Interruption and Involvement in Discourse: Can Intercultural Interlocutors be Trained?

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The main purpose of this research was to examine whether a short training session for the listener, on various ways of requesting the current speaker, to clarify a piece of previously elicited information, would increase the frequency of interruption in intercultural communication. Forty Chinese-Canadian dyads participated in the study which was carried out in Canada. Half of the dyads were randomly assigned to the experimental group and half to the control group. Males and females were evenly distributed in both experimental and control groups. Prior to their conversations, participants in the experimental group received a short training, whereas the control group did not receive any training. Major findings include: 1) in comparison with the untrained dyads, the trained dyads exhibited higher frequencies of successful interruptions, documenting the positive impact of training on intercultural face-to-face communication. The higher frequencies of unsuccessful interruptions displayed by the untrained dyads indicate a lack of congruity to the extent that they sometimes cannot successfully insert an interruption. 2) Chinese participants engaged in more cooperative interruptions than Canadians who displayed more intrusive interruptions, lending support for a major theory in Cross-Cultural psychology: Individualism-Collectivism. 3) The Canadians rated the Chinese as less relaxed than Chinese rated the Canadians, indicating that the second-language speakers have higher anxiety levels than native speakers in intercultural interactions, providing support for previous research and raising challenges for intercultural training.

Intercultural conversation can be uncoordinated and unsynchronized due to differences in communication styles, insufficient language fluency and high levels of anxiety in the

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second-language speakers (Neuliep & Ryan, 1998; Ting-Toomey, 1999). To overcome or disguise anxiety, second-language speakers may choose to smile or nod or use *Uhs* when not understanding --- misleading feedback causing further miscommunication or even communication breakdown (Day, Chenoweth, Chun, & Luppescu, 1984; Gass & Varonis, 1991; Gumperz, 1978; Milroy, 1984; Sarangi, 1994).

Intercultural conversation, like any form of face-to-face communication, is evanescent and requires on-line monitoring and immediate response (Clark & Schaefer, 1989; Clark & Wilkes-Gibbs, 1986; Clark & Krych, 2004). To be effective, it is essential for interlocutors to keep track of their common ground and its moment-by-moment changes (Brennan, 2002; Brennan & Schober, 2001; Clark & Brennan, 1991; Clark & Krych, 2004). For example, the speaker presents a piece of information to the listener who does not fully understand. Instead of asking for clarification, the listener offers 'yes' or 'ok' or a head nod. The speaker is not a mind reader; he or she takes the listener's response as understanding and proceeds to the next utterance. While the listener is still perplexed with his or her inadequacy, the speaker presents another piece of information. The listener becomes dazed and puzzled.

Instead of answering 'yes', the listener could have requested the speaker to repeat or explain what he or she had just said by asking simple questions such as 'Could you explain this a bit more?' Sacks, Schegloff and Jefferson (1978) described the purpose of this type of request as 'repairing the repairable' (p. 363). Depending upon how satisfied the listener is with the response by the speaker, the listener may indicate understanding and allow the speaker to continue to the next utterance, or he/she may request further clarification.

Requesting the speaker to explain or reformulate a previously delivered piece of information may require the listener to interrupt the speaker. Interrupting can be intimidating for second-language speakers who are functioning in a foreign culture and interacting with native English speakers. On the other hand, interrupting second-language speakers can also be difficult for first-language speakers, for they may not want to hurt the feelings of their conversation partners.

The present study examined whether intercultural interlocutors can be trained to make interruptions when necessary. Half of the Mainland Chinese and Anglo-Canadian dyads were trained to ask questions during the conversations when misunderstanding or non-understanding was encountered while the other half of the dyads were not. It was therefore expected that the trained dyads would exhibit a higher frequency of interruption than would the untrained dyads.

The Nature of Interruption

There are two distinct views among interruption researchers. One holds that interruption is a deep intrusion of the rights of the current speaker, as well as a severe disruption of the flow of the ongoing conversation (Sacks et al., 1978). This view equates interruption with power, the more powerful party interrupting the less powerful interlocutor (Ferguson, 1977; Kollock, Blumstein, & Schwartz., 1985; Hawkins, 1991; Robinson & Reis, 1989; Zimmerman & West, 1975).

The alternate view holds that some type of interruption can serve as a way of getting involved, showing support and solidarity (e.g., Hayashi, 1988; Mizutani, 1988; Moerman,

1988; Roger & Nesshoever, 1987; Tannen, 1981, 1994) or building rapport (Goldberg, 1990). Ng, Brook and Dunne (1995) reported that sometimes an interruption was a means to rescue or promote the current speaker, or to elaborate on the content of the current speech.

Following these two views on interruption, two broad types of interruptions have been distinguished: intrusive and cooperative (Murata, 1994; Li, 2001; Li, Krysko, Desroches & Deagle, 2004), although they are termed variably. For example, Goldberg (1990) differentiated interruptions as power and non-power, Kennedy and Camden (1983) distinguished them disconfirming and confirming, while Bennett (1981) preferred the terms conflicting and less conflicting. Ng, Brook and Dunne (1995) discerned disruptive and supportive types of interruptions.

