A study of negotiation of meaning in Synchronous Computer-mediated Communication Between Non-native Speakers of Japanese and Korean

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This study investigates the types of interactional modifications employed between Japanese and Korean students during synchronous online chat communication. In particular, this study focuses on the role of a network-based medium on the use of interactional modifications, which have been claimed to facilitate interlanguage development, and thus language acquisition. Subjects are 16 students from Korea and Waseda University who participated in a Cross Cultural Distance Learning(CCDL) program which asked them to chat online in pairs with their assigned partners of different nationalities.

The results show that students do engage in negotiation of meaning during the online chat and use a variety of features of interactional modifications. The most used strategies, however, were the use of paralinguistic features (i.e. keyboard symbols and Onomatopoeia), framing, clarification check and confirmation check, which reveal inconsistent results with findings from research on the negotiation of meaning in face-to-face interaction in a similar context. Results suggest that the computer mediated communication(CMC) environment requires this use and students are able to adapt to this new context by employing alternative strategies.

All negotiations were generated by content and lexical items, but no negotiations occurred in terms of grammar and syntax. The findings suggest that CMC using a chat program can be an effective method for facilitating the development of interactive competence, but the effectiveness of synchronous CMC on the development of grammatical competence is uncertain.

1.Introduction

The recent proliferation of CMC has prompted a growing body of research. One of the areas is research on learner interaction which is considered to facilitate interlanguage development. Some research has found that CMC on interaction bears a resemblance to face-to-face communication (Pellettieri,2000: Lee, 2002), suggesting that the same benefits for SLA would occur in CMC. On the other hand, other research suggests that CMC is not merely intermediate between speaking and writing, rather the electronic medium uniquely fosters some behaviors and inhibits others, exhibiting unique characteristics in turn-taking and the use of interactional modifications

(Werry,1996: Totter,2003). These discrepancies raised a question, which motivated this research: what kinds of effects does the networked environment have on interaction between Korean and Japanese learners of English?

Therefore, the purpose of this study is to present an analysis of Japanese and Korean University students' discourse in terms of the use of interactional modifications during synchronous on-line chats. The study tries to explore the potential benefits that this new form of communication holds for language learning.

2. Research Background

2.1.Negotiation of meaning in SLA

The interactionist perspectives in SLA have placed considerable attention on the role of interaction in general, and meaning negotiation in particular. The term 'negotiation' is defined as "the modification and restructuring of interaction that occurs when learners and interlocutors anticipate, perceive, or experience difficulties in message comprehensibility" (Pica, 1994, p.494). However, this definition seems to be limited in that negotiations can be used in non-problematic conversations as well 'to achieve a formal display of convergence of the participants' worlds'(Aston,1986, cited in Ellis,1993, p.262) by indicating understanding or agreement. In other words, negotiations can be made not only for overcoming trouble sources but also for better discourse management. This conceptualization will be based on this study, although much of research on interaction has been done based on the narrower sense of negotiation.

Pica (1994) claims that meaning negotiation, as a particular way of modifying interaction, can enhance second language learning by helping learners make input comprehensible and modify their own output, and by providing opportunities for them to access second language form and meaning. In this way, learners can be pushed to the production of output that is more complete and accurate, far more than merely comprehensible. The modification devices include repetitions, confirmation and comprehension checks, clarification requests, and recasts among others.

The benefits of negotiation of meaning were first demonstrated for non-native speaker- native speaker(NNS-NS) oral exchanges, but further investigations have shown that these benefits hold true for NNS-NNS oral discussions as well (Gass & Varounis, 1985, 1994). Gass & Varounis (1994) examined NS-NS, NS-NNS, and NNS-NNS conversations, noting that negotiation of meaning is most prevalent among NNS-NNS pairs.

2.2 Negotiation of meaning in CMC

2.2.1 Synchronous CMC and Language Learning

The literature and previous research suggests that CMC can provide many advantages over face-to-face oral exchanges, such as strong motivation, equal

participation and the increase of target language production (Warscharuer,1996). In relation to the topic of this study, interactional modifications, Chun (1995) illustrates that synchronous computer mediated discussion is an effective medium for facilitating the acquisition of the discourse management skills and interactive competence. Her study found that learners engaged in a variety of interactive moves and took an active role in discourse management. She further proposed that interactional structures similar to spoken conversation could gradually help learners improve in spoken discourse. However, as Warschauer points out "any claim that this transfers to oral communication is at this stage purely speculative".(1998) Moreover, Blake (2000) also demonstrates that incidental negotiations commonly occurred in networked NNS-NNS discussions as well, especially with respect to their lexical confusions.

