Explaining Cohesion Linkages in Workgroups: The Cooperative Communication in Collectivism and High Power Distance Workgroup Context

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ABSTRACT
This study develops a multi-level model to advance research on how cultural context in workplace moderates the relationship between cooperative communication and group cohesion in a collectivist workplace setting. We tested the model by using hierarchical linear modeling (HLM) with the data obtained from 375 employees representing 48 workgroups in a Malaysian organization. It is revealed that at the group level of analysis, cooperative communication is more strongly related to group cohesion-based in the collectivist cultural context in the individual level of analysis. On the other hand, the power distance context in the work group at the individual level of analysis did not moderate the relationship between cooperative communication and group cohesion in the group level of analysis. Practical implications are discussed.

Keywords: Leader-member exchange, team-member exchange, cooperative communication, group cohesion, collectivist and power distance.

INTRODUCTION
With the emergence of work groups over the past decades, considerable attention has been given to understanding the dynamics of workgroup functions. Organizational and intercultural researchers have increasingly recognized that effective and high-quality communication within a work group can improve each individual’s team commitment and performance, hence advancing organizational efficiency and effectiveness (Bakar & Mustaffa, 2008; Honeycutt & McCann, 2008; Lee, 2005; Sullivan & Callow, 2005). Despite promising findings in initial investigations, the conceived model remains largely detached from cultural contextual conditions (Hofstede, 2003; Johnson, Lenartowicz & Apud, 2006; Liden, 2011). Studies have suggested that cultural variables can moderate relationships between antecedents and group outcomes (e.g., Elfenbein & O’Reilly, 2007; Erdogan & Liden, 2006; Fay & Kline, 2011). For example meta-analysis by Dulebohn, Boomer, Liden, Brouer, and Ferris (2011) have revealed that, the correlation between trust and relationships quality within a workgroup is positive due to high level of individualism contextual culture in work groups.

Previous research on group cohesion/attachment has focused on the team/group as the unit of analysis without considering the dynamic interplay of an individual’s cultural value and communicative behavior within a workgroup group as a whole (Ballinger & Schoorman, 2007; Chen & Klimoski, 2003). As a result, a multilevel theoretical model must be developed and tested to address how work group cultural context at individual level of analysis influences interactions between group members and work group outcomes at group level analysis (Hipp, Faris & Boessen, 2012; Lau & Liden, 2008; Lepine et al., 2008). Additionally, current explanatory theories and perspectives towards co-workers interaction and work diversity (e.g., leader-member exchange and team-member exchange theory)
require expansion and modification to capture more complete answers to many of the above issues and outcomes. This current research thus, seeks to investigate more comprehensively and to understand the dynamics of one core aspect of work group behavior – co-workers communication in work groups (Engleberg & Wynn, 2007; Joshi & Roh, 2009; Sullivan & Callow, 2005) – At the same time, extending core workplace diversity and cultural context theories. To extend, broaden, and complement this work, this study considers the moderating effect of cultural context on the relations between cooperative communication and perceived work group cohesion in the vastly understudied Malaysian contextual work group. This choice was in line with a recent call by Liden (2011) to focus more on research designs that capture contextual and cultural factors.

In the present study, we have developed two multi-level objectives. First, is based on the existing group and communication literature, at the individual level of analysis, we have selected power distance and collectivist as group member’s cultural context which could be moderators of cooperative communication-perceived group cohesion relationships for investigation. Second, at the group level of analysis we have employed multilevel analysis that specifies the linkages in cooperative communication among group members, and perceived group cohesion in a workgroup context. This line of research answers Betts and Santoro (2007) call to identify the process variables that link group member communication and important workgroup outcomes. Exploring these relationships using causality-based multi-level analysis is both theoretically and practically imperative because such analysis provides a realistic picture of interpersonal exchange relationships between supervisors and subordinates and among co-workers in workgroups.

LITERATURE REVIEW OR RESEARCH BACKGROUND

Cooperative Communication

Cooperative communication refers to the members’ information exchange behaviors and activities that lead to the joint achievement of workgroup goals (Lee, 1997, 2001). While Nijstad and De Dreu (2012) have discovered that employees’ initiative-taking behavior contributed to contextual performance, Omilion-Hodges et al. (2016) have found that, at a nursing home, staff members with enhanced cooperative communication skills have better relationships with the patients and their family members and likely to achieve a positive organizational outcome in terms of satisfied clients. Thus, cooperative communication is an important organizational asset.

When motivated to accomplish shared group tasks, individuals engage in cooperative communication through which they exchange information, exhibit willingness to share ideas and resources, provide assistance, and express concerns about and show interest in other members (Greer & van Kleef, 2010). Cooperative communication behavior also includes group members’ exhibiting responsiveness to each other, showing mutual support, demonstrating sensitivity, and compromising and negotiating to achieve agreement (Cerasoli, Nicklin & Ford, 2014; Greer & van Kleef, 2010).