Intrusive Interruption

Intrusive interruption usually poses a threat to the current speaker's territory by disrupting the process and/or content of the ongoing conversation (Goldberg, 1990). Intrusive interruption has four subcategories: disagreement, floor-taking, topic-change (Murata, 1994) and tangentialization (Kennedy & Camden, 1983).

Disagreement interruption occurs when the interlocutor in the role of the listener interrupts to voice an opposing opinion. In the case of floor-taking interruption, the interrupter does not intend to change the topic of the current speaker. Instead, the interrupter usually develops the topic of the current speaker, and does so by taking over the floor from the current speaker. However, the interrupter can change the topic if the takeover is successful. Floor-taking interruption differs from topic-change interruption in that the intent of the latter is to change the topic.

A tangentialization interruption occurs when the listener thinks that the information being presented is already known to the listener (Kennedy & Camden, 1983). By interrupting, the listener prevents himself or herself from listening to an unwanted piece of information.

Cooperative Interruption

Murata (1994) argues that cooperative interruptions intend to help the current speaker by co-ordinating on the process and/or content of the ongoing conversation (James & Clarke, 1994). Tannen (1994) proposes that this type of interruption supports the ongoing conversation by way of expressing the interrupter's high involvement and solidarity. Cooperative interruption contains three subcategories: agreement, assistance and clarification (Kennedy & Camden, 1983; Li, 2001).

According to Kennedy and Camden (1983), an agreement interruption enables the interrupter to show concurrence, compliance, understanding, or support. The purpose of an agreement interruption often takes the form of overlapping, showing interest or enthusiasm, and involvement in the ongoing conversation.

In the case of assistance interruption, the interrupter perceives that the speaker needs help. In order to rescue (Hayashi, 1988; Mizutani, 1988; Moerman, 1988; Ng et al., 1995) the current speaker, the interrupter provides a word, a phrase, or a sentence.

Clarification interruption enables the interlocutors to have a common understanding of what has been said, thus establishing a common ground for further communication (Clark & Brennan, 1991; Li, 1999). When the listener is unclear about a piece of information the current speaker has just elicited, the listener interrupts the speaker to request clarification (Kennedy & Camden, 1983).

In the present study, interruptions were first distinguished as successful or unsuccessful (see Method). If an interruption was successful, it was then categorized into cooperative or intrusive. Whether it is intrusive or cooperative, when the listener encounters non-understanding or misunderstanding, he or she must make a decision to interrupt.

H_1: In comparison with untrained dyads, trained dyads will exhibit higher frequencies of intrusive and cooperative interruptions

H_2: Trained dyads will have lower frequencies of unsuccessful interruption than untrained dyads

Since cultural background influences conversational interruption behaviours (Crago & Eriks-Brophy, 1992; Hall, 1976; Hymes, 1974), the following hypothesis is forwarded:

H_3: Chinese participants will exhibit higher frequencies of cooperative interruptions than Anglo-Canadians in both the experimental and control conditions

The rationale for this hypothesis is that Chinese have been identified as collectivistic whereas Anglo-Canadians as individualistic (Hofstede, 1980; Li, 2002; Markus & Kitayama, 1991). Being collectivistic, the Chinese participants would perform more cooperative interruptions than Canadians (Li, 2001). Being individualistic, the Canadians would make more intrusive interruptions than Chinese (Li, 2001).

The nature of the study is a simulated physician-patient interview. In addition to the three research hypotheses, this study examined whether participants playing the physician role would interrupt the participants in the patient role more than vice versa. The rationale for this research question was that past research has found that physicians interrupt patients more frequently (Beckman & Frankel, 1984; Marvel, Epstein, Flowers & Beckman, 1999; West, 1984), although others found the opposite (Arntson,Droge, & Fassl, 1978; Irish & Hall, 1995).

Method

Participants

Ninety-four university students participated in the present study. The participants formed 47 dyads, seven of which were eliminated from data analyses due to incomplete data or lack of fit to the criteria. According to the sampling criteria, all Caucasian participants must be born in Canada and speak English as their first language. All Chinese participants must be born in China and speak Mandarin Chinese as their first language. Chinese participants who have been in Canada for more than 8 years were not eligible.

Both Canadian and Chinese participants must be under 35 years of age and they must not be a psychology major.

Among the remaining 80 participants, 40 were mainland Chinese (20 males and 20 females) and 40 were Caucasian Anglo-Canadians (20 males and 20 females). The mean age for the Chinese group was 24.95 and that for the Canadian group was 23.73 years. These means were not significantly different from each other. Students were recruited in classrooms and university cafeterias, and through postings on the university bulletin boards. To ensure that the Chinese participants had sufficient English-language ability to participate in the conversations, they were required to have achieved a university English proficiency level for reading and listening comprehension as demonstrated by their scores in the Test of English as a Foreign Language (TOEFL). All Chinese participants had TOEFL scores of 570 or above. At the time of the experiment, the Chinese participants had resided in Canada for an average of 4.01 years. Chinese students in the experimental and control groups did not differ in the number of years in Canada.

