An Analysis of Language Use and Topic Management in Business Decision-Making Meetings

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Abstract

This paper builds on and contrasts with the earlier published framework of Du-Babcock (1999) by analyzing the topic management patterns and turn-taking behaviors of ten additional groups of Hong Kong bilingual Chinese in their first- and second-language decision-making meetings. While eight of the ten additional groups matched Du-Babcock's earlier findings, two groups did not follow the original findings and offered new reasons for such a result. This paper discusses why the topic management patterns and turn-taking behaviors emerged as they did across these ten groups. The paper also suggests implications for international business communication practices and future research.

It has become increasingly common in international business contexts for bilinguals at varying second-language competency levels to exchange messages and make group decisions in their first and second languages. Since these bilinguals have actual or potential prominence in international business communication situations, ascertaining (a) whether and how they communicate in their topic management strategy and turn-taking behavior, and (b) whether and how they make decisions in the same or different ways in their first and second languages is of significant and practical importance.

A large and rapidly growing segment of these bilinguals speak English as a second or foreign language. This is because English has emerged as the world's prominent linking language (Crystal, 1997; Kameda, 1996), a genuinely global language (Gilsdorf, 2002, p. 366), in international business communication, and individuals from around the world are learning English in order to fulfill this linking role. Of 75 percent of English-speaking individuals who are second-language users, Chinese bilinguals (including overseas Chinese around the world) constitute the largest and the most rapidly growing segment of "the global English picture" (Crystal, 1997; Kachru, 1992). This phenomenon suggests that English-language speakers of varying competency have the potential to directly communicate with and relay messages to native- or non-native English speakers in international business contexts.

Given the uniqueness of the language environment of Hong Kong (see, for example, Du-Babcock, 1999), bilingual Chinese live in a collective culture (Hofstede, 1991) and speak Cantonese (a high-context language) in general and English (a low-context language) with native-English speakers and non-Cantonese speakers in business conversations. As Cantonese and English are spoken concurrently in the workplace, Hong Kong bilingual Chinese cannot help but monitor and unconsciously compare first- and second-language messages when they switch between these two codes. Given its prominence as an international financial center and its pattern of multiple and simultaneous language use, Hong Kong is an ideal research site for a comparison of the first- and second-language business communication practices of Chinese bilinguals.

The present work extends Du-Babcock's (1999) study and re-examines the business communication behavior of ten additional groups of Hong Kong bilingual Chinese as they interacted in first- and second-language decision-making meetings. In her study, Du-Babcock provided an in-depth analysis of a decision-making meeting by a group where she examined how the strategic topics were managed throughout the meetings. To enhance its applicability, this extension of the study reports on the analysis of ten additional groups' meetings which were previously collected. For consistency, I adopted the same method of codifying turn-taking and topic management. It is hoped that the extension of Du-Babcock's (1999) study not only provides the breadth of issues to be generalized, but also examines factors that are likely to affect those groups that are deviating from the previous findings.

Literature Review

This section builds on the literature review and discussion sections of Du-Babcock's (1999) study in which she describes how the cultural and language environment impacts on communication practices in Hong Kong and why different communication practices might be expected in other language environments where Chinese dialects are not the dominant communication medium (see Du-Babcock, 1999, p. 548). In Hong Kong, second-language communication exists side-by-side with first-language communication, and bilingual Cantonese switch between languages according to the needs of a particular communication situation. As a result, bilinguals with less than native-like second-language competency see a discrepancy in their first- and second-language communication abilities (especially the ability to accurately and confidently decode messages). Nevertheless, the uniqueness of the bilingual language environment allows individuals to verify and check the accuracy and completeness of second-language messages through follow-up and associated first-language conversations, as other Cantonese speakers are almost always present and available in dominant Cantonese-speaking communication environment.

Du-Babcock's (1999) study offered alternative theoretical explanations for the differing turn-taking behavior and topic management strategies that Cantonese bilinguals might follow in their first- and second-language decision-making meetings. The study concluded that the language and cultural context affects not only communication behavior of Hong Kong bilinguals in their inter-connected first-and second-language meetings, but also their topic management strategies. The language proficiency-based explanation argued that it was first- and second-language proficiency differentials that triggered the various communication behaviors of these Cantonese bilinguals. Prior research (see, for example, Bilbow, 1996; Du-Babcock, 1999; Du-Babcock, Babcock, Ng, & Lai, 1995) has established that language proficiency is positively related to communication effectiveness and participation rates in second-language communication environment. The results of Du-Babcock's (1999) study concurred that individuals with higher second-language proficiency participated at a higher rate in second-language meetings than did individuals with a lower second-language proficiency (r = .37, p<.05). Du-Babcock's (1999) results also showed that although low-second language proficient individuals might have contributed fewer ideas, they were still able to participate and contribute ideas to their designated functional areas at meetings. That is, the constraint of second-language proficiency might have prohibited groups from discussing the issues interactively, yet the "narrow band" approach allowed the group members to supply specialized information related to their functional areas (e.g., financial, production, and marketing) without hindrance from any deficiency in second-language proficiency.

