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Workgroup diversity

Surface-level actual similarity and deep-level perceived similarity in leader-member relationship communication

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Abstract

Purpose – The purpose of this paper is to explore whether surface-level actual similarity interacts with leader-member dyadic communication agreement in predicting group member performance ratings at earlier time periods in a work group's development. Additionally, this research examines whether deep-level perceived similarity interacts with leader-member dyadic communication agreement in predicting group member performance ratings at later time periods in a work group's development. The relationship between shared cultural context and perceived and actual similarity is also investigated.

Design/methodology/approach – This research analyzes longitudinal data from the study questionnaires at five occasions in a Malaysian organization.

Findings – Results based on a sample of 28 group projects and 141 matching dyad who completed the study questionnaires at 5 occasions reveal that there is no interaction between workgroup relational ethnicity and workgroup relational gender with leader-member dyadic agreement at early time periods in a workgroup's development. Therefore, *H1* is not supported. *H2* posited that deep-level perceived similarity will interact with leader-member dyadic communication agreement in predicting group member performance ratings at later time periods in a workgroup's development. *H2* is supported. Results reveal that the interaction between leader-member dyadic communication agreement and perceived similarity explains 36 percent of the variance of perceived group members' performance ratings. This is after accounting for the control variable and the independent variables. From a cultural standpoint, the findings in this study underscore that conversations based on the Malaysian cultural norm of "*budi*" reflect not only a cultural basis of communication, but also that this shared cultural context leads to perceived similarity between ethnic Malay, Chinese, and Indians, and also both genders in the Malaysian workplace.

Research limitations/implications – Leader-member dyadic communication agreement reflects the social appropriateness and relationship quality between individuals, as well as the context of the leader-member workgroup interactions. The findings of this study underscore the premise that conversations reflect not only a cultural basis of communication, but also that shared cultural context leads to perceived similarity. This study specifically examines the role of ethnicity in Malaysia organizational workgroup (e.g. ethnic Malay, Chinese Malay, and Indian Malay) as well as gender.

Originality/value – This study systematically examines the influence of actual and perceived similarity in leader-member dyadic communication from a longitudinal and multilevel standpoint.

Keywords Performance measurement, Multilevel, LMX, Group, Leader-member communication, Perceived similarity

Paper type Research paper

Leader-member exchange (LMX) theory assumes that the relationship quality between a workgroup leader and a workgroup member has a direct effect on the performance ratings of the workgroup member. However, prior research has pointed out that the direction of such performance ratings is not straightforward. Extant research is also unclear about the specific conditions that link leader-member relationships and workgroup member performance. While some LMX research suggests that the actual and perceived similarity of workgroup leaders and members relates to higher quality relationships (and eventually leads to higher performance ratings given by the leaders; Nahrgang *et al.*, 2009), other studies find no support for the similarity association between performance ratings and leader-member workgroup relationships (Martin *et al.*, 2016).

Despite such interesting findings on dyadic similarity, many researchers still caution that the perceived similarity effect on attitude and behavior is evident only during two conditions: with a laboratory-based, ad-hoc dyad that has no existing relationship, and when the effect arises in an experimental manipulation of similarity in a laboratory setting (as opposed to in a non-experimental setting such as a naturally occurring interaction in the workplace (Morry, 2007). The present study seeks to challenge these assumptions. In particular, this study systematically examines the influence of actual and perceived similarity in leader-member dyadic communication, and does so via a longitudinal analysis and on a multilevel basis.

This study provides corporate and organizational communication researchers with an important reference point to build upon for future inquiry in the area of leader-member workgroup communication. Research such as this should also help present and future organizational managers and leaders better navigate the increasingly diverse workplace. Finally, this study also considers cultural dimensions of communication (in this case, the understudied cultural context of Malaysia) as it explores the role of leader-member dyadic communication and perceived similarity on workgroup member performance in a Malaysian organization. Malaysian workforce demographics are characterized by an uneven ethnic distribution of workers (see Rowley and Bhopal, 2006). For this reason, we argue that in order to understand Malaysian workplace communication, we need to take into consideration the role of the ethnic majority Malays. Previous studies have indicated that ethnic majorities tend to shape the overall communication patterns in the workplace (Roberson and Stevens, 2006), as well as influence communication content at work (Dinsbach *et al.*, 2007). For instance, one study conducted in the Malaysian workplace found that Malaysian English and a mix of the English and Malay languages were the most common ways of speaking in Malaysian workplace settings (Nair-Venugopal, 2000).