In their first encounter with the experimenter, participants were informed of the nature of the study (i.e., a simulated medical interview) and that their conversations would be videotaped. Upon their arrival at the laboratory, participants were again informed that their conversations would be videotaped and that they could view their own tape afterwards if they wished to do so. Prior to giving instructions about the study, written consent was obtained from each participant regarding the way(s) in which the videotapes might be used.

Experimental Design and Procedures

A between-subjects design was used. The experimental condition had two intercultural combinations: Canadian physician/Chinese patient and Chinese physician /Canadian patient. The control condition had the same intercultural combinations: Canadian physician/Chinese patient and Chinese physician /Canadian patient. The decision for not including intra-cultural conditions was based on findings from previous studies that intra-cultural dyads did not have as many problems communicating as intercultural dyads since both parties used their native languages and interacted with someone from their own cultural backgrounds (Li, 1999). Therefore, the focus of the present study was intercultural dyadic discourse.

Participants were paired with a partner of the same gender; that is, men were paired with men, and women were paired with women. Allocation of the dyad to the experimental or control group was randomly determined at the time of the pairing. The role of participants was also randomly assigned upon their arrival to the laboratory.

All dyads engaged in the same communication task, which involved simulating a physician-patient interview. The session was divided into two parts: 1) the patient presenting the case history to the physician; and 2) the physician giving the patient instructions on the use of codeine. The case history was borrowed from Li (1999). The *Instructions on Codeine* was taken from the Compendium of Pharmaceuticals and Specialties (1982).

Immediately after the dialogues, the participants filled out a questionnaire which consisted of 13 questions asking about their experience of the interaction. Responses to the questionnaire are reported in the Results section.

The Experimental Condition

Upon arrival at the lab, participants were placed in separate rooms so that they did not communicate among themselves regarding the content or the procedure of the study. After the roles of either a patient or a physician were assigned, the participant playing the role of the patient was given a case history to study. He or she was instructed to take as long as needed and remember as many details as possible. A multiple-choice test (as a manipulation check) was then given to the participant in the patient role to ensure that he/she had mastered the content.

Meanwhile, participants playing the role of the physician received a short training session on grounding strategies. They were given a written list showing five ways to request their patients to explain, or repeat, or reformulate a previously stated piece of information (See Appendix A). After they read the information, the researcher rehearsed the questions with them until they had mastered the material. Once the learning was complete, the researcher queried whether or not they would feel confident and comfortable to ask these questions during the dialogue. If a participant was hesitant, the researcher again reviewed the materials and gave assurance that it was all right to ask their patients questions whenever necessary. The training process lasted 10-15 minutes.

On the same page, was also a list of information that the participants in the physician role should obtain from their patients during their interactions. The list of information was relevant to a general physician-patient interview (e.g., an exact description of the problem, whether or not the patient had previously encountered the problem), and was not specific to the content of the case history.

The dyads were then instructed to engage in the conversation in a "talking manner." To minimize memory error, the patient was allowed to refer to the case history sheet while engaging in the conversation, but was not permitted to read from it word for word. Afterwards, the participant with the role of physician took an open-ended test to measure how much information related to the case history was successfully communicated.

Thus, the first task was completed. Before participants started the second task (physician gives instructions for the use of codeine), the participant playing the role of the physician was given time to study *Instructions for Codeine* while the patient received training on grounding. The procedures were identical to Task 1 except that the patient now received training while the physician studied the instruction sheet. After their conversation, the patient took an open-ended test, which measured how much information about *Instructions for Codeine* was successfully communicated.

The Control Condition

Participants in the control condition followed the same procedures and performed the same tasks as participants in the experimental condition except for no training on grounding.

All conversations were videotaped with the informed consent of the participants. The average time for participants to finish the two conversations was 620 seconds across conditions. The mean times were 662 seconds for the experimental groups and 579

seconds for the control groups. Analysis of variance (ANOVA) did not indicate a statistically significant difference between the means.

Scoring for Interruption

Categories of Interruption

Interruptions were divided into successful and unsuccessful. Both could occur with or without overlapping. Successful interruptions were differentiated into intrusive, cooperative, and other categories. Unsuccessful interruptions were not classified.

Successful Interruptions
An interruption is judged successful if the second speaker cuts off the first speaker before he/she finishes a complete utterance (more than the last word of the utterance), and the second speaker continues to talk until he/she completes the utterance, while the first speaker abruptly stops talking (Beaumont & Cheyne, 1998; Beaumont & Wagner, 2004).