Based on the literature reviewed, two sets of research questions are now put forward. The first research question focuses on whether bilingual individuals exhibit similar turntaking behavior in that they not only exhibit different communication behavior, but also perceive first-and second-language meetings differently. The second set of research questions

investigates whether and how second-language proficiency affects the communication behavior of Hong Kong bilinguals in four identified variables.

Research Question 1: Do Hong Kong bilingual Chinese exhibit different communication behavior in interconnected first-language and second-language decision-making meetings?

Research Question 2A: Does second-language proficiency correlate with the communication behavior of Chinese bilinguals in four identified variables?

Research Question 2B: Do individuals with higher second-language proficiency exhibit different communication behavior than individuals with lower second-language proficiency?

The second explanation of Du-Babcock's (1999) study for differing topic management strategies draws on the notion that language communicators' choice can influence and change message content. The linguistic relativity principle (sometimes also referred to as the Sapir-Whorf hypothesis) addresses this issue by theorizing about the relationship between the language people speak and its thought pattern (see also Hunt & Agnoli, 1991). According to this principle, speakers of different languages necessarily construe the world differently and are locked into the world view given to them by the languages they use. As a result, the languages that speakers know and use will structure their understanding of the world, and in many ways the language people speak is a guide to the language in which they think (Hunt & Agnoli, 1991, p. 377). The linguistic relativity principle applies especially to bilinguals, as they switch between languages and so adjust their perceptual and thinking processes to fit the language they are using and introduce different content into their first- and second-language messages (see also Kay & Kempton, 1984; Matsumoto, 1994; Wierzbicka, 1985).

The linguistic relativity principle continues to generate as much controversy as it did when first formulated over a half a century ago. Current studies offer at least partial support of its validity despite its having been dismissed by experts from various disciplines (Davies, Sowden, Jerrett, Jerrett, & Corbett, 1998; Lee, 1996, 1997). I would argue that the linguistic relativity principle offers a plausible, but not proven, theoretical basis for inferring that the language communicators choose to use does affect the message content in international business communication. Research studies on international business communication that could either prove or disprove this controversial principle are lacking.

Kaplan's (1966, 1987) spiral-linear thinking patterns and Ma's (1993) Taoist thinking pattern model relate the language causation notion to Asian and Western cultures. This line of research suggests that Asians (e.g., Chinese, Japanese, Koreans) think and make decisions in circular or spiral patterns, while Westerners (Americans and Europeans) think and make decisions in sequential or linear patterns. Du-Babcock (1999) suggests that Chinese (and other Asians) may adapt to Western thought and decision patterns when interacting in a Western language (e.g., English), but retain Chinese thought patterns when communicating in their native language (e.g., Cantonese).

While Whorf's linguistic relativity (see Carroll, 1956) claims the idea that culture, through language, affects the way people think, Kaplan's (1966, 1987) spiral-linear thinking pattern and Ma's (1993) Taoist thinking model can be said to supplement the Whorf hypothesis. Consistent with Kaplan's model that individuals from Asian or high-context cultural societies are inclined to reveal a spiral or circular thought pattern, whereas individuals of Western cultural societies tend to follow linear thinking pattern, Du-Babcock's (1999) empirical-based study concluded that Chinese bilinguals may consistently adapt to Western style of thinking patterns when using low-context language, yet retain Eastern spiral or circular thinking patterns when using high-context language. Based on the relevant literature review, Research Question 3 focuses on whether bilingual communicators adopt similar topic management strategies, as reported by Du-Babcock (1999).

Research Question 3A: Do all Chinese bilinguals adopt culture-specific topic management strategies and, in the process, use different topic management strategies in their interconnected first- and second-language meetings?

