

THE IMPACT OF LANGUAGE PROFICIENCY DIFFERENCE ON LEARNER-LEARNER'S NEGOTIATION OF MEANING

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Abstract

The current experiment, based on Long's Interaction Hypothesis, explores the impact of proficiency difference on the amount and type of learner-learner's negotiation of meaning produced in dyadic interaction. It has been found that proficiency is a factor that influences the amount of learner-learner's negotiation of meaning. High-Low dyads produce more negotiation of meaning than High-High dyads and Low-Low dyads. However, proficiency has not been found to be a factor that influences the type of learner-learner's negotiation of meaning.

Key words

learner proficiency ; Interaction Hypothesis ; negotiation of meaning

1 . The research background

Frustrated by the limitations of the PPP (presentation, practice, and production) model which is seen by Skehan (1996) as an approach associated with relative failure, task-based language teaching began in 1980s. Task-based language teaching considers the learning process as one of learning through doing and meaning primary. Tasks, in this viewpoint, are activities which have meaning as their primary focus. It is the task which "drives the learner's system forward by engaging acquisitional processes" (Skehan 1996: 20). The goal of task-based research is to identify "psycholinguistically motivated task characteristics" that "can be shown to affect the nature of language produced in performing a task in ways which are relevant to second language processing and second language learning" (Ellis 2005: 722). In this perspective, tasks are devices that provide learners with the data they need for learning and the design of a task is seen as potentially predisposing, even inducing learners to engage in certain types of information-processing that are important for language acquisition (Ellis 2000). One psycholinguistic model to investigating tasks is provided by Long's Interaction Hypothesis (1983c, 1996). The key notion underlying the Interaction Hypothesis is that second language acquisition is promoted when learners have opportunities to solve communication problems by means of negotiation of meaning (Ellis 2000; Smith 2004). As Oliver well defines, negotiation of meaning refers to "the process whereby interactions are modified between or among conversational partners to help overcome communication breakdowns" (1998: 372). Negotiation of meaning is facilitative in that it provides language learners with three elements crucial for second language acquisition —comprehensible input, comprehensible output, and attention to second language form (Iwashita 2001; Long 1996; Oliver 2002; Pica 1992, 1994).

Most researches based on the Interaction Hypothesis aim to find out which types of tasks are most likely to lead to instances of negotiation of meaning (Ellis 2000, 2005). However, when implementing group tasks (especially pair work) in task-based language teaching classroom, many foreign language teachers are often concerned about whether it is better to pair learners of the same or different proficiency levels, given the fact that learners' proficiency even within the same group or pair is not

always similar. Thus, it is worthwhile to explore whether proficiency has an impact on negotiation of meaning.

2. Theoretical Foundation

Since Long (1980) proposed the concept of "conversational modification" in his doctoral dissertation later expanded as "negotiation of meaning" by Varonis and Gass (1985), a number of studies have been undertaken on the topic of negotiation of meaning. Underlying the studies on negotiation of meaning is the Interaction Hypothesis. The Interaction Hypothesis gleaned Input Hypothesis, Comprehensible Output Hypothesis, and Noticing Hypothesis.

2.1 Negotiation of Meaning and the Early Interaction Hypothesis

2.1.1 Negotiation of Meaning and Input Hypothesis

The early version of the Interaction Hypothesis (Long 1983c) is based on Input Hypothesis proposed by Krashen (1982) who argues that mere exposure to L2 input is not sufficient for learners to internalize L2, but rather that input must become comprehensible. Long (1980, 1983a, 1983b, 1985) further considers in some detail how input is made comprehensible. Long (1980) finds that when addressing nonnative speakers, native speakers make a lot of conversational modifications, such as confirmation checks (speaker attempts to ascertain whether s/he has heard or understood something interlocutor said), clarification requests (speaker requests help in understanding something interlocutor said) and comprehension checks (speaker checks whether interlocutor has understood something), to make the utterances comprehensible to the nonnative speakers. Then, Long argues that comprehensible input is likely to be provided in the conversational modification that involves negotiating meaning. Thus, the early Interaction Hypothesis advances two major claims about second language acquisition: (1) comprehensible input is necessary for acquisition; (2) modifications to the interactional structure of conversations in the process of negotiating a communicative problem help make input comprehensible to a second language learner (Ellis, Tanaka & Yamazaki 1994).

2.1.2 Negotiation of Meaning and Comprehensible Output Hypothesis

The early version of the Interaction Hypothesis emphasizes that negotiation of meaning during interaction elicits comprehensible input and is thus a facilitator for language acquisition. However, Swain (1985, 2005) argues that comprehensible input is not sufficient for successful language acquisition. Swain's French immersion program shows that having received comprehensible input in the target language French for a number of years, the students she studies have achieved native-like comprehension of French, but do not demonstrate native speaker productive competence. The reason lies in that the students are simply not given adequate opportunities to use the target language in the classroom context and they are not being "pushed" in their output. Based on this evidence, Swain proposes Comprehensible Output Hypothesis that in order to achieve native-like competence, learners should be "pushed toward the delivery of a message that is not only conveyed, but that is conveyed precisely, coherently, and appropriately" (1985:249) through negotiation of meaning.

