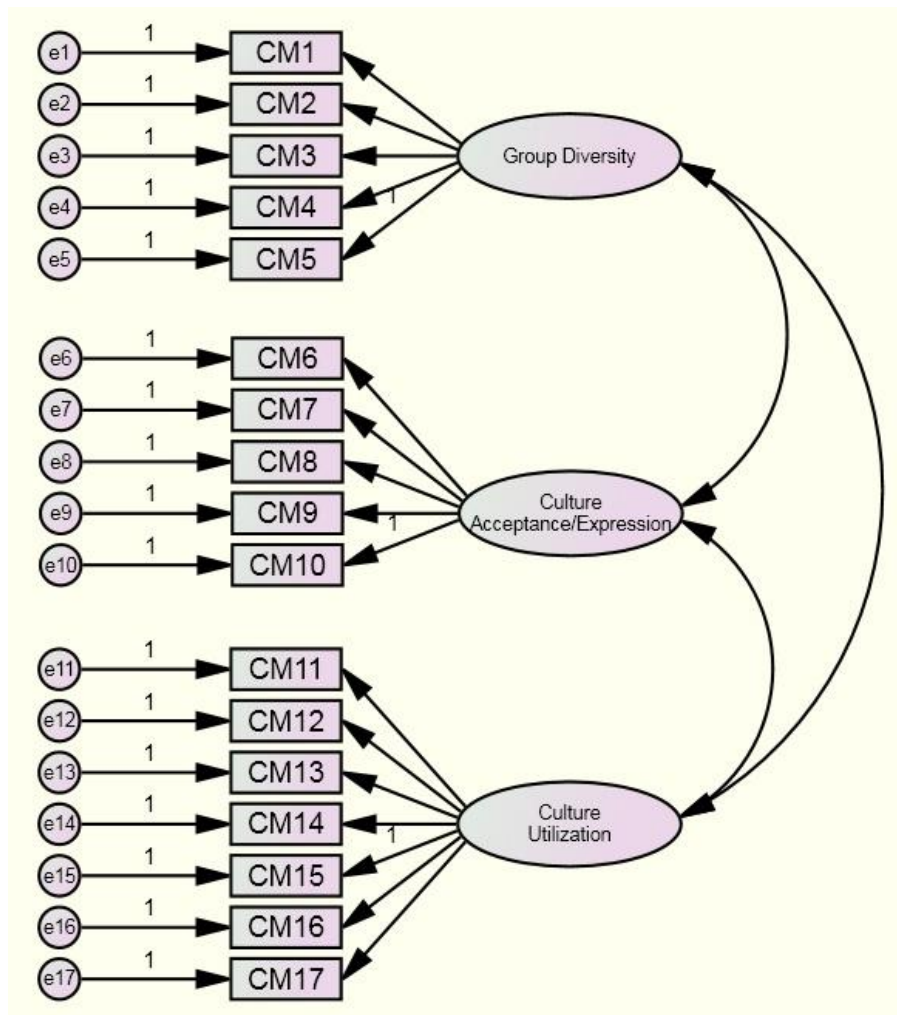


Figure 2. Model of Cultural Mosaic. Letters e1 through e17 are error variables representing imperfect measurement by each of the indicator.

Method

Participants and procedure. Participants were recruited through the subject pool of an undergraduate business school in Canada over two school terms. Students in this subject pool worked in teams, mainly in class. The teams discussed chapter readings and were responsible for case studies and a presentation. Participants were required to currently be in a culturally diverse student group, that is groups with members from at least two different cultures. The surveys were administered online, and those who participated received extra course credits.

A total of 268 participants met these criteria. The sample consisted of 131 females, 130 males, and 7 who did not report gender. The mean age for the sample was 21.85 years ($SD = 3.35$). Respondents lived in Canada, on average, for 13.63 years ($SD = 8.55$) and identified with the following cultures: 31.0% Canadian, 16.4% Asian, 15.3% European, 11.2% Mixed, 7.5% Middle Eastern, 4.9% South Asian, 3.4% African, 3.0% Caribbean, 2.6% Latin American, 1.1% USA, 0.4% Native American, 0.7% Other, and 2.6% unidentified. Participants worked face-to-face with their group 2.73 hours per week on average ($SD = 3.61$) and had been with their group for an average of 6.41 weeks ($SD = 2.90$).

Measure. The CMS had 17 items (see Table 5). The overall alpha for the CMS was 0.88, and the alphas for each subscale were 0.90, 0.87, and 0.84 for Group Diversity, Culture Acceptance/Expression, and Culture Utilization respectively.

Table 5

Cultural Mosaic Scale (17-item)

Group Diversity

1. My work group consists of many different and distinct cultures.
2. My work group is culturally diverse.
3. Others in my work group come from cultures that are different from mine.
4. Not everyone in my work group has the same cultural background.
5. My work group is made up of members with different cultural backgrounds.

Culture Acceptance/Expression

6. In my work group, people's ideas are judged based on their quality, and not based on who expresses them.
7. In my work group, each member's cultural background is accepted by the group.
8. In my work group, members can express their “true” selves.
9. The atmosphere in my work group is non-threatening.
10. In my work group, all members are treated equally regardless of their cultural background.

Culture Utilization

11. My work group takes the beliefs of group members into account when designing plans and procedures.
 12. My work group members' cultural backgrounds improve my work group's performance.
 13. My work group takes the cultural practices of group members into account when designing plans and procedures.
 14. The cultural background of other members of my work group is utilized by the group in doing tasks.
 15. My work group utilizes the distinct cultural backgrounds of group members in our group's tasks.
 16. Members of my group are encouraged by each other to challenge the typical host culture way of thinking.
 17. Knowledge that comes from work group members' cultural backgrounds is relevant to my group's tasks.
-

Note. Seven-point Likert scale was used (1 = *Strongly disagree*, 2 = *Moderately Disagree*, 3 = *Slightly disagree*, 4 = *Neutral*, 5 = *Slightly agree*, 6 = *Moderately agree*, 7 = *Strongly agree*)

Results

I performed CFA with Amos 18.0 (Arbuckle, 2009) and used the full information maximum likelihood estimation to handle missing data. The data met the univariate normality criterion (univariate skew less than |1.9| and univariate kurtosis less than |3.79|; Kline, 1998). Although the data did not meet the multivariate normality criterion (Mardia's coefficient = 35.06), with the large sample size, the Mardia's coefficient is almost always significant, even if the departure from normality is fairly minimal (E. Z. Woody, personal communication, August 31, 2010). Moreover, the maximum likelihood method is quite robust against this violation of normality (Hoyle & Panter, 1995; McDonald & Ho, 2002). (The correlation matrix, means, and standard deviations for the data are provided in Appendix A.)

As the Cultural Mosaic was conceptualized as three related sub-components, a model with three correlated factors was tested (Table 6 shows the factor intercorrelation matrix). To assess model fit, the chi-square goodness of fit (χ^2), comparative fit index (CFI; Hu & Bentler, 1999) and root-mean-squared error of approximation (RMSEA; Browne & Cudeck, 1993) were used. Hu and Bentler (1999) suggested CFI values approaching 0.95 to indicate good model fit, and Browne and Cudeck (1993) suggested RMSEA values no larger than 0.06 a close fit. The proposed model (Model A, see Table 7) fit rather well, $\chi^2(116, N = 268) = 295.64, p < .001$; CFI = 0.92; RMSEA = 0.08, $p_{close} < .001$. Although the chi-square was significant, chi-square is sample-size dependent and tends to yield larger values with larger sample sizes (Bentler, 1990).