Research Question 3B: Can topic management patterns identified by Du-Babcock (1999) be applied to all Chinese small-group decision-making groups? That is, do all groups follow spiral or circular thinking patterns in their first language (Cantonese) meetings and linear or sequential patterns in their second-language (English) meetings?

Method Research Participants

Sixty-one (N=61) individuals enrolled in two sessions of a strategic management course at a Hong Kong tertiary institution were chosen to participate in the study. A total of ten Hong Kong bilingual Chinese groups (consisting of 5 to 7 persons per group) were then formed and competed in a computerized business strategy simulation. Although random assignment was not possible, the participants were comparable in the subject matter covered during the simulations.

Although levels of second-language proficiency varied among group members (ranging between 3 and 6 on a 7-point Likert scale), all group members possessed adequate vocabulary and interactive listening skills for business-related communication in English. The work experience of these simulation participants also varied from part-time summer employment to full-time low-level managerial positions as well as mid-level regional managers in both government and private firms. Sixty percent (60%) of participants had five to 15 years of work experience. Typical employers included the Hong Kong Housing Authority, American Standard, Hong Kong Bank, and various small-to medium-size Chinese firms. There were 41 male and 20 female participants.

Procedures

The simulation used in the study is a computer-based replication of a manufacturing industry that produces and sells consumer durable goods (Cotter & Fritzsche, 1991). The simulation participants assumed the role of the top management of individual companies in an industry. Although not formally required by the simulation exercise, the groups designated functional roles for individual members, such as president, finance, marketing, human resources, and sales managers.

The simulation provided the setting for the development of realistic business dialogs and required the competing teams to hold a series of meetings to develop and execute corporate strategies in the following eight areas: price and advertising; salespeople; finance; product models; research and development; production scheduling; plant construction and expansion; and sales (Cotter & Fritzsche, 1991, pp.11-26). Because of the interactive nature of the computer model underlying the simulation, a decision made by one firm influenced not only the financial and competitive position of that company but also that of its competitors.

All the group decision-making meetings were held and videotaped in videotaping studios equipped with professional facilities. To enable comparison of first- and second-language communication, the groups made decisions using English (designated as a second language) and Cantonese (first language). The meetings held in English were transcribed verbatim in English, and the meetings in Cantonese were transcribed in colloquial Cantonese.

To ensure consistency for comparison, the English and Cantonese transcripts of the current data set were coded and classified in the same way as Du-Babcock's (1999) study in terms of turn-taking behavior and topic management. To conduct comparative analysis between these ten additional groups, similarities and differences in the use of Cantonese and English were defined by (a) the length of speaking time by individual group members and (b) the number of turns taken by individuals. Speaking time was calculated by using a stopwatch

to measure the exact length of each conversational turn. All of a speaker's times for these turns were then added together to obtain the total individual speaking time for a meeting.

The topic analyses of the ten additional groups focused on the turn-taking behavior and topic management in both their first-language and second-language meetings. The analyses of turn-taking behavior and topic management followed the specific technique developed by Du-Babcock (1999) whereby the meeting dialogs were initially arranged by turns for both first- and second-language meetings. The utterances of each turn were then related to one of the eight possible decision topic areas prescribed in the strategic management discussions, or a ninth category for background or non-related conversation. Once the dialogs were categorized by decision area, the turns were assigned numerical numbers starting at Turn 1 and continuing through to the end of the dialog. Then, each decision area was plotted to show its frequency in the dialogs in both the first- and second-language meetings.

Results and Interpretations

In this section, I describe findings for the three research questions that focus on whether the current study exhibited similar or different turn-taking behavior and topic management strategies as reported in Du-Babcock's (1999) study.

Research Question 1 asked whether Hong Kong bilingual Chinese exhibited different communication behaviors in interconnected first-and second-language decision-making meetings. To answer Research Question 1, paired sample t-test was performed and the results (see Table 1) show that the mean score of the speaking time in English meetings was slightly shorter than that of Cantonese meetings (402.71 seconds and 433.22 seconds, respectively), and that the average number of turn-takings in the Cantonese meetings was more than that in English meetings (32.93 turns and 23.69 turns, respectively). In addition, the length of speaking time per turn was one-quarter shorter in Cantonese, as compared to English (17 seconds and 13 seconds per turn, respectively). The results also showed that individuals felt they were more influential (t = 2.36, p < .05) and more information was exchanged (t = 5.45; p < .001) in Cantonese meetings than in English meetings.