Unsuccessful Interruptions
These were instances when the second speaker begins talking before the first speaker finishes an utterance (Beaumont & Cheyne, 1998; Li et al., 2004; Ng et al., 1995), and the second speaker stops before finishing the intruding speech, while the first speaker continues talking and holding the floor. Examples of successful and unsuccessful interruptions are presented in Appendix B.

Interruptions without Overlapping
This type of interruption is also termed silent interruption (Ferguson, 1977). These are instances when the second speaker starts talking while the first speaker's utterance was not completed. The utterances of the two speakers do not overlap. As pointed out by Bull and Mayer (1988a), this situation poses special difficulties for scorers on deciding whether the first speaker intends to continue talking or use the silence as a turn-yielding signal (Duncan & Fiske, 1977; Duncan, 1972), for "conversations don't always follow rules of standard grammar" (Bull & Mayer, 1988b, p. 37). Following Duncan (1972), the possibility of an interruption was excluded if one or more of the following turn-yielding signals occurred: a rise or fall in pitch at the end of a clause, or a drawl on the final syllable. An interruption was determined when there was no change in the tone of speech in the final syllable.

Complex Interruptions
Sometimes, speakers interrupt each other or one speaker interrupts the other consecutively. These sequences were sometimes coded as one special category (Bull & Mayer, 1988b; Roger, Bull & Smith, 1988), and other times coded as a series of independent events (Ferguson, 1977; Kennedy & Camden, 1983). The present study followed the latter since complex interruptions only occurred four times and an independent category would not allow for meaningful statistical analysis.

Cooperative and Intrusive Interruptions
As stated previously, successful interruptions were categorized as cooperative, intrusive or other. Cooperative interruption is made up of three subcategories, agreement, assistance, and clarification. Intrusive interruption consists of disagreement, topic change, floor-taking, and tangentialization. Each subcategory was coded according to the definition by Kennedy and Camden (1983), Li (2001), and Murata (1994).

Inter-Rater Reliability

All video-taped conversations were transcribed verbatim. Two scorers independently coded the data for frequencies of successful and unsuccessful interruptions using the coding scheme presented above. In scoring the data, scorers were required to write down all identifiable details of interruptions including the provider and the words or sentences prior to the interruption, the interruption proper, and the words or sentences immediately after the interruption. The inter-scorer reliability (Pearson Correlation) was .89 for intrusive interruptions, .86 for cooperative interruptions and .90 for unsuccessful interruptions. Differences between the two scorers were settled by reviewing the definitions. Take the following exchange as an example:

> Patient: Sure, um/if you, /if you/ overdose, / you can have serious consequence.
> Physician: /if I overdose/,

Initially one scorer coded this instance as successful interruption, the other unsuccessful interruption. The argument for an unsuccessful interruption was that the patient did not relent the floor and continued until she finished her utterance. After reviewing the definitions for both successful and unsuccessful definitions, the two scorers agreed that it was an unsuccessful interruption. The physician cut off the patient before she finished a complete utterance and the physician did not finish the utterance.

Results

Treatment of the Data

To avoid the effect of task variation (one is the presentation of a case history and the other is giving instructions for codeine), the unit of analysis consisted of the two dialogues combined. That is, scores for intrusive, cooperative and unsuccessful interruptions are sums of the two dialogues.

The frequencies of cooperative, intrusive, and unsuccessful interruptions were summed for speakers and listeners. The frequencies from three subcategories, agreement, assistance, and clarification were summed to make the score for cooperative interruption. The frequencies of disagreement, topic change, floor-taking, and tangentialization were added to make the score for intrusive interruption.

Due to the differences in speaking time by each individual, frequencies of interruptions do not make meaningful comparisons. Following standard practice in the field (Bull & Mayer, 1988a; Li, 2001), all frequencies were converted into rates, which are derivations

of frequencies divided by partner speaking time. Due to the small numerators and large denominators, the rates were very small. Following Beaumont and Cheyne (1998), the rates were multiplied by the grand mean of speaking time. For example, if a speaker's frequency of cooperative interruption was 5, the rate for cooperative interruption would be 5.72 (5/542*620.50). In this formula, 5 was the speaker's frequency for cooperative interruption, 542 was the partner's or listener's speaking time, and 620.50 (a constant) was the grand mean of speaking time for both speakers and listeners.