Theoretical background and hypothesis
Leader-member dyadic communication
The relational dyadic communication perspective of LMX holds that dyadic communication is at the heart of all relational dynamics (Coglister *et al.*, 2009). The communication and shared understanding in a dyad is driven by cultural norms, and these norms can be reflected in language use. For example, interaction richness theory posits that "rich conversations" within a dyad are characterized by meaning that can be conveyed with few words, interactional movements that are highly synchronized, and a dyad that precisely conveys intended meanings (Barry and Crant, 2000). In the workgroup context, similar co-orientation on communication rules (e.g. initiation and termination) may lead to greater certainty about processes such as project direction, team tasks, expectations of work roles, and so on. One of the key aims of this study is to focus on the degree to which leader-member communication agreement in the dyad, as a key measure of co-orientation, impacts critical workgroup outcomes such as performance ratings. In this study, the term leader-member dyadic communication agreement refers to the extent to which the interacting leader-member dyad agrees with the way an individual expresses his or her emotions, feelings, and thoughts, and

manifests kindness in his/her evaluations of interactions or conversations among a leader and members in a workgroup. With this in mind, we turn to a discussion of leader-member dyadic communication agreement in the Malaysian workplace context.

Leader-member dyadic communication in the Malaysian workplace
Prior studies based on leader-member relationships and communication in the Malaysian workplace have demonstrated links to a range of organizational outcomes. For example, leader-member relationship quality was related significantly to organizational commitment (Lo *et al.*, 2010) and organizational citizenship behavior (Lo *et al.*, 2006). However, regarding specific leader-member communication dimensions, research to date only demonstrates that job-related communication and the information exchange between co-workers are related to organizational citizenship behavior (Kandlosi *et al.*, 2010) and affective commitment (Bakar *et al.*, 2010). These findings point to the need for a more valid and empirical study that captures leader-member communication in the Malaysian workplace.

According to Storz (1999), an awareness of the cultural concept of *budi* is necessary to understand the Malaysian workplace culture. The word "*budi*" is based on the Sanskrit word "*buddhi*," which is defined as wisdom, understanding, or intellect. *Budi* is the essence of a Malay's social relationships and underlies the norms of individual and social behavior. The way an individual Malay feels and thinks about himself or herself (as well as of others) is guided by *budi*. In the mind of a Malay, *budi* determines his/her thinking, judgments, moral attitudes, goodness, and how communication and interaction should occur. As such, the concept of "*budi*" covers ethics as well as intellect and reason.

Bakar *et al.* (2014b) found that one key way of interacting in the Malaysian workplace is through the *budi* context, that is, the way in which an individual communicates emotions, feelings and thoughts, as well as manifests kindness (which some refer to as *bicara*). Dyadic communication based on *budi* represents one core manifestation of a culturally appropriate interactive exchange that can occur between a leader and a workgroup member, although the nature of the interaction (e.g. task-related vs social-related) may differ considerably across dyads (Barry and Crant, 2000).

Similarity
The similarity attraction paradigm (Byrne, 1971; Tsui and Gutek, 1999) argues that individuals are usually attracted to those who are similar to them. In leader-member relationships, both surface-level actual similarity (measured in terms of demographic variables) (e.g. Kacmar *et al.*, 2009) and deep-level perceived similarity (e.g. Tepper *et al.*, 2011), have found some support in predicting the quality of leader-member dyad relationships. What remains unclear to date is how surface-level and deep-level similarity differ, and which of them has a greater effect on leader-member dyadic communication agreement and the association with performance ratings.

Surface-level actual similarity in leader-member relationships
To conceptualize and investigate the effect of surface-level actual similarity on the leader-member dyad relationship and its correlates, researchers have used the notion of "relational demography" as a means to measure demographic characteristics. Relational demography centers around congruence or incongruence, or "an individual's similarity to or difference from others in a group on specific demographic attributes." Similarity can lead to interpersonal attraction and shared group identity, which may produce in-group favoritism or positive biases on task-related outcomes (Tsui *et al.*, 2002). For example, similarity in leader-member demographic attributes, when congruent with the cultural norm for that demographic category, has been associated with more positive relational and task outcomes (Lau *et al.*, 2008).

Deep-level perceived similarity

Although surface-level actual similarity may exhibit strong effects on certain organizational phenomena, researchers have suggested that deep-level perceived similarity may be an even stronger predictor (e.g. Liden *et al.*, 1993) because people's perceptions are what reflects their reality (Sprecher, 2014). Deep-level perceived similarity refers to the degree to which the leader and member believe they share a common perspective with respect to job-related attitudes and beliefs. Extrapolating this to the cultural domain, research has found that similarity in values, outlook, perspective, attitudes, and abilities are predictors of dyadic relationships quality perceptions (e.g. Nolan and Harold, 2010; Tepper *et al.*, 2011). Following from the relational-norm congruence model, Lau *et al.* (2008) argue that when the leader-member dyad is perceived to be congruent with the dyad's cultural norms, it is likely that the dyad will be associated with more positive relational and task outcomes. Research has indeed shown that the effect of perceived similarity and relational demography is, to a large extent, a function of the relational norms of a particular culture (Lau *et al.*, 2008; Guillaume *et al.*, 2012).