Nijstad and De Dreu (2012) have argued that differences in individuals could affect cooperative behavior in a workgroup, such that stronger individuals are likely to exert stronger influences. The manager, being the leader of a workgroup, naturally has the legitimate advantage of shaping the group’s cooperative behavior. Yet, not all managers are equal in exerting influence; those with stronger leader-member relationships, compared to
those with weaker leader-member relationships, are expected to increase cooperative communication that leads to group cohesion (Lee, 2005).

**Group Cohesion**

Cohesion is often regarded as an important determinant of a workgroup performance (Chen, Tang & Wang, 2009; Pieterse, Van Knippenberg, & Van Dierendonck, 2013). Group cohesion can be defined as the degree to which an individual feels a sense of belonging to a particular group and his/her feelings and values are closely associated with other members of the group (Bollen & Hoyle, 1990). Pieterse et al. (2013) have argued that cohesion is an essential component of a group’s overall social integration and can be evaluated based on group members’ sense of attraction to the group and their satisfaction with social interactions with other members. Because the stability of a group typically can be described by the degree of cohesion, cohesion is treated as an outcome group behavior in this study.

**Cultural Contexts**

In our increasingly globalized world, companies are escalating operations offshore in emerging markets through international subsidiaries and joint ventures. There is still much to learn regarding the ways in which supervisor-subordinate relationships function; and to ascertain the impact of cultural diversity on performance. Malaysia is multi-ethnic and it is the most compelling context to conduct our investigation. Three major ethnic groups (Malays, Chinese, Indian) interact with significant degree of harmony in their daily living. Each of these ethnic groups has also, to a large degree, managed to preserve their divergent ethnic identities via continued practice of customs, behavior, languages spoken, norms, values and beliefs (Gale, 1981). Malaysia’s work force has been found to be reflective of this cultural, behavioral, and value diversity (Abdul Rashid & Ho, 2003). While there is little cultural homogeneity between the three ethnicities in Malaysia, their divergent value differences converge under the single nation of Malaysia. This convergence can be considered as contributing to the unique face of “Malaysian identity” (Selvarajah & Meyer, 2006).

Taking a national cultural approach to the study on value patterns of Malaysian workers, both Hofstede (2003) and the GLOBE studies (Gupta, Surie, Javidan & Chhokar, 2002; Hofstede, 2003; House, Hanges, Javidan, Dorfman, & Gupta, 2004) have concluded that Malaysian organizational members exhibit the following general features: (a) they are collectivist in nature and emphasize the importance of the group or team; and (b) they have high power distance concerns and place great importance on leader status,(see also Abdullah, 2001; Abdullah & Lim, 2001; Ashkanasy, 2002; Kennedy, 2002).

As identified by Hofstede (2003), studies have characterized Malaysia as high context, which means high context in collectivism and high in power distance. Due to the importance of context, there is a tendency in Malaysian organizations for appropriate behavior of leaders to be based on the situation in which the behavior is unfolding (Abdul Rashid & Ho, 2003; Lynn-Sze, Yusof & Ahmad, 2014). High collectivism indicates a cultural proclivity towards focusing on what is best for the larger collective group. Therefore, it is important for a leader and members of a work group in Malaysia to adequately incorporate the team environment with surrounding interactions between leaders and followers.
Malaysian leaders also have a tendency to maintain social distance between themselves and their followers. Indeed, Malaysian leaders, due to the status and power inherent in their positions, protect their emotional distance from subordinates. Part of maintaining distance from followers involves the use of authoritarian control to ensure the compliance of subordinates (Lim, 2001). Studies indicated that Malaysian employees are more likely to: (a) use coordination to integrate their work tasks, and use team workflows to deal with task uncertainty (Pearson & Chong, 1997); (b) exhibit a high preference for teamwork goals rather than individual goals (Chan & Pearson, 2002); and (c) tend to be more idealistic in-group performance (Karande, Rao & Singhapakdi, 2002).

Drawing from the above examples of power distance and the context of collectivism, this study examines the correlations between cooperative communication and perceived cohesion within cultural context of power distance and collectivist work group. We believe that power distance and collectivist context in the work group will act as an amplifier for the relationship between cooperative communication and perceived cohesion. This point will become clear next when we develop our hypotheses with regard to each cultural context attribute.

Theory and Hypotheses Development
The notion of discretionary cooperative behavior among group members is related to members’ desire to maintain and enhance their social identities through the status of their group and their relative standing within the work group based on group engagement model (He & Brown, 2013; Tyler & Balder, 2000) have suggested the relevance of the group context in which the supervisor-subordinates and group members resides. Parallel to this, the supervisor-subordinate relationships, coworkers’ relationships and communication do not develop in a vacuum, but necessitate exchanges between the supervisor-subordinate and coworker within different contexts in the work group (see Contarctor, Wasserman & Faust, 2006). Naturally, such activities have consequences on the members desire to maintain a membership in their respective work group (Chua, Ingram & Morris, 2008).

