

The Impact of Cultural Difference on Online Text-based Negotiation Behaviour: Integrating Qualitative and Quantitative Research Methods

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ABSTRACT: *Ever since the booming of global e-business and its severe competition, cross-cultural e-negotiation has been getting popular. To understand how national culture may affect negotiation behaviour becomes critical for doing business. This research is to explore how negotiators' own and their counterparts' cultural backgrounds impact their negotiation behaviour. We applied content analysis to 80 pairs of online negotiation transcripts and then conducted chi-square test to compare the differences in negotiation behaviour between Eastern and Western and their counterparts. Hopefully, the integration of qualitative and quantitative research methods could provide more thorough observations on negotiation behaviour.*

There are two stages in this research. First, for overall negotiation behaviour, we proposed hypotheses based on literatures and then conducted chi-square test. Second, for differences in single category of negotiation behaviour, we proposed propositions based on the chi-square analysis results. We found that the negotiation behaviour of Eastern and Western is impacted not only by their own cultural backgrounds but also by their counterparts' cultural backgrounds. Overall, compared with Eastern negotiators, Western has more consistent negotiation behaviour no matter if there is cultural difference between dyadic negotiators. For single category of negotiation behaviour, Eastern and Western negotiators in intra- and cross-cultural present different negotiation behaviour. We infer that these results could come from synergistic effect of cultural differences, media richness and language familiarity. It deserves further study in the future.

KEYWORDS: *Online Negotiation, Cultural Difference, Negotiation Behaviour, Content Analysis, Media Richness.*

1. Introduction

1.1 Background and motives

With globalization and rapid development of the Internet, world e-commerce boomed, making transnational negotiations common. In the tough competition, to save time, online negotiations are taking over traditional face-to-face negotiations. The first impact on online transnational negotiations is cultural difference and media changes. A lot of studies have proven cultural difference did affect negotiation process and results and may lead to differences in negotiators' strategies and behaviour (Kharbanda and Stallworthy, 1991; Graham, Mintu and Rodgers, 1994; Chan, 1998; Leung, 1998; Graham and Mintu-Wimsat, 1997; Ulijn, Lincke and Karakaya, 2001; Brett and Okumura, 1998). Negotiations are the dynamic process of two parties in continually intertwined communication and offers. Negotiation behaviour is affected two sides of negotiators. Cultural backgrounds of two sides of negotiators have to be included in study to understand impact of culture on online negotiations.

Different communication media lead to different social presence (Short, Williams and Christie, 1976) and richness of message exchange (Burgoon and Hale, 1987; Thompson and Nadler, 2002). Earlier studies on negotiations found communication media affected negotiation behaviour and performance (Purdy, Nye and Balarishnan, 2000; Pesendorfer and Koeszegi, 2006). As online negotiations get more popular, it is necessary to review impact of cultural difference on online negotiations. There are no such studies available in this field.

1.2 Research purpose

The purpose of this research is to understand the impact of negotiators' culture on online negotiation behaviour. To begin, this research explores impact of negotiators' own culture on online negotiation behaviour. Secondly, this research discusses whether intra- or cross-cultural negotiators develop different negotiation behaviour. Finally, whether behaviour differences of negotiators under intra- or cross-culture are affected by their own culture is explored.

Culture covers a lot of complicated factors. Measurement with questionnaire fails to completely reflect the actual negotiation behaviour. If a researcher can collect and analyze all behaviour data obtained during and after the negotiation process, we will obtain a better understanding of negotiation behaviour in regards to cultural issues. Fortunately, online negotiations can record all exchanged messages and offers. Therefore, this research applied content analysis method to actual negotiations transcripts. The resulted data serve as the source of analysis. This will better and more precisely understand negotiation behaviour differences under different culture. Due to the insufficient studies of cultural

impact on online negotiation behaviour and the complicated nature of cultural impact, it is difficult to propose hypothesis for each behaviour category. Finally, the research is divided into two stages: (1) for overall negotiation behaviour, we proposed hypotheses first and then did chi-square test on them; (2) based on the results from the first stage, differences of negotiation behaviour categories are arranged to propose more precise study propositions as reference for future research.

2. Literature discussions

The paper addresses two major issues of culture and media as well as relevant literature. Literature on negotiation behaviour is also explored.

2.1 Culture and negotiations

2.1.1 Definition of culture

Culture refers to the common values and norms of members in a social group with unique characteristics. Culture values mean group members understand what is and is not important. Culture norm defines what is appropriate and what is not. The two offer the value of life in the social system, guiding social interaction. Cultural impact can be studied in various viewpoints. The most common one is the six cultural aspects by Hall (1976) and Hofstede (1983), including context, time orientation, individualism-collectivism, masculinity-femininity, uncertainty avoidance and power distance. Context was most frequently used to explain the differences between Eastern and Western culture. Hall (1989) defined it as: information that surrounds an event. That is, context is the situation, background and environment surround an event or an individual. In high-context culture, relation among people is close and social class system exists. They tend to express profound connotation by simple messages. In low-context culture, individuals are independent. Interpersonal relation is somewhat estranged. Social class constraint is less. Communication among people is clearer and not involved in privacy.