Fit of alternative models were tested and compared them to the proposed model with the expected cross-validation index (ECVI; Browne & Cudeck, 1993). The alternative models were a three-factor model with only Culture Acceptance/Expression and Utilization correlated (Model B1), an uncorrelated three-factor model (Model B2), three versions of a correlated two-factor model (Model C1-3), and a one-factor model (Model D). The fit statistics and comparison

indexes are shown in Table 7. None of the alternative models fit as well as the proposed model; the chi-square values ranged from 378.18 to 1,151.08 (with 118 to 119 degrees of freedom), CFI values ranged from 0.55 to 0.89, and RMSEA values ranged from 0.09 to 0.18. Moreover, the proposed model yielded the lowest ECVI (1.51) value compared to all other models (ECVI = 1.81 – 4.69)². The results showed that my a priori three-factor, correlated model fit better than all the alternative models.

² According to Browne and Cudeck (1993), a model with a smaller ECVI value is favoured over those with higher ECVI values.

Table 6

Factor Intercorrelation Matrix

Factor	Factor ^a		
	1	2	3
1	-		
2	.35***	-	
3	.48***	.46***	-

^aFactors: 1) Culture Acceptance/Expression, 2) Culture Utilization, 3) Group Diversity.

*** $p < .001$.

Table 7

Results of Confirmatory Factor Analysis

Model	Description	χ^2	<i>df</i>	CFI	RMSEA	<i>pclose</i>	ECVI
Model A	A priori three-factor, correlated (Diversity, Acceptance/Expression, Utilization)	295.64***	116	.92	.08	<.001	1.51
Model B1	Three-factors, only two factors correlated (Diversity, Acceptance/Expression & Utilization)	378.18***	118	.89	.09	<.001	1.81
Model B2	Three-factors, uncorrelated (Diversity, Acceptance/Expression, Utilization)	404.77***	119	.88	.10	<.001	1.90
Model C1	Two-factor, correlated (Diversity + Acceptance/Expression, Utilization)	718.03***	118	.74	.14	<.001	3.08
Model C2	Two-factor, correlated (Diversity, Acceptance/Expression + Utilization)	782.05***	118	.71	.15	<.001	3.32
Model C3	Two-factor, correlated (Diversity + Utilization, Acceptance/Expression)	757.75***	118	.72	.14	<.001	3.23
Model D	One-factor (Diversity + Acceptance/Expression + Utilization)	1,151.08***	119	.55	.18	<.001	4.69

Note. Diversity = Group Diversity, Acceptance/Expression = Culture Acceptance/Expression, Utilization = Culture Utilization; CFI = comparative fit index; RMSEA = root-mean-squared error of approximation; ECVI = expected cross-validation index.

*** $p < .00$

Discussion

Results show that the proposed model of three correlated factors fits the data better than alternative factor structures. Therefore, the Cultural Mosaic model can be conceptualized as composed of three facets, namely Group Diversity, Culture Acceptance/Expression, and Culture Utilization.

STUDY 3: CONSTRUCT VALIDITY

Part of establishing construct validity is demonstrating convergent validity and discriminant validity (Cronbach & Meehl, 1955). I identified several existing constructs to test in this phase of the scale development.

To demonstrate convergent validity, workplace prejudice and discrimination, organization diversity, the motivational component of Cultural Intelligence (CQ), the openmindedness dimension of Multicultural Personality, openness to experience, and group reflection were selected. First, an organizational or institutional environment with high levels of prejudice and discrimination would not support the existence of a group that is accepting of cultural differences. This suggests that perceived prejudice and discrimination will be negatively related to Culture Acceptance/Expression. Second, in an organization or institution that promotes diversity, one should see the opposite. That is, high levels of organizational diversity should be related to high levels of Culture Acceptance/Expression. Third, individuals who are high in motivational CQ should perceive more Culture Acceptance/Expression, as reflected by positive correlations between these two concepts. Fourth, those who are openminded, that is, they are opened towards outgroup members and different cultures, should also perceive more Culture Acceptance/Expression within their groups. Fifth, individuals who are high on openness to experience should also perceive more Culture Acceptance/Expression. Sixth, groups that reflect on work-related issues should theoretically also utilize cultural differences in their team tasks; hence group reflection and Culture Utilization should be positively related.

To demonstrate discriminant validity, impression management was selected. As multiculturalism is widely promoted in Canada, participants could potentially be motivated to respond positively on the CMS. Therefore, I aim to show that the CMS is unrelated to impression

management, or the participants' tendency to "purposefully [tailor] their answers to create the most positive social image" (Paulhus, 1991, p. 21).

Method

Participants and procedure. Participants were the university students described in Study 2, and this study followed the same procedure as that of Study 2.

Measures. Cultural Mosaic was measured by the CMS. I modified the 15-item version of the Workplace Prejudice/Discrimination Inventory by James, Lovato, and Cropanzano (1994) to fit the university context (e.g. "At my university grades and awards/scholarships are not influenced by racial or ethnic group membership"), and this inventory was used to measure prejudice and discrimination at the university. Organizational diversity was measured by Hegarty and Dalton's (1995) 3-item Managing Diversity subscale of the Organizational Diversity Inventory. Due to the student sample, the items were adapted to fit the university context (e.g. "Managing diversity has helped my university to be more effective"). CQ was measured by the 5-item Motivational subscale of the Cultural Intelligence Scale (e.g. "I enjoy interacting with people from different cultures"; Ang, Van Dyne, Koh, & Ng, 2004). Openmindedness was measured by van de Zee and van Oudenhoven's (2000, 2001) 18-item Openmindedness subscale of the Multicultural Personality Questionnaire (e.g. "I get involved in other cultures"). Openness to experience was measured by the 10-item Openness to Experience Domain subscale of the International Personality Item Pool (e.g. "Carry the conversation to a higher level"; Goldberg et al., 2006). Group reflection was measured by Schippers, Den Hartog, and Koopman's (2007) 4-item Discussing Processes subscale of the Reflexivity Scale which was adapted from Swift and West's (1998 as cited in Schippers et al., 2007) scale. Some of the items were modified to keep the wording consistent with other scales administered (e.g. "My group often reviews whether it's getting the job done").

Finally, impression management was measured by the 20-item Impression Management subscale of the Balanced Inventory of Desirable Responding Version 6 – Form 40 (e.g. “I sometimes tell lies if I have to”; Paulhus, 1991). All measures except those for workplace discrimination/prejudice and impression management were measured with a 5-point scale (1 = *strongly disagree* and 5 = *strongly agree*). Workplace discrimination/prejudice and impression management were measured with a 7-point scale (1 = *strongly disagree* and 7 = *strongly agree*).

Results

Table 8 presents the correlations between demographic variables, the three Cultural Mosaic factors, and the variables used to test construct validity.