Although the effect of manager-members and member-member relationships at the individual, dyad, group and organizational levels have been well documented (see Lepine et al., 2008), the underlying process and mechanisms through these relationships exert their positive effects on group outcome are relatively unknown. Therefore, several researchers recently have called for empirical and systematic research in this area. For example, Simsek, Veiga Lubatkin and Dino (2005) have argued that the general leadership and group literature has paid little attention on the underlying process and mechanism through which leader and group member relationships effect group behavior.

Cross-Level Effect of Power Distance Cultural Context
Despite the universal effect of communication on group behavior (see Hogg & Reid, 2006), it is important to take into consideration the various factors that would affect the group communication process especially in the work group context itself. Therefore, we took a meso approach towards group member cooperative communication behavior, in the current study by incorporating level of power distance orientation among group members as a moderator; and by testing whether the link between perceived cooperative communication and perceived group cohesion among group members, operates at different level of analysis in different level power distance cultural context.
As mentioned earlier, Malaysian managers, protect their emotional distance from subordinates and likely to use authoritarian control to ensure the compliance of subordinates (Lim, 2001). Because cultural context is where members of the group reside, it makes sense that higher level of power distance in the group will exacerbate the nature of dyadic relationship differentiation among co-workers in the group. This line of reasoning suggests that power distance nature of the relationship between supervisor and subordinate will amplify the relationship between cooperative communication and perceived group cohesion (Sias, Gallagher, Kopaneva & Pedersen, 2012).

Communication literature also suggests that the differentiation of manager-subordinate relationships quality has implications on the communication of each member working in a group (Kramer, 1995, 2004). A study by Sias et al. (2012) for example, have found that differences in the quality of a supervisor’s exchanges with her or his subordinates have an impact on each work group member’s interactions. Each member of the work group is aware of differential treatment and, in fact, talks about it. Therefore, it is likely that individuals who experience high-level power distance with their supervisors in the work group will have more conversations about differential treatments with their peers. Studies by Sias found that members of a work group, interacting about differential treatment, by their supervisor which served to create and reinforce, have social perceptions about the differential treatment in the work group and it is likely to affect cooperative communication behavior within the work group (Sias et al., 2012). These studies have showed that cooperative communication is the vital factor for different relationship qualities within the workgroup. It is has also showed that the differentiation of relationship quality between a manager and the subordinates, be it direct or indirect, drives and reinforces subordinates’ perceptions of cooperative communication with work group members (Lee, 2005). Thus, further exploration in this area certainly is warranted.

The notion of relationship differentiation which is based on the leader-member exchange theory (LMX) suggests that that leaders tend to differentiate relationships with his/her subordinates. High-quality relationships go beyond the contractual agreement and are characterized by mutual influence, negotiability, trust and respect. On the other hand, low-quality relationships are bound by terms of employment agreement contract and tend to be transactional. Applying to power distance in manager-subordinate relationships, suggests that subordinates experiencing a high power distance with their supervisor (greater acceptance of autocratic behavior in the work group) may have impressions affecting the reception of the usefulness and exchange of information that they may share in the work group (Fairhurst, 2009). On the other hand, given the positive interactions that the supervisor has with the less power distance subordinates, it seems reasonable that the level of power distance (low or high) in the work group, and the relationships between co-workers would emphasize the positive relationships shared between the co-workers, hence providing information that would help maximize the perceived attachment of each individual in the work group. Thus, we advance the following hypothesis:

Hypothesis 1: The positive effect of cooperative communication on perceived cohesion relationship at the group level analysis will be moderated by the level of power distance between the manager and group members at the individual level of analysis. As such cooperative communication is more strongly related to group cohesion among group
members who have a low power distance with their immediate manager than for those who have a high power distance with their mediate manager. This effect will operate at the group level of analysis.

**Cross Level Effects of Collectivist Cultural Context**

Scholars have argued either implicitly or explicitly, group members should work better when the group overall goals possess strong group-oriented personal values or group members’ cultural orientation is collectivist (Hopkins, Hopkins & Gross, 2005; Lewis, 2011). There are several reasons why collectivist values as either a cultural orientation or personal disposition would facilitate group members’ exchange and communication. First, since collectivist context emphasize on the group goal, group members tend to encourage and support each other for the sake of the group. Such support elevates the importance of cooperative communication among group members (Yammarino et al., 2012). As a result, the collectivist cultural context can be an enforcing factor for co-workers’ communication and reactions. Subsequently, a group member would be expected to experience and feel attached through group accomplishments (Kozlowski & Ilgen, 2006).