2.1.3 Negotiation of Meaning and Noticing Hypothesis

Along with comprehensible input and comprehensible output, metalinguistic awareness of second language form has been pointed out as another necessary condition for acquisition. Based on the experience as a learner of Portuguese in Brazil that in nearly every case new forms that appeared in his spontaneous speech were consciously attended to previously in the input, Schmidt (1990, 1994) argues that attention to input is a conscious process. Schmidt (1990) distinguishes carefully several senses of consciousness: consciousness as intention, consciousness as knowledge and consciousness as awareness. Schmidt argues that conscious awareness at the level of noticing is the necessary and sufficient condition for the conversion of input to intake for learning — "if noticed, it becomes intake" (1990:139). During negotiation of meaning, second language learners come to pay attention to second language forms as they "attempt to process meaningful input and attempt to master structural features that are difficult to learn inductively" (Pica 1994:501). Subsequently, learners' realization of the gap between their second language forms and target language forms as a result of negotiation of meaning triggers reorganization in

learners internal representational framework of the interlanguage and ultimately , results in second language acquisition (Storch 2001).

2.2 Negotiation of Meaning and the Late Interaction Hypothesis

Drawing on the Comprehensible Output Hypothesis and Noticing Hypothesis , Long updates the Interaction Hypothesis : “ negotiation for meaning , and especially negotiation work that triggers interactional adjustments by the NS or more competent interlocutor , facilitates acquisition because it connects input , internal learner capacities , particularly selective attention , and output in productive ways ” (1996 :451-452).

3 . Literature Review

The theoretical claims by Long and others that negotiation of meaning is an important variable in second language acquisition stimulate a substantial body of works empirically investigating which learning variables are more conducive over others to the occurring of negotiation of meaning . These investigations have been undertaken on the impact of such factors as task type in which the participants are involved (e.g . Berwick 1990 ; Crookes & Rulon 1988 ; Doughty & Pica 1986 ; Duff 1986 ; Foster 1998 ; Long 1980 ; Pica 1987 ; Pica & Doughty 1985) , participation pattern in classroom environments (e.g . Doughty & Pica 1986 ; Oliver 2002 ; Pica & Doughty 1985 ; Rulon & McCreary 1986 ; Varonis & Gass 1985) , and individual characteristics (e.g. age , gender and proficiency) of the participants in the interaction (e.g . Oliver 2002 ; Pica , Berducci , Holliday , Lewis , & Newman 1990 ; Scarcella & Higa 1981). Given the purpose of the current study , previous studies on the impact of proficiency on negotiation of meaning home and abroad are presented in detail in the following part .

3.1 Language Proficiency and the Amount of Negotiation of Meaning

As mentioned in Sections 1 and 2 , negotiation of meaning is vital in second language acquisition . Since negotiation of meaning plays a facilitative role in second language acquisition , then the more , the better (Foster & Ohta 2005). Given the fact that peer-peer interaction involving different proficiency learners is commonly observed in a second language classroom , several studies have been conducted to see if proficiency is a factor that influences the amount of negotiation of meaning .

Porter (1983) looked for differences across learner proficiency levels in task-centered discussions . The subjects in the study (12 nonnative speakers and 6 native speakers) represented three proficiency levels : intermediate , advanced , and native speaker . The learners were all native speakers of Spanish . Each subject participated in three problem-solving tasks , one with a speaker from each of the three proficiency levels . For comparison , six subcategories of repairs were built , which are usually considered meaning negotiation moves in other studies : confirmation checks , clarification requests , comprehension checks , verifications of meaning , definition requests and lexical uncertainties . It was reported in the study that learners negotiated more with other learners who were at a different level of second language proficiency . As a pedagogical implication , Porter (1983) suggested that it was better for teachers to pair students of differing proficiency levels .

Varonis and Gass (1985) examined the amount of negotiation that took place among three combinations : native speaker-nonnative speaker , native speaker-native speaker , and nonnative speaker-nonnative speaker . All participants were university ESL students at the same university . However , the nonnative speakers had different first language background . Their first language was either Spanish or Japanese . In the study , three types of grouping were arranged : 14 pairs of nonnative speaker-nonnative speaker , 4 pairs of native speaker-nonnative speaker , and 4 pairs of native speaker-native speaker . Their research showed that the nonnative speaker-nonnative speaker pairs that differed in proficiency level and first language background engaged in more negotiated interaction , presumably providing them with more comprehensible input . The researchers explained that speakers who had the least in common , produced the most lengthy and complex negotiations because the need to negotiate was greatest .