Table 1: Mean Scores of the Four Identified Variables in English and Cantonese Meetings

<u>Variables</u>	English	<u>Cantonese</u>	Mean Difference
Amount of speaking time (second)	402.71	433.22	30.51
Turn-taking (number)	23.69	32.93	9.24
Felt degree of influence	4.31	4.75	44 ^b
Felt degree of information change	4.13	5.06	93 ^a
Kevs:			

^a The mean difference between the two meetings is significant at <.001

Research Questions in set 2 examine the effect of second-language proficiency on a bilingual's communication behavior. Research Question 2A asked whether communication behavior of Hong Kong bilinguals correlates with their second-language proficiency. Research Question 2B asked whether bilinguals with higher second-language proficiency participated at higher rates, with corresponding higher perceptions of influence and information exchange.

To answer Research Question 2A, Pearson Correlation Coefficients were performed. Results showed that there was a significant relationship between second-language proficiency

^b The mean difference between the two meetings is significant at <.05

and the amount of English used during the meetings (r = .315, p<.05) and the perceptions regarding the amount of information exchanged in the second-language meetings (r = .298, p<.05). Weak correlations were found between second-language proficiency and the number of turns taken, and felt degree of influence (see Table 2). Although second-language proficiency did not strongly affect the way individuals perceived their felt degree of influence, individuals who perceived that more information was exchanged in the second-language meetings also felt they were more influential in the outcome of the meetings (r = .295, p<.05). The results also showed that individuals who participated at higher rates took more turns (r = .696, p<.01) in the second-language meetings.

Table 2: A Comparison of Pearson Correlation Coefficient among the Four Identified Variables

<u>Variables</u>	<u>L2P</u>	TIME	TURNTK	<u>INF</u>	EXC
Second-Language Proficiency (L2P)	1	.315*	.125	.161	.298*
Amount of speaking time (TIME)	.315*	1	.696**	.005	.146
Turn taking (TURNTK)	.125	.696**	1	.086	106
Influence (INF)	.161	.005	.086	1	.295*
Information exchange (EXC)	.298*	.146	106	.295*	1

Keys: L2P = Second-language Proficiency; TURNTK = Turn-taking;

INF = Degree of Influence; EXC = Information Exchange

In sum, the findings show that (a) individuals who self-reported higher second-language proficiency perceived that more information was exchanged, (b) individuals who perceived themselves influential also felt more information was exchanged, and (c) individuals who participated at a higher rate in speaking time also took more turns in the English meetings.

To cross check the effect of the second-language proficiency on the four identified variables, analysis of variance (ANOVA) was also performed to examine whether there were differences among individuals with low, intermediate, and high second-language proficiency. Based on a 7-point Likert scale, individuals who self-reported their second-language proficiency at 3 were classified as low, and those who self-reported at 4 were considered intermediate. Individuals who scored 5 and above were classified as high second-language proficiency speakers. The self-reported second-language proficiency levels were also crosschecked with the overall impression from the videotapes. Table 3 compares mean scores and mean differences of the four identified variables among three groups. The results show that mean scores of individuals who possessed intermediate level of second-language proficiency are generally higher than those who possessed low second-language proficiency; similar results were recorded for the mean score differences between individuals with high and intermediate levels of second-language proficiencies. These results show that individuals with high second-language proficiency participated at a higher rate than individuals with low second-language proficiencies at a .05 significant level with regard to the amount of speaking time. No significant difference was found between intermediate and low second-language proficiency individuals, nor between intermediate and high second-language proficiency individuals.

^{*} significant at p<.05; ** significant at p<.01.

Table 3: A Comparison of Mean Scores of the Four Identified Variables among Three Groups

Variables	Mean Scores			Mean Differences			
	L	M	Н	M-L	H-L	H-M	L
Amount of speaking time (seconds)	204.44	365.74	497.55	161.29	293.10*	131.81	204.44
Turn taking (number)	17.11	23.79	25.23	6.68	8.12	1.44	17.11
Felt degree of influence	4.25	4.26	4.53	.01	.28	.27	4.25
Felt degree of information exchange	3.50	3.95	4.50	.45	1.00	.55	3.50

Keys: L= Low second-language proficiency;

M = Intermediate second-language proficiency;

H = High second-language proficiency.

These findings also reveal that individuals who possessed higher second-language proficiency and participated at higher rate may not necessarily take more turns in the English meetings. Results of such a conflicting finding may be due to the method used in measuring turn-takings, since the number of turns taken was based on the turns taken by each individual irrespective of the length of time spent on each turn. Also, as noted by Du-Babcock (1999), it is likely that individuals who had lower second-language proficiency were "followers" and tended to devote their turns to confirming and following the lead of the higher second-language proficiency participants.