Second, the potential moderating role in collectivist context in group behaviors can be explained based on team-member exchange. Focusing on social exchange in a team/group environment, team-member exchange (TMX) commonly refers to the extent to which information, help, and recognition between a member and other members of the workgroup is reciprocal (Ballinger, & Schoorman, 2007; Seers, 1989; Seers, Petty, & Cashman, 1995). Thus, the quality of a team-member exchange relationship can indicate the effectiveness of member cooperation within a workgroup. In high collectivist cultural context, the work group tends to reinforce on affecting and strengthen the relationships with co-workers. These patterns should become increasingly stronger as high collectivist work group context group members interact (Anderson, Delborne & Kleinman, 2013). We have reasoned that these reactions would influence the individual’s perceived cohesion, thereby yielding an interactive effect. It is possible that high or low collectivist context in the work group reinforces the co-worker’s judgment on cooperative communication with other co-workers (Chang, Chuang & Chao, 2011).

Based on the TMX theory, the relationship quality and communication with their co-workers are salient stimuli that reinforce their existing attitudes and beliefs towards other people in the work group (Collins et al., 2013). When recalling interactions with co-workers, negative interactions will likely come to mind when each individual interacts, of who has a difference on perceiving the importance of collectivist context, thereby negatively influencing the individual’s perceived cohesion (Ilies, Wagner & Morgeson, 2007; Joshi & Roh, 2009). Based on this perspective, group communication and group cohesiveness is based on group member’s assessment of the overall relationship quality and influence. The development of communication exchange and cohesiveness are more likely to occur when group members are closely connected socially, and attributions of meaning are shared at a high level (Kamdar & Van Dyne, 2007). Moreover, as above, consideration of the level of analysis at which this moderated process and associations are expected to hold is important (Yammarino et al., 2012). Thus, we advance the following hypothesis:
Hypothesis 2: The effect of cooperative communication on perceived group cohesiveness will be moderated by group members’ collectivist cultural context at group level. As such cooperative communication is more strongly related to perceived cohesions when collectively group members who have high level of collectivist context. This effect will operate at the group level of analysis.

Cultural context factors are likely to work together to influence cooperative communication and perceived cohesion at group level analysis. We have hypothesized that power distance and collectivist cultural context moderate the relationships between cooperative communication and perceived group cohesion. Power distance and collectivist context facilitate cooperative communication in the work group, thus prompting the individuals in the work group to feel the said attachment and cohesiveness at group level. If the quality of exchanges between individuals in the work group decreases, individuals could be expected to develop negative attitudes towards structural elements such as their attitude towards the work group; which dictates that the interactions must nevertheless continue for the benefit of the work group as whole. This view is also consistent with group engagement model (Tyler & Blader, 2000). In this approach, a member engages in cooperative behavior because it furthers the goals and objectives of the group, potentially increasing its status. Furthermore, because such contributions are visible to other members, the cooperative communication behavior may secure the member’s standing in the group (relationship with supervisor based on power distance and relationship with co-workers based on collectivist values) and reflect through emotional attachment with the group and its values. To test this proposition, we have explored the effect of cultural context on the relationships between cooperative communication and group cohesion as rated by members of work group.

METHODOLOGY

Sample and Procedure
The participants in this study were employees in small and medium manufacturing sectors (e.g., incinerator, electronic components and machinery, confectionary, textile, printing, and healthcare products) throughout Malaysia. The differing functions of each industry allowed variations needed for multi-level modeling and analysis. Participants had a range of jobs that included handling customer complaints, design, production, staffing, marketing, sales, and security system maintenance. Consistent with the minimum time period typically needed to develop a mature workplace relationship (see Graen & Uhl-Bien, 1995), our sample excluded employees who had been in their workgroup for less than 6 months. Hence, we ensured that all individuals in the work group were sufficiently familiar with each other and had developed exchange relationships.

Survey packs were sent to these companies through the Small and Medium Industry Development Corporation (SEMIDEC), an organization established by the Ministry of International Trade and Industry (MITI) to facilitate the growth of small and medium industries. A cover letter for the survey outlined the research process, solicited voluntary participation, and assured confidentiality. The survey pack contained questionnaires and pre-addressed envelopes for participants to return the completed questionnaires to the researchers directly.
Of the 3500 questionnaires sent to these employees, 375 were returned, resulting in a response rate of 11%. In that employee sample, 56% were male and 44% were female; 30% was ethnically Malay (Bumiputra), 50% Chinese, 15% Indians, and 2% other (e.g., Indonesian and Bangladeshi). The employees represented 48 workgroups of 7 to 10 individuals in the work group.

Employees’ questionnaires were matched to their work group with a coding system based on information provided by the participating Human Resource Departments. To examine any possible sampling bias, we compared sample means for the usable cases and those cases dropped on the basis of unmatched questionnaires for all study variables. Our analysis of variance procedures did not yield any significantly different means for the two groups, indicating little sample bias.

**Instrumentation**

All questionnaires were in English. We followed the commonly accepted practice of using English language questionnaires in surveys in Malaysia (e.g., Bakar & Sheer, 2013). Malaysians, particularly those in the business sector, are fluent in English (see Lim, 2001). The employee version of the questionnaires consisted of measures of perceived cooperative communication, power distance and collectivist context and group cohesion. In addition, the questionnaire included items on workgroup size, organization size, and participant demographic information and work history.