Hypothesis development

The interaction between surface-level actual similarity and leader-member dyadic communication agreement

The LMX theory posits that differentiation in leader-member relationships positively impacts performance. For example, a leader may strategically assign the most challenging tasks to the subordinates who s/he believes are most capable of performing those tasks successfully (Graen and Uhl-Bien, 1991). The notion of selective retention based on dyadic demographic similarity or dissimilarity suggests that people tend to remember salient stimuli that reinforce their existing attitudes and beliefs toward other people who are similar to them more than for those who are dissimilar (Guillaume *et al.*, 2012; Tsui *et al.*, 2002). Within the workgroup, when a leader is demographically similar to his or her workgroup members, the more likely s/he is to have similar communication perceptions. In turn, it is more likely that the workgroup member will receive better supervisory ratings. It is reasonable to suggest that similar relational demography in workgroup leader-workgroup member relationships will amplify communication agreement and, consequently, the ratings of the workgroup member. This line of reasoning suggests that group leader-group member dyadic surface-level similarity amplifies the effects of leader-member dyadic communication agreement. A leader who is experiencing communication agreement with one or more group members along the lines of relational norms may be predisposed to view their relationships with certainty (Waldron and Sanderson, 2011), or even show attentiveness for the relationship (Payne, 2014). The following hypothesis is advanced:

H1. At an early stage of workgroup development, surface-level actual similarity interacts with leader-member dyadic communication agreement in predicting a workgroup member's performance ratings.

The interaction between deep-level perceived similarity and leader-member dyadic communication agreement

As the workgroup cycle develops from workgroup initialization to workgroup functioning and performance, leader-member dyadic (social- and task-related) communication has been found to increase, as does similarity within the dyad (Sprecher, 2014). Therefore, at a later period in the workgroup's lifecycle, a group leader is likely to choose similar members based on perceived similarity to ensure that the workgroup is performing (Tepper *et al.*, 2011).

Perceived similarity will amplify group leader-group member dyadic communication agreement. The following hypothesis is advanced:

 H2. At a later stage of workgroup development, perceived similarity interacts with leader-member dyadic communication agreement in predicting a workgroup member's performance ratings.

Method
Participants
The participants in this study were group members and group leaders of creative and innovation ad-hoc workgroups in an organization in Malaysia. Every year, the company selected for this study organizes a creative and innovation convention where the most innovative and creative workgroups are recognized and rewarded. These workgroups meet at least six times per year to discuss improvements about working procedures, as well as to come up with innovative ideas or products that may help their respective departments. The head of each department determines the selection of workgroup leaders and workgroup members. Every year, there are new workgroup leaders and workgroup members. Each workgroup member reports on his or her job progress on the creativity/innovation project. This report goes directly to the group leader, and is done on a daily basis. On average, each group leader oversees four to five group members. The lifecycle of these workgroups is 12 months.

Data were collected at five different points during the project lifecycle. This is consistent with Graen and Uhl-Bien's (1991) findings that there are multiple phases in a workgroup. Graen and Uhl-Bien (1991) also note that workgroup members will be sufficiently familiar with their group workgroup leaders, and have developed mature exchange relationships with them, six months or later in the relationship.

Procedures
The timing of the data collection was as follows: the first meeting of the groups was in January (occasion 1). Here we provided the questionnaire to the group leader and the group members. The questionnaires measured the individual leaders' and the group members' perceptions of communication style. The second meeting of the groups was in March (occasion 2). Here we distributed (to the group leader and the group members) a questionnaire which measured individual leaders' and the group members' perceptions of similarity. In June (occasion 3), we again provided a questionnaire that measured the individual leaders' and the group members' perceptions of communication style. Next, in August (occasion 4), we distributed a questionnaire that measured individual leaders' and the group members' perceptions of similarity. These two forms of measurement were designed to provide information from both the group leaders' and the group members' perspectives. The group member questionnaires were matched to the responses of their leaders using a coding system. Finally, in November (occasion 5), we distributed a questionnaire to the group leader that assessed each group member's performance. Group leaders who had not completed the survey questions were allowed to complete the surveys at home and return them to the research team the next day. This approach is consistent with performance research which finds that the leader will take time to recognize his/her subordinate's effort, as well as gauge the efficiency of the task performed (Martin et al., 2016). Therefore, a longitudinal approach, as has been incorporated herein, is more viable for this type of study than a cross-sectional survey. Moreover, this approach is consistent with work by Podsakoff et al. (2012), who recommend that in order to minimize common method bias, researchers might use multiple series of surveys and different data sources. This study has done precisely that.

A total of 51 group leaders and 356 occasion 1 surveys for leader-member dyadic communication were distributed. There were 48 group leaders and 242 group members who

responded to the occasion 1 survey; 48 group leaders and 242 group members participated in the occasion 2 survey of perceived similarity, and 36 group leaders and 186 group members participated in the occasion 3 survey of leader-member dyadic communication; and, 28 group leaders and 141 group members participated in the occasion 4 survey of perceived similarity. Finally, all 28 group leaders participated in the occasion 5 survey of perceived group member performance. In order to detect potential response bias, we ran a series of logistic regressions. Specifically, we used participation (or non-participation) for each wave of survey as the dummy-coded dependent variables and entered all study variables into the equations as predictors. We found that none of the study variables demonstrated a statistically meaningful relationship with dropouts and thus detected no significant response bias. Table I presents demographic information regarding the group leader-group member dyads, including the proportion of dyads with similar and different demographic measures.