Table 8

Descriptive Statistics, Zero Order Correlations, and Alphas

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Age (years)	21.85	3.35														
2. Gender	1.50	0.50	0.09													
3. Years in Canada	13.63	8.55	-0.09	-0.12												
4. Group Tenure (weeks)	6.41	2.90	-0.05	0.08	0.14*											
5. CMS, Group Diversity	5.35	1.39	0.06	-0.02	-0.03	0.02	0.90									
6. CMS, Culture Acceptance/Expression	5.87	1.08	0.08	0.06	0.05	0.06	0.44**	0.87								
7. CMS, Culture Utilization	4.63	1.02	0.04	-0.08	-0.10	-0.02	0.40**	0.34**	0.84							
8. WPDI	3.26	1.09	0.11	-0.04	-0.16*	0.00	0.00	-0.22*	0.03	0.87						
9. ODI, Managing Diversity	3.77	0.85	0.09	0.08	-0.03	0.01	0.08	0.17**	0.13*	0.01	0.81					
10. CQ, Motivational	4.05	0.77	0.00	-0.12	0.05	-0.05	0.20**	0.29**	0.12*	-0.08	0.41**	0.89				
11. MPQ, Openmindedness	3.87	0.56	0.02	-0.06	0.02	-0.04	0.20**	0.25**	0.24**	-0.19**	0.13*	0.62**	0.91			
12. IPIP, Openness to Experience	4.57	0.55	0.09	0.03	0.08	0.03	0.13*	0.14*	0.06	-.17**	0.05	0.30**	0.42**	0.68		
13. RS, Discussing Processes	3.59	0.80	-0.03	-0.08	-0.08	-0.12	0.04	0.11	0.23**	-0.06	0.07	0.09	0.21**	-0.10	0.84	
14. Impression management	3.95	0.72	0.19**	0.16**	-0.28**	-0.07	0.04	0.11	0.08	-0.08	-0.02	0.01	0.05	0.03	.10	0.72

Note. *N* ranges from 254 to 268; alphas are on the diagonal in bold. For gender, 1 = male, 2 = female. CMS = Cultural Mosaic Scale; WPDI = Workplace Prejudice/Discrimination Inventory; ODI = Organizational Diversity; CQ = Cultural Intelligence; MPQ = Multicultural Personality Questionnaire, IPIP = International Personality Item Pool; RS = Reflexivity Scale.

* $p < .05$. ** $p < .01$.

As predicted with respect to convergent validity, Culture Acceptance/Expression was negatively related to workplace prejudice/discrimination ($r = -0.22, p < .05$) and positively related to organizational diversity ($r = 0.17, p < .01$), motivational CQ ($r = 0.29, p < .01$), openmindedness ($r = 0.25, p < .01$), and openness to experience ($r = 0.14, p < .05$).

Moreover, Culture Utilization was predicted to be positively related to group reflection and that is what was found ($r = 0.23, p < .01$). However, Culture Utilization was also significantly related to organizational diversity ($r = 0.13, p < .05$), motivational CQ ($r = 0.12, p < .05$), and openmindedness ($r = 0.24, p < .01$).

As predicted with respect to discriminant validity, impression management was not significantly related to the CMS but was significantly related to participants' age ($r = 0.19, p < .01$), gender ($r = 0.16, p < .01$), and years in Canada ($r = -0.28, p < .01$).

Additional significant correlations were found that were not predicted. Group Diversity was positively related to CQ ($r = 0.20, p < .01$), openmindedness ($r = 0.20, p < .01$), and openness to experience ($r = 0.13, p < .05$).

Discussion

Results demonstrate satisfactory construct validity. Culture Acceptance/Expression's negative correlation with workplace prejudice and discrimination and positive correlations with organizational diversity, motivational CQ, openmindedness, and openness to experience in addition to Culture Utilization's positive correlation with group reflection suggest evidence for convergent validity for the CMS. As Culture Acceptance/Expression is defined as the extent to which group members feel accepted and are able to express their "true" selves in the group, schools or workplaces with high levels of prejudice and discrimination would not encourage such acceptance or expression of cultural differences. In contrast, institutions that recognize and address issues of discrimination would foster groups that score high on Culture

Acceptance/Expression. Culture Acceptance/Expression being positively related to motivational CQ is congruent with the logic that those who are motivated to learn about and direct energy towards functioning in cross-cultural situations would tend to perceive their multicultural group as being accepting of cultural differences. Similarly, those who are openminded would also tend to perceive their group as being accepting of different others, as these individuals are nonjudgmental and are tolerant towards other racial groups. The positive relationship between openness to experience and Culture Acceptance/Expression is supported by Flynn's (2005 as cited in Homan et al., 2010, p. 482) findings that "people who score high rather than low on openness to experience have more positive attitudes toward minority members." Finally, as the Discussing Processes subscale of group reflection taps into what is called a moderate level of reflection, where teams "[think] about the way things are usually done in the team, [reflect] on communication patterns within the team, and [discuss] norms and values within the team" (Schippers et al., 2007, p. 206), groups that are aware of and discuss team processes could lead to group members being aware of and leveraging the unique cultural insights of group members in the group's tasks.

Evidence for discriminant validity was demonstrated by the lack of relationship between the CMS and impression management. Therefore, CMS does not reflect people's motivation to respond in a way that is socially acceptable.

Group Diversity was positively related to motivational CQ, openmindedness, and openness to experience. These relationships were not predicted but also show convergent validity, as one would expect that individuals who are high on these aspects would perceive more diversity within their group. Also not predicted was the fact that Culture Utilization was positively related to organizational diversity, motivational CQ, and openmindedness. An institution actively managing diversity appears to also promote group members' perception that

the groups are leveraging distinct cultural work styles in the groups' tasks. These relationships also show that those who are motivated to successfully function in other cultures and are openminded would also perceive their work group as leveraging cultural insights in the groups' tasks. It could be that these individuals are more sensitive to noticing culturally motivated behaviours in general.

GENERAL DISCUSSION

As Canada and other nations with high immigrant influx become more culturally diverse, it is important to determine whether a work group characterized as a Cultural Mosaic – one in which members' distinct cultural heritages, values, and practices are mutually recognized and accepted by the group, and are leveraged in the group's activities – will lead to positive outcomes for the individuals within the group and enhance team performance. This paper presents theoretical conceptualization and evidence for the factor structure, reliability, and construct validity of the Cultural Mosaic Scale. Three factors were supported by factor analytic methods: Group Diversity, Culture Acceptance/Expression, and Culture Utilization. Group Diversity is the perceived cultural diversity within the group, which is a prerequisite for a Cultural Mosaic. Culture Acceptance/Expression is the extent to which group members feel accepted and can express themselves in the group. Culture Utilization is the degree to which group members use others' cultural backgrounds and insights in the group's tasks. The subscales demonstrated good levels of reliability. Convergent validity was shown with the Culture Acceptance/Expression's relations with workplace prejudice/discrimination, organizational diversity, motivational CQ, openmindedness, and openness to experience. Culture Utilization was related to group reflection, also showing convergent validity. Discriminant validity was demonstrated by the lack of relationship between CMS and impression management.

Research on the Cultural Mosaic contributes to the current diversity literature in several ways. First, although several scales can be found in the diversity literature, such as the diversity climate scales (Kossek & Zonia, 1993; Mor Barak et al., 1998), diversity beliefs scale (van Dick et al., 2008), and perceived dissimilarity scale (Hobman et al., 2004), these measures are at the organizational and individual levels while the CMS is a group-level measurement. Second, current group-level measures only capture perceived group diversity, group openness to diversity

(Hobman et al., 2004), intercultural group climate, (Luijters, van der Zee, & Otten, 2008) and other constructs such as information elaboration (van Dick et al., 2008). Therefore, the CMS fills the gap in the literature by providing a group-level measurement for perceived group diversity in addition to the level of acceptance and utilization of cultural differences. Third, while the intercultural group climate (Luijters et al., 2008) measures the positive or negative evaluations of cultural differences within the group, the CMS's items focus exclusively on the description of the current state of the group. Fourth, some constructs in the literature, such as the integration-and-learning perspective (Ely & Thomas, 2001), do not have measurements. Since the CMS measures the degree to which a group leverages cultural differences in their tasks, the measurement can map on to Ely and Thomas's (2001) concept. Finally, the CMS measures the behaviours of group members, the findings would reflect the actual reality and practices of the organizations rather than just their policy or values they claim to endorse.