**Cooperative Communication.**

Lees’ (1997, 2001) 7-item scale was used to measure group cooperative communication. The Cronbach’s α was .80.

**Cohesion.**

Participants’ perceived group cohesion was measured with a scale developed by Bollen and Hoyle (1990). The 6-item scale reached a Cronbach’s α of .83.

**Collectivistic Cultural Orientation.**

Team members assess their collectivist orientation in the team with modified version of Trianids and Gelfand (1998) and Li and Aksoy (2007) 8-item scale. The scale reached a Cronbach’s α of .87.

**Power Distance.**

Team members assess the level of acceptance power inequality in the work group with Hofstede (1984) 3-item scale. The scale reached a Cronbach’s α of .82.

All items measuring these four constructs used a Likert format, ranging from 1 (strongly disagree) to 5 (strongly agree).

**RESULTS AND DISCUSSION**

Prior to conducting hypothesis testing, we examined the data for entry errors and normality of the distribution of each item and the composite score of each variable. Tests for normality included kurtosis and skewness as well as a visual inspection of histograms. The majority of the items appeared within normal ranges. Means, standard deviations, and correlations for all variables are reported in Table 1.
Table 1: Means, Standard Deviations and Inter-correlations among the Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cooperative Communication</td>
<td>3.50</td>
<td>.73</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Perceived Cohesion</td>
<td>3.11</td>
<td>.86</td>
<td>.42*</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. Power Distance</td>
<td>3.20</td>
<td>.76</td>
<td>.38*</td>
<td>.30*</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4. Collectivist</td>
<td>3.52</td>
<td>.79</td>
<td>.25*</td>
<td>.29*</td>
<td>.38*</td>
<td>-</td>
</tr>
</tbody>
</table>

Note. * p<.05

Confirmatory Factor Analysis (CFA)

We conducted a confirmatory factor analysis (CFA) to determine the distinctiveness of the four variables: Cooperative communication, power distance, collectivist and perceived cohesion. A hypothesized four-factor structure with distinct, correlated factors for cooperative communication, power distance, collectivist and perceived cohesion was compared with a series of possible models: (a) a three-factor model, in which the items of cooperative communication, power distance and collectivist were loaded on a common factor; (b) a two-factor model, in which the items of cooperative communication, and perceived cohesion were loaded on a common factor; and (c) a one-factor model, in which all items were loaded on a single factor. The results (in Table 2) indicated that the four-factor model, with cooperative communication, power distance, collectivist and perceived cohesion items loading on unique factors, produced the best fit of all alternative models: $\chi^2$ (42, N = 375) = 208.70, $p < .01$, comparative fit index = .97, normed fit index = .99, standardized root-mean-square residual = .04, and root mean square error for approximation = .09. All items loaded significantly on their respective factors. The satisfactory factor structure indicated clear discriminant validity of all variables, which allowed us to proceed with model testing. See Table 3 for factor loadings.

Table 2: Confirmatory Factor Analysis of the Structure of the Measured Variables

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$(df)</th>
<th>$\Delta\chi^2$(df)</th>
<th>CFI</th>
<th>NFI</th>
<th>SRMSR</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four-factor</td>
<td>278.70 (38)</td>
<td>-</td>
<td>.98</td>
<td>.99</td>
<td>.02</td>
<td>.07</td>
</tr>
<tr>
<td>Three-factor</td>
<td>280.04 (39)</td>
<td>1.34 (4)</td>
<td>.78</td>
<td>.85</td>
<td>.15</td>
<td>.23</td>
</tr>
<tr>
<td>Two-factor</td>
<td>255.74 (42)</td>
<td>1024.41 (4)</td>
<td>.85</td>
<td>.90</td>
<td>.07</td>
<td>.12</td>
</tr>
<tr>
<td>One-factor</td>
<td>370.73 (41)</td>
<td>2275.04 (3)</td>
<td>.80</td>
<td>.70</td>
<td>.18</td>
<td>.35</td>
</tr>
</tbody>
</table>

Note. NFI = Normed fit index; CFI = Comparative fit index; SRMSR = Standardized root-mean-square residual; RMSEA = Root mean square error for approximation. All $\chi^2$ and $\Delta\chi^2$ values are significant at $p < .01$

Table 3: Standardized Factor Loadings of Items Measuring the Four Theoretical Constructs