2.1.2 Impact of negotiators' own culture on negotiation behaviour

Negotiations can be deemed as a process of social interaction and are affected greatly by culture. Culture is the foundation of two sides who understand the other's culture from interaction to give appropriate response (Graham, Mintu and Rodgers, 1994; Leung, 1998). A lot of scholars have used the preceding cultural dimensions to review negotiation behaviour in Eastern and Western culture (Cohen, 1997; Leung, 1998; Markus and Lin, 1998). Findings of earlier studies are summarized in Table 1. Negotiation behaviour in Eastern culture tend to be high-context, high power distance, collectivism and polychronic time orientation. The verified representative countries include Taiwan, China and Japan.

Negotiation behaviour in Western culture tend to be low-context, low power distance, individualism and monochronic time orientation. The verified representative countries include the U.S., Germany, Western Europe, and Austria.

Table 1 The Characteristic of Negotiation Behaviour of Different Cultures

Dimensions	Behaviour	Representative Culture and Examined Country	Reference
Context	High-context <ul style="list-style-type: none"> • Direct behaviour • High social oriented • Lack facility in dealing with new situation 	Eastern culture Japan, China, Korea and Vietnam	Chua and Gudykunst (1987) Kim, Pan and Park (1998)
	Low-context <ul style="list-style-type: none"> • Indirect behaviour • Low social oriented • Quite creative about new situation 	Western culture American, Germany, Switzerland and Scandinavia	
Power Distance	High power distance <ul style="list-style-type: none"> • Avoid conflict • Problem solving 	Most are Eastern culture Philippines, Venezuela, India, France and Belgium	Bond et al. (1985); Gudykunst and Ting-Toomey (1988); James (1993)
	Low power distance	Western culture Denmark, Israel and Austria	
Individualism-Collectivism	Individualism <ul style="list-style-type: none"> • Competitive 	Western culture America, United Kingdom and Netherlands	Markus and Lin (1998)
	Collectivism <ul style="list-style-type: none"> • Cooperative • Avoid conflict 	Most are Eastern culture Colombia, Pakistan, Taiwan, Japan and China	Starr and Yngvesson (1975); Leung (1998); Markus and Lin (1998)

Table 1 The Characteristic of Negotiation Behaviour of Different Cultures (Continue)

Dimen-sions	Behaviour	Representative Culture and Examined Country	Reference
Time-Orientation	Monochronic conceptions of time • Process issues sequentially • Negotiating in a highly organized fashion	Western culture North America and Western Europe	Foster (1992)
	Polychronic conceptions of time • Process issues simultaneously • Frequently interruptive	Most are Eastern culture Asia, Africa, South America and Middle East	

Source: Summarized by this study

2.1.3 Impact of counterpart's culture on negotiation behaviour

Culture, or social characteristics representing specific value and norm (Lytle et al., 1995), is the scheme for the cultural group to interpret the status and others' behaviour models. Negotiation schemas are the cognitive structure of negotiators on negotiation information and expected results. They are the foundation of negotiations (Thompson, 1997). In cross-cultural negotiations, negotiators may have different cognition, interpretation and negotiation behaviour due to different negotiation schemas. Compared with intra-cultural negotiations, cross-cultural negotiations have more challenges. A lot of scholars have proved that a great number of problems resulted from cross-cultural negotiations (Pye, 1982; Deutsch, 1984; Graham and Sanyo, 1984; Tung, 1984; Zimmerman, 1985; Hall and Hall, 1987). In cross-cultural negotiations, it is likely to have more different ideas, feelings and behaviour (Casse, 1981), making negotiation process more complicated, hindering effective communication (Chen, 1995). There are two kinds of problems in cross-cultural negotiations. The first one is cognition difference of the same behaviour in different culture (Gudykunst, 1983). Appropriate behaviour may be considered inappropriate in another. The second is differences in communication manners. What is said has to be understood. The more important thing is why it is said (Adler and Graham, 1989). Other than basic negotiation skills, understanding cultural difference is important in cross-cultural negotiations.

2.2 Communication media and negotiations

Difference in communication media has been considered a major factor affecting negotiation process and results (Bazerman et al., 2000). The social presence theory and media richness theory (MRT) were the main theoretic foundation in earlier studies. The two theories held that different media changed mental feelings, behaviour and

interpersonal relation of users. In traditional face-to-face negotiations, impressions were from genders and races. In the new environment of online media, information clues can be given selectively, hence free from traditional impressions. It helps build initial relation and equality in interaction (Kiesler, Siegel and McGuire, 1984; Thompson and Nadler, 2002; Bordia, 1997). Online environment lacks of non-verbal clues, which increases social distance and makes users tend to more task-oriented than social-oriented communication. Competitions and tough attitudes are more likely presented in negotiation strategies (Thompson and Nadler, 2002; Purdy, Nye and Balakrishnan, 2000; Walther, 1996; Burgoon and Hale, 1987; Giordano et al., 2007). A lot of earlier studies showed different media influenced decision-making quality, communication satisfaction, task effectiveness and efficiency but not in entirely positive relation with media richness (Kinney and Dennis, 1994; Yuan, Heand and Du, 2003, Purdy, nye and Balakrishnan, 2000; Bordia, 1997).