Instrumentation
English language versions of the instruments were used to obtain the data. The reason is that Malaysians, especially those involved in the business sector, are generally fluent in the English language (see Bakar *et al.*, 2010).

Leader-member dyadic communication. Both group leaders and group members assessed communication style via the Bakar *et al.* (2014b) 22-item communication styles in the workplace scale. An example to which group members responded was: "I always try to talk politely with my group leader," while an example to which group leaders responded was: "I always try to talk politely with this group member" (1 = strongly disagree to 7 = strongly agree). Overall, leader-member dyadic communication was used as a latent factor, and Cronbach's α for group members was 0.87 and for group leaders was 0.89.

Perceived similarity. Both group leaders and group members were assessed on perceived similarity via a six-item scale adapted from work by Turban and Jones (1988) and Liden *et al.* (1993). An example to which group members responded was: "My group leader and I think alike in terms of coming up with similar solutions for a problem," while an example to which group leaders responded was: "This group member and I think alike in terms of coming up with similar solutions for a problem" (1 = strongly disagree to 7 = strongly agree). Cronbach's α for group members was 0.93 and for group leaders was 0.90.

	Group leader	Group member	Relational demographics Same	Different
Gender			63 (45)	78 (55)
Male	15 (54)	84 (60)		
Female	13 (46)	57 (40)		
Ethnicity			73 (52)	68 (48)
Bumiputra (Malay)	11 (40)	59 (42)		
Chinese	8 (28)	48 (34)		
Indian	9 (32)	34 (24)		
Organizational tenure (3-6 years)	–	21 (15)		
Organizational tenure (6-8 years)	12 (44)			
Organizational tenure (6-10 years)	–	77 (55)		
Organizational tenure (more than 10 years)	16 (56)	43 (30)		
Lower management	12 (45)	–		
Middle management	16 (55)	–		

Table I.
Sample demographic characteristics

Notes: The sample consists of 141 group member-group leaders' pairs. Unless noted otherwise, reported values are ns (percentage of sample in parentheses)

To capture leader-member dyadic communication and perceived similarity agreement, three steps of analyses outlined by Schriesheim *et al.* (2001) were performed. First, the matched perceived group member and perceived group leader communication scores were averaged to represent dyadic scores (DSs). Second, between-dyad scores were calculated by averaging the DSs for each group (BDS). Finally, within-dyad scores were computed by subtracting the average DSs for each group (BDS) from each DS. This approach resulted in scores for leader-member dyadic communication ranging from −3.27 to +6.43, while for perceived similarity agreement, the range was from −3.83 to +5.67. A negative score indicated that the DSs for each group (BDS) were lower than the DSs.

Relational demographic measures. Demographic attributes based on gender, ethnicity, similarity, and dissimilarity were measured with procedures consistent with that of Tsui *et al.*'s (2002) relational demographic approach. Gender and ethnicity were selected because of their significant effects found in the Malaysian workplace in prior studies (Bakar *et al.*, 2014a). Ethnicity and gender similarity between group members and the group leader was coded with a value of 0, whereas dissimilarity resulted in a value of 1. In developing the relational score for ethnicity, each individual was treated in conjunction with three distinct ethnicity categories for Malaysians (Malay/Bumiputra, Chinese, and Indian) and two distinct genders (male and female). A value of 0 was assigned to a dyad (group leader with group member) if both members were Malay/Bumiputra, and a value of 1 was assigned to a dyad if the group leader was Chinese and the group member was Indian. A value of 0 was assigned to a dyad if both were of the same gender, and a value of 1 was given to a dyad if the group leader and member were of a different gender. The score was reverse coded by subtracting it from the maximum score so that larger values denote higher similarity within the dyad.

Performance. Group leaders rated each group member's performance via four items adopted from research by Liden *et al.* (1993). An example item was "This group member is superior (so far) to other group members" (1 = strongly disagree to 7 = strongly agree). Cronbach's α was 0.93.

Data analysis

Preliminary and primary analyses were performed. In the preliminary analyses, the data were first tested for entry errors and normality (based on kurtosis and skewedness) of the distribution of each item and the composite score of each variable. Second, a confirmatory factor analysis (CFA) was conducted to determine the distinctiveness of the measures: group member-dyadic communication, group leader-dyadic communication, and group performance (see Tables II and III). Third, bivariate correlation analyses were performed (see Table IV). Finally, given that the analyses were cross-leveled, justification for aggregating the variables at the individual level and at the dyadic level (group level) was needed.