Pellettieri (2000), investigating whether synchronous CMC chatting holds the same potential for the development of grammatical competence as it does for oral interaction, demonstrated that dyadic task-based synchronous CMC between English-speaking intermediate students of Spanish can foster the negotiation of meaning and form-focused interaction because the text-based mode of CMC allows learners with more time to process and monitor their interlanguage. Conversely, Lee(2002)'s study on online discussion among learners of Spanish reveals that the rapid speed of exchange encouraged fluency rather than accuracy. In other words, students tend to be more interested in exchanging ideas than correcting linguistic mistakes. However, in general, her study confirms that a text-based medium that amplifies student's attention to linguistic form and meaning leads to attend to feedback and self-correction, creating more opportunities for negotiation of meaning than face-to face interaction. As demonstrated from the previous studies on synchronous CMC, synchronous CMC seems be a promising tool for facilitating negotiations and discourse management while the development of grammar tend to be uncertain as different research shows different results.

Based upon the aforementioned research and theories on CMC and SLA, the present study develops a taxonomy (given in Appendix 1) to address interactional modification use and set up the following research questions:

a)What typical interactional modifications are used in the CCDL chatting that is different from face-to-face communication?
b) What factors affect the degree of use of those features imposed by the CCDL setting ?
c) What pedagogical implications do the findings of the research have?

3. Research Methodology

3.1 Subjects and procedures

The subjects in this study were 8 Korean and 8 Japanese counterparts from Korea University of Korea and Waseda University of Japan, who participated in the Korea-Waseda Cross- Cultural Distance Learning(KWCCDL) project. Their English proficiency level was between intermediate and high-intermediate. Data was collected during the fall semester of 2002. Since the subjects were enrolled in the same satellite class called 'Global English', held weekly, all the participants of this study knew each other. Participants were asked to have a chat on-line in pair with an assigned partner of different nationality. 5 chatting sessions were conducted for 30 minutes to 1 hour. The chatting program used was CUSeeMe, a videoconferencing program developed by Cornell University in 1993. Participants are thus provided with a visual aid through the camera attached to the computer but not with an audio aid.

This analysis deals with only written texts of the chatting, and only two sessions out of 5 sessions were selected for the investigation. No discussion topic or tasks were assigned in advance. Participants were free to choose any topic they wanted as this chatting was designed to help increase cross cultural understanding out of any burden of the classroom.

To investigate learners' use of interactional modification produced in CCDL chatting, the data were analyzed qualitatively as well as quantitatively in terms of 1) the total number of negotiations and 2) frequencies of selected modification devices and 3) the nature of negotiations.

4. Results and Discussion

4.1 Types of modificational devices and frequencies

The main focus of this study was to examine the kinds of modification devices Korean and Japanese students used to interact each other. An analysis of the CCDL data based on the criteria provided in Appendix 1 reveals the following frequencies for each interactional modification.

On the whole, the results suggest that participants in the CCDL chatting used a variety of interactional modification devices. Of a total of 1605 turns, occurrences of interactional modifications amounted to 595, which take up 37% of all turns. But, results are somewhat different in some ways from those found in face-to-face interaction. The data suggest that the CCDL chatting encouraged some unique features. To begin with, these unique features which also ranked high in Table 1 will be discussed.

Table 1. Frequencies of selected interactional modification devices

	Total number of occurrences	% of all devices	% of total turns
Punctuation	139	23.3%	8.6%
Onomatopoeia	95	15.9%	5.9%
Framing	72	12%	4.4%
Emoticons	71	11.9%	4.4%
Overt indication of understanding and agreement	57	9.5%	3.5%
Clarification checks	53	8.9%	3.3%
Use of feedback(promoters)	40	6.7%	2.4%
Confirmation checks	19	3.1%	1.1%
Elaboration	13	2.1%	0.8%
[1]Other	25		
Total	595	100%	37%

4.2. Use of paralinguistic features

The four most frequently used devices were [2]Punctuation uses(i.e !!!, >, …..), Onomatopoeia(i.e. Um, zzzz, haha), Framing and Emoticons(i.e. smiley, frown face). Except for framing, the rest three devices belong to paralinguistic features. This means as much as 20% of total turns was expressed with paralinguistic modification devices. This is an interesting result which shows students pay much attention to expressing their emotions and physical interaction using the written medium. Unlike oral interaction in which emotions, pitch and other cues are expressed mostly sub-consciously, this requires deliberate efforts on the part of participants as they need to express their ideas and actions into words. Considering the nature of chatting which requires a fast pace of exchanges, the reason why participants employed these devices draws more attention. To account for the reason for this, it is necessary to examine the CCDL environment of this study.