2.3 Negotiation behaviour categories

Schema of negotiation behaviour categories is the most important foundation in content analysis. From studies on negotiations in past years, there are three major schemas in negotiation behaviour: BPA (Behaviour Process Analysis)(Walcott and Hopmann, 1978), NPA (Negotiation Process Analysis) (Hopmann, 2002) and the one, proposed by Srnka and Köeszegi (2007), adapting BPAII to online negotiation application context. The nine categories of negotiation behaviour proposed by Srnka and Köeszegi (2007) were modified from Walcott's BPA II, as they covered complete behaviour categories with comprehensive theoretic foundation (Putnam and Jones, 1982). However, BPAII was not developed on online negotiation context. Srnka and Köeszegi added three categories in order to adapt to online negotiation context. The nine categories are substantive behaviour, task behaviour, persuasive behaviour, tactical behaviour, procedural behaviour, salutation behaviour, affective behaviour, private communication behaviour and text-specific units. See appendix I for explanations.

3. Research Framework

The paper explores the impact of cultural backgrounds of two sides of negotiators and the cultural differences on negotiation behaviour. The major research framework is as Figure 1. For negotiation behaviour, content analysis method is used to analyze actual negotiation record as data source based on the nine major behaviour categories proposed by Srnka and Köeszegi (2007). Due to complicated nature of cultural impact and lack of studies on impact of culture on negotiation behaviour categories, this research is divided into two stages: (1) hypotheses about the impact of culture on negotiators' overall negotiation behaviour are proposed and tested; (2) with explorative study method on

statistics in the first stage, more specific propositions are given based on the differences in negotiation behaviour categories, which can serve as the foundation for future empirical research.

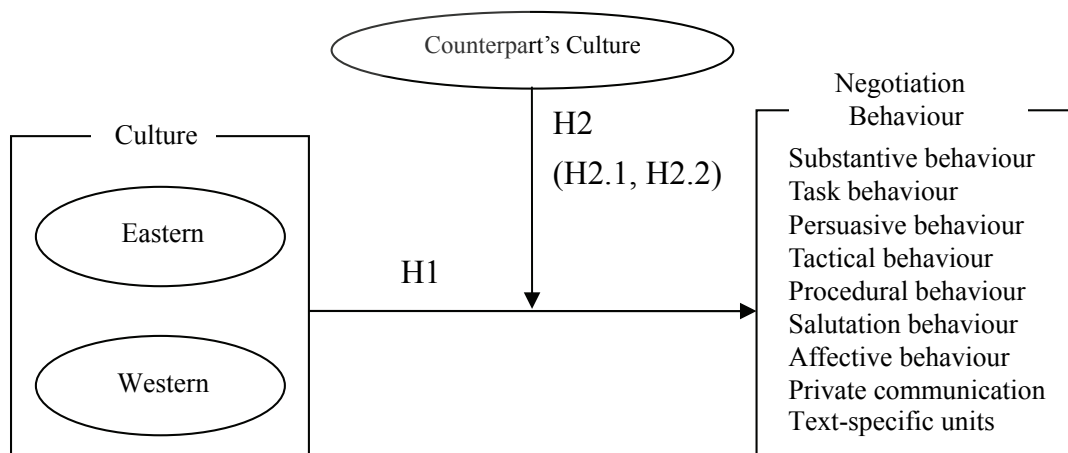


Figure 1 Research Framework

3.1 Impact of negotiators' own culture on negotiation behaviour

Earlier studies showed cultural difference did cause different strategies and behaviour of negotiators (Graham, Mintu and Rodgers, 1994; Leung, 1998). Simintiras and Thomas (1998) also believed negotiation behaviour corresponded to culture. Table 1 also explains different culture resulting in different negotiation behaviour. Therefore, H1 is proposed as follows:

H1: In online negotiation, Eastern and Western negotiators will be different in negotiation behaviour.

3.2 Impact of interrelation between negotiators and counterpart's culture on negotiation behaviour

Negotiations are the process in which negotiators have continuous interaction, including message exchange and proposal of offers. The counterpart's behaviour is the major consideration for negotiators to decide the next step; that is, in addition to impact of their culture, negotiators' behaviour is also affected by culture of the counterpart. Therefore, we proposed H2: negotiators' behaviour is affected by counterpart's culture. Based on studies from the viewpoint of individualism-collectivism culture based on earlier studies (Triandis, 1988; Redding, 1990; Tsui and Farh, 1997), collectivism culture negotiators are more likely to have different values and different behaviour

under differences in counterpart's culture. From Table 1, Eastern negotiators are mostly in collectivism culture while Western negotiators are often in individualism culture. Therefore, H2, H2.1 and H2.2 are proposed as follows:

H2 : Negotiators' behaviour will be influenced by their counterparts' behaviour.

H2.1: Eastern negotiators' behaviour in cross-cultural negotiations will be different from those in intra-cultural negotiations.

H2.2: Western negotiators' behaviour will be consistent in both cross-cultural and intra-cultural negotiations.

4. Research design

4.1 Data collection

As mentioned above, this research applied content analysis to actual online negotiation records which were sorted from 3054 online negotiation records collected by Inspire system (Figure 2) from 1997 to 2004. A 2 * 2 sample composition is designed, based on negotiators' own cultural backgrounds (Eastern culture vs. Western culture) and counterpart's cultural backgrounds (Intra-culture vs. cross-culture) (Table 2). A total of 80 pairs (160) negotiators' negotiation records were under study. In general, both Eastern and Western culture cover a lot of countries with great cultural difference. However, due to limited data, this research only focuses on more representative Western countries (Austria, Germany, the U.S., and Canada) and Eastern countries (Taiwan and Hong Kong). Table 3 shows nationalities and roles of negotiators; Table 4 lists descriptive statistics of negotiators subjects in each group.