Yule and Macdonald (1990) investigated whether different proficiency pairs could work successfully if each member was given appropriate interactive roles . The participants were 40 university foreign language students . They were of various first language backgrounds and of either high or advanced

intermediate proficiency level. The participants were assigned to interact with someone of a different proficiency level and first language background. Each pair was provided with a map. The more dominant role was to provide map directions and the less dominant role was to identify the directions. The results revealed that when the lower proficiency member was responsible for the more dominant role, there was more negotiation of meaning and a successful resolution of the problems presented in the task. Conversely, when the higher proficiency member played the more dominant role, they engaged in little negotiation and in some cases changed the task. Both proficiency and the role of the learner affected the task outcome as well as the negotiated interaction between dyad members.

Kasanga (1996) investigated the effect of the language proficiency of the interlocutors on negotiation of meaning. The subjects were 54 students. All the subjects were multilingual. The students' levels of competence in English varied widely in terms of the years of study. Two types of tasks were developed, namely convergent and divergent. Each student was involved in two tasks of each type owing to the need to rotate the roles. Self-repair, other-repair, elaboration, and topicalization were coded for comparisons. The results showed that mixed-ability dyads tended to induce more negotiation of meaning and mixed-ability participation pattern had a significant learning potential. It was found that the more the student was competent in English, the more s/he was likely to challenge the partner for clarification, or request confirmation of the partner's stretches of speech about which s/he might have some doubt, or repair the partner's lapses, errors or mistakes.

Iwashita (2001) examined the impact of learner proficiency in learner-learner interaction on modified output through two meaning negotiation moves, namely confirmation checks and clarification requests. The subjects in the research were learners of Japanese. They were divided into three groups: Low-Low, High-High and High-Low groups. One two-way jigsaw and two one-way information gap tasks were given to each pair. In the study, High-Low groups produced the most amount of negotiation of meaning. However, Iwashita only compared two meaning negotiation moves (confirmation checks and clarification requests). Comprehension check, another essential meaning negotiation move, was not concerned in the study because the influence of proficiency on negotiation of meaning was not its research focus.

Ma (2004) studied the influence of proficiency on the process of meaning negotiation in interaction from the cognitive and psychological perspectives of second language acquisition. In her view, a higher learner is usually expressing himself/herself clearly and easily understood. If the interlocutor is at the same proficiency level, there are few opportunities for communication breakdowns. But when the interlocutor is relatively lower, the learner's utterance may be beyond the interlocutor's linguistic capability, which is likely to bring about communication breakdowns. In order to keep their interaction going on, there is a need to negotiate meaning, which allows the lower partners access to comprehensible input. Thus, Ma suggested that learner proficiency should be a pedagogical concern when implementing oral activities. Ma's study makes some theoretical contribution to the influence of proficiency on negotiation of meaning, however, she hasn't offered empirical evidence.

To sum up, the above stated studies have examined the impact of proficiency on amount of negotiation of meaning cognitively, psychologically and quantitatively. The results from these studies provide foreign language teachers with valuable suggestions for pairing up second language learners to carry out group tasks. However, there are two major limitations in these studies. Firstly, the variable "proficiency" was interwoven with another variable "cultural background" in most of the previous empirical studies we have discussed. The subjects in these studies were of different language proficiency as well as various first language backgrounds. It is virtually impossible to draw conclusions from the studies in which the variable "cultural background" was not excluded. Secondly, the categorizations of negotiation of meaning varied widely in the previous studies we have discussed. Different categorizations of meaning negotiation were employed in the previous studies. However, among the meaning negotiation moves, only clarification requests, confirmation checks and comprehension checks are usually regarded as essential moves (Foster 1998; Pica 1987; Pica & Doughty 1985).

The above mentioned limitations in the previous studies encourage the present study to take place with an attempt to examine whether proficiency has an effect on amount of negotiation of meaning:

Firstly ,the current study selects second language learners of same first language background as the subjects ,which could exclude the influence of the variable “cultural background ” ;secondly ,the incidence of negotiation of meaning in the current study is observed through occurrences of the three essential moves for negotiation of meaning — clarification request , confirmation check and comprehension check .

3.2 Language Proficiency and Type of Negotiation of Meaning

In order for negotiation of meaning to occur ,(1) nonunderstanding of the whole or part of the utterance should take place and (2) an action should be taken to signal nonunderstanding (Jang 1996) . Moves for signaling nonunderstanding ,or for initiating negotiation of meaning are crucial to the success of the discourse (Gass &Varonis 1986 ;Varonis &Gass 1985) . Given this claim ,several studies have been conducted to investigate whether proficiency is a factor that has an impact on the move of negotiation of meaning .