Model	χ^2(df)	$\Delta\chi^2$(df)	CFI	NFI	SRMSR	RMSEA
		Group member – variables[a]				
Two-factor	225.10 (141)	–	0.98	0.98	0.04	0.09
One-factor	107.73 (141)	158.74 (126)	0.55	0.68	0.10	0.20
		Group leader – variables[b]				
Three-factor	208.70 (141)	–	0.98	0.99	0.02	0.07
One-factor	126.01 (141)	118.53 (124)	0.48	0.58	0.14	0.19

Notes: df, degree of freedom; NFI, normed fit index; CFI, comparative fit index; SRMSR, standardized root-mean-square residual; RMSEA, root-mean-square error for approximation. [a]Variables include communication style and perceived similarity; [b]variable includes manager communication style, perceived similarity, and performance. All χ^2 and $\Delta\chi^2$ values are significant at $p < 0.01$

Table II.
Confirmatory factor analysis of the structure of the measured variables

Group members – communication style (α = 0.87)

I always avoid using harsh language when I interact with my group leader	0.77*
The use of polite language is important to me when interacting with my group leader	0.71*
I try to use polite language even when I am angry with my group leader	0.68*
The language I use when communicate with my group leader reflects who I am	0.75*
I use polite language when I seek advice from my group leader	0.78*
I believe that the use of polite language at work will avoid hurting my group leader	0.87*
In showing respect to my group leader; I use appropriate language to address him/her	0.82*
I always use polite language to greet my group leader	0.81*
I am confident that the language use by my group leader can motivate me to work	0.83*
I try to interact nicely with my group leader	0.72*
The interaction with my group leader is good	0.89*
I am happy when interacting with my group leader	0.75*
I like talking with my group leader who uses polite language	0.91*
I am not keen for discussing private matters with my group leader	0.81*
I interact with my group leader as a "friend"	0.80*
I always try to solve relationship problems with my group leader	0.88*
I always try to talk politely with my group leader	0.76*
I can accept advice from my group leader	0.85*
I provide comments to my group leader	0.88*
I always project a character that is acceptable to my group leader	0.81*
I always respect my group leader's views	0.73*
I receive compliments from my group leader	0.80*

Group leaders – communication style (α = 0.80)

I always avoid using harsh language when I interact with this group member	0.70*
The use of polite language is important to me when interacting with this group member	0.65*
I try to use polite language even when I am angry with this group member	0.78*
The language I use when communicate with this group member reflects who I am	0.75*
I use polite language when advising this group member	0.78*
I believe that the use of polite language at work will avoid hurting this group member	0.83*
In showing respect to this group member; I use appropriate language to address him/her	0.72*
I always use polite language to greet this group member	0.81*
I am confident that the language I use can motivate this group member to work	0.83*
I try to interact nicely with this group member	0.62*
The interaction with this group member is good	0.91*
I am happy when interacting with this group member	0.65*
I like talking with this group member who use polite language	0.79*
I am not keen of discussing private matters with this group member	0.88*
I interact with this group member as a "friend"	0.78*
I always try to solve relationship problems with this group member	0.78*
I always try to talk politely with this group member	0.86*
I can accept advice from this group member	0.76*
I provide comments to this group member	0.78*
I always project a character that is acceptable to this group member	0.71*
I always respect this group member views	0.76*
I receive compliments from this group member	0.76*

Perceived similarity (group member) (α = 0.93)

My group leader and I see things in much the same way	0.82*
My group leader and I are similar in terms of our outlook, perspective, and values of the group	0.88*
My group leader and I think alike in terms of coming up with a similar solutions for a problem	0.83*
My group leader and I handle problems in a similar way	0.80*
My group leader and I hold similar attitudes concerning work-related issues	0.80*
My group leader and I have similar views on how job should be performed	0.83*

Table III.
Standardized
factor loadings for
the constructs

(*continued*)

Perceived similarity (group leader) (α = 0.90)

This subordinate and I see things in much the same way	0.87*
This subordinate and I are similar in terms of our outlook, perspective, and values	0.87*
This subordinate and I think alike in terms of coming up with a similar solutions for a problem	0.86*
This subordinate and I handle problems in a similar way	0.84*
This subordinate and I hold similar attitudes concerning work-related issues	0.88*
This subordinate and I have similar views on how his/her job should be performed	0.90*

Perceived group member performance (α = 0.93)

This subordinate is superior (so far) to other subordinates in the team	0.86*
Overall level of performance that you observe for this subordinate	0.79*
Your view of your subordinate in terms of his or her overall effectiveness	0.77*
Overall, to what extent do you feel your subordinate has been effectively fulfilling his or her roles and responsibilities?	0.85*

Note: All factor loadings are significant at $p < 0.001$

Table III.

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. Communication style – group members (T1)	5.35	0.53	(0.82)										
2. Communication style – group members (T3)	5.51	0.66	0.32*	(0.84)									
3. Communication style – group leaders (T1)	5.21	0.72	0.30*	0.38*	(0.85)								
4. Communication style – group leaders (T3)	5.15	0.69	0.33*	0.35*	0.33*	(0.89)							
5. Perceived similarity – group members (T2)	5.84	0.62	0.36*	0.30*	0.35*	0.34*	(0.93)						
6. Perceived similarity – group members (T4)	5.32	0.73	0.35*	0.33*	0.32*	0.37*	0.35*	(0.93)					
7. Perceived similarity – group leaders (T2)	5.28	0.82	0.36*	0.30*	0.35*	0.32*	0.31*	0.43*	(0.90)				
8. Perceived similarity – group leaders (T4)	5.20	0.63	0.35*	0.28*	0.44*	0.36*	0.40*	0.40*	0.42*	(0.90)			
9. Performance	5.58	0.67	0.30*	0.32*	0.45*	0.41*	0.38*	0.40*	0.45*	0.40*	(0.93)		
10. Group relational ethnicity	0.59	0.24	0.00	0.03	0.02	0.00	0.01	0.01	0.03	0.04	0.08	–	
11. Group relational gender	0.47	0.32	0.02	0.05	0.03	0.01	0.00	0.00	0.00	0.06	0.03	0.01	–

