Topic Initiation and Topic Continuation in Computer-mediated Discourse- A case of Native English Speaker vs. Non-native English Speaker -

Jeong-hwa, Shin
English Lit. & Language, Korea University

In order to reach native-like language competence, it is required for L2 learners to be equipped with discourse, illocutionary, sociolinguistic and strategic competences as well as such a well-known grammatical competence (Bachman, 1990). Among them, this study covers discourse competence focusing on Topic Initiation (TI) and Topic Continuation (TC). By comparing the frequencies, patterns and structures of TI and TC between the native English speakers (NS) - NS discourse and the non-native English speakers (NNS: Korean & Japanese) - NNS discourse, it's possible to know how the L2 learners differ from the NSs in TI and TC in L2 communication. In addition, this study shows the possibility that such differences can be narrowed down through discourse practices even between NNS-NNS.

1. Introduction

This study starts from the question why the second language learners still have difficulties in L2 communication, even though they have proven to have native-like linguistic knowledge about grammar and vocabulary in many official English tests. One of the reasons for such an unbalance between language competence and language performance for L2 learners might be that the teaching and theories on SLA and EFL have mainly focused on grammatical competence over the last few decades (Chomsky, 1965; Ravem, 1970; Dulay & Burt, 1974; Schacter. 1974). However, there are many other competences required for the second language learners to get native-like language competence.

Pointing out the limited concept of language competence, Bachman had suggested that grammatical, discourse, illocutionary, sociolinguistic and strategic competences are needed for the complete language competence. In order to find out some possible answers to the question above, this study

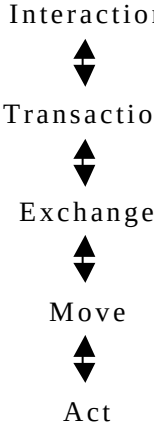
covers discourse competence, focusing on TI and TC. Since discourse competence is the ability to connect sentences in stretches of discourse and to form a meaningful whole out of series of utterance, analyzing topic units in discourses will be a way of measuring one's discourse competences. Regarding the realization of TI and TC, the specific purpose of the present study is to seek the answers to the following 3 research questions: 1) how do NS-NS discourse and NNS-NNS discourse differ in the frequencies, patterns of TI and topic-initiating acts? 2) how do NS-NS discourse and NNS-NNS discourse differ in the frequencies, patterns and structures of TC? 3) if there are differences, can the differences between NSs and NNSs be reduced by discourse practices? By comparing the frequencies, patterns and structures of TI and TC between the NSs and the NNSs, it's possible to know how the L2 learners differ from the NS in their TI and TC in L2 communication and how the differences can be overcome.

To get the answers, totally 25 computer-mediated chatting data collected from two different discourse groups (NS-NS & NNS-NNS) were analyzed, following the model of discourse analysis offered by Francis & Hunston (1987). The discourse analysis provides L2 learners with insights into their L2 discourse and communication.

2. Model of discourse analysis (Francis & Hunston, 1987)

The discourse data are analyzed according to the model of discourse analysis by Francis & Hunston (1987). Act, move, exchange, transaction and interaction are the 5 basic units of discourse analysis in this model.

Figure 1. The system of analysis



The analysis goes from the rank of act and proceeds upwards.

2.1 Acts

Acts, the lowest rank of discourse level, are realized at the level of grammar & lexis and account for the discourse function of grammatical form within specific contexts. There are 32 acts in the model – framer, marker, starter, metastatement, conclusion, acquiesce, greeting, reply-greeting, summons, reply-summons, inquire, neutral proposal, marked proposal, return, loop, prompt, observation, informative, concur, confirm, qualify, reject, terminate, receive, react, reformulate, endorse, protest, directive, behave, comment and engage.[1]

In matching acts with grammatical forms, two factors, *situation* and *tactics* should be necessarily considered. Situation includes all relevant factors in the discourse context, social conventions and the shared experience of the participants, which all affect on different interpretations of utterances. Tactics means the syntagmatic pattern of discourse: the discourse value of an item depends on what linguistics items have preceded it, what are expected to follow and what actually do follow. Given these two factors, the 3 common grammatical units, declaratives, interrogatives or imperatives are analyzed into 32acts.

2.2 Moves

Moves are made up of 32 acts and place in the structure of exchange. There are 8classes of move in Francis & Hunston (1987)'s model – framing, opening, answering, eliciting, informing, acknowledging, directing and behavior moves; the first three are realized as the elements of structure of organizational exchanges and the other five of conversational exchanges. Although all of them consist of same structural elements, (signal)+(pre-head)+head+(post-head)[2], each of the 8moves has a different function.

The function of a framing move is to mark boundaries in the conversation. So the framer act is realized as a head. An opening move whose head is metastatment, conclusion, greeting or summons initiates a conversation or

[1] Since the spaces are not enough to include the coding marks and functions of the 32 acts, the detailed information on the acts should be referenced in Francis & Hunston (1987, 1992).
[2] Head act is an obligatory element and the rests of element in brackets are optional.

imposes structure on it and obtains a warrant for doing so. An answering move whose head is realized by acquiesce, reply-greeting, reply-summon or reject indicates willingness to join in a conversation or provides a warrant for suggestions made by the other participant. A eliciting move has a function to elicit information, a decision between yes/no agreement, clarification or repetition. Therefore, the head is realized by inquire, neutral proposal, marked proposal, return, loop or prompt. A informing move is occurred when it's needed to offer information or to supply an answer to a preceding eliciting move. So the head of an informing move is observation, informative, concur, confirm, quality or reject. The function of a acknowledging move, which the head is realized by terminate, receive, react, endorse or protest, is to provide positive or negative follow-up for preceding utterances. A directing move, as literally it is, functions as a request an immediate or future action. Lastly, a behaving move whose head is realized by behavior or reject, supplies an action in accordance with preceding directive act or in defiance of it.