As mentioned previously, in this particular CCDL environment, students are also

[1] The devices belong to the category "Other" in Table 1 include self-correction(12), abbreviation(13), capitalization(9), ask for help(2) and comprehension checks(1). No corrective feedback whether explicit or implicit and no repetitions was observed in the CCDL chatting.

[2] In the case of punctuation use, students seemed to use this device habitually most of the time. In particular, the habitual use of repeated periods(….) was observed at the end of turns. In this research, only the cases where these devices are used to confirm an idea or agreement or to signal for uncertainty are counted as valid.

provided with a visual aid through the camera attached to the top of computer monitor even though the main channel of communication is text-based. Thus, compared to CMC which entirely depends on a text-based medium, the CCDL chatting is assumed to exhibit more similar characteristics to face-to-face interaction. Nevertheless, the results reveal that students still make enormously conscious efforts to compensate for the reduced visual aids and the absence of aural aids of oral interaction by employing alternative strategies such as emoticons and punctuation.

Judging from the results, it seems reasonable that the visual aid used in the chatting was not considered a powerful means for communication. The possible reasons for this can be attributed to the pressure of having to produce to a quick response and their recognition of a written text as a basic tool for communication. Participants have little time to formulate their ideas and respond to previous utterances, so they seemed to find it distracting to watch the camera to figure out their partners' responses and indicate their own responses while typing at the same time. In addition, they are used to monitoring their outcomes through the text medium, and thus this seems to make them believe that writing is the surest way of delivering their meaning including their emotions.

Whether their attempts were successful or not should be discussed in order to address the pedagogical effects the CCDL chatting has. The following excerpt shows how the paralinguistic features are used in the CCDL chatting.

1)Waseda: I know she's smart and good English speaker.
2)Waseda: Isn't she? [clarification]
3)Korea: Yes…. She's like a blackhorse…
4)Waseda: ***oh***…..***lol*** [Onomatopoeia]
5)Korea: in every discussion
6)Waseda: I feel she's talented.
7)Waseda: and….. do you think she's cute***???*** [punctuation]
8)Waseda: ***oops*** [giving feedback]
9)Korea: Why are you keep asking about her?
10)Waseda: It's not a good questions***……fufufu*** [[Onomatopoeia]
11)Waseda: okay! I will stop***!*** [Punctuation]
12)Korea: OK
13)Waseda: ***hahaha*** [Onomatopoeia]
14)Waseda: oh yeah

A Waseda student shows interest in the girl they are talking about in turn 2 by eliciting his partner's agreement, and then in turn 4 as soon as he receives an agreeing response from his Korean partner, he responds overtly by using 'Onomatopoeia', ***oh…lol***(abbreviation of laugh on loud). In turn 7, the repeated use of ? marks shows he

is expecting to hear news on her eagerly. Then he seems to realize that his Korean partner is not willing to be cooperative and then signals that he knows something is wrong by tying ***opps.*** This device seems to be also used to check his partner's reaction. He then gives up the topic after sensing his partner's uncooperative or irritated attitude of turn 9. But in turn 10 he employs 'Onomatopoeia', ***fufufu*** in an attempt to avoid a possible awkward atmosphere. The use of **!** in turn 11 emphasizes his will that he does not want to ruin the conversation any more by mentioning the girl. (here, the use of exclamation was considered different from that as in okay**!**, which is habitually used) Turn 13 shows 'Onomatopoeia', ***hahaha*** is used as a means of 'overt indication of understanding'.

Above excerpt shows how the use of punctuation and Onomatopoeia contributed to developing or avoiding the discussion of topics. It shows that participants are selecting certain devices deliberately for their purposes of communication. Thus, it seems reasonable to argue that the lack of visual and aural support can help them develop metacommunicative skills by allowing them to employ other devices. Kotter(2003) also confirms this view commenting,

> it[the limitations of CMC discussed above] can also encourage them(learners) to take risks and to draw on all available resources to avoid a breakdown in the conversation, which is why I would suggest that the unique nature of real-time CMC (chat, IRCs, talkers, and MOOs), plus the need to keep going, can prompt learners to increase their awareness of communicative processes.
>
> (Kotter, 2003, the content in [ ] was inserted by the author)

4.3 Use of framing

The another salient device used in this study was framing. The framing device is used to mark the closure of old topics and the initiation of new ones. It seems important to figure out how many topics are discussed because it affects the occurrence of framing devices as well. However, it was discovered that most topic shifts occurred with framing devices such as *well then, by the way* and *now then* except for the situations where topics were changed smoothly according to the previous utterances. Only 10 cases were observed as cases of abrupt topic shift without any signals. Thus, it was certainly the strategy participants used most regardless of the number of topics discussed.