To further examine whether individuals with low second-language proficiency were inclined to devote their turns to confirming or showing involvement and agreement in their second-language decision-making meetings, the frequency of back channels was counted. Back channel is behavior where a participant responds or reacts to a previous statement made by the speaker at that time (see, for example, Goodwin & Goodwin, 1992; Kendon, 1990). As back channels are usually short, some researchers do not consider them to be complete utterances. Studies by Goodwin and Goodwin (1992) and by Kendon (1990) suggest that non-verbal back channels (e.g., eye gaze, head nodding, facial movement) are essential in social interaction; however, in this study, only verbal back channels were measured. Prototypical back channels commonly used in this study included such utterances as "yes", "OK", "U-hmm", "2.35 per unit, right?"

To quantify the verbal back channel behavior, the frequency of back channels was computed against the total number of turns taken by each individual to obtain a percentage. The mean scores of the verbal back channels among three groups were then compared. The results showed that the mean scores of back channels used by low second-language proficiency groups (16.4%) were more than those of intermediate groups (11.5%) or high (10.9%) second-language proficiency groups. This result may explain why lower second-language proficiency individuals can still maintain an almost equivalent number of turn-takings, irrespective of any possible second-language deficiency constraints.

In sum, the results of the current study are consistent with Du-Babcock's study (1999) in that (a) Hong Kong bilinguals exhibited different communication behaviors in their interconnected first-and second-language proficiency with regard to the four identified variables, and that (b) bilinguals with higher second-language proficiency who participated at a higher rate in the English decision-making meetings perceived that more information was exchanged than individuals with lower second-language proficiency. In addition, the study also confirms Du-Babcock's speculation that lower second-language proficiency individuals are more likely than those with intermediate or high second-language proficiency to use

^{*} significant at p< .05

verbal back channels to show their involvement and to cross-check or re-confirm the issues discussed.

Research Questions in set 3 asked whether bilinguals would adopt culture-specific topic management strategies between high-context Cantonese and low-context English language meetings. For consistency, this extended study adopted the same method of topic analysis categorization that focused on turn-taking behavior and patterns of communication interaction during first-language and second-language meetings.

The results show that eight of the ten groups followed the same patterns of topic management as reported in Du-Babcock's (1999) study. These eight groups consistently displayed different topic management practices, in which a circular or spiral pattern occurred in Cantonese meetings and a linear or sequential pattern occurred in English meetings. In the Cantonese meetings, circular or spiral topic management discussions were organized around major topics, with Finance, Expansion, and Sales people being the most representative. In the English meetings, topics were sequentially discussed. Figure 1 presents the contrasting patterns of topic management in Cantonese and English meetings for a typical replicating group.

To illustrate these contrasting patterns, the analysis looked at the overriding difference and the dimensions that define this difference. In the Cantonese meeting, finance was discussed four times (in Turns 69-90, 107-112, 149-152, 160-174). The topic first arose in Turn 69 and ended in Turn 174 (see Figure 1). A group decision was made on the fourth occasion (Turn 174). In contrast, finance was discussed only twice (in Turns 59-68, 98-99) during the English meetings, with the initial interaction occurring in Turns 59 to 68 and a group decision being announced in Turns 98 and 99.

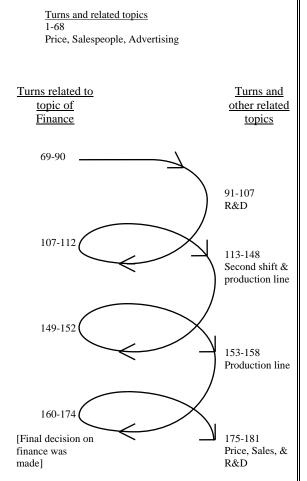
In contrast, two non-replicating groups developed spiral or circular patterns in both English and Cantonese meetings, but for different reasons. To illustrate, I will highlight how topics were discussed between these two groups. For discussion purposes, the groups are categorized as non-replicating group 1 and non-replicating group 2. Non-replicating group 1 consisted of five working professionals with uniformly high and interactive second-language proficiency, ranging between 5 and 6 on a 7-point Likert scale. From examination of the meeting transcripts, the topic analysis of this group shows that the spiral topic management pattern reflected an interactive analysis of how the eight decision areas mutually influenced one another in terms of achieving optimal performance. It is believed that the structured and simulated computerized decision-makings created a framework for these work professionals to make decisions. Taken together, their work experience and adequate second-language of proficiency facilitated their discussions, as they had adequate vocabulary to communicate interactively in well-defined topic areas of communication in second-language meetings.