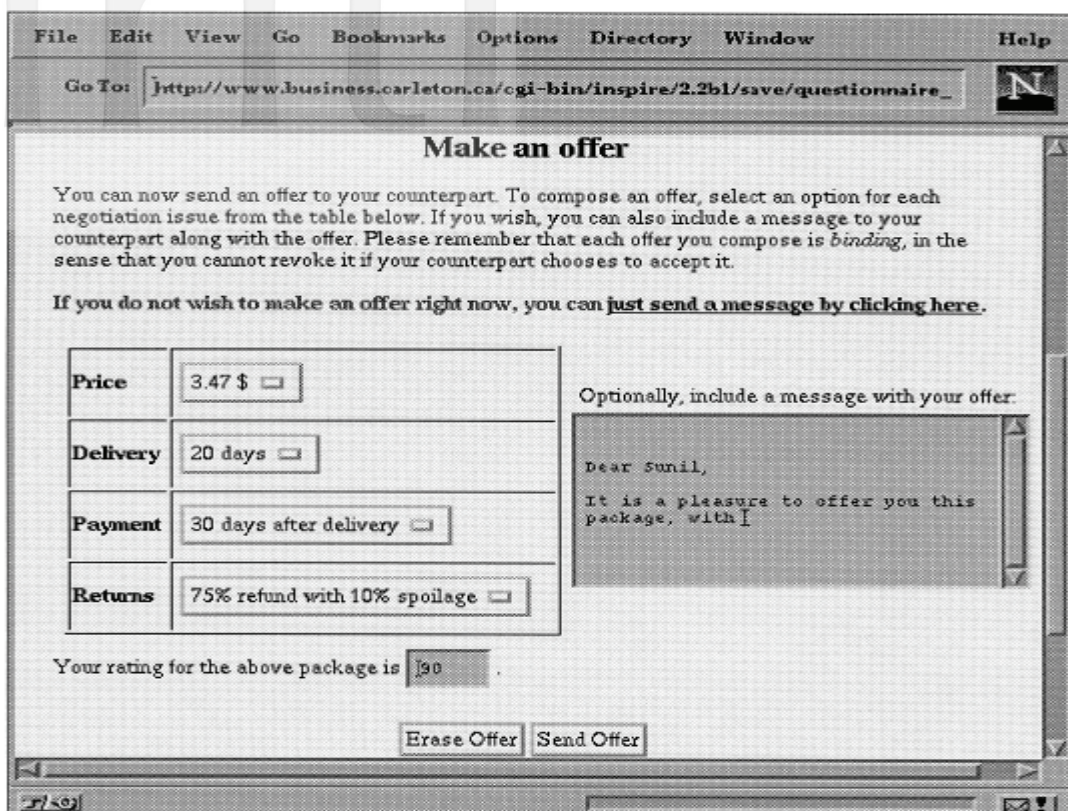


Figure 2 Inspire System Interface
(Resource: Kersten and Noronha (1999))

All negotiators took part in the same negotiation cases on bicycle spare parts purchasing in four issues: price, delivery time, payment term and returns. Participants played the roles of buyers and sellers in the three-week negotiations.

Table 2 The Cultural Backgrounds of Dyadic Negotiation Subjects

Negotiator's Cultural Background \ Counterpart's Cultural Background	Eastern	Western
	Eastern	Group1: Intra-culture
Western	Group3: Cross-culture	Group4: Intra-culture

Note: 20 dyads in each group, totally 80 pairs including 160 subjects

Table 3 The Nationalities and Roles of Negotiators

Cultural Background	Buyer	Seller	Number of Dyad	Number of Subject
Western vs. Western	10/ Austria	10/ Germany	20	40
	10/ Germany	10/ USA		
Eastern vs. Eastern	12/ Hong Kong	12/ Hong Kong	20	40
	8/ Taiwan	8/ Taiwan		
Western (Buyer) vs. Eastern (Seller)	13/ Austria	13/ Taiwan	20	40
	7/ Canada	7/ Taiwan		
Eastern (Buyer) vs. Western (Seller)	5/ Taiwan	5/ Canada	20	40
	15/ Taiwan	15/ USA		
Total	80 pair (160 people)			

Table 4 Descriptive Statistics of Negotiation Subjects

Profile		Total	Western in Intra-Culture	Eastern in Intra-Culture ¹	Cross-Culture	
					Eastern	Western
Average Age (year)		26.58	25.95	23.89	30.2	27.17
Gender	Female	68	16 (40%)	27(73%)	14 (35%)	11 (27.5%)
	Male	89	24 (60%)	10 (27%)	26 (65%)	29 (72.5%)
Occupation	Employee	38	12 (30%)	4 (10.8%)	17 (42.5%)	5 (12.5%)
	Student	119	28 (70%)	33 (89.2%)	23 (57.5%)	35 (87.5%)

Note 1: There are three subjects did not fill out the questionnaire completely, therefore there are 37 subjects in Eastern intra-cultural group.

4.2 Content analysis process

Content analysis is made on actual negotiation record of the 80 pairs of negotiators in Eastern and Western culture. Based on nine major behaviour categories proposed by Srnka and Köeszegi (2007), qualitative dialogues are transferred to quantified data. Reason to adopt the nine behaviour categories is they combine BPAII behaviour categories

that have been used for years with consideration for online negotiation context. Also, they have been tested many times in online negotiation context (Pesendorfer and Koeszegi, 2006; Srnka and Koeszegi, 2007).