The Cultural Mosaic group conceptualization is also distinct from other conceptualizations of multicultural teams currently in the literature. Adair, Tinsley, and Taylor (2006) propose a third culture or hybrid culture models where culturally diverse group members come to develop a shared understanding of team values and norms. However, the Cultural Mosaic emphasizes a group that allows for the preservation of group members' cultural distinctiveness in values and norms (but there is still a shared understanding of culture acceptance and utilization). Like the Cultural Mosaic, the cultural fusion model emphasizes meaningful participation and co-existence in multicultural teams, but it also emphasizes subgroups and dynamic, changing team approaches (Janssens & Brett, 2006). In contrast, the Cultural Mosaic emphasizes a shared recognition of high levels of cultural acceptance across all tasks. What distinguishes the Cultural Mosaic from the cultural fusion model is the Cultural Mosaic's

emphasis on culture affecting work processes while the fusion model's emphasis is on preservation of divergent thinking.

Limitations and Future Directions

The studies presented here are just part of a series of studies aimed to validate the CMS. Currently, another study is underway to obtain further convergent validity evidence for the Culture Utilization component. Earlier, the Cultural Mosaic was presented as a type of group that exhibit Ely and Thomas's (2001) integration-and-learning perspective such that group members would learn from culturally different others and utilize the differences in their tasks. Therefore, this type of group should engage in information elaboration. Thus, the next study will measure information elaboration (van Dick et al., 2008) in order to show convergent validity for Culture Utilization.

In the same study, more discriminant validity evidence will be collected for the CMS. As mentioned earlier, the Cultural Mosaic is conceptualized to be different from the Fusion Teamwork concept (Crotty & Brett, 2009) and showing discriminant validity for these two scales would support our position.

Finally, I aim to show discriminant validity between the CMS and a measure of Transactive Memory System (TMS; Lewis, 2003). TMS is defined as "the cooperative division of labour for learning, remembering, and communicating relevant team knowledge" (Hollingshead, 2001; Wegner, 1987, as cited in Lewis, 2003, p. 587). Although TMS is a group-level construct, it is theoretically not related to the Cultural Mosaic and should not show significant relationships.

Criterion-related validity. In establishing scale validity, criterion-related validity should also be demonstrated (Hinkin, 1995). However, at this stage of the research, variables that the Cultural Mosaic is purported to predict were not included. As part of this line of research, the

CMS will be used in future validation studies to answer the question, “Does a work group characterized as a Cultural Mosaic lead to ‘brilliant tiles,’ that is, workers who are satisfied, happy, committed to their organization, and go above and beyond their required role at work?” To do so, the CMS will be administered along with measures of various individual and work outcomes such as well-being, satisfaction, organizational citizenship behaviour, organizational commitment, and job performance should be included.

Group-level data. As defined earlier, the Cultural Mosaic is theorized as a type of group. In order to show that a construct is in fact a group-level construct, group-level data must be collected. Moreover, according to Kozlowski and Klein (2000) our conceptualization fits under the composition approach to bottom-up processing (i.e. individual-level data combined to reflect a higher-level variable). The composition approach is “based on the assumption that individual data are essentially equivalent with the higher-level construct, so it is necessary to demonstrate that the lower-level data are in agreement with one another” (LeBreton & Senter, 2008, p. 817). Therefore, this is related to the concept of interrater agreement (IRA) and interrater reliability (IRR) such that each individual within the group becomes an indicator of the construct. Future studies should collect group-level data to show that the Cultural Mosaic construct can be aggregated to the group-level using intraclass correlation (ICC) analyses.

Task. Another limitation in our research was the lack of clarity of the types of tasks with which the participants’ groups were involved. The Cultural Mosaic is conceptualized as most relevant to teams working on tasks that involve creativity and different approaches to problem-solving. However, with the first adult-working sample, it is not clear as to what types of tasks they were involved with because we did not select participants for their group’s task-type. For the student sample, a course syllabus for one of the class sections was obtained, and because the students groups discussed chapter readings and were responsible for case studies and a

presentation, I can infer that these students do participate in tasks that involve decision-making, problem solving, and creativity. Future studies using the CMS should ensure that participating groups work on more cognitively complex tasks (versus routine tasks), because the benefits of group diversity would more likely manifest themselves in groups working on these types of tasks.

Relationship of Subscales. Although the Cultural Mosaic is conceptualized to be composed of three components, the directional relationships between the components have not been specified. For example, it is possible that in order for group members to utilize cultural difference in the team's task, the culturally diverse group would first have to enable culture acceptance and expression within the group. In this case, Culture Acceptance/Expression would be a prerequisite for Culture Utilization. Moreover, in groups that allow members to express their cultural differences, members might begin to perceive more diversity within the group (recall that the level of perceived diversity is distinct from actual diversity). In this case, there would be a bidirectional relationship between Group Diversity and Culture Acceptance/Expression. In the future, researchers should hypothesize and test these relationships.

Scoring of the CMS. Another measurement issue is regarding scoring of the CMS. For a culturally diverse work team to be labelled a Cultural Mosaic, it must definitely have a non-zero rating for all three of the subscales. However, in comparing between Cultural Mosaic groups, there are issues that need to be considered. First, assuming groups have all three components and are considered Cultural Mosaics, are groups with differing levels of each component considered equal? For example, if Group A scores a 4 on Group Diversity, 1 on Culture Acceptance/Expression, and 1 on Culture Utilization while Group B scores a 1 on Group Diversity, 4 on Culture Acceptance/Expression, and 1 on Culture Utilization, are the two groups equally Cultural Mosaic-like or is one group more Cultural Mosaic-like than the other? What has to be considered in this case is the importance of each subscale, which could lead to weighted

scoring. Another consideration of the scoring is the level of agreement determined by the standard deviation of the group members' ratings. For example, Groups A and B could both have a mean of 6 on the Cultural Mosaic scale but the standard deviation of Group A is 1.5 but the standard deviation of Group B is 0.5. In this case, the interpretation would be that Group B's degree of being a Cultural Mosaic is stronger than that of Group A's. As the Culture Utilization is the unique aspect of the Culture Mosaic, I recommend a weighted scoring where Culture Utilization is weighted the most, followed by Culture Acceptance/Expression and then Group Diversity.

Sample. Thus far, the CMS has been validated with adult-worker and student samples but the findings could be biased towards Canadians. In Study 1, more than half the participants identified themselves as Canadians (53.8%) and have lived in Canada on average 35.02 years. Moreover, in Study 2, although only 31% of the students reported Canadian as the culture with which they identify, the entire sample has been in Canada on average 13.63 years, and with an average age of 21.85 years, most of the students have been in Canada for more than half of their lives. Moreover, Cheung, Chudek, and Heine (2011) have recently shown that for Hong Kong immigrants who came to Canada at younger ages, longer exposure to Canadian culture increased their identification with this host culture. Thus, even my student sample could be more "Canadian" than what the self-report demographics indicate. As the immigration influx into Canada will only increase in the near future, it would be useful to determine whether the same factor structure emerges with a newly-immigrated sample. Furthermore, as new immigrants already have a difficult time adjusting to their new conditions, it would be interesting to see whether immigrants report that they work in groups classified as Cultural Mosaics. Moreover, future research should investigate whether immigrants experience positive processes and

outcomes from working in these groups as opposed to non-Cultural Mosaic groups as, theoretically, it is this group that would benefit the most from being in a Cultural Mosaic group.