Rost and Ross (1991) found that proficiency was related to certain meaning negotiation type — clarification requests . They classified clarification requests into three different types :global clarification request ,local clarification request and inferential clarification request . However ,the local level of clarification is usually considered as confirmation checks in other studies and inferential levels of clarification requests do not belong to meaning negotiation moves (Jang 1996) . Thus ,the contribution they made is not the subcategorization of clarification requests but the correlation of main negotiation moves (clarification requests and confirmation checks) with proficiency . It revealed in their study that the less proficient learners had difficulty in understanding the whole message of the more proficient learners ,and thus they tended to rely on clarification requests over confirmation checks .

In examining whether proficiency influences meaning negotiation moves ,Oliver (2002) reported a different finding . Oliver compared the type of negotiation of meaning in child dyads from six different proficiency levels — native speaker native speaker , High native speaker , Low native speaker , High - High , High -Low , Low -Low . The study found that learner proficiency was related to meaning negotiation strategies . High -High dyads tended to use comprehension checks and clarification requests for interaction . Low -Low dyads were more likely to use confirmation checks over others .

Given that there has been much debate about the correlation of proficiency and meaning negotiation moves ,more researches are needed to make an attempt to examine whether proficiency has an effect on the type of negotiation of meaning .

4 . Research Questions and Hypotheses

The first research question is :Does proficiency have an effect on the amount of learner learner s negotiation of meaning ?Based on the research review ,it is hypothesized that High -Low dyads will produce the most negotiation of meaning (High -Low > High -High ,Low -Low) .

The second research question is :Does proficiency have an effect on learner learner s meaning negotiation types (clarification request ,confirmation check ,and comprehension check) ?Based on the research review ,it is hypothesized that the proportion of three types of meaning negotiation provided in High -Low dyads ,High -High dyads and Low -Low dyads will be different (High -Low High -High Low -Low) .

5 . Method

5.1 Subjects

Following the technique of systematic random sampling ,we got 60 subjects out of 158 students from three intact classes . The subjects were enrolled for the first semester at Lanzhou Jiaotong University . They were non -English majors . Their home language is Chinese . They ranged in age from 17 years to 21 years old .

Among the 60 subjects ,30 participants were categorized as high intermediate and the remaining 30 participants were categorized as low intermediate according to their English language proficiency . The

subjects were further randomly grouped into three sub groups :high group (High-High) ,low group (Low-Low) and mixed group (High-Low) . Each group had 20 students (10 dyads in all) .

The notations “ high ” and “ low ” refer to the relative proficiency of the students in the study . The high proficiency learners gained more than 70 % on average in the written ,listening and oral tests ;the low proficiency learners gained less than 65 % on average in the written ,listening and oral tests . Independent sample t test shows that the difference in proficiency between two levels (High and Low) was significant (see Table 1) .

Table 1 . Proficiency of Subjects

Test type	High (n =30)		Low (n =30)		t value	p value
	M (%)	SD	M (%)	SD		
Written	77 .2	4 .28	58 .4	7 .42	12 .02	p <0 .0001
Listening	85 .7	4 .10	57 .3	7 .16	18 .81	p <0 .0001
Oral	72 .9	4 .38	57 .3	4 .11	13 .98	p <0 .0001

The material for the written ,listening and oral tests was a version of the Public English Test System — Level 2 ,published by the Higher Education Press in 2006 . The scores of the written section ,listening section ,and oral section were converted into hundred -mark system respectively for our research purpose . After training ,a second rater and the researcher independently scored the written section . The interrater reliability reached 0 .91 . The oral section was rated by two certified examiner . The listening section consisted of multiple choice questions .

5 .2 Procedure

The dyads worked together on a picture difference task within 7 minutes . During the task ,the students sat at desks ,facing each other . One subject of the dyad was given picture A ,and the other one picture B . There were 10 slight differences between picture A and picture B . Without showing each other their pictures ,the subjects were asked to do the task only by describing their pictures or asking their partners for information . Their interactions were audio recorded . During the recording sessions ,the researcher of the current study was standing to guarantee better observation and to reduce cheating . The first 4 minutes of the recording for each pair was transcribed in the following week .