The heavy use of this device can be explained by two possible causes: the lack of visual and aural support, and turn overlapping. First, intonation and pitch or eye movement are the typical signaling devices for topic and turn boundaries in face-to-face interaction. Therefore, the lack of those features in the CCDL chatting seems to be the cause for the high use of framing devices. Furthermore, during chatting, participants'

turns often overlapped, disrupting the linear progression of the exchanges. This results in incoherent discourse. Disrupted turn adjacency is quite often witnessed in multi-participant chatting since messages are posted in the order received by the system, without regarding for what are they responding to.(Negretii, 1998, Herring, 1999) Disrupted turns are common in many- to- many chats but a one-to one chat was not an exception. Since typing is slower than reading, both participants tend to type at the same time not waiting for their partner to finish writing. This is particularly common when the speed of typing between the two participants in a pair is different. Consider the following example,

1)Korea: the base was in PyougTeck…… south from Seoul
2)Waseda: oh,,, IC
3)Korea: why are in suit and tie today?
4)Waseda: that must have contributed much to your English skills and so force
5)Waseda: **ah.. suit**.. that's cuz I was working [Framing]
6)Korea: **English? yes**… especially for my curse words.. lol
7)Korea: working?
8)Waseda: yeah yeah
9)Korea: in school?
10)Waseda: it's like " security staff'
11)Korea: **Good**……. I'm almost a beggar…… [framing]
12)Waseda: of a company
13)Waseda: **Oh you!?**
14)Korea: **Wow…. I see** ….. a body guard?
15) Korea: yes

This excerpt shows how participants track the main line of discourse by using framing strategies when turns are overlapped. ***ah suit*** ..in turn 5 and ***good*** in turn 11 are counted as framing. Each turn is joined as follows: [Turn 3 to turn 5],[turn 4 to turn 6],[turn 11 to turn 13] and [turn12 to turn 14] In this way, turn pairs are all disrupted. To proceed a conversation smoothly in the continuously overlapped turns, participants send overt indications which signal they are responding. In turn 5, a Waseda student employs a framing device to signal his attention to turn 3 and seems to attempt to go back to the previous topic after he noticed that his turn was interrupted by unexpected turn 4. Here this use was considered framing which functions as initiating a topic, Then, in turn 5, a Korean student overtly elicits the previous topic by typing '***English?***' then holds his turn quickly to respond turn 5. In turn 11, a Korean student closes a topic on the work of a Japanese partner by the use of ***'Good'*** which is a framing device and then initiates a new one. However, turn 12, which was also typed while turn 11 was typed, again disrupts constructing the new topic by turn 11. In turn 13 and 14 , the uses of **On**

you!? and ***Wow…. I see*** shows other examples of overt indication of agreement or response used to solve the problem resulting from disrupted turns. Finally, a Korean student, who seems to get probably tired of tracking the previous topic or felt uneasy disrupting, seems to decide to wait for his partner to type.

Herring(1999) pointed out that this loosened discourse will lead to heightened interactivity and offer even a room for humorous language play for the users' recreational CMC. Topic managing is one of the main discourse management skills as pointed out by Long(1983a, cited in Ellis,1994) Thus, the heavy use of framing confirms that participants actively signaled their responses and the CCDL chatting required more explicit feedback than face-to-face conversations to successfully manage the discourse. In this regard, the CCDL chatting seems to contribute to participants' improved discourse management skills. The importance of giving feedback in synchronous CMC was also confirmed by the fact that the device 'Overt indication of agreement and understanding' and other related device ' Use of feedback' were used together 6% of all turns.

4.4 Face-to-face interaction VS. CMC

Finally, the results will be compared to the research findings of face-to-face interaction. It is to illustrate how the CMC environment influences interaction of NNS and draw on potential benefits of CMC. However, a direct comparison between face-to-face interaction and the CCDL chatting is not easy. One reason is that usually studies of face-to-face interaction have been based on task-based interaction rather than casual conversations which this study is based on. More importantly, the criteria used for analysis vary depending on the research. In particular, this study considers interactional modifications or negotiation as a concept which includes both discourse repair and discourse management. Most research on negotiation refers to it as something used only to solve problems. However, although admitting these difficulties, differences between the results found in this study and those in face-to-face interaction are easily noticed. Most of the research of face-to-face interaction has found clarification and confirmation and comprehension checks as most used strategies. (Varonis and Gass,1985, Porter 1986) Though clarification checks ranked high in this study, the results reveal relatively few confirmation checks, only 1 time of comprehension check, no repetition and no recast.