Content analysis process is divided into five steps: material sourcing, transcription, unitization, categorization, and coding (Koeszegi, Srnka and Eva-Maria, 2006; Srnka and Koeszegi, 2007). There are two coders to conduct the whole process. In this research, we decided to choose “thought” as a behaviour unit to unitize all exchanged messages. Through the process, the inter-coder reliabilities of unit segmentation, coding reliability and coding outlines were checked and modified iteratively. For unit segmentation reliability, this research adopts Guetzkow’s U reliability test (Holsti, 1969) and the result is $U = 0.021744$ in high reliability (Angelmar and Stern, 1978; Graham, 1985). With Cohen’s Kappa, coding reliability is also higher than 0.8 (Cohen’s Kappa = 0.88)(Brennan and Prediger, 1981). After revision, there are nine major behaviour categories with 60 sub-categories (Appendix II).

5. Data analysis and results

After content analysis, there are 8843 behaviour segmentation units; 4098 are from 80 Eastern negotiators’ dialogues and 4745 are from 80 Western negotiators’ dialogues. See Table 5 for general differences in negotiation behaviour.

Table 5 General Differences in Negotiation Behaviour

	Culture	Number of Dyad	Total	Mean	SD
Communication Units	Eastern	80	4098	51.225	31.649
	Western	80	4745	59.313	31.087
Offers	Eastern	80	362	4.525	2.181
	Western	80	347	4.338	1.252
Messages	Eastern	80	469	5.863	2.809
	Western	80	430	5.375	2.077

5.1 Hypothesis test

5.1.1 Impact of negotiators' own culture on negotiation behaviour

The study uses chi-square to test H1 on the difference in overall negotiation behaviour and each negotiation behaviour category between Eastern negotiators (Composition group 1 and group 2 in Table 2) and Western negotiators (Composition group 3 and group 4 in Table 2). See Table 6 for results. In overall negotiation behaviour, there are significant differences in Eastern and Western negotiators ($\chi^2 = 32.34$, $p = 0.00$, $df = 8$). H1 is supported. In single negotiation behaviour category, the results (right column in Table 6) showed significant differences in substantive behaviour ($\chi^2 = 7.76$, $p = 0.01$), task behaviour ($\chi^2 = 4.88$, $p = 0.03$), procedural behaviour ($\chi^2 = 5.30$, $p = 0.02$), salutation behaviour ($\chi^2 = 5.53$, $p = 0.02$) and private communication behaviour ($\chi^2 = 3.40$, $p = 0.07$). Eastern negotiators had more substantive behaviour, procedural behaviour, and salutation behaviour; Western culture negotiators have more task behaviour and private communication behaviour.

Table 6 Distribution of Negotiation Behaviour of Eastern and Western and Chi-Square Test Results

Behaviour	Eastern		Western		Total		Chi-Square Test of Single Behaviour Category	
	No.	%	No.	%	No.	%	χ^2	P
Substantive Behaviour	735	17.94%	736	15.51%	1471	16.63%	7.76	0.01**
Task Behaviour	823	20.08%	1056	22.26%	1879	21.25%	4.88	0.03**
Persuasive Behaviour	390	9.52%	474	9.99%	864	9.77%	0.50	0.48
Tactical Behaviour	124	3.03%	164	3.46%	288	3.26%	1.25	0.26
Procedural Behaviour	197	4.81%	180	3.79%	377	4.26%	5.30	0.02**
Salutation Behaviour	934	22.79%	971	20.46%	1905	21.54%	5.53	0.02**
Affective Behaviour	514	12.54%	656	13.83%	1170	13.23%	2.73	0.10

Table 6 Distribution of Negotiation Behaviour of Eastern and Western and Chi-Square Test Results (Continue)

Behaviour	Eastern		Western		Total		Chi-Square Test of Single Behaviour Category	
	No.	%	No.	%	No.	%	χ^2	P
Private Communication	268	6.54%	360	7.59%	628	7.10%	3.40	0.07*
Text-Specific Units	113	2.76%	148	3.12%	261	2.95%	0.97	0.32
Total	4098	100%	4745	100%	8843	100%		
The Result of Entire Behaviour: $\chi^2 = 32.34$; P = 0.00***; df = 8								

Note: The significantly different behaviour is marked with gray while the one in boldface is the group with higher percentage.

5.1.2 Impact of interrelation between negotiators and counterpart’s culture on negotiation behaviour

H2 explores whether negotiators’ behaviour is affected by counterpart’s culture—whether behaviour is different between the intra-cultural (Composition group 1 and group 4 in Table 2) and cross-cultural (Composition group 2 and group 3 in Table 2) negotiations. Table 7 shows results after chi-square test. Negotiation behaviour in the intra- and cross-cultural groups is significantly different ($\chi^2 = 109.03$, $p = 0.00$, $df = 8$). This supports H2. Right column in Table 7 further shows there are significant difference in task behaviour ($\chi^2 = 13.33$, $p = 0.00$), persuasive behaviour ($\chi^2 = 5.02$, $p = 0.03$), procedural behaviour ($\chi^2 = 16.76$, $p = 0.00$) and private communication behaviour ($\chi^2 = 67.78$, $p = 0.00$) between intra- and cross-cultural negotiations. Intra-cultural negotiations have more instances of procedural behaviour and private communication behaviour, but fewer instances of task behaviour and persuasive behaviour.