Notes: M, mean. [a]Number in parentheses is Cronbach's α. *$p < 0.05$; **$p < 0.01$

Table IV.
Means, standard deviations, reliabilities, scale reliability and inter-correlations among the variables

Two forms of intraclass correlational coefficients (ICC) were conducted. First, ICC (1) represents the proportion of variance due to group variability, and second, ICC (2) reflects the extent to which groups are used to differentiate reliably in terms of the individuals' rating of the variables. Bliese (2000) suggested that ICC (1) values close to 0.20 indicate that the scores are desirable for group-level analysis. For ICC (2), values greater than 0.60 are desirable (Glick, 1985). The ICC (1) and ICC (2) values calculated with ANOVA were as follows: 0.15 and 0.61 for group members' perceived communication style; 0.17 and 0.73 for group leaders perceived communication style; 0.18 and 0.65 for group members' perceived similarity; 0.15 and 0.62 for group leaders' perceived similarity; and 0.16 and 0.75 for perceived group members' performance.

To test the hypotheses, our primary analyses consisted of hierarchical linear modeling (HLM) techniques. For each analysis, perceived group member's performance (T5) was regressed on the control and on the predictor in the three models. In the first model, the control variables were entered based on Maslyn and Uhl-Bien's (2001) suggestion that tenure influences the leader-member relationship. To account for this, job tenure and organizational tenure were measured in months and entered as control variables. In the second model, the control variables, the group relational ethnicity, the group relational gender, and leader-member dyadic communication agreement (T1 and T3), plus leader-member dyadic perceived similarity (T2 and T4) were entered. In the final model, the following were entered: the control variables; leader-member dyadic communication agreement (T1 and T3); the interaction between leader-member dyadic communication agreement (T1) and the group relational ethnicity; the interaction between leader-member dyadic communication agreement (T1) and the group relational gender; and the interaction between leader-member dyadic communication agreement (T1), dyadic perceived similarity, and leader-member dyadic communication agreement (T2 and T4).

Results
Primary analyses
HLM was performed to test our hypothesis. A multilevel model was estimated in which group members (level 1) were nested within the group leaders (level 2). Raudenbusch et al.'s (2004) multiple steps' approach using grand mean-centered variables was followed. Table V summarizes the results.

H1 predicted that surface-level actual similarity would interact with leader-member dyadic communication agreement in predicting group member performance ratings at an earlier time period. Results revealed that there is no interaction between group relational ethnicity and group relational gender with leader-member dyadic agreement at time 1. Therefore, *H1* was not supported. *H2* predicted that deep-level perceived similarity would interact with leader-member dyadic communication agreement in predicting group member performance ratings at later time periods in the workgroup. The nature of the interaction is such that the relationship between leader-member dyadic communication agreement and group member outcomes is strongest when there is high perceived similarity agreement among group leader-group member dyads in the workgroup. Results revealed that the interaction between leader-member dyadic communication agreement and perceived similarity explained 36 percent of the variance of perceived group members' performance ratings, after accounting for the control variable and independent variables.

Test of slope for the interaction term as random effects indicates that the interaction effect between leader-member dyadic communication agreement (T1) and perceived similarity agreement (T2) for the interaction effect of performance ($\beta = 0.08$, $t = 1.35$, $p < 0.05$) was significant. Moreover, the interaction effect between leader-member dyadic communication agreement (T3) and perceived similarity agreement (T4) for performance ($\beta = 0.094$, $t = 1.11$, $p < 0.05$) was also significant. Therefore, *H2* in this study was supported.

To determine the nature of the interaction, the simple slopes for groups with high leader-member dyadic communication agreement (1 standard deviation higher) and low leader-member dyadic communication agreement (1 standard deviation lower) were tested (see Figure 1). Supporting *H2*, perceived similarity agreement is associated with leader-member dyadic communication agreement on performance.