The meetings in English best illustrate how the non-replicating group 1 members adopted and displayed a spiral or circular pattern. In the meeting, the chairperson focused the first seven turns (7 out of 85 of the total turns) on soliciting contributions from all the functional managers, to report on the results of the company competitiveness in the industry from previous quarter's printouts, and to suggest a reaction to the market in the current quarter. After the group members had grasped the overall market situation, discussions were centered around three major areas: pricing, expansion, and salespeople. The remaining five topic areas were discussed only when they were related to these three major areas. For example, the topic area of "product expansion" was discussed three times (turns 8-11; 15-17; 36-46) and reconfirmed in Turn 82. Figure 2 shows how the topic area of "product expansion" was discussed and dealt with in the meeting. The topic was first discussed briefly from turns 8 to 11 and from 15 to 17, elaborated on in detail from turns 36 to 46, and the decision finalized or reconfirmed in turn 82. During the discussion, other related topics such as product model (turns 12 to 14), finance (turns 18 to 22), and salespeople (turns 25 to 35), were also introduced.

Figure 1: A Comparison of Topic Management Patterns among Replicating Groups:

<u>Cantonese Meeting</u>

<u>English Meeting</u>



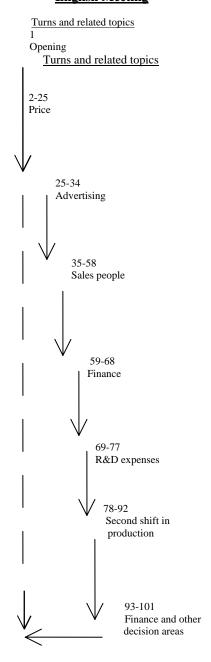


Figure 2: Topic Management Patterns of Non-replicating Groups in English Decision-making Meetings

Non-Replicating Group 1 Non-Replicating Group 2 Turns and related topics Turns and related topics Opening and reports from chairperson and Reports from each functional area managers each functional area managers 4*-7 Price, Sales, Finance, Product Model Price Turns related Turns and Turns related to Turns and other to topic of other topic of salespeople related topics expansion <u>related</u> topics 8-11 12-14 45-53* product Advertising model 15-17 18-35 57-62* finance; Advertising salespeople 36-46 47-81 finance; 65-66* salespeople; Advertising price; [Final decision product was made] model 67-73 Advertising Discussions of other functional areas and closing

*Turns in which more than one topic areas is covered

The video and transcript showed that the group members actively participated not only in their own responsible functional area but also in other functional areas where they thought the topic areas discussed were relevant to their own. As a result of the highly interactive and balanced second-language proficiency of the group members, the pattern of topic management was spiral or circular.

In contrast, the non-replicating group 2 consisted of seven members with wide and varying second-language proficiency (ranging between 4 and 6). Due to its large size, the group lacked cohesiveness and developed "free riders" who either missed meetings or came to the meetings unprepared. For example, one group member missed three, and another two members missed two out of the four taped meetings and consequently were not familiar with the previous discussions and decisions. To place themselves in context, these three individuals sought relevant information from other group members, resulting in their presence being disruptive and their uneven presence limiting the development of an effective communication environment. In one incident, two members, who had missed prior informal meetings, asked other group members to bring them up-to-date (summarizing prior discussions) so they could participate in the present meeting. It was likely that this irregular attendance of group members and uneven preparation created the conditions for such a random and chaotic spiral topic management practice in the second-language meetings. The video and English meeting transcript show that the spiral or circular topic management pattern exhibited by the group represented a repeat or rehash of previous meeting discussions, and a random, potentially chaotic discussion process.

To illustrate this group's interactions, I will use two topic areas, salespeople and advertising, as examples. From turns 27 to 44, the discussion was centered on salespeople issues and the decision was semi-made at turn 44 (see Figure 2); while advertising was discussed three times in turns 44 to 53; turns 57 to 62; and turns 65 to 73. In looking at the discussion of the advertising issue, the two unprepared group members interrupted the group discussion twice (turns 53 to 56 and 62 to 64) to seek information and confirm the discussion of salespeople on issues for which a decision was already semi-made in turn 44. If the interrupted turns (53 to 56; 62 to 64) made by the two unproductive members are ignored, the interaction pattern becomes linear, with the topic of salespeople discussed between turns 24 and 44, and advertising between turns 45 and 73. Thus, the spiral or circular interaction pattern of the English meeting was only introduced by unprepared group members who needed to check and confirm previously discussed issues.