<table>
<thead>
<tr>
<th>Scales</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperative Communication</td>
<td>.62*</td>
</tr>
<tr>
<td>Relevant information is exchanged openly among group members. (R)</td>
<td></td>
</tr>
<tr>
<td>In general, it is difficult to approach other group members. (R)</td>
<td>.91*</td>
</tr>
<tr>
<td>Group members often criticize other members. (R)</td>
<td>.65*</td>
</tr>
<tr>
<td>Some individuals in the workgroup intentionally provide misleading information to other members. (R)</td>
<td>.79*</td>
</tr>
<tr>
<td>If disagreements arise, group members are usually able to solve them.</td>
<td>.88*</td>
</tr>
<tr>
<td>Workgroup members openly share their ideas with other group members.</td>
<td>.78*</td>
</tr>
<tr>
<td>Workgroup members often fail to communicate information to each other. (R)</td>
<td>.72*</td>
</tr>
</tbody>
</table>

E-ISSN: 2289-1528
https://doi.org/10.17576/JKMJC-2017-3303-10
Collectivist
Leaders and subordinates must stay together as much as possible .92*
It is my duty to take care of my work group, even when I have to sacrifice what I want .77*
Group members should stick together, no matter what sacrifices are required .83*
It is important to me that I respect the decision made by groups .80
If a coworker gets a prize, I would feel pride .76
The well-being of my coworkers is important to me .71
To me, pleasure is spending time with others .68
I feel good when I cooperate with others .77

Power Distance
Powerful people should try to look less powerful than they are. (R) .90*
Subordinates consider superiors as being of a different kind .82*
Other people are a potential threat to one’s power and rarely can be trusted .80*

Cohesion
I feel a sense of belonging in this workgroup .86*
I feel that I am a member of this workgroup .79*
I see myself as part of the workgroup .77*
I am enthusiastic about this workgroup .85*
I am happy to be in this workgroup .66*
This workgroup is one of the best workgroups in this organization .62*

Note. * indicates a loading significant at p < .001. (R) indicates an item reversely coded in data analysis.

Within- and Between-Entities Analysis (WABA)
Prior to hypothesis testing, we needed to justify that the variables at the group level (cooperative communication and perceived cohesion) could be aggregated. The purpose of this analysis was to determine whether statistical methods, such as hierarchical linear modeling (HLM), were necessary to control between groups effects. We used the WABA I program to assess whether the observed variation in our measures (cooperative communication, perceived cohesion, power distance and collectivist culture context) had within-group or between-groups variations. Thus, we were able to decide whether the effect on subordinate-perceived workgroup cohesion was due to between-groups characteristics (e.g., in a certain industry sector) or high variation within the workgroup (e.g., communication patterns).

Table 4: WABA I Results

<table>
<thead>
<tr>
<th>Variables</th>
<th>Within</th>
<th>Between</th>
<th>E ratio</th>
<th>F value</th>
<th>WABA I inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperative</td>
<td>.57</td>
<td>.82</td>
<td>1.27*</td>
<td>1.70**</td>
<td>Between</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Cohesion</td>
<td>.45</td>
<td>.89</td>
<td>9.21*</td>
<td>2.72**</td>
<td>Between</td>
</tr>
<tr>
<td>Power Distance</td>
<td>.72</td>
<td>.48</td>
<td>1.49*</td>
<td>1.45**</td>
<td>Within</td>
</tr>
<tr>
<td>Collectivist</td>
<td>.56</td>
<td>.80</td>
<td>1.27*</td>
<td>1.70**</td>
<td>Between</td>
</tr>
</tbody>
</table>

Note. * E test significant at 30**P < .05. 48 managers and 375 manager-employee dyads were included in the analysis.

As shown in Table 4, all variables except for power distance cultural context exhibit greater between-eta correlations than within-eta correlations. Thus, the aggregation of cooperative communication, perceived cohesion and collectivist context suggested that the variance and covariance were attributable to group-level effects, while the power distance
was attributable to individual-level effect. As such, the WABA I results confirmed that, for cooperative communication, perceived cohesion and collectivist, the variance between entities was stronger than the variance within entities. This finding was consistent with Schriesheim et al.’s (2001) explanation, if groups are ‘truly’ operative, it would seem reasonable to expect more differentiation between groups than within groups” (p. 530). While for the power distance it is expected that there will be differentiation within individual (each individual have different level of power distance with their manager). Further, that the between-groups variation was significantly greater than the within-group variation indicates a systematic between-groups variance while within-group variation indicates a systematic individual within group variance. The WABA I results demonstrated that these variables could be aggregated and hierarchical linear modeling techniques (HLM) were necessary to test our cross-level hypotheses (see Castro, 2002; Rousseau, 1985). HLM allows for the modeling of within and between group effects while testing the study’s hypotheses. Furthermore, HLM equations offer a more accurate parameter estimated over ordinary least square (OLS) regression, or polynomial regression is provided when examining nested or multilevel data structure. This is especially beneficial in dataset like ours in which there is a substantial variability in the number of subordinates nested within the workgroup (Raudenbusch, Bryk, Cheong, & Congdon, 2004). Before testing the hypotheses, we first needed to run null models to examine whether significantly systematic between-group variance in the moderating and outcome variables was present. Results in Table 5 provided support for significant between-group variation in perceived cohesion $\tau_{000} = .08, \chi^2(82, n = 375) = 46.8$. Similar results were found in WABA I. (See Table 4).