Hypothesis 1: Comparing Scores on Intrusive and Cooperative Interruptions

Mean rates of intrusive, cooperative, and unsuccessful interruptions were calculated across the four groups, and are presented in Table 1. As can be seen in Table 1, the two experimental groups displayed higher scores in intrusive and cooperative interruptions. These differences are illustrated in Figure 1.
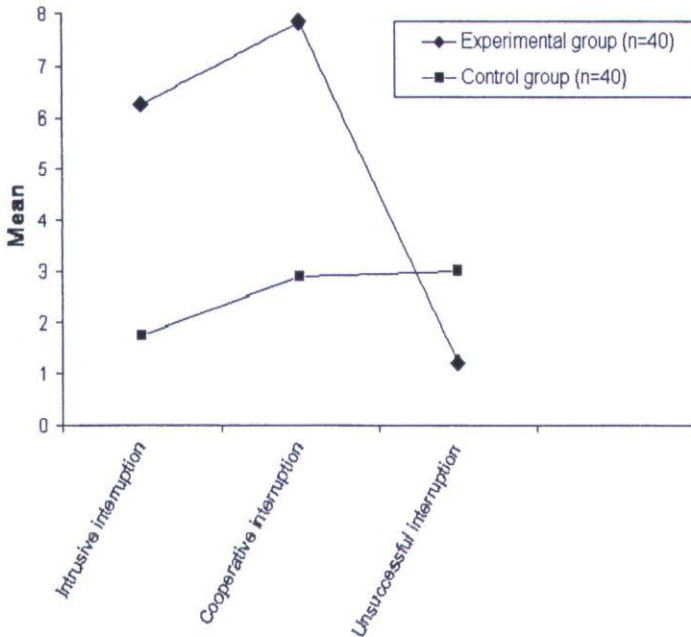

Figure 1: Interruption Patterns by Condition

Hypothesis 1 stated that in comparison with the untrained dyads, trained dyads would have higher frequencies of intrusive and cooperative interruptions. ANOVA indicated that the two experimental groups had significantly higher intrusive interruption scores ($M = 6.25, SD = 4.51$) than the two control groups ($M = 1.75, SD = .94$), $F (1, 77) = 40.15, p < .0001, \eta^2 = .34$.

ANOVA also indicated that the two experimental groups had significantly higher cooperative interruption scores (M = 7.85, SD = 5.56) than the two control groups (M = 2.90, SD = 1.17), F (1, 77) = 30.58, p < .0001, η^2 = .28. Thus, Hypothesis 1 is supported.

Table 1 Mean Rates of Successful and Unsuccessful Interruptions by Group

Condition Role		Intrusive		Cooperative		Unsuccessful	
Physician/Patient	$\underline{N}$	M	SD	M	SD	M	SD
Exp. Chinese/Canadian	20	6.50	5.98	8.20	6.33	1.70	1.21
Exp. Canadian/Chinese	20	6.00	2.42	7.50	4.82	.70	.65
Control Canadian/Chinese	20	1.80	1.00	3.05	1.14	2.00	1.65
Control Chinese/Canadian	20	1.70	.92	2.75	1.20	4.00	1.65

Note 1. All dyads were same-gender; males and females were evenly distributed in all conditions.

Hypothesis 2: Comparing Unsuccessful Interruption Scores

Hypothesis 2 stated that in comparison with the untrained dyads, trained dyads would have lower frequencies of unsuccessful interruption. ANOVA indicated that the two experimental groups had significantly lower unsuccessful interruption scores (M = 1.20, SD = 1.09) than the two control groups (M = 3.00, SD = 1.92), F (1, 77) = 26.20, p < .0001, η^2 = .25. Thus Hypothesis 2 is supported.

Hypothesis 3: Examining Cultural Differences

Hypothesis 3 stated that the Chinese participants would exhibit cooperative interruptions more frequently than would Anglo-Canadians in both the trained and untrained groups. In the experimental group, Canadians had higher scores on intrusive interruption (M = 7.60, SD = 4.90) than Chinese (M = 4.90, SD = 3.74), but the difference did not reach a statistically significant level (p > .05, η^2 = .09). In the cooperative interruption category, Canadians had lower scores (M = 7.15, SD = 5.68) than Chinese (M = 8.55, SD = 5.50), but again the difference did not reach a statistically significant level (p > .05, η^2 = .02). In the unsuccessful interruption category, Canadians (M = 1.20, SD = 1.10) and Chinese (M = 1.20, SD = 1.11) had similar scores (p > .05, η^2 = .00).

In the control condition, Canadians had significantly higher scores on intrusive interruption (M = 2.05, SD = .94) than Chinese (M = 1.45, SD = .88), F (1, 38) = 4.29, p < .05, η^2 = .10. In the cooperative interruption category, Canadians had significantly lower scores (M = 2.40, SD = 1.04) than Chinese (M = 3.40, SD = 1.09), F (1, 38) = 8.71, p < .01, η^2 = .19. In the unsuccessful interruption category, Canadians (M = 3.00, SD =

1.94) and Chinese ($M = 3.00$, $SD = 1.95$) had similar scores ($p > .05$, $\eta^2 = .00$). Thus, Hypothesis 3 is partially supported.