Discussion

In this section, I discuss the research findings, limitations, and implications of the study. I use the current findings as a foundation and build on them to compare and contrast the generalizability of Du-Babcock's framework (1999) on turn-taking behaviors and topic management strategies. I then propose recommendations for facilitating international business communication research and practice on communication encounters, where Asian bilinguals or high-context communicators participate in an intercultural decision-making meeting.

Findings

Generally speaking, the findings of the current study are consistent with those reported in Du-Babcock's (1999) study. The findings show that the length of speaking time among individuals in Cantonese meetings was slightly longer than in the English meetings, and there were more turn-takings in the Cantonese meetings than in the English meetings. The findings also indicate that the Cantonese discussions were more interactive and the speaking time per turn was about one-quarter shorter than in the English meetings. As for the felt degree of influence and information exchange, the results showed that bilinguals felt that they were slightly more influential and that more information was exchanged when making decisions in their first language (Cantonese) as compared to their second language (English).

In terms of the second-language proficiency, the findings showed that the secondlanguage proficiency positively correlates with the amount of speaking time and the felt degree of information exchange, and tangibly correlates with turn-taking and felt degree of influence. Although the differences of the amount of speaking time and turn taking behavior were not significant between individuals with low and intermediate levels, and between intermediate and high second-language proficiency, individuals with high second-language proficiencies outperformed the low and intermediate second-language proficiency individuals in all four identified variables.

The new data provided in this extension of study require a partial reinterpretation of Du-Babcock's (1999) explanation of the factors and conditions that stimulate sequential or linear topic management patterns in second-language meetings. In her analysis, Du-Babcock implicitly assumed that she had identified a universal pattern that would apply to all bilinguals in the Hong Kong language and cultural environment. Her conclusions do hold for a sizeable majority of the bilingual groups (8 of 10 groups) but also adds some clarifying detail. In particular, while reinforcing Du-Babcock's proposed framework, the extension of that study further identifies reasons why two non-replicating groups unexpectedly carried out circular or spiral topic management patterns in both English and Cantonese meetings. In the following, I will provide plausible explanations for these overall results.

The communication behavior of the bilinguals can only be understood in the light of how group communication fits into the Hong Kong language and cultural environment. In the Hong Kong multiple-language environment, bilinguals have immediate or quick access (in most instances) to first-language messages and information. The bilinguals in the study perceived that first-language communication carried more, if not equivalent, information and influence, so they naturally preferred to communicate as much as possible in their first language, Cantonese. Thus, in a multiple language environment such as Hong Kong when one language (Cantonese in this case) is dominant, messages in the dominant language carry more weight or value than equivalent second-language communication.

The bilinguals in eight groups developed a differentiating approach to managing first- and second-language meetings. In their scheduled second-language meetings, group members sequentially exchanged information but did not make decisions, as these decisions were made mostly in their out-of-meeting first-language discussions. The English meeting was conducted in such a way that the members reported their respective functional areas one after the other, without integration of in-depth analysis among all the related areas; as a result, a linear and sequential topic management pattern was derived.

When required to communicate in English in scheduled second-language meetings, the group members adopted a linear or sequential pattern of information exchange. This linear or sequential pattern of topic management, however, did not meet the information processing requirements of the integrated decision-making task. This was because, being less confident in communicating in their second language and seeking to balance their communication behavior, the Hong Kong bilingual Chinese were motivated to supplement their secondlanguage communication with additional informal out-of-meeting first-language communication. Adding the out-of-meeting first-language communication to the scheduled in-meeting second-language discussions allowed lower proficiency members to compensate for their second-language deficiencies. Consequently, these meeting attendees would explore the difficult issues in their first-language meetings, and so avoid the relative discomfort of interactive second-language exchange. As such, the bilinguals exchanged information in an orderly and organized way during the scheduled second-language meetings, and better prepared themselves to interactively analyze and make complex decisions in the out-ofmeeting first-language discussions. Due to the time lapse between videotaped meetings and input of their decisions on the computer, these bilinguals knew that they were not compelled to make decisions in their second-language meetings, so they understandably chose to analyze and make decisions in their first language where they had higher language proficiency.