5 .3 Task

A picture difference task was chosen for the study . It was adapted from Mackey and Gass (2005) . One subject of the pair was given picture A ,and the other one picture B . There were 10 slight differences between picture A and picture B . The employment of the picture difference task in the current study lies in the finding by earlier studies that negotiation of meaning is likely to be more frequent in tasks that : (1) require information exchange ; (2) involve a two-way exchange of information ; (3) have convergent goals ; and (4) have only one acceptable outcome (Pica ,Kanagy & Falodun 1993) . The picture difference task in the current study incorporated the four features in that the participants : (1) had slightly different pictures representing different portions of information ; (2) had to ask the partner for information and supply it by describing their picture ; (3) had the same goal of finding 10 differences between the two pictures ; and (4) only tried to find the 10 differences because it was the only acceptable outcome that the task required . The present picture difference task seemed to be likely to produce optimal conditions for negotiation of meaning . In addition , a number of studies have shown that picture difference tasks requiring a two-way exchange of information provide opportunities for negotiation of meaning (e.g . , Foster 1998 ; Kasanga 1996 ; Mackey 1994 1999 ; Mackey & Oliver 2002) .

5 .4 Analysis

5 .4 .1 Transcriptions

The first 4 minutes of the recording for each pair in the picture difference task was transcribed by the researcher in the second week of the data collection . In order to get the closest transcription and to maintain the highest possible quality ,one of my colleagues was invited to recheck the transcripts against the audio recordings after training . The interrater reliability between the researcher and my colleague was 0 .90 .

5.4.2 Coding

Previous studies suggest that communicative unit (c-unit) is more sensitive to the transmission of meaning and a more appropriate measure for an investigation into oral language (Foster 1998 ;Foster & Skehan 1999). Therefore ,c-unit was adopted in the current study as the unit of measure for language production . C-units in the current study were calculated according to the definitions by Yuan and Ellis (2003). According to Yuan and Ellis ,a c-unit is “an utterance that consists of a single complete sentence , phrase ,or word and that has a clear semantic/pragmatic meaning in the context in which it occurs ” (2003 :26). After training ,a second rater and the researcher independently coded the c-units in the transcription . The interrater reliability between the second rater and the researcher is 0.88 .

For the purpose of the current study ,the transcripts were also coded for the instances of negotiation of meaning . The incidence of negotiation of meaning in the current study was observed through occurrences of the three essential meaning negotiation moves :clarification request ,confirmation check and comprehension check . They were widely employed across studies in the field as essential moves for negotiation of meaning (Foster 1998 ;Pica 1987 ;Pica & Doughty 1985). Comprehension check , confirmation check and clarification request in the present study were categorized according to the definitions by Pica (1987).

Confirmation checks consist of “ moves by which one speaker seeks to confirm the other s preceding utterance through repetition ,with rising intonation of all or part of the utterance ”(Pica 1987 :18).

NS :Did you get high marks ?Good grades ?

NNS :High marks ? (Pica 1987 :5)

Clarification requests consist of “ moves by which one speaker seeks assistance in understanding the other speaker s preceding utterance through questions (e. g . , What do you mean ?) ,statements (I don t understand) ,and imperatives such as Please repeat ”(Pica 1987 :18).

NS :So ,you came here by yourself or did you come with friends ?

NNS :No no I -what ?What you say ? (Pica 1987 :5)

Comprehension checks consist of “ moves through which one speaker attempts to determine whether the other has correctly understood a preceding utterance (e. g . ,Do you understand ?Should I repeat that for you ?)”(Pica 1987 :18).

NNS :Can t speak girl and why ?Because this this girl very angry also . You know what I mean ?

NS :Yes . (Pica 1987 :5)

After training ,a second rater and the researcher independently categorized the meaning negotiation pattern as confirmation checks ,clarification requests ,and comprehension checks . The interrater reliability is satisfactory (confirmation checks 0.93 ;clarification requests 0.92 ;comprehension checks 0.92).

5.4.3 Measure

5.4.3.1 Amount of Negotiation of Meaning

The first research question addressed the effect of proficiency on the amount of negotiation of meaning . Since there might be significant differences in language production and there might have been different opportunities for learners to negotiate meaning ,the production of negotiation of meaning was analyzed as a proportion of negotiation of meaning to total c-units . This measurement has also been adopted in previous studies (e. g . ,Foster 1998 ;Iwashita 2001)

5.4.3.2 Type of Negotiation of Meaning

The second research question addressed the effect of the proficiency level on the type of negotiation of meaning . Negotiation of meaning was analyzed as the incidence of confirmation checks ,clarification requests ,and comprehension checks . The first research question considered the total incidence of these meaning negotiation moves ;the second research question looked at these moves individually ,to see if the incidence of meaning negotiation types was influenced by proficiency . Each meaning negotiation type was

considered as a proportion of the total meaning negotiation engaged in by each dyad. This measurement has also been adopted in previous studies (e.g., Iwashita 2001; Oliver 1998). To be specific:

$$\text{Proportion of comprehension checks} = \frac{\text{comprehension checks}}{(\text{comprehension checks} + \text{clarification requests} + \text{confirmation checks})}$$

$$\text{Proportion of clarification requests} = \frac{\text{clarification requests}}{(\text{comprehension checks} + \text{clarification requests} + \text{confirmation checks})}$$

$$\text{Proportion of confirmation checks} = \frac{\text{confirmation checks}}{(\text{comprehension checks} + \text{clarification requests} + \text{confirmation checks})}$$