Discussion
Theoretical implications
The results reported herein offer several contributions to scholars and practitioners interested in organizational communication research. First, and heeding the call to study the perceived

	Coefficient	Performance (T5) χ^2	
Null model	0.09*	35.8	43.2
Variable	Model 1	Model 2	Model 3
Intercept	2.12*	2.13*	2.19*
Step 1: control variables			
Organizational tenure (group leaders)	0.042*	0.040*	0.040*
Organizational tenure (group members)	0.043*	0.043*	0.045*
Job tenure (group leaders)	0.041*	0.041*	0.044*
Job tenure (group members)	0.000	0.000	0.045*
R^2	0.24		
Step 2: independent variables			
Leader-member dyadic communication agreement (T1)		0.23**	0.24**
Leader-member dyadic communication agreement (T3)		0.33**	0.36**
Perceived similarity agreement (T2)		0.30**	0.35**
Perceived similarity agreement (T4)		0.38**	0.39**
Group relational ethnicity		0.035	0.022
Group relational gender		0.067	0.053
R^2		0.32	
ΔR^2		0.08*	
Step 3: moderator			
Leader-member dyadic communication agreement (T1) × Perceived similarity agreement (T2)			0.080**
Leader-member dyadic communication agreement (T3) × Perceived similarity agreement (T4)			0.094**
Leader-member dyadic communication agreement (T1) × group relational ethnicity			0.001
Leader-member dyadic communication agreement (T1) × group relational gender			0.005
R^2			0.36
ΔR^2			0.04*
Pseudo R^2			0.34
Log-likelihood			12
Akaike (AIC)			103.33
Bayesian (BIC)			105.77

Notes: Level 1, $n = 28$ managers; level 2, $n = 141$ dyads. Entries are random effects with robust standard error. *$p < 0.05$; **$p < 0.01$

Table V.
Hierarchical linear modeling results for perceived group members' performance

similarity effect on attitude and behavior in non-laboratory settings, this research took the step of analyzing the similarity effect on a longitudinal basis and from "actual" interactions reported in organizations. Second, most prior research on leader-member dyadic communication had previously relied on self-perception assessments. In contrast, this study examined reports from both sides (the workgroup leader and his/her workgroup members) as we explored the interaction between leader-member dyadic communication agreement with perceived similarity as predictors of workgroup member performance. Third, the finding that deep-level perceived similarity interacts with leader-member dyadic communication agreement in predicting group member performance ratings at later time periods in a workgroup's development illuminates findings from other studies in similar areas. For example, Sprecher (2014) found a positive effect for perceived similarity on dyadic communication agreement, which was linked to liking and closeness in the relationship. Fourth, our study extends current research by showing an interaction effect between surface-level actual similarity and leader-member communication agreement at an early stage of the

46

Figure 1.
Interpretation between
leader-member dyadic
communication
agreement (T1) and
perceived similarity
(T2) predicting group
members' performance

Notes: – – – – – – Low leader-member dyadic communication
agreement; ···················· high leader-member dyadic communication
agreement; ▬▬▬▬▬ interpretation line
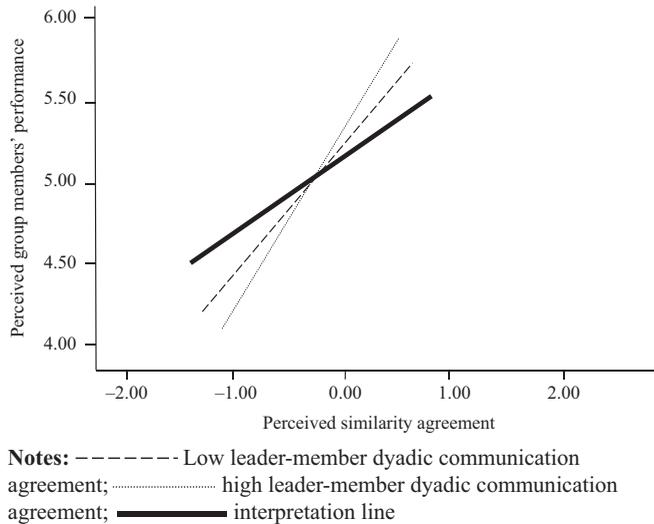
workgroup's lifecycle. Fifth, the results from the study suggest that differences in values held by Malay, Chinese, Indian, male, and female group leaders are unlikely to influence their judgments on group members. According to Randolph-Seng *et al.* (2016), the goals and values of dyad members are more likely to be similar in ethnically and gender homogeneous dyads. This may result in a willingness to take on tasks beyond what may be specified in an employment contract. Additionally, the social-historical circumstances of the workgroup in an organization may affect the development of the leader-member relationship, thus allowing for mutual obligations between diverse dyad members in the workgroup to emerge. As most of the workgroup members are likely to be high-performance employees, ethnic and gender similarity may not be highly relevant for this work group (Figure 2).

Figure 2.
Interaction between
leader-member dyadic
communication
agreement (T3) and
perceived similarity
(T4) predicting group
members' performance