Team Tenure. The literature on group research shows that the amount of time group members have worked together as a team moderates team processes and outcomes and could therefore affect the validation of the CMS. In a longitudinal study on ethnically diverse groups, Watson et al. (1993) found that when the group first formed, homogeneous groups had fewer problems with group processes for the first three periods of the study, but by the fourth period, both homogeneous and heterogeneous groups were equal. An explanation for this finding is that ethnic diversity could negatively affect groups in the earlier stages of the group's tenure due to the surface-level differences, an interpretation supported by Harrison and colleagues (Harrison et al., 1998; Harrison, Price, Gavin, & Florey, 2002). However, once diverse members have had the chance to smooth over their differences, learn more about one another, and feel more integrated within the group, the group could start to utilize the differences to its advantage (Milliken & Martins, 2006). Furthermore, Swann et al. (2004) proposed that perhaps team tenure serves as a cue to group members that they should attempt to interact better with other members because they would be spending some time in this group. This could lead to more communication and more opportunities for self-verification, which has been shown to positively affect group performance. Therefore, depending on when the CMS is administered, the results for the Culture Acceptance/Expression and Culture Utilization subscales could be different with multicultural teams that have worked together longer scoring higher and teams that have just formed scoring lower. Future studies should investigate team tenure's impact on the group's level of Cultural Mosaic.

For my scale validation, the first sample of adult-workers, participants have worked with their culturally diverse group for approximately 41.07 months or almost 3.5 years. However, in

my second sample of students, participants only worked in their groups for an average of 6.41 weeks. In total number of hours, there is a discrepancy of 4,547 hours worked between the adult (4,565 hours) and the student (18 hours) samples! However, the factors that emerged from the adult-working sample fit well with the data from the student sample. Perhaps the results show that the Cultural Mosaics can form quite early in culturally diverse groups.

Range Restriction. Despite the evidence for good factor structure, reliability, and construct validity of the CMS, a remaining concern is the items' range restriction. This issue is not currently a problem with the Group Diversity subscale because one of the participation criteria was for participants to currently be working or have worked in a culturally diverse group, which would naturally restrict the range of perceived group diversity. However, range restriction is a potential concern for the other two subscales. In Study 1, the Culture Acceptance/Expression subscale items' means ranged from 5.54 to 6.28 on a 7-point scale and standard deviations ranged from 1.06 to 1.45. The Culture Utilization subscale items' means ranged from 3.91 to 4.73 and standard deviations ranged from 1.37 to 1.68. According to DeVellis (2003), a good item should have a mean around the central point of the scale range with a high standard deviation. Therefore, it appears that range restriction issues are occurring at the Culture Acceptance/Expression subscale but not so much the Culture Utilization subscale in Study 1. In Study 2, the Culture Acceptance/Expression subscale items' means ranged from 5.10 to 5.51 and standard deviations ranged from 1.54 to 1.77. The Culture Utilization subscale items' means ranged from 5.61 to 6.04 and standard deviations ranged from 1.27 to 1.38. Here, range restriction appears to be a problem for both, although the standard deviations for both subscales' items indicate adequate spread. For a future validation of the scale, this problem was addressed by having the word "extreme" added to the items. DeVellis (2003) stated that responses that pile up near one end of the scale range "[suggests] that the item was not worded strongly enough" (p. 94). Therefore, I added the word

“always” into some of the items in the Culture Acceptance/Expression subscale: “In my work group, each member's cultural background is *always* accepted by the group” (italics added for emphasis).

Societal Context. As socially desirable responding has already been ruled out as a potential source of high item means (at least for Study 2), an alternative reason for the high level of endorsement for the Culture Acceptance/Expression and Culture Utilization could be due to the Canadian societal landscape. Canada has official multiculturalism policies (Multiculturalism Policy and Canadian Multiculturalism Act), which encourages individuals to maintain their cultural identities in addition to maintaining relationships with the host culture (what Berry [1997] terms the integration strategy of acculturation). Thus, participants who live and moved here might have been taught and observed from media sources that acceptance and utilization of diversity *is* the norm in Canada. Not only is it the norm in this culture, it is also in reality endorsed by its inhabitants. On the contrary, the unwritten social ideology in the U.S. is that of the “melting pot,” which does not encourage immigrants or minority groups preserve their cultural identities but maintains the value of pursuing relationships with the host culture (what Berry [1997] terms the assimilation strategy of acculturation). Therefore, in future studies, it would be interesting to determine whether high levels of Culture Acceptance/Expression and Culture Utilization are also endorsed in an American sample (A. Milam, personal communication, August 10, 2010).

Also addressing the importance of societal context, Milliken and Martins (1996) cite Wiersema and Bird's (1993) findings of how perception of diversity can be influenced by the societal context. The latter authors found that, because there is less cultural variation in Japan than the U.S., diversity is “actually noticed and acted upon more in Japanese than in U.S. organizations” (p. 1003). Milliken and Martins (1996) interpret these findings to mean that

perception of diversity could be a function of the baseline of the culture. Therefore, in looking at data across cultures, it is important to keep in mind that similar scores for diversity measures could in fact have different meanings in different settings. This idea also fits with Berry's (1997) framework for acculturation research, where aspects of the society of settlement could influence the acculturation experiences and other moderating factors during acculturation such as societal attitudes, social support, etc.

Other Top-down Processes: Organizational Climate and Group Leaders. The Cultural Mosaic is conceptualized as a referent shift collective construct, which emerges from the shared perceptions of group members. However, there could also be top-down processes that influence the emergence of Culture Mosaics. Previously, the societal norm is presented as a potential top-down influence of the existence and endorsement of the Cultural Mosaic. Other potential top-down sources are the organization's climate for diversity and group leader. As shown in Study 3, a high level of organizational prejudice and discrimination is negatively related to the Culture Acceptance/Expression factor and a high level of support for organizational diversity was positively related to both the Culture Acceptance/Expression and Culture Utilization factors. Reward structures set by organizations or group leaders can also influence the emergence of Cultural Mosaics. As discussed earlier, Homan et al. (2008) were able to show that manipulating diverse groups' reward structures can affect team performance by affecting the salience of intragroup differences. They found that the highest performing groups were those with reward structures that cut across demographic categories in addition to having members who scored high on openness. On the opposite end, groups that performed the worst were groups whose reward structures emphasized faultlines in addition to having members who scored low on openness. Homan and colleagues' (2008) findings thus highlight an aspect, reward structures, that is within the control of organizations to promote high performing diverse teams.

Furthermore, managers and group leaders can foster team psychological safety (Edmondson, 1999) in order to promote the Cultural Mosaic. Work groups with higher levels of psychological safety would also encourage self-verification processes (Swann et al., 2004), which has been shown to be beneficial for team performance especially during the early stages of group interaction (Polzer et al., 2002; Swann et al., 2000). Other ways that group leaders can influence the existence or strength of a Cultural Mosaic is their personal endorsement of diversity beliefs. For example, group leaders who believe in the value of diversity could serve as a top-down influence of a multicultural group in promoting the acceptance and expression of differences within the group in addition to encouraging group members to leverage others distinct perspectives in the group's tasks.

Practical Implications

As stated earlier, the diversity literature was heavily influenced by the social identity and self-categorization theories, which propose that the only way to overcome the negative intergroup processes within work groups is to focus on the group's superordinate goal and dampen individual differences. However, doing so would not allow group members to harness their differences as resources in their group's task. Moreover, policies of some organization, such as the "colour-blind" policy, aims to ignore individual differences and emphasize members' commonalities. Although well-intentioned, such policies have been found to lead to negative outcomes such as dominant-group members expressing negative affect toward outgroup members (Vorauer, Gagnon, & Sasaki, 2009). Similarly, Ely and Thomas (2001) found that in groups that endorsed the discrimination-and-fairness perspective, which encourages the colour-blind strategy, the lack of open communication about differences and fairness "led inevitably to strained race relations" (Ely & Thomas, 2001, p. 266), which hindered the possibility of different others learning from each other. Therefore, it seems that instead of entirely ignoring differences, the

group's diversity should be acknowledged as various studies have shown that there is value in diversity.