The absence of repetitions in the CCDL data can be explained by the fact that it is writing -based, so to speak, participants can monitor what they write. Also, repetitions resulting from inaccurate pronunciation cannot be expected in the text-based CMC. The use of extremely few comprehension checks seems to be caused by the fact that comprehension checks imply the person who uses them is more knowledgeable than the other participants in a pair. In fact, this strategy was reported to be used mainly by the teacher. The lack of comprehension checks and confirmation checks can be also

accounted for by the possibility that participants simply relied on their partners to initiate if they did not understand them.

There is much to mention on no use of recast and explicit corrective feedback. This result seems to be largely influenced by the purpose of the chatting. Participants seem to recognize the chatting is for developing international friendships while communicating in English. The chatting did not necessarily have a specified goal to achieve, unlike a task-based conversation. Thus, this account can be the main reason why the CCDL chatting data bears a completely different results from those in the Pelleterie(2000)'s study on dyadic synchronous CMC between NNS in terms of corrective feedback use. Participants tend to be more interested in exchanging ideas than correcting linguistic mistakes as shown in Lee's study(2002). Whether the chatting contributed to the development of grammatical competence was not tested. However, the investigation of triggers of all negotiations occurred in this chatting data revealed that all the negotiations were generated either by content meaning or by vocabulary. No negotiation was produced by grammar or syntax. The results suggest that grammar received no overt attention while the positive evidence on vocabulary development seems to be obvious. Thus, it is difficult to expect grammatical development from the analysis of chatting data.

5. Conclusion and Pedagogical Implications

This study attempted to present an analysis of Japanese and Korean University students' discourse in terms of the use of interactional modifications during synchronous on-line chats. It discussed some potential benefits that this new form of communication holds for language learning. This study showed the following findings. 1) participants in the CCDL chatting used a variety of interactional modification devices, but their use of modification devices were different in some ways from those found in face-to-face interaction. 2) the data suggest that the CCDL chatting encouraged some unique features such as the heavy use of paralinguistic features(i.e. Punctuation, Emoticons and Onomatopoeia) , framing and explicit feedback. It was suggested that these strategies are employed to compensate for the lack of visual and aural support and incoherent discourse of CMC, which in turn demonstrates participants adapted to the new medium successfully. 3) These adaptation devices are assumed to prompt learners to increase metacommunicative awareness. Developing metalinguistic awareness is considered essential in order to stimulate a change in their interlanguage development. Thus, the CCDL chatting is expected to promote language learning. 4) No negotiation was produced by grammar or syntax. The results suggest that grammar received no overt attention while the positive evidence on vocabulary development is obvious. So, constructing post activities which help learners focus on their grammar seem to be necessary so that they can maintain a balance between fluency and accuracy.

However, since the issue on what type of interactional modifications are more

beneficial than others is not yet clearly investigated, this study cannot provide any firm conclusions about the effects of CCDL chatting. The modification devices found in this study are likely to promote the benefits addressed above, especially in terms of interactional competence, but the question on the effects of the subsequent loss of the strategies abundant in face-to face interaction still remains unanswered. Future research needs to be conducted on this issue.

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Appendix

Categories and definitions of modification devices

1. Comprehension checks : to make sure the message is understood(Do you understand me?)
2. Clarification checks: to request unfamiliar meaning and structure(What do you mean?)
3. Confirmation checks: to repeat parts of the statement to ensure the understanding(you mean..?)
4. Framing: to mark the closure of old topics and the initiation of new ones(Good. well then)
5. Paralinguistic features: to signal uncertainty or to confirm an idea or agreement
   a. Punctuation : extensive use of punctuation to indicate pitch and intonation, surprise
   b. Onomatopoeia: to convey feelings and shades of meaning (zzzz, um)
   c. Capitalizing words for stress
   d. Abbreviation
   e. emoticons
6. Repetition
7. Recast(implicit error correction): to provide a model form for the partner's non-target form
8. Self-correction: to correct errors made on vocabulary or grammar
9. Overt indication of understanding and agreement
10. use of feedback(promoters): to encourage continuation of the conversation
11. request for help: to request information for unknown words or expressions.(how do you say..?)