Table 7 Distribution of Intra-Cultural and Cross-Cultural Negotiation Behaviour and Chi-Square Test Results

Behaviour	Intra-Cultural		Cross-Cultural		Total		Chi-Square Test of Single Behaviour Category	
	No.	%	No.	%	No.	%	χ^2	P
Substantive Behaviour	708	17.21%	763	16.13%	1471	16.63%	1.55	0.21
Task Behaviour	795	19.33%	1084	22.92%	1879	21.25%	13.33	0.00***

Table 7 Distribution of Intra-Cultural and Cross-Cultural Negotiation Behaviour and Chi-Square Test Results (Continue)

Behaviour	Intra-Cultural		Cross-Cultural		Total		Chi-Square Test of Single Behaviour Category		
	No.	%	No.	%	No.	%	χ^2	P	
Persuasive Behaviour	369	8.97%	495	10.47%	864	9.77%	5.02	0.03**	
Tactical Behaviour	122	2.97%	166	3.51%	288	3.26%	1.99	0.16	
Procedural Behaviour	215	5.23%	162	3.42%	377	4.26%	16.76	0.00***	
Salutation Behaviour	869	21.13%	1036	21.90%	1905	21.54%	0.61	0.43	
Affective Behaviour	526	12.79%	644	13.62%	1170	13.23%	1.14	0.29	
Private Communication	395	9.60%	233	4.93%	628	7.10%	67.78	0.00***	
Text-Specific Units	114	2.77%	147	3.11%	261	2.95%	0.84	0.36	
Total	4113	100%	4730	100%	8843	100%			
The Result of Entire Behaviour: $\chi^2 = 109.03$; $P = 0.00***$; $df = 8$									

Note: The significantly different behaviour is marked with gray while the one in boldface is the group with higher percentage.

Behaviour of Eastern and Western negotiators in the intra-and cross-cultural negotiations are compared (H2.1 and H2.2) by chi-square test. Results are in Table 8. Both Eastern negotiators ($\chi^2 = 51.77$, $p = 0.00$, $df = 8$) and Western negotiators ($\chi^2 = 96.43$, $p = 0.00$, $df = 8$) have significantly different negotiation behaviour. H2.1 is supported but H2.2 is not. From analysis of difference in single negotiation behaviour category between intra-cultural and cross-cultural negotiations (right column in Table 8), Eastern negotiators have significant difference in task behaviour ($\chi^2 = 4.52$, $p = 0.03$), persuasive behaviour ($\chi^2 = 6.21$, $p = 0.01$), procedural behaviour ($\chi^2 = 33.40$, $p = 0.00$) and private communication behaviour ($\chi^2 = 4.06$, $p = 0.04$). They have more instances of procedural behaviour and private communication behaviour but fewer instances of task behaviour and persuasive behaviour when facing Eastern counterpart. For Western negotiators, when facing counterpart culture changes, they significantly change task behaviour ($\chi^2 = 9.47$, $p = 0.00$) and private communication behaviour ($\chi^2 = 82.05$, $p = 0.00$). They have more instances of task behaviour, but fewer instances of private communication behaviour when facing Eastern counterpart. Overall, Eastern negotiators widely adjust their behaviour in cross-cultural negotiations.

The preceding results prove that negotiation behaviour will be influenced by their own cultural background (H1 supported); negotiators will have different negotiation behaviour between intra-cultural and cross-cultural negotiations (H2 supported); For both Eastern and Western negotiators, their behaviour will be influenced by their counterpart's behaviour (H2.1 supported; H2.2 not supported). With detailed negotiation behaviour analysis, this research proves cultural backgrounds of two sides of negotiators does cause interactive effect on negotiation behaviour.

Table 8 Distribution of Negotiation Behaviour of Eastern and Western in Intra-Cultural and Cross-Cultural Negotiations and Chi-Square Test Results

			Counterpart's Culture				Total		Chi-Square Test of Single Behaviour Category	
			Eastern		Western					
			No.	%	No.	%	No.	%	χ^2	P
Negotiator's Culture	Eastern ($\chi^2 = 51.77$; P = 0.00***; df = 8)	Substantive Behaviour	350	18.98%	385	17.08%	735	17.94%	2.04	0.15
		Task Behaviour	340	18.44%	483	21.43%	823	20.08%	4.52	0.03**
		Persuasive Behaviour	151	8.19%	239	10.60%	390	9.52%	6.21	0.01**
		Tactical Behaviour	54	2.93%	70	3.11%	124	3.03%	0.11	0.75
		Procedural Behaviour	129	7.00%	68	3.02%	197	4.81%	33.40	0.00***
		Salutation Behaviour	415	22.51%	519	23.03%	934	22.79%	0.12	0.73
		Affective Behaviour	220	11.93%	294	13.04%	514	12.54%	1.00	0.32
		Private Communication	137	7.43%	131	5.81%	268	6.54%	4.06	0.04**
		Text-Specific Units	48	2.60%	65	2.88%	113	2.76%	0.29	0.59
	Total	1844	100%	2254	100%	4098	100%			
	Western ($\chi^2 = 96.43$; P = 0.00***; df = 8)	Substantive Behaviour	378	15.27%	358	15.78%	736	15.51%	0.20	0.66
		Task Behaviour	601	24.27%	455	20.05%	1056	22.26%	9.47	0.00***
		Persuasive Behaviour	517	10.34%	454	9.61%	971	20.46%	0.44	0.51
		Tactical Behaviour	96	3.88%	68	3.00%	164	3.46%	2.65	0.10
		Procedural Behaviour	94	3.80%	86	3.79%	180	3.79%	0.00	0.99
		Salutation Behaviour	517	20.88%	454	20.01%	971	20.46%	0.44	0.51
		Affective Behaviour	350	14.14%	306	13.49%	656	13.83%	0.36	0.55
		Private Communication	102	4.12%	258	11.37%	360	7.59%	82.05	0.00***
Text-Specific Units		82	3.31%	66	2.91%	148	3.12%	0.62	0.43	
Total	2476	100%	2269	100%	4745	100%				