The Cultural Mosaic is proposed as an "ideal" state of culturally diverse groups. Despite being a state in which all multicultural groups should aim towards, not all groups would be able to get there on their own. Therefore, training programs should be developed and implemented for group members and group leaders regarding the benefits of diversity and how to ensure positive group processes such as information elaboration. Moreover, selecting for employees with high CQ could alleviate the potential negative intergroup biases as these individuals would be motivated to learn from and behave in respectable ways toward culturally different individuals. Other ways organizations can facilitate positive team performance of diverse groups would be to develop an organizational diversity climate and put in place reward structure for teams that cut across demographic differences.

Conclusion

In summary, I demonstrated that the proposed factor structure for the CMS is supported and showed evidence for scale reliability and both convergent and discriminant validity. Once our measure is refined, the CMS can be used to measure the existence of Cultural Mosaics in the work place to help us understand the increasingly multicultural workplace and diverse work teams. Moving forward in the workplace, it will no longer be an option whether or not one can choose to work with culturally similar or diverse others; with globalization and increase use of teams in organizations, the reality in the current and future workplace is that all employees will have to work with others on interdependent tasks and have teammates from different cultures. Thus, by constructing a measure for the Cultural Mosaic, researchers and practitioners can identify multicultural teams that are psychologically safe for different others, allow differences to be expressed, and harness the power of differences in the tasks.

Furthermore, the Cultural Mosaic is not just about culturally different individuals working together; it is about celebrating the differences and harnessing its advantages to create better group and individual outcomes. Future studies will enable researchers and practitioners to answer the question as to whether groups or work environments characterized as a Cultural Mosaic enhance individuals' well-being, satisfaction, cooperation, performance, and productivity on the job. Managers can also realize the benefits of this type of teams such as forming teams who are more adept at creating more creative solutions and decision-making outcomes, in addition to creating teams that are more committed to the organization, which could lessen turnover and absenteeism. Identifying the antecedents of the Cultural Mosaic will also allow managers to know how to form and encourage the formation of these types of teams. As a proponent of the value-in-diversity hypothesis, it is my hope that others will continue to study the benefits that can come out of culturally diverse teams to move the field forward and help organizations recognize the good outcomes diversity can bring.

References

- Adair, W. L., Tinsley, C., & Taylor, M. (2006). Managing the intercultural interface: Third cultures, antecedents, and consequences. In E. A. M. Mannix, M. Neale, and Y. Chen (Eds.), *Research in managing groups and teams: National culture and groups* (pp. 205-232). Oxford: Elsevier Science Press.
- Ang, S., van Dyne, L., Koh, C., & Ng, K. Y. (2004, August). The measurement of cultural intelligence. Paper presented at the 2004 Academy of Management Meetings Symposium on Cultural Intelligence in the 21st Century, New Orleans, LA.
- Arbuckle, J. L. (2009). Amos (Version 18.0) [Computer Program]. Chicago: SPSS.
- Benet-Martínez, V., Leu, J., Lee, F., & Morris, M. W. (2002). Negotiating biculturalism: Cultural frame switching in biculturals with oppositional versus compatible cultural identities. *Journal of Cross-Cultural psychology, 33*, 492-516.
- Bentler, P. M. (1990). Comparative fit indices in structural models. *Psychological Bulletin, 107*, 238-246.
- Berry, J. W. (1997). Immigration, acculturation, and adaptation. *Applied Psychology: An International Review, 46*, 5-68.
- Berry, J. W., Kim, W., Power, S., Young, M., & Bujaki, M. (1989). Acculturation attitudes in plural societies. *Applied Psychology: An International Review, 38*, 185-206.
- Berry, J. W., Poortinga, Y. H., Segall, M. H., & Dasen, P. R. (2002). *Cross-cultural psychology: Research and applications* (2nd ed.). New York: Cambridge University Press.
- Bowers, C. A., Pharmer, J. A., & Salas, E. (2000). When member homogeneity is needed in work teams: A meta-analysis. *Small Group Research, 31*, 305-327.
- Brewer, M. B. (1979). Ingroup bias in the minimal intergroup situation: A cognitive-motivational analysis. *Psychological Bulletin, 86*, 307-324.

- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In Bollen, K. A., & Long, J. S. (Eds.), *Testing structural equation models* (pp. 136-162). Newbury Park, CA: Sage.
- Byrne, D. E. (1971). *The attraction paradigm*. New York: Academic Press.
- Chao, G. T., & Moon, H. (2005). The cultural mosaic: A metatheory for understanding the complexity of culture. *Journal of Applied Psychology, 90*, 1128-40.
- Chatman, J. A., & Flynn, F. J. (2001). The influence of demographic heterogeneity on the emergence and consequences of cooperative norms in work teams. *Academy of Management Journal, 44*, 956-974.
- Cheung, B., Chudeck, M., & Heine, S. (2011). Evidence for a sensitive period for acculturation: Younger immigrants report acculturating at a faster rate. *Psychological Science, 22*, 147-152.
- Cox, T. H. (1991). The multicultural organization. *Academy of Management Executive, 5*, 34-47.
- Cox, T. H., Lobel, S. A., & McLeod, P. L. (1991). Effects of ethnic group cultural differences on cooperative and competitive behaviour on a group task. *Academy of Management Journal, 34*, 827-847.
- Cronbach, L. J., & Meehl, P. E., (1955). Construct validity in psychological tests. *Psychological Bulletin, 52*, 281-302.
- Crotty, S., & Brett, J. M. (2009). *Fusing creativity: Cultural metacognition and teamwork in multicultural teams* (Working paper No. 09-05). Dubai, United Arab Emirates: Retrieved from Dubai School of Government website: <http://www.dsg.ae/LinkClick.aspx?fileticket=vGNwA308dl0=>
- DeVellis, R. F. (2003). *Scale development: Theory and applications*. Thousand Oaks, CA: Sage.
- Earley, P. C., & Mosakowski, E. (2000). Creating hybrid team cultures: An empirical test of

- transnational team functioning. *Academy of Management Journal*, 43, 26-49.
- Edmondson, A. (1999). Psychological safety and learning behaviour in work teams. *Administrative Science Quarterly*, 44, 350-383.
- Eilam, B. (1999). Toward the formation of a “cultural mosaic”: A case study. *Social Psychology of Education*, 263-296.
- Ely, R. J. & Thomas, D. A. (2001). Cultural diversity at work: The effects of diversity perspectives on work group processes and outcomes. *Administrative Science Quarterly*, 46, 229-273.
- Foldy, E. G. (2004). Learning from diversity: A theoretical exploration. *Public Administration Review*, 64, 529-538.
- Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M. C., Cloninger, C. R., & Gough, H. (2006). The international personality item pool and the future of domain personality measures. *Journal of Research in Personality*, 40, 84-96.
- Hambrick, D. C., Davison, S. C., Snell, S. A., & Snow, C. C. (1998). When group consists of multiple nationalities: Towards a new understanding of the implications. *Organization Studies*, 19, 181-205.
- Harrison, D. A., & Klein, K. J. (2007). What’s the difference? Diversity constructs as separation, variety, or disparity in organizations. *Academy of Management Review*, 32, 1199-1228.
- Harrison, D. A., Price, K. H., & Bell, M. P. (1998) Beyond relational demography: Time and the effects of surface- and deep-level diversity on work group cohesion. *Academy of Management Journal*, 41, 96-107.
- Harrison, D. A., Price, K. H., Gavin, J. H., & Florey, A. T. (2002). Time, teams, and task performance: Changing effects of surface- and deep-level diversity on group functioning. *Academy of Management Journal*, 45, 1029-45.