5.4.4 Statistic Analysis

The main instrument for quantitative analysis was Statistic Package for Social Science 15.0. As mentioned in Section 5.1, a factorial design 3x1 was adopted for the present study to compare the effects of three sub-independent variables: High-High proficiency, High-Low proficiency and Low-Low proficiency, therefore, one-way ANOVAs were employed to assess the effects of proficiency difference on learner-learner's negotiation of meaning. The alpha for achieving statistical significance was set at 0.05. If significant differences were found, Post Hoc Tukey tests were followed.

6. Results and Discussion of the Study

6.1 Results and Discussion of the Experimental Research Question 1

The first research question addressed the effect of proficiency on the amount of negotiation of meaning. Table 2 compares the means and standard deviations for the incidence of negotiation of meaning per c-unit by each dyad type on the task. As shown in Table 2, the mean number of proportion of negotiation of meaning to c-units was largest in High-Low dyads (0.14), lower in High-High dyads (0.09) and lowest in Low-Low dyads (0.08), with a very slight difference of 0.01 in High-High dyads and Low-Low dyads. Proficiency did seem to influence the incidence of negotiation of meaning. The results of one-way ANOVAs (see Table 2) agreed with the descriptive findings.

Table 2. One-way ANOVAs: Proficiency Difference and Amount of Negotiation of Meaning

Proficiency type	M	SD	F value	p value
High-Low	0.14	0.06	5.49	0.01
High-High	0.09	0.03		
Low-Low	0.08	0.02		

The one-way ANOVAs revealed that proficiency was a factor that influenced the amount of negotiation of meaning ($F = 5.49$, $df = 2$, $p = 0.01$). Since the ANOVAs revealed there was a significant difference among the three proficiency groups, the mean number of negotiation of meaning were further submitted to Post Hoc Tukey tests in order to determine which proficiency group produced most negotiation of meaning. The Tukey tests (see Table 3) showed that High-Low dyads significantly produced more negotiation of meaning than High-High dyads ($p = 0.04$) and Low-Low dyads ($p = 0.02$); no significant differences were found between High-High dyads and Low-Low dyads ($p = 0.94$). Therefore, hypothesis 1 that High-Low dyads produced the most negotiation of meaning (High-Low > High-High, Low-Low) was confirmed.

Table 3. Post Hoc Tukey Tests: Proficiency Difference and Amount of Negotiation of Meaning

Proficiency Group	Mean Difference	p value
High-Low vs. High-High	0.05	0.04
High-Low vs. Low-Low	0.06	0.02
High-High vs. Low-Low	0.01	0.94

The finding of the present study is in line with the results found in previous studies (Iwashita 2001; Kasanga 1996; Porter 1983; Varonis & Gass 1985; Yule & Macdonald 1990). The current study, together with these studies, provides supporting evidence that mixed proficiency pairs (High-Low) are more

effective at promoting meaning negotiation than pairs of learners with similar proficiency (High -High and Low -Low). This might be attributed to the proficiency difference between the high level learners and the low level learners .

When high level learners are paired with the same level partners ,they have a lot in common in terms of foreign language proficiency . They have richer vocabularies . They often pronounce words more clearly and correctly . They often express ideas adequately and explicitly , which may be more easily understood . Even when they have troubles in understanding a certain word or a certain part of the preceding utterance of their interlocutors ,they can keep their interaction going on without negotiating the meaning of the troubled part because they can catch the main idea of the interlocutors utterances . Thus ,breakdown is less likely to occur in High -High dyads in the interaction .

When a low level learner is paired up with another low level subject ,they also have a lot in common in terms of foreign language proficiency . They have limited vocabularies . They often pronounce words wrongly . They often express ideas inadequately and implicitly , which may be more difficult to understand . Thus ,communication breakdown is more likely to occur in Low -Low dyads . However ,they negotiate communicative problems little although there are frequent occurrences of breakdown in their interaction . The low learners sometimes do not listen to their partners carefully . They are busy preparing next utterance or describing their own picture . When communication breakdowns occur ,they often do not know what to ask for in the interaction because of their limited linguistic competence . Thus ,low level students paired with the same foreign language proficiency partners produce fewer negotiation of meaning .