Note: The significantly different behaviour is marked with gray while the one in boldface is the group with higher percentage.

5.2 Proposition induction

After testing the hypotheses on the cultural impact on overall negotiation behaviour, this research attempts to propose propositions on single negotiation behaviour category based on comparison of single negotiation behaviour category of negotiators. Results in Table 6 through Table 8 are arranged into Table 9 in the hope to have more complete comparison to infer differences of each negotiation behaviour category as the foundation of proposing propositions for future research.

Table 9 Summarized Chi-Square Test Results of Negotiation Behaviour

Behaviour	Negotiator's Culture ¹		Counterpart's Culture ²		Eastern ³		Western ³	
	Eastern	Western	Intra-culture	Cross-culture	Intra-culture	Cross-culture	Intra-culture	Cross-culture
Substantive Behaviour	17.94%	15.51%	17.21%	16.13%	18.98%	17.08%	15.78%	15.27%
Task Behaviour	20.08%	22.26%	19.33%	22.92%	18.44%	21.43%	20.05%	24.27%
Persuasive Behaviour	9.52%	9.99%	8.97%	10.47%	8.19%	10.60%	9.61%	10.34%
Tactical Behaviour	3.03%	3.46%	2.97%	3.51%	2.93%	3.11%	3.00%	3.88%
Procedural Behaviour	4.81%	3.79%	5.23%	3.42%	7.00%	3.02%	3.79%	3.80%
Salutation Behaviour	22.79%	20.46%	21.13%	21.90%	22.51%	23.03%	20.01%	20.88%
Affective Behaviour	12.54%	13.83%	12.79%	13.62%	11.93%	13.04%	13.49%	14.14%
Private Communication	6.54%	7.59%	9.60%	4.93%	7.43%	5.81%	11.37%	4.12%
Text-Specific Units	2.76%	3.12%	2.77%	3.11%	2.60%	2.88%	2.91%	3.31%

Note:

1. From table 6.
2. From table 7.
3. From table 8.
4. The significantly different behaviour is marked with gray while the one in boldface is the group with higher percentage.

It is found substantive behaviour and salutation behaviour are only affected by negotiators' own culture. It is more significant in Eastern negotiators than Western negotiators. The main reasons might be: (1) difference between Eastern and Western culture characteristics; (2) negotiators' language capability and; (3) influence of online negotiation media. In light of cultural characteristics, it might be that Eastern negotiators tend to have high power distance and try to avoid conflicts and solve problems (Bond

et al., 1985; Gudykunst and Ting-Toomey, 1988; James, 1993). In order to reach final agreement, Eastern negotiators might have more substantive behaviour such as adopt logrolling, accept offer and propose offer to reconcile conflicts and more polite salutation behaviour to maintain good atmosphere. In light of language and online media, because subjects used English in negotiation, salutation words such as dear and sincerely do not differ due to culture. Online negotiation context limits negotiators in text communication. Eastern negotiators may exchange fewer messages but more substantive behaviour such as offer proposing or acceptances that require less language capability. Table 5 shows Eastern negotiators exchanged fewer behaviour units but more times of offers. These result in Eastern negotiators having more substantive behaviour and salutation behaviour. Therefore, we propose Proposition 1 and Proposition 2:

Proposition 1: In online text-based negotiation, substantive behaviour and salutation behaviour will be only affected by negotiators own culture.

Proposition 2: In online text-based negotiation, Eastern negotiators have more substantive behaviour and salutation behaviour than Western negotiators.

Compared with intra-cultural negotiations, cross-cultural negotiations have more task behaviour and persuasive behaviour, but less procedural behaviour and private communication behaviour. This might be explained in social psychology. In judging their social relation with others, people's social cognition of in-group and out-group will affect their cooperation degree. In in-group interaction, people tend to cooperate while, in out-group interaction, people tend to compete (Hui and Triandis, 1986). This explains that, when negotiators face counterpart in the intra-cultural negotiation, they treat them as in-group and tend to use private communication behaviour to build relation or use procedural behaviour to establish more equal negotiation process. When facing cross-cultural counterpart, they regard counterpart as out-group. They focus on message exchange, hence more task behaviour and persuasive behaviour. Based on above discussions, Proposition 3 is proposed as follows:

Proposition 3: In online text-based negotiation, cross-cultural negotiations have more task behaviour and persuasive behaviour, but less procedural behaviour and private communication behaviour.