- Hegarty, W. H., & Dalton, D. R. (1995). Development and psychometric properties of the organizational diversity inventory (ODI). *Educational and Psychological Measurement*, 55, 1047-52.
- Henson, R. K., & Roberts, J. K. (2006). Use of exploratory factor analysis in published research: Common errors and some comment on improved practice. *Educational and Psychological Measurement*, 66, 393-416.
- Hinkin, T. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods*, 1, 104-121.
- Hobman, E. V., Bordia, P., Gallois, C. (2004). Perceived dissimilarity and work group involvement: The moderating effects of group openness to diversity. *Group and Organization Management*, 29, 560-587.
- Hofstede, G. (1991). *Culture and organizations*. London: McGraw-Hill.
- Homan, A. C., Greer, L. L., Jehn, K. A., & Koning, L. (2010). Believing shapes seeing: The impact of diversity beliefs on the construal of group composition. *Group Processes & Intergroup Relations*, 13, 477-493.
- Homan, A. C., Hollenbeck, J. R., Humphrey, S. E., van Knippenberg, D., Ilgen, D. R., & van Kleef, G. A. (2008). Facing differences with an open mind: Openness to experience, salience of intergroup differences, and performance of diverse work groups. *Academy of Management Journal*, 51, 1204-1222.
- Homan, A. C., van Knippenberg, D., van Kleef, G. A., & De Dreu, C. K. W. (2007). Bridging faultlines by valuing diversity: diversity beliefs, information elaboration, and performance in diverse work groups. *Journal of Applied Psychology*, 9, 1189-99.
- Horn, R. H., & Panter, A. T. (1995). Writing about structural equation models. In R. H. Hoyle (Ed.), *Structural equation modeling* (pp. 158-176). Thousand Oaks, CA: Sage.

- Hoyle, R.H., & Panter, A. T. (1995). Writing about structural equation models. In R.H. Hoyle (Ed.), *Structural equation modeling* (pp. 158-176). Thousand Oaks, CA: Sage.
- Hu, L.-T., & Bentler, P. M. (1999). Cut-off criteria for fit indexes in covariance structure analysis: Convention criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55.
- Humphreys, L. G., & Montanelli, R. G., (1975). An investigation of the parallel analysis criterion for determining the number of common factors. *Multivariate Behavioral Research, 10*, 193-205.
- James, K., Lovato, C., & Cropanzano, R. (1994). Correlation and known-group comparison validation of a workplace prejudice/discrimination inventory. *Journal of Applied Social Psychology, 24*, 1573-92.
- Janssens, M., & Brett, J. M. (2006). Cultural intelligence in global teams. *Group & Organization Management, 31*, 124-153.
- Jehn, K. A., Northcraft, G. B., & Neale, M. A. (1999). Why differences make a difference: A field study of diversity, conflict, and performance in workgroups. *Administrative Science Quarterly, 44*, 741-763.
- Kline, R. B. (1998). *Principles and practice of structural equation modeling*. New York: Guilford.
- Kluckhohn, C. (1954). Culture and behaviour. In G. Lindzey (Ed.), *Handbook of Social Psychology* (pp. 931-976). Cambridge, MA: Addison Wesley.
- Kooij-de Bode, H. J. M., van Knippenberg, D., & van Ginkel, W. P. (2008). Ethnic diversity and distributed information in group decision making: The importance of information elaboration. *Group Dynamics: Theory, Research, and Practice, 12*, 307-320.
- Kossek, E. E., & Zonia, S. C. (1993). Assessing diversity climate: A field study of reactions to

- employer efforts to promote diversity. *Journal of Organizational Behavior*, 14, 61-81.
- Kozlowski, S. W. J., & Klein, K. J. (2000). A multilevel approach to theory and research in organizations: Contextual, temporal, and emergent processes. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations* (pp. 3-90). San Francisco: Jossey-Bass.
- LaFromboise, T., Coleman, H. L., & Gerton, J. (1993). Psychological impact of biculturalism: Evidence and theory. *Psychological Bulletin*, 113, 395-412.
- Lau, D. C., & Murnighan, J. K. (1998). Demographic diversity and faultlines: The compositional dynamics of organizational groups. *Academy of Management Review*, 23, 325-340.
- LeBreton, J. M., & Senter, J. L. (2008). Answers to 20 questions about interrater reliability and interrater agreement. *Organizational Research Methods*, 11, 815-882.
- Lewis, K. (2003). Measuring transactive memory systems in the field: Scale development and validation. *Journal of Applied Psychology*, 88, 587-604.
- Lowe, M. (2009). Examining the concept of a Cultural Mosaic in the workplace: Developing a measure for work groups. Unpublished Master's thesis, Queen's University, Kingston, Ontario, Canada.
- Luijters, K., van der Zee, K., & Otten, S. (2008). Cultural diversity in organizations: Enhancing identification by valuing differences. *International Journal of Intercultural Relations*, 32, 154-163.
- Mannix, E., & Neale, M. A. (2005). What differences make a difference?: The promise and reality of diverse teams in organizations. *Psychological Science in the Public Interest*, 6, 31-55.
- McDonald, R. P., & Ho, M.-H.R. (2002). Principles and practice in reporting structural equation analyses. *Psychological Methods*, 7, 64-82.

- McLeod, P. L., Lobel, S. A., & Cox, T. H. (1996). Ethnic diversity and creativity in small groups. *Small Group Research, 27*, 248-264.
- Milliken, F. J., & Martins, L. L. (1996). Searching for common threads: Understanding the multiple effects of diversity in organizational groups. *Academy of Management Review, 21*, 402-433.
- Mor Barak, M. E., Cherin, D. A., & Berkman, S. (1998). Organizational and personal dimensions in diversity climate. *Journal of Applied Behavioral Science, 34*, 82-104.
- O'Connor, B. P. (2000). SPSS and SAS programs for determining the number of components using parallel analysis and Velicer's MAP test. *Behavior Research Methods, Instrumentation, and Computers, 32*, 396-402.
- Palich, L. E., & Gomez-Mejia, L. R. (1999). A theory of global strategy and firm efficiencies: Considering the effects of cultural diversity. *Journal of Management, 25*, 587-606.
- Paulhus, D. L. (1991). Measurement and control of response bias. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 17-59). New York: Academic Press.
- Pelled, L. H., Eisenhardt, K. M., & Xin, K. R. (1999). Exploring the black box: An analysis of work group diversity, conflict, and performance. *Administrative Science Quarterly, 44*, 1-28.
- Phillips, K. W., Northcraft, G. B., & Neale, M. A. (2006). Surface-level diversity and decision-making in groups: When does deep-level similarity help? *Group Processes & Intergroup Relations, 9*, 467-482.
- Polzer, J. T., Milton, L. P., & Swann, W. B. Jr. (2002). Capitalizing on diversity: Interpersonal congruence in small work groups. *Administrative Science Quarterly, 47*, 296-324.
- Riordan, C. M., & Shore, L. M. (1997). Demographic diversity and employee attitudes: An