Research Question: Examining Role Differences

The Research Question asked whether in both the trained and untrained groups, participants playing the physician role would interrupt participants in the patient role more frequently (higher frequencies of intrusive and cooperative interruptions) than vice versa. In the experimental group, participants playing the role of physicians and patients had similar mean scores on intrusive interruptions ($M = 6.20$, $SD = 3.83$ vs. $M = 6.30$, $SD = 5.21$, $p > .05$, $\eta^2 = .00$). In the cooperative interruption category, participants playing the role of physicians and patients had similar mean scores ($M = 7.85$, $SD = 4.74$ vs. $M = 7.85$, $SD = 6.41$, $p > .05$, $\eta^2 = .00$). In the unsuccessful interruption category, participants playing the role of physicians and patients had similar mean scores ($M = 1.20$, $SD = 1.10$ vs. $M = 1.20$, $SD = 1.11$, $p > .05$, $\eta^2 = .00$).

In the control group, participants playing the role of physicians and patients had similar mean scores on intrusive interruptions ($M = 1.75$, $SD = .85$ vs. $M = 1.75$, $SD = 1.06$, $p > .05$, $\eta^2 = .00$). In the cooperative interruption category, participants playing the role of physicians and patients had similar mean scores ($M = 2.85$, $SD = 1.18$ vs. $M = 2.95$, $SD = 1.19$, $p > .05$, $\eta^2 = .00$). In the unsuccessful interruption category, participants playing the role of physicians and patients had similar mean scores ($M = 3.00$, $SD = 1.94$ vs. $M = 3.00$, $SD = 1.95$, $p > .05$, $\eta^2 = .00$).

Questionnaire Data

Means scores of the responses by cultural group (Canadians vs. Chinese) to the 7 questions using a Likert scale are presented in Table 2. As English is the first language of the Canadian participants, their English language fluency was not rated. The first question in the questionnaire asked the Chinese participants to rate their own English language fluency and the Canadians to rate the English language fluency of their Chinese partners. As indicated in Table 2, there was a statistically significant difference between the mean ratings by the Chinese and Canadians in terms of the English fluency of the Chinese. Canadians rated the English fluency of their Chinese partners higher than the self-ratings of the Chinese. However, both self-ratings and other-ratings were in the range of 'fluent' to 'very fluent'.

As might be expected, the Chinese were rated more knowledgeable about the Canadian culture than the Canadians about the Chinese culture, $F(1, 78) = 12.11$, $p = .001$. Both Chinese and Canadians thought that their partners were reasonably relaxed during the conversations but the Chinese were perceived as less relaxed than the Canadians. Both the Chinese and Canadians had high ratings regarding their enjoyment in the interaction.

Table 2 *Mean Scores of Interaction Experience by Culture*

Questions	Likert scale	Chinese (*n* = 40)		Canadians (*n* = 40)		
		M	SD	M	SD	*p*
How is your (your partner's) English language fluency?	*Not fluent = 1* *Average = 4* *Very fluent = 7*	4.20	1.31	5.45	1.06	.000
How knowledgeable is your partner about your culture?	*Not at all = 1* *Average = 4* *Very much = 7*	4.13	1.60	5.28	1.34	.001
Did you have difficulties communicating?	*Not at all = 1* *Average = 4* *Very difficult = 7*	2.33	1.39	2.26	1.25	.832
Did your partner have difficulty communicating?	*Not at all = 1* *Average = 4* *Very difficult = 7*	1.81	0.91	2.85	1.24	.000
How relaxed was your partner during the conversation?	*Not relaxed = 1* *Average = 4* *Very relaxed = 7*	5.83	1.47	4.70	1.33	.001
How did you like your partner?	*Not at all = 1* *Average = 4* *Very much = 7*	5.89	1.10	6.18	0.84	.192
Overall, how much did you enjoy the conversation?	*Not at all = 1* *Average = 4* *Very much = 7*	5.83	1.36	5.56	1.14	.352

Of the 13 questions in the questionnaire, 5 had nominal scales. The percentages of respondents in each category are reported below. About half (47.5%) of the Canadians said that their Chinese partners had some language difficulties while 57.5% of the Chinese thought so. An equal number of Canadians (22.5%) and Chinese (22.5%) thought that both language and cultural difficulties existed when they conversed. When asked what they did to overcome the difficulties, the most frequently used methods by the Canadians and Chinese were: "slowed down" (22.5% vs.17.5%), "repeated the word or sentence" (20.0% vs. 30.0%), "asked questions for my partner to explain" (22.5% vs.17.5%), and 'paraphrased" (17.5% vs. 10.0%). About one-third of the Canadians (35.0%) and the Chinese (30.0%) thought that the Canadians controlled the flow of the conversation, although 27.5% of the Canadians and 40.0% of the Chinese thought that they had equal control of the conversation. The remainder reported that the conversation flowed easily without anyone in control. When asked about their perceived social status, 67.5% of the Canadians and 62.5% of the Chinese reported that they had equal social status. However, 30% of the Chinese thought that their Canadian partners had higher social status than themselves, while 27.5% of the Canadians agreed that they had higher

social status than their Chinese partners. The majority of the Chinese (75.0%) reported that the Canadians were linguistically more advantaged than themselves, compared to 52.5% of the Canadians.