When a low level learner is paired up with a high level subject ,they have the least in common in terms of language proficiency ,compared with High -High dyads and Low -Low dyads . The low level learners lack vocabularies . They often mispronounce words . Their utterances are often incomplete and ambiguous . The high level learners have larger vocabularies . They often express ideas fast . They often use some complicated words or longer sentences that are beyond the low level learners linguistic competence . Thus ,misunderstanding or breakdown is more likely to occur in High -Low dyads in the interaction . In order to master the information held by their partners to complete the task ,the subjects in High -Low dyads use more negotiation of meaning to make the interaction go smoothly . Therefore ,mixed proficiency pairs (High -Low) produce more negotiation of meaning than do pairs of learners with similar proficiency (High -High and Low -Low) .

6.2 Results and Discussion of the Experimental Research Question 2

The second research question addresses if the incidence of meaning negotiation types was influenced by proficiency . Table 4 compares the means and standard deviations for the incidence of each type of negotiation of meaning by each dyad type . The incidence of each negotiation of meaning type was fairly uniform across dyad type (confirmation checks : 0.49 [High -Low] , 0.36 [High -High] , and 0.24 [Low -Low] ; clarification requests : 0.49 [High -Low] , 0.60 [High -High] , and 0.64 [Low -Low] ; comprehension checks : 0.03 [High -Low] , 0.05 [High -High] , and 0.12 [Low -Low]). The proficiency composition of the dyad did not seem to affect the meaning negotiation types the dyads engaged in . The results of one -way ANOVAs (see Table 4) confirmed the descriptive findings .

The one -way ANOVAs revealed that proficiency was not a factor that influenced any type of negotiation of meaning (confirmation checks : $F = 1.80$, $df = 2$, $p = 0.19$; clarification requests : $F = 0.67$, $df = 2$, $p = 0.52$; comprehension checks : $F = 0.91$, $df = 2$, $p = 0.41$). Therefore ,hypothesis 2 that the proportion of three types of meaning negotiation (clarification requests , confirmation checks , and comprehension checks) provided in High -Low dyads , High -High dyads and Low -Low dyads would be different (High -Low High -High Low -Low) was not confirmed . The finding in the current study is different from the findings found in previous studies (Oliver 2002 ; Rost & Ross 1991) . Several reasons account for this finding .

Table 4 . Comparison of Meaning Negotiation Type across Different Proficiency Groups

Meaning negotiation type	Proficiency	M	SD	F value	p value
Confirmation checks	High-Low	0.49	0.29	1.80	0.19
	High-High	0.36	0.33		
	Low-Low	0.24	0.24		
Clarification requests	High-Low	0.49	0.29	0.67	0.52
	High-High	0.60	0.33		
	Low-Low	0.64	0.29		
Comprehension checks	High-Low	0.03	0.06	0.91	0.41
	High-High	0.05	0.10		
	Low-Low	0.12	0.25		

In the current study, clarification requests are usually more prevalent than confirmation checks across dyads (High-High dyads, High-Low dyads, and Low-Low dyads). It appears that there is no need to catch each word in understanding the interlocutor's utterances. Guessing or grasping the main idea works well in understanding the previous utterances. Sometimes it is very hard for nonnative speakers to repeat the preceding words with rising intonation to check the meaning because of their limited foreign language proficiency compared with native speakers. Clarification requests especially short clarification requests, such as "sorry", "pardon", and "repeat", will be preferable to taking troubles to repeat or formulate the previous troubled linguistic items.

In the current study, subjects across dyads employ comprehension checks only rarely (3 cases [High-Low], 2 cases [High-High], and 4 cases [Low-Low]). This is because comprehension checks may involve face threat. When a learner employs comprehension checks, such as "Do you understand?" and "Do you know what I mean?", to explicitly check the comprehensibility of their interlocutors, the interlocutors are more likely to feel embarrassed and threatened because these expressions might prompt the interlocutors to think that they are not able to express themselves in target language or their comprehension abilities are doubted by the learner. Even sometimes it is more appropriate or necessary to use comprehension checks to signal communicative problems, learners tend to use clarification requests and confirmation checks which are less face threatening than comprehension checks.

7. Conclusion

7.1 Major Findings

Inspired by the Interaction Hypothesis and other theoretical arguments that negotiation of meaning brings about three facilitative conditions for second language acquisition — comprehensible input, comprehensible output, and attention to second language form, the current study explores the influence of proficiency on negotiation of meaning. The first research question of the current study investigates whether proficiency has an effect on the amount of negotiation of meaning. It has been found that the amount of negotiation of meaning is larger in High-Low dyads than High-High dyads and Low-Low dyads. On the basis of the preceding discussion, we conclude that students in heterogeneous groups in which high proficiency students are teamed up with low proficiency students will provide a comparatively rich context for students to negotiate meaning.

The second research question in the current study addresses the impact of the proficiency on the type of meaning negotiation. It has been revealed that proficiency is not a factor that influences any type of negotiation of meaning. The proportion of the three meaning negotiation types is fairly uniform across dyad type. Learners across dyads are more likely to use clarification requests and confirmation checks, but tend not to use comprehension checks. Based on the preceding discussion, we conclude that the incidence of each type of meaning negotiation does not vary according to whether the dyad is comprised of two high learners, two low learners, or a high learner and a low learner.