The second factor that possibly contributes to spiral-linear topic management patterns in the English meetings is the composition of second-language proficiency of the group members. In the non-replicating group 1, the group possessed one characteristic that

differentiated it from the other groups in that all of the members had high and balanced second-language proficiencies. This meant that the members engaged in interactive analysis and decision-making, and did not have to conduct supplemental informal out-of-meeting first-language discussions. Both the Cantonese and English meetings therefore represented completed communication tasks.

In comparison, although the non-replicating group 2 also developed circular or spiral topic management patterns, these patterns represented a disorganized and inefficient information exchange rather than an integrated analysis of interconnected variables. The topic management pattern could have been linear or sequential, but became spiral because the discussions were interrupted a few times by members who were previously absent requesting to be filled in on earlier decisions. Thus, if their disruptive turns are removed, the sequence of topic management becomes linear.

In sum, two of the ten groups in this extended study continued the spiral or circular patterns when interacting in a Western language (English) and did not develop linear or sequential topic management patterns in their second-language meetings. This result suggests that speaking in English did not by itself, or independently, introduce a "so-called" Western linear pattern into their second-language meetings. Consequently, the results of the present study support the language proficiency argument and cast doubt on language use theory in that the bilinguals in both the non-replicating groups 1 and 2, who had interactive proficiency and related confidence in second-language communication or who had to participate in disorganized conversations, used circular or spiral topic management practices regardless of the language used.

Limitations

As an extension study, I attempted to follow the same research design as in Du-Babcock's (1999) study, and use the same coding system to codify topic management patterns. The out-of-meeting first-language could not be controlled due to the time lapse between videotaped meeting discussion and data input for market competition. This could be the drawback of the research design. However, it reflects a common phenomenon in Hong Kong's second-language communication environment; that is, whenever time or conditions allow, Hong Kong bilingual Chinese hold out-of-meeting first-language meeting or prepare scripts and act them out during required second-language meetings.

The communication task represented in the current study necessitated the use of an all-channel, interactive communication pattern for effective decision-making. Engaging in strategic management discussions, the interlocutors in all ten groups were required to share information from their respective functional areas in order to reach optimal decisions and to meet the information-processing requirements of the complex task. To avoid sub-optimization, or the acceptance of lower-than-optimal performance in an organizational unit (see Simon, 1976), the group members had to interactively integrate functional inputs and make decisions that contributed to the profitability of the entire firm, not just adopt decisions that would improve results in their respective areas of interest. Circular or spiral topic management patterns were displayed in the English meetings for only two groups; consequently, with a sample size of two, the analysis of why the respective topic management patterns arose in these groups can only be suggestive.

Lastly, the composition of the groups does not permit the measurement of intercultural communication that would have accrued if non-Cantonese individuals had been included in the groups. Whether and how Cantonese speakers would have interacted similarly or differently with individuals from other cultural backgrounds remains speculative and an issue for future research.

Implications

Against the background of the findings and limitations of the current data, I recommend that future research investigate and more precisely define how Chinese (as well as individuals from other high-context cultural societies) of varying second-language competencies communicate in a language environment where English or another low-context language is a dominant language. These studies could better define how to structure a communication environment to solicit the involvement of second-language speakers with intermediate second-language proficiency in intercultural group meetings. As such, these studies could be structured to investigate how bilinguals from high-context cultural societies (e.g., Japan, Taiwan, Hong Kong) communicate in a language environment where English (or another international business language) is the dominant mode of communication (see Babcock & Du-Babcock, 2001) and where they do not have ready access to other native speakers.

The current study provides possible markers for improving both the quantity and quality of intercultural communication in which bilinguals with varying second-language proficiency participate in international business communication. When bilinguals with intermediate second-language proficiency participate in an intercultural group meeting requiring interactive decision-making, the challenge is to create a communication structure where their communication potential can be more fully utilized.

This study clarifies when and why bilinguals (in this Hong Kong bilingual Chinese case) communicate differently in their first- and second-language meetings in a language environment where they have ready and easy access to other Cantonese first-language speakers. All ten additional groups in the current study were composed of members who had sufficient second-language competency to present topics prepared in advance in their second language, but only one group had members whose language proficiency and confidence allowed them to interactively discuss and make decisions entirely in their second-language. It is hoped that the analysis and guidelines proposed in this article can guide international business communication practice and future research.

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