Discussion

Training and Interruption Frequency

In comparison with dyads in the untrained groups, dyads in the trained groups engaged in significantly more intrusive and cooperative interruptions, documenting the impact of training on intercultural face-to-face communication. Intrusive and cooperative interruptions have different functions. The former is to show disagreement, or to take over the floor, or to change the topic, or to provide a brief summary. Cooperative interruption is to assist the current speaker with a phrase or a word, or to show agreement, or to have a previously presented piece of information clarified. An increase in both intrusive and cooperative interruptions in the trained groups indicates that the trained dyads had more interaction than did the untrained dyads. Prior research has shown that low levels of involvement (Cegala, 1984; Chen, 1995; Lebra, 1987; Scollon & Scollon, 1995) and misleading feedback (Gass & Varonis, 1991; Gumperz, 1978; Sarangi, 1994, Young, 1994) are barriers to effective intercultural communication. Our findings indicate that a short training session may be able to address these problems especially in the context of Chinese-Anglo Canadian conversations. According to Young (1994), two characteristics of Chinese talk are major barriers to effective intercultural communication: politeness and ambivalence. Being polite, a Chinese may be reluctant to interrupt a conversation partner. Being ambivalent, a Chinese may not be understood by a Canadian who usually draws on a low-context or explicit communication style (Hall, 1976). Scollon and Scollon (1995) points out another barrier: saving face. To a Chinese, to save face is to have "honor" (p.34). To maintain "face relationships" (Scollon & Scollon, 1995; p. 42) is more important than to convey the content (Li, 1999). What is more, the concept of face saving is not only an Eastern notion, it is a Western notion as well (Goffman, 1967). To save face for each other, intercultural interlocutors may be hesitant to interrupt when they experience difficulties. The training on question asking may have conveyed these messages to intercultural interactants: it is not impolite, not losing face to interrupt if the message is ambivalent!

Culture and Interruption Style

The finding that Chinese participants engaged in more cooperative interruptions than Canadians and Canadians engaged in more intrusive interruptions provides support for previous research (Li, 2001; Murata, 1994). This finding is consistent with the assumptions of major theories in cross-cultural psychology, Individualism-Collectivism (I-C) (Hofstede, 1980; Triandis, 1995) and Independent-Interdependent self-construal (Markus & Kitayama, 1991). According to these theories, Canadians are individualists and are interested in expressing themselves. Therefore in the conversation process, they would be more likely to take over the floor, or show disagreement, or change the topic.

On the other hand, Chinese are categorized as collectivists (Bond & Cheung, 1983; Li, 2002, 2004). Consistent with their collectivistic tendency, the Chinese would be more likely to engage in cooperative interruptions. In performing cooperative interruptions, the listener intends to assist, and/or to agree with the current speaker, and/or to have the current speaker clarify or explain a previously elicited piece of information. Cooperative interruptions function to coordinate on the process and/or content of the ongoing conversation. By interrupting cooperatively, interlocutors showed solidarity (Tannen, 1989), connectedness or *GuanXi* (Li, 2002, 2004) and interdependence (Markus and Kitayama, 1991).

Cooperative interruption patterns were observed by Moerman (1988) in Thai conversations and Hayashi (1988) in Japanese conversations. Mizutani (1988) reported that cooperative interruption is called *kyowa* in Japanese, which literally means "co-produce" or "co-operate." The Japanese see a conversation as a duet, the success of which requires perfect coordination between the speaker and the listener.

Unsuccessful Interruptions

It was found that the untrained dyads had significantly higher frequencies of unsuccessful interruptions than the trained dyads, indicating that the trained dyads engaged in more coordinated conversations than the untrained dyads. With no training, as observed by previous researchers (Gumperz, 1978; Tannen, 1981, 1994), intercultural interlocutors have difficulty managing synchronized interactions. The numerous unsuccessful interruptions displayed by the untrained dyads undoubtedly indicate a lack of congruity to the extent that they frequently fail to insert an interruption.

This finding sheds light on the phenomenon of mis-communication and non-communication in intercultural interactions (Erickson, 1975; Gumperz, 1978; Scollon & Scollon, 1995, Young, 1994). Li (1999) observed that intercultural dyads who asked each other more questions also achieved higher listener recall scores. It is therefore argued that successful interruptions enhance effective communication. Contrary to previous belief that all interruptions are disruptive, Li (1999) reasoned that some types of interruptions, when performed successfully, may facilitate content transmission.

Questionnaire Data

One interesting finding in the questionnaire data was that the Canadians rated the Chinese as less relaxed than Chinese rated the Canadians, indicating that the second-language speakers have higher anxiety levels than native speakers. This finding lends support for previous research (Gao & Gudykunst, 1990; Li, Zhu & Li, 2001), and has implications for intercultural communication training. While asking clarifying questions in a cooperative manner, the second-language speakers not only learn the skill of asking questions but also gain the awareness that it is legitimate to ask questions and interrupt when interacting with Anglo-Canadians. The combination of skill and awareness enables them to gain confidence in the intercultural communication process, thus improving effectiveness.