Table 5: Hierarchical Linear Modeling Results for Perceived Cohesion

<table>
<thead>
<tr>
<th>Null Model</th>
<th>Coefficient</th>
<th>$\chi^2$</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Cohesion $\tau_{000}$</td>
<td>.08*</td>
<td>46.8</td>
<td></td>
</tr>
<tr>
<td>Perceived Cohesion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>4.11*</td>
<td>6.61</td>
<td></td>
</tr>
</tbody>
</table>

Control

| Time report | .006 | .002 |
| Sex dissimilarity | -.001 | -.73 |
| Ethnicity dissimilarity | -.003 | -.47 |
| Age dissimilarity | .007 | .87 |
| Organizational tenure | .008 | .76 |

Main effects

| Cooperative Communication | .34* | 4.56 |
| Power Distance | .13 | .85 |
| Collectivist | .28* | 2.33 |
| $R^2$ | .37 | |

Moderation effects

| Cooperative Communication $\times$ Power Distance | .026 | .94 |
| Cooperative Communication $\times$ Collectivist | .42* | 3.24 |
| $R^2$ | .45 | |

Note: Level 1, $n = 375$ employees; Level 2, $n = 48$ workgroups. Entries are random effects with robust standard error. $R^2$ = proportion of within-group variance explained by Level 1 predictor and moderating.

* $p < .05$. https://doi.org/10.17576/JKMJC-2017-3303-10
To access the moderating effect of collectivist and power distance on the relationship between cooperative communication and perceived cohesion, we followed multiple steps using grand mean centered variables. On the first step, we entered the control variables namely, time report to supervisor, sex dissimilarity, ethnicity dissimilarity, age dissimilarity and organizational tenure dissimilarity among group members. On the second step, we entered the cooperative communication agreement power distance and collectivist context variables. On the final step, we included the interaction between cooperative communication-power distance and cooperative communication-collectivist context. In model 1, time report to supervisor, sex dissimilarity, ethnicity dissimilarity, age dissimilarity and organizational tenure dissimilarity among group members was not a significant predictor for perceived cohesion. Model 2 tested the main effect of cooperative communication, power distance and collectivist context. The addition of these variables explained 37% of variance for perceived group cohesion. Next, we tested the slopes for the main effects as random effects.

For perceived group cohesion, the main effect of cooperative communication among group members (β = .34, t = 4.56, p < .05) and perceived collectivist context among group members (β = .28, t = 2.33, p < .05) was significant. The final model, which is presented in Table 5, included the cooperative communication-power distance and cooperative communication-collectivist interaction. The addition of these variables explained 45% of the variance for perceived group cohesion after accounting the controlled variables and main effects variables. The ΔR² produced by our interaction term was within the typical range (i.e., ΔR² = .01 to .03) for moderator effects in non-experimental studies (Cohen, Cohen, West, & Aiken, 2003). According to Cohen et al., (2003) interaction typically explains 1% - 3% of the variance in outcomes of interest. Thus, the magnitude of our R² change is within the range of interaction estimation. Therefore, only hypothesis 2 was supported.

To understand the nature of the interaction, we employed the procedure outlined by Aiken and West (1991). That is, we substituted the high and low values of cooperative communication into regression equation and plotted the interaction effect on a graph (see Fig. 1). We plotted the cooperative communication-perceived cohesion graph one standard deviation above and below the collective mean (Aiken & West, 1991). In line with hypothesis 2, Fig. 1 illustrates that the relationship between cooperative communication and perceived cohesion was strong and positive when workgroups had a high level collectivist context, but was not significant when workgroups had a low level collectivist context. Here, the finding is that, the within-group relationship between cooperative communication and perceived cohesion changes as a function of between-group differences in collectivist context, which supports hypothesis 2.

To sum up, perceived collectivist context moderated the effects of cooperative communication on perceived cohesion among workgroup members, thus confirming Hypothesis 2. However, no significant finding was found for power distance (Hypothesis 1).

**Implications for theory and research**

Our multilevel analysis findings contribute to literature on intercultural and work group diversity in several ways. Liu, Tangirala and Ramanujam (2013) have suggested that, although the implications on cooperative behavior within group members have been explicit in social exchange and communication literature, cultural context of the group however, has not been empirically tested in a systematic manner (Fay & Kline, 2011; Liden, 2011).
study provides empirical evidence by integrating group members’ cooperative communication behavior and cultural context, through the development and a test of multi-level model using HLM. Our results provide partial support for the hypothesized moderating effects in the model. Specifically, our HLM results indicated that perceived collectivist cultural context at individual level moderates the relationship between group cooperative communication behavior and group perceived cohesion at group level. Although cultural context has been studied for some time in organizational settings (see Moody & Siponen, 2013), little attention has been directed towards the role of power distance and collectivist cultural context as the constructs with implication for group communication exchange processes. We conceptualized perceived individual in a work group on power distance and collectivist cultural context as a buffer of the relationship between group member cooperative behavior and perceived group cohesion. Our analysis indicated that individuals in a work group, characterized by high level of collectivist cultural context, group members experiencing cooperative communication are more likely to develop strong group cohesion. However, when the perceived collectivist cultural context of the individuals in the workgroup is weak, even in the group that experience cooperative communication, they are less likely to form group cohesion. The collectivist cultural context accounts for a significant variance in the slope relating to cooperative communication and perceived group cohesion.