- empirical examination of relational demography within work units. *Journal of Applied Psychology*, 8, 342-358.
- Roberge, M.-É., & van Dick, R. (2010). Recognizing the benefits of diversity: When and how does diversity increase group performance? *Human Resources Management Review*, 20, 295-308.
- Schippers, M. C., Den Hartog, D. N., & Koopman, P. L. (2007). Reflexivity in teams: A measure and correlates. *Applied Psychology: An International Review*, 56, 189-211.
- Stahl, G. K., Maznevski, M. L., Voigt, A., & Jonsen, K. (2009). Unraveling the effects of cultural diversity in teams: A meta-analysis of research on multicultural work groups. *Journal of International Business Studies*, 41, 690-709.
- Statistics Canada (2006). *Canada's ethnocultural mosaic, 2006 census*. Catalogue no. 97-562-XWE2006001. Retrieved from: <http://www.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=97-562-X2006001&lang=eng>.
- Swann, W. B. Jr. (1983). Self-verification: Bringing social reality into harmony with the self. In J. Suls, & A. G. Greenwald (Eds.), *Social psychological perspectives on the self* (Vol. 2, pp. 33-66). Hillsdale, NJ: Lawrence Erlbaum. Retrieved from <http://homepage.psy.utexas.edu/homePage/Faculty/Swann/docu/swBSRHS83.pdf>
- Swann, W. B. Jr., Kwan, V. S. Y., Polzer, J. T., & Milton, L. P. (2003). Fostering group identification and creativity in diverse groups: The role of individuation and self-verification. *Personality and Social Psychology Bulletin*, 29, 1396-406.
- Swann, W. B. Jr., Milton, L. P., & Polzer, J. T. (2000). Should we create a niche or fall in line? Identity negotiation and small group effectiveness. *Journal of Personality and Social Psychology*, 79, 238-250.
- Swann, W. B. Jr., Polzer, J. T., Seyle, D. C., & Ko, S. J. (2004). Finding value in diversity:

- Verification of personal and social self-views. *Academy of Management Review*, 29, 9-27.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behaviour. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations*. Chicago: Nelson-Hall.
- Thompson, B. (2004). *Exploratory and confirmatory factor analysis: Understanding concepts and applications*. Washington, DC: American Psychological Association.
- Triandis, H. (1994). *Culture and social behaviour*. New York: McGraw-Hill.
- Tsui, A. S., Egan, T. D., & O'Reilly, C. A. (1992). Being different: relational demography and organizational attachment. *Administrative Science Quarterly*, 37, 549-579.
- Tsui, A. S., & O'Reilly, C. A. (1989). Beyond simple demographic effects: The importance of relational demography on superior-subordinate dyads. *Academy of Management*, 32, 402-423.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, United Kingdom: Blackwell.
- van der Zee, K. I., & van Oudenhoven, J. P. (2000). Psychometric qualities of the multicultural personality questionnaire: A multidimensional instrument of multicultural effectiveness. *European Journal of Personality*, 14, 291-309.
- van der Zee, K. I., & van Oudenhoven, J. P. (2001). The multicultural personality questionnaire: Reliability and validity of self- and other ratings of multicultural effectiveness. *Journal of Research in Personality*, 35, 278-288.
- van Dick, R., van Knippenberg, D., van, S., Guillaume, Y. R. F., & Brodbeck, F. C. (2008). Group diversity and group identification: The moderating role of diversity beliefs.

- Human Relations*, 61, 1463-92.
- van Ginkel, W. P., & van Knippenberg, D. (2007). Group information elaboration and group decision making: The role of shared task representations. *Organizational Behavior and Human Decision Processes*, 105, 82-97.
- van Knippenberg, D., De Dreu, C. K. W., & Homan, A. C. (2004). Work group diversity and group performance: An integrative model and research agenda. *Journal of Applied Psychology*, 89, 1008-22.
- van Knippenberg, D., & Haslam, S. A. (2003). Realizing the diversity dividend: Exploring the subtle interplay between identity, ideology, and reality. In S. A. Haslam, D. Van Knippenberg, M. J. Platow, & N. Ellemers (Eds.), *Social identity at work: Developing theory for organizational practice* (pp. 61-77). New York: Psychology.
- van Knippenberg, D., Haslam, S. A., & Platow, M. J. (2007). Unity through diversity: Value-in-diversity beliefs, work group diversity, and group identification. *Group Dynamics: theory, Research, and Practice*, 11, 207-222.
- van Knippenberg, D., & Schippers, M. C. (2007). Work group diversity. *Annual Review of Psychology*, 58, 515-541.
- Vorauer, J. D., Gagnon, A., & Sasaki, S. J. (2009). Salient intergroup ideology and intergroup interaction. *Psychological Science*, 20, 838-45.
- Watson, W. E., Kumar, K., & Michaelsen, L. K. (1993). Cultural diversity's impact on interaction process and performance: Comparing homogeneous and diverse task groups. *Academy of Management Journal*, 36, 590-602.
- Webber, S. S., & Donahue, L. M. (2001). Impact of highly and less job-related diversity on work group cohesion and performance: A meta-analysis. *Journal of Management*, 27, 141-162.
- Williams, K. Y., & O'Reilly, C. A. (1998). Demography and diversity in organizations: A review

of 40 years of research. *Research in Organizational Behavior*, 20, 77-140.

Worthington, R. L., & Whittaker, T. A. (2006). Scale development research: A content analysis and recommendations for best practices. *The Counseling Psychologist*, 34, 806-838.

Zellmer-Bruhn, M. E., Maloney, M. M., & Bhappu, A. D., & Salvador, R. (2008). When and how do differences matter? An exploration of perceived similarity in teams. *Organizational Behavior and Human Decision Processes*, 107, 41-59.

Zwick, W. R., & Velicer, W. F. (1986). Factors influencing five rules of determining the number of components to retain. *Psychological Bulletin*, 99, 432-442.

Appendix A

Correlation Matrix, Means, and Standard Deviations of the Cultural Mosaic Scale Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Group Diversity																	
1. Different and distinct	–																
2. Diverse	0.74	–															
3. Different	0.52	0.66	–														
4. Not same	0.51	0.65	0.63	–													
5. Different	0.68	0.78	0.63	0.66	–												
Culture Acceptance/Expression																	
6. Quality	0.30	0.36	0.36	0.41	0.34	–											
7. Accepted	0.24	0.28	0.27	0.41	0.38	0.51	–										
8. “True” selves	0.07	0.10	0.15	0.26	0.26	0.44	0.61	–									
9. Non-threatening	0.26	0.31	0.32	0.48	0.40	0.54	0.61	0.55	–								
10. Treated equally	0.25	0.29	0.28	0.45	0.40	0.57	0.67	0.56	0.64	–							
Culture Utilization																	
11. Beliefs	0.30	0.38	0.30	0.32	0.32	0.46	0.29	0.24	0.35	0.37	–						
12. Improve performance	0.24	0.35	0.24	0.24	0.29	0.20	0.18	0.14	0.20	0.20	0.44	–					
13. Practices	0.22	0.31	0.25	0.21	0.24	0.13	0.14	0.11	0.13	0.13	0.49	0.49	–				
14. Backgrounds utilized	0.29	0.32	0.27	0.26	0.41	0.20	0.21	0.19	0.19	0.21	0.39	0.54	0.55	–			
15. Distinct backgrounds utilized	0.23	0.23	0.13	0.21	0.25	0.13	0.22	0.27	0.18	0.20	0.32	0.53	0.52	0.70	–		
16. Challenge	0.12	0.20	0.16	0.16	0.18	0.16	0.19	0.17	0.17	0.18	0.34	0.43	0.28	0.45	0.43	–	
17. Knowledge	0.21	0.29	0.14	0.22	0.20	0.17	0.16	0.15	0.17	0.17	0.33	0.44	0.37	0.52	0.45	0.42	–
<i>M</i>	5.10	5.24	5.42	5.48	5.51	5.76	6.04	5.61	5.92	6.04	4.83	4.71	4.49	4.63	4.63	4.69	4.39
<i>SD</i>	1.77	1.54	1.62	1.62	1.67	1.29	1.27	1.31	1.34	1.38	1.38	1.42	1.36	1.41	1.37	1.47	1.38

* $p < .05$. ** $p < .01$.