Conclusion

To conclude, this study has at least two implications for researchers as well as practitioners in the field of intercultural communication. First, it documents that a short training session on question-asking can yield higher frequencies of successful interruptions. If interruption is a type of conversation involvement, then a training session can increase participants' involvement in the conversation process. The design of the training material was kept simple, short, and easy to remember. Its content is general instead of specific, so that it is adaptable for second-language speakers in a range of situations. If second-language speakers can be trained to ask more questions when they have difficulty understanding, they will be able to communicate more effectively. Second, the finding that the Chinese participants engaged in more cooperative interruptions and fewer intrusive interruptions than the Canadian participants provides support for the theory of Individualism-Collectivism. At a time when I-C is seriously questioned for its validity (Bond, 2002; Matsumoto, 2004; Oysermann, Coon & Kemmelmeier, 2002), our finding indicates that I-C still has vigor.

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Appendix A

The following Instruction sheet is for participants in the training group only.

In today's visit, we would like you to ask questions of your doctor whenever you feel that your doctor speaks too fast, or uses words that you don't understand. If you don't let your doctor know that you do not understand something that he or she is trying to tell you, your doctor may assume that you do understand. Your questions will help your doctor to clarify or explain him or herself better. Your questions will also help you understand your doctor better. These are common questions which we use a great deal in our daily conversations. However, when we talk to our doctor who is usually on a tight schedule, we often forget to ask these questions. Now I would like you to take a few minutes to go through these questions.

1. Could you slow down please? I can't follow you.
2. I beg your pardon, could you repeat that please?
3. Could you explain this in other words please?
4. I am afraid I still don't get it. Could you say it again please?
5. Could you summarize what you have said please? I forgot some details.

Those are some examples; you may ask other questions or phrase your questions in a way that is different from the above. Thank you.

Appendix B

Examples of Successful and Unsuccessful Interruptions

<u>Cooperative Interruptions</u>

1. Agreement

Example 1:
Physician: side effects include, um, visual impairment, higher blood, higher
               He/art rate,   a::::nd /   /agitation / so agita/tion.
Patient   /ya, heart rate   / agitation... / agitation/.

Example 2:
Physician: like m-i-l-d, lik/e mild pain...
Patient: /Ya, mild and moderate pain.

2. Assistance

Example 1:
Physician: ...affecting you like in four or five days, I would say give my office a call
and I will see you again. But, other than that, I would say just don't go to
the swimming pool and see if it, if it /...
Patient: / dispels
Physician: /Yah, di/spels, exactly.

Example 2:
Patient: It's consistent, it's, it's ... / I always feel it / .... / yah... /
Physician: / it's constant, mhm /.... / so it /
doesn't matter whether you talk or you will just feel that pain mmm, I see.

3. Clarification

Example 1:
Patient: So just the kind of /pain killer...

Physician: / A moderate pain killer, um ...

Example 2:
Physician: ...Yah... but, but you can breath pre/tty good
Patient: / I can breath and ah deeply
breath. Just a few little, ah, ...can be very painful, sometimes...

Intrusive Interruptions

1.Disagreement

Example 1:
Physician: You have asth/ma and you/...
Patient: /No, arthritis/.

Example 2:
Physician: I see, so basically, it's all, um, because this chest pain so actually severe enough actually interrupts your daily activities you can't really eat well and you can't really / sleep well / last night
Patient: / ya ...   / well, ya, just last night the chest pain did start yesterday / so, but the arthritis is, I've had for a long time.

2. Floor-taking

Example 1:
Physician: U::m, just /to make sure... /
Patient: / I have a questi/on. When should I take the medication?

Example 2:
Patient: ...So sta/rting ....   / I...
Physician: / so then it, its / just sounds like it might be from swimming, and its kind of like the whole chest, I don't know it, it really hurts?

3. Topic-change

Example 1:
Patient: I don't know if we have any you know about the link /or reason about
Physician: / how many, how many days a week are you swimming?

Example 2:
Physician: I just / assumed you/...
Patient: / But actually, I /have a friend, um, his daughter, ah, she died because of chest pains she had after swimming and, um, her, they, the doctors didn't find out what was the cause of her death, it was unknown.

4. Tangentialization

Example 1:
Patient: Oh, ok, / six times and I/...
Physician: / the pharmacist/ will give you more, like, all of this information when you get the prescription, so (pause) do you have other concerns?

Example 2:
Physician: Ya, tell your, tell your boss that you're experiencing these / chest pains and...
Patient   /Ok, I can work that out

Unsuccessful Interruptions

Example 1:
Patient: I really didn't have time to worry about it, I just had, had to work, but now I, I think it's the same, it seems to be th/e same to me now /but it
Physician: / I see, but you...
Patient: was a couple of years ago.

Example 2:
Patient: Well, it was only, only for a very short while / and I just took /some
Physician: / very short, you...
Patient: codeine and it was fine.