The HLM analysis also indicates that perceived power distance cultural context did not moderate the relationship between cooperative communication and perceived cohesion. Hofstede (1984) suggested that Malaysian organizations’ culture indicates high scores for power distance. This result implies that group members in Malaysian workplace exhibit greater acceptance of autocratic and paternalistic leadership behaviors. In work connected to Hofstede’s (1984) power distance, Abdullah and Lim (2001) and Lim (2001) have studied in various private and public organizations in Malaysia, have found similar patterns with Hofstede’s work, in which there is high power distance context in the Malaysian organizations. However, based on Global Leadership and Organizational Behavior Effectiveness (GLOBE), Kennedy (2002) has argued that the acceptance of power distance in Malaysia is less extreme than Hofstede’s (1980) original work, or Abdullah’s and Lim’s (2001) and Lim’s (2001) when compared to other countries involved in the GLOBE study. Kennedy (2002) has further argued that even though Malaysia can be considered as a culture with high power distance, it is balanced with strong human orientation in workplace. Furthermore, effective leaders in Malaysian workgroup are expected to show compassion while using more of an autocratic rather than a participative style (Adisa, Mohammed & Ahmad, 2016; Kennedy, 2002). Thus, we believe that the connotative meaning and conception of power in Malaysian workplace are different with what have been described both in Hofstede’s and GLOBE’s studies in Malaysia. Therefore, further probing is needed to understand the conception of power in Malaysian workplace.

Implications for Practice
These findings have implications for the management of group communication exchange processes in the workplace. First, the present study builds upon the notion that group cohesion is developed through the group cooperative communication behavior engendered in the high-quality interactions among group members. Further, collectivist cultural context of the workgroup promotes the relationship between cooperative communication and group
cohesion within workgroups. As Joshi and Roh (2009) have noted, these findings implied that fostering togetherness helps employees to understand that they are not in isolation from other co-workers in the workgroups, because the shared collectivist value would affect their expectations and interpretations of their experience of cooperative communication with co-workers. This, it in turns determines the group member’s attitudes and behaviors towards group cohesion. Hence, managers can use the collectivist value as a mechanism to guide and educate their subordinates about how the collectivist values and natures are important to foster cooperative behavior and promote group cohesiveness.

CONCLUSION
The present study has limitations that should be addressed in future research. First, this study did not fully explore the dynamic nature of the relationship between cooperative communication and group cohesion because of the cross-sectional nature of the data. Clearly, longitudinal research that tracks relationship development and communication activities within and between groups over time is needed. This shortcoming, limits our understanding of how communication among workgroup members influences their perceptions of the group cohesiveness. Although the extent literature seems to support our model in conceptualizing the effect of cooperative communication on cohesiveness within workgroups (Lee, 2001; Sias et al., 2012), we cannot eliminate the possibility of a reverse causal model given in the cross-sectional design of this study. Secondly, our sample was restricted to only Malaysian respondents. Samples with respondents from other countries should be considered to enhance the generalizability of the model. Thirdly, the dyads and workgroups included in the sample may under-represent the actual dyad population at large. In addition, causality implied in our HLM results is useful for making inferences, but they must be treated with caution given the co-relational nature of the data. Fourth, our findings raise the questions of power distance in Malaysia’s cultural context (Bakar & Mustaffa, 2011). Current descriptions on the actual meaning of power do not recognize the communicative descriptions of power in a specific cultural context. Thus, a study is needed to understand the communicative descriptions that materialize power distance in Malaysian organizations.

Perhaps the main weakness of this study is the limited scope of measured group outcomes; in fact, only cohesion was examined. We limited our outcomes to only cohesion out of concern for the questionnaire’s length (we were aware that long questionnaires often lower the response rate). Future research can probe further as to whether communication too, mediates the relationships between interpersonal exchanges and other key group outcomes such as conflict resolution and employee turnover. Finally, for management training purposes, future research can profitably investigate the specific communication acts and behaviors that managers and workgroup members consider cooperative. Through cooperative communication training, organizational outcomes can be enhanced.

BIODATA
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REFERENCE


Explaining Cohesion Linkages in Workgroups: The Cooperative Communication in Collectivism and High Power Distance Workgroup Context
Hassan Abu Bakar


Figure 1: Collectivist level as moderator of the relationship between cooperative communication and perceived cohesion