Concerning the relationship between negotiation of meaning and language acquisition, Long (1985) proposes a two-step argument: (1) negotiation of meaning promotes comprehension of input; (2) comprehensible input promotes acquisition. From this, he deduces that the negotiation of meaning

promotes acquisition .In addition ,a number of empirical studies (e.g . ,Ellis ,Tanaka & Yamazaki 1994 ; Gass & Varonis 1994 ; Loschky 1994) have provided direct evidence that negotiation of meaning results in acquisition . Therefore ,if negotiation of meaning is good for second language acquisition ,then more must be better (e.g . ,Foster 1998 ; Foster & Ohta 2005 ; Kasanga 1996 ; Long 1983a ,1983b ; Oliver 1998 , 2002 ; Pica et al .1993 ; Varonis & Gass 1985) . Given the finding in the current study that proficiency is a factor that influences the amount of negotiation of meaning and the mixed proficiency participation pattern (High -Low) is more effective at promoting learner-learner's negotiation of meaning ,the presence of different proficiency levels in the same language class or groups should be a serious pedagogical concern for teachers as well as learners and such a strategic organization (High -Low) can be spread into English as a foreign language teaching class when implementing tasks similar to the one in the current study .

7.2 Implications

Theoretically ,Long (1983c ,1996) argues in his Interaction Hypothesis that negotiation of meaning facilitates second language acquisition in that input can be made comprehensible by way of negotiation of meaning . Long's study has focused on how native speakers make their utterances comprehensible to nonnative speakers . According to Long (1996) ,Storch (2001) and Varonis and Gass (1985) ,it is possible that negotiation of meaning differ across sociolinguistic variables . Thus ,more studies on other sociolinguistic variables ,such as ethnicity ,native language ,the role of the participants and their respective status ,their sex ,their age ,the number of participants in the discourse ,and the topic of discourse ,should be conducted to strengthen Long's Interaction Hypothesis . The current study examines whether negotiation of meaning varies according to whether the dyad is comprised of two high learners ,two low learners ,or a high learner and a low learner . The result of the current study shows that mixed-proficiency dyads (High -Low) produce more negotiation of meaning than matched proficiency dyads (High -High and Low -Low) in nonnative speaker-nonnative speaker interaction . Thus ,the variable "proficiency "is a factor that influences the instances of negotiation of meaning . Long's (1980 ,1983b) studies compare native speaker-nonnative speaker interaction and native speaker-native speaker interaction . The current study ,having addressed the influence of proficiency on nonnative speaker-nonnative speaker meaning negotiation ,might present further evidence for Long's Interaction Hypothesis .

Pedagogically ,when carrying out pedagogical tasks in English as a foreign language teaching class ,teachers are usually perplexed by learners' proficiency difference . Learner's proficiency even within the same group or pair is not always similar . How to pair or group them has been a concern for teachers as well as learners . The finding in the current study shows that mixed proficiency dyads produce most negotiation of meaning . As discussed in Section 1 and 2 ,a lot of studies have shown negotiation of meaning is facilitative to second language acquisition . Thus ,the current study is of great significance . It shows that mixed proficiency dyads (High -Low) provide optimal opportunities for negotiation of meaning which is beneficial for language learning . In task-based language teaching classroom ,teachers should pair high learners with low learners to work mutually . This strategic pairing provides optimal conditions for learner-learner's negotiation of meaning ,which is helpful for learners to internalize target language forms .

7.3 Limitations and Suggestions for Future Research

In considering and applying the findings of this study as described above ,it is important to note that there are several key limitations . The major limitation of the study is that this study is a descriptive study of proficiency and meaning negotiation between second language learners . It is mainly concerned with the influence of proficiency on negotiation of meaning . The influence of proficiency on learners' learning outcomes is not investigated in the current study . Further studies are needed to check the influences of proficiency on learners' ultimate language learning through negotiated interaction .

The other limitation is that the data for the current study are collected from laboratory experiment . The influence of learner proficiency on negotiation of meaning might be different in an authentic classroom . Future studies could explore the influence of learner proficiency on second language interactions in an authentic classroom with tasks embedded in the curriculum .

Another limitation relates to the type of negotiation of meaning. The current study examines the effect of proficiency on meaning negotiation through clarification requests, confirmation checks, and comprehension checks. They are verbal meaning negotiation moves. It is important that the results from the current study should be cautious because the results may be different if non-verbal meaning negotiation moves and other types of meaning negotiation moves have been taken into consideration. There is a scope for future studies to check the effects of nonverbal meaning negotiation ways in the interaction.

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