Furthermore, we compared the difference in intra-cultural negotiations as well as in cross-cultural negotiations between Eastern negotiators and Western negotiators. The more instances of persuasive behaviour in cross-cultural negotiations mainly result from when Eastern negotiators facing Western counterpart. On the other hand, the more instances of procedural behaviour in intra-cultural negotiations mainly happen in the case when Eastern negotiators facing Eastern counterpart. The reason might be that Eastern

negotiators have higher context cultural characteristic, which enhances Proposition 3. When Eastern negotiators face different cultural counterpart, regarding them as out-group, they express tougher competition attitude through persuasive behaviour; on the contrary, when facing the intra-cultural counterpart, taking them as in-group, they try to build equal negotiation process through procedural behaviour. Such results correspond to the finding of Brett and Okumura (1998). Cultural difference does impact negotiators to adjust their negotiation behaviour. Eastern negotiators, compared with Western negotiators, more obviously adjust their behaviour. Based on above discussions, we propose the following propositions:

Proposition 4: In online text-based negotiation, compared with Western negotiators, Eastern negotiators have more persuasive behaviour in cross-cultural negotiations than in the intra-cultural negotiations.

Proposition 5: In online text-based negotiation, compared with Western negotiators, Eastern negotiators have more procedural behaviour in the intra-cultural negotiations than in the cross-cultural negotiations.

6. Conclusions and limitations

Transnational online negotiation model is already inevitable in the future. Understanding impact of cultural difference on online negotiation behaviour will help enhance online negotiation effects. With qualitative and quantification research methods, this research explores impact of online negotiators' own and counterpart's culture on online negotiation behaviour. The findings show, for overall behaviour, Eastern and Western negotiators' behaviour are affected by their own and counterpart's culture. Eastern negotiators are more affected by counterpart's culture. This corresponds to the characteristic of Eastern culture in higher context culture. In light of own culture, Eastern negotiators, compared with Western negotiators, have more substantive behaviour, procedural behaviour and salutation behaviour; Western negotiators have more task behaviour and private communication behaviour. Such differences do not seem to meet the characteristic that Eastern and Western culture with high and low context behaviour separately. In counterpart's cultural impact, cross-cultural negotiators have more task behaviour and persuasive behaviour, but less procedural behaviour and private communication behaviour. Compared with Western negotiators, Eastern negotiators have more persuasive behaviour in cross-cultural negotiations. On the other hand, in intra-cultural negotiations, they have more procedural behaviour. The possible reason might be that online negotiation context makes typing dialogue as the main communication tool for message exchange due to its lower social presence and media richness. In addition,

from counterpart's English statement ability, it is easier to feel whether counterpart is from cross- or the intra-culture-to make negotiators distinguish inner and outer groups to have different interaction. They build relation with inner group and compete with outer group.

In practice, the results show that, in global competition, paying attention to the impact of negotiation counterpart's culture is important. It is an issue for businesses to think about selecting different e-negotiation models to have the best results.

In the end, transnational online negotiation is a new study topic. It may involve interactive effects of culture, languages and online media. It is deserved to control impact of each possible factor to find the impact of each single factor.

Appendix 1

1. Substantive behaviour: messages that constitute fundamental negotiation behaviour.
2. Task behaviour: messages that promote or facilitate problem solving.
3. Persuasive behaviour: messages that support the claims a negotiator makes.
4. Tactical behaviour: messages designed to influence the expectations and actions of the opponent.
5. Procedural behaviour: messages that facilitate the negotiation process.
6. Salutation behaviour: the beginning and end of a message.
7. Affective behaviour: messages linked to the expression of feelings about the content, the opponent, or the bargaining situation.
8. Private communication: messages that are not directly related to the negotiation itself (process or content).
9. Text-specific units: elements particularly linked to electronic (written) communication.

Appendix 2: Schema of Negotiation Behaviour

Category		Subcategory	
1	Substantive	1	Other
		2	Acceptance
		3	Rejection
		4	Logrolling
		5	Offer-full-package
		6	Offer-price
		7	Offer-delivery
		8	Offer-payment
		9	Offer-return
2	Task	1	Other
		2	Request info/reaction
		3	Provide info/reaction
		4	Clarification
3	Persuasive	1	Other
		2	Self-supporting information/argument
		3	Other-supporting information/argument
		4	Reference to relationship
		5	Fairness
4	Tactical	1	Other
		2	Commitment
		3	Exert pressure
		4	Delay tactics
		5	Authority related argument
		6	Suggest creative solutions to meet own interests

5	Procedural	1	Other
		2	Time related coordination
		3	Technical : IT programs
		4	Negotiation process coordination
6	Salutation	1	Other
		2	Formal address
		3	Informal address
		4	Formal close
		5	Informal close
		6	Formal signature
		7	Informal signature
7	Affective	1	Other
		2	Emoticon positive
		3	Emoticon negative
		4	Positive emotions
		5	Negative emotions
		6	Apology/regret
		7	Politeness
		8	Empathy

8	Private communication	1	Other
		2	Release of ID-gender, name, country, age
		3	Release of ID-contact information: email, homepage, MSN
		4	Release other general info
		5	Release other info about person
		6	Release info about culture
		7	Request of ID-gender, name, country, age
		8	Request of ID-contact information; email, homepage, MSN
		9	Request of other general info
		10	Request of other info about person
		11	Request info about culture
		12	Express emotion
9	Text-specific units	1	Other
		2	Redundancy
		3	Filler
		4	Text structuring
		5	p.s.

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