Notes: – – – – – – Low leader-member dyadic communication
agreement; ···················· high leader-member dyadic communication
agreement; ▬▬▬▬▬ interpretation line
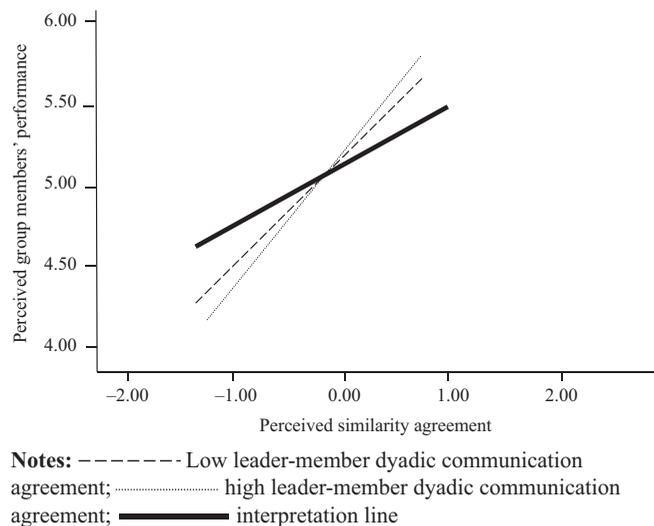
Given that ethnic majority Malays not only shape the cultural norms of Malaysian society, but also shape the communicative behavior in the workplace, we might have expected more of a focus on actual similarity. Still, it is possible that the positive aspects of *budi* may have overridden some of the more classic, demographic intergroup findings that we first expected. In other words, workgroup leaders may have been demonstrating culturally driven behaviors of helping and guiding group members through the early stages of the tasks, thus displaying goodness and practicality commonly associated with *budi*. In short, the findings in our study underscore that conversations based on "*budi*" reflect not only a cultural basis of communication, but also that this shared cultural context leads to perceived similarity between and within the dyad.

Research into deep-level perceived similarity in dyadic relationships suggests that relational-norm congruence plays a key role within specific cultural contexts (e.g. Oren *et al.*, 2012). Our findings suggest that perceived similarities do moderate the effects of group leader-group member communication agreement on group members' performance ratings by the group leader. One way to explain this association is that as the dyads interacted, the interaction partners acquired more information on which to base their judgments. In the early stages of group development, for example, group leaders may be more likely to guide and instruct individual group members on different issues. On the other hand, at later stages in workgroup development (especially as deadlines get closer), group leaders may tend to focus more on workgroup functioning and performance.

Montoya and Horton (2013) note that that prior to any interaction, individuals are likely to express more interest for individuals of the opposite demographic attributes (such as gender or ethnicity) after learning that the other may possess traits they desired. Interestingly, results from the current study reveal that deep-level perceived similarity (vs surface-level actual similarity) facilitates leader-member communication agreement and performance. This suggests that the outcomes of the group member's performance relied more on cognitive aspects of similarity than on the actual similarity, especially in the workgroup at the functional/task level. Specifically, workgroup members in high functioning group conditions may find it easier to promote diversity (i.e. differences) via perceived similarity, which leads to social appropriateness in interactions.

Practical implications
The results herein suggest that business managers, particularly those managing high-performance project-based groups in Malaysia, need to be aware of a variety of leadership and communication issues. First, leader-member dyadic communication and perceived similarity agreement change over time. Early ratings of leader-member dyadic communication, regardless of the actual similarity (gender and ethnicity) of the dyads, were found to be unrelated to group member performance in this study. However, perceived similarity became more important over the duration of the workgroup's lifecycle, and group members perceived to be similar to the leader fared better on their performance evaluations. Workgroup member performance would also likely increase over time as workgroup leaders and workgroup members become more familiar with each other. The Malaysian cultural norm of "*budi*" may aid in the process of relational understanding. "*Budi*" can provide managers with a window to more fully understand workgroup dynamics, as well as themselves and their employees. Finally, we urge scholars to continue investigating how surface-level and deep-level similarity biases can influence leaders and employees in workgroup settings. Companies may want to implement even more targeted organizational training programs which build awareness of interpersonal biases in and out of workgroup contexts.

Limitations

In spite of the significant contributions discussed above, certain limitations need to be acknowledged. First, the sample was homogenous and limited to a single organization. Second, the sample size could have been larger and the response rate higher. Of course, these are issues of importance to most multilevel studies (Harrison and Klein, 2007). Third, statements of causality based on the results are useful for making inferences, but must be treated with caution given the correlational nature of the data. Fourth, performance in this study was only measured once. As such, it does not reflect actual performance development. Fifth, we acknowledge that the selection of workgroup leaders and workgroup members influences the sampling of the study. The workgroup leaders of each department are tasked with sending their self-selected representatives, so it is likely that their choice is biased in systematic ways. It is possible that the sample population may consist of likeable, high-performing, self-monitoring employees. As such, the hand-picked selection process threatens the random sampling that is required to make generalizations about the organization's employees. Sixth, there is a potential positive bias in the sample since the studied groups are rewarded for being innovative and creative. Finally, other variables with different theoretical analyses (e.g. computer-mediated communication and workgroup norms and culture) may too be associated with group member performance.

Conclusion

In summary, this study examines how communication, relational norms, and perceived similarity moderate the relationship between leader-member dyadic communication agreement and group member performance evaluations in a Malaysian organization. By examining organizations in Malaysia, this study adds to the growing body of intercultural communication research in Southeast Asia, which, to date, remains a comparatively understudied region (e.g. Bakar and McCann, 2014; Ota *et al.*, 2012). Finally, this research highlights the importance of taking a truly dyadic approach in both theory and methodology. Our analysis provides a number of insights into the importance of relational-norm congruence and its effect on the relationship between leader-member dyadic communication and perceived similarity and performance.

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