2.3Exchanges

Exchanges, which combine to form transaction and show the process of topic continuation, are formed by combination of 8moves. Francis & Hunston (1987) puts 10 subclasses of exchange under two major exchanges, organizational and conversational exchanges.

Table 1. The 10 classes of exchanges

Organizational exchange		Conversational exchange			
Boundary	Structuring	Elicit	Inform	Direct	Bound-Elicit
Structuring/Greet/Summon		Clarify/Repeat/Re-Initiation			

An organizational exchange has a structure of I(initiation)R(response), while the conversation exchange has I(R/I)R(F^n: feedback). A boundary exchange realized by a framing move marks boundaries in the conversation. 3 Structuring exchanges structure the conversation, prospectively or retrospectively. The function of a greet exchange is to greet or to take leave,

while a summon exchange functions to engage interlocutor in conversation or to gain his/her attention.

An Elicit exchange whose I is realized by an eliciting move elicits information, decision or agreement. As for a inform exchange whose I is realized by an informing move and R & (F) by acknowledging moves, its functions is to offer information. A direct exchange, which a directing move is realized at I position, a behavior or an acknowledging move at (R) and an acknowledging move at (F), requests immediate action.

The functions of a clarify exchange and a repeat exchange are to ask clarification for the preceding utterance and to elicit repetition of a preceding utterance respectively. A re-initiation is realized when there's indication that an informing move is required.

2.4Transaction and Interaction

A transaction is composed of exchanges. What should be noticed is the transaction is a topic-unit. Therefore, the identification of a transaction boundary should be consistent with the consideration of topic. The structure of transaction goes P (Preliminary)+M^n (Medial)+T (Terminal). The elements of P and T occupied by boundary, structuring, greet or summon exchanges play a role to open or to close topics.

Generally, interaction means the whole discourse in which at least two persons participate. In the discourse analysis, the interaction as the highest unit in the rank scale is formed by a combination of transactions.

3. Method

3.1Participants

In order to compare the NS-NS discourse and NNS-NNS discourse, 10NSs and 10NNSs were selected as participants in this study. 10NSs were the students who temporarily visit Korea to learn Korean language. Most of them were university students with different majors. 10NNSs were consisted of 5Korean University students who had a class of English pedagogy in K Univ. and 5Janpanese University students who listened to the class of English pedagogy in W Univ.

The marks, ages and genders of the participants are summarized in table 2.

Table 2. Data on participants

NS	Age	Gender	NNS	Age	Gender
E1	28	F	K1	25	M
E2	51	M	K2	26	M
E3	31	M	K3	25	M
E4	23	M	K4	24	F
E5	22	M	K5	23	F
E6	18	M	J6	19	F
E7	18	F	J7	18	F
E8	18	M	J8	24	F
E9	28	F	J9	24	M
E10	29	M	J10	19	F

The average age of NSs and NNSs are 26.6 year-old and 22.70 year-old respectively. Though there's about 4-year age difference between the two groups, it's statistically proved that the two groups are same in their ages (p-value=. 543, *p<. 05). As for the number of male and female (11M&9F), the difference wasn't statistically significant (p-value=. 370, *p<. 05).

These participants made up 2 different discourse groups: K1&J6, K2&J7, K3&J8, K4&J9 and K5&J10 were 5NNS(Korean)-5NNS(Japanese) discourse groups. E1&E2, E3&E4, E5&E6, E7&E8 and E9&E10 formed 5NS-NS discourse groups.

3.2Procedures

NS-NS and NNS-NNS discourse data were collected separately but with a same discourse method, computer-mediated chatting.

The NNS-NNS discourse data were obtained from NNSs' participation in KWCCDL (Korea-Waseda Cross Cultural Learning) program. The KWCCDL program is computer-assisted chatting program which was established between Korea Univ. and Waseda Univ. to foster the understanding between two cultures and to improve students' communicative competence in English. The NNSs participated in this program and met their partners once a week for about 6weeks, from 30, October, 2001 to 12, December, 2001. So average 6 discourse data were collected from one NNS-NNS interaction. Among these, 1st and 3rd ones were analyzed for the comparison with NSs' discourse in TI and TC and 5more data, which were the last chatting data, were additionally

analyzed to see whether there would be any improvements in TI and TC through discourse practices. Chatting hours variously ranges from 10 minutes to 1.5 hours. But only 20-min. discourse data were analyzed.

The data on NS-NS discourse, which were collected six months later after the collection of NNS-NNS discourses, were the same computer-assisted chatting data, but the chatting were done through the instant messenger service offered by Hotmail and AOL (America Online). These messengers have exactly the same system with CCDL program in that the NSs can enjoy their chatting with their interlocutor by sending and receiving intended messages almost simultaneously. NSs who agreed to participate in this study as subjects had two chatting discourse for about 20minutes during the last week of June, 2002.

There were no limitations on topics in both discourse groups.

3.3Analyses

Totally 25 discourse data were analyzed, following the model of discourse analysis offered by Francis & Hunston (1987). Given this study covers the TI and TC between NS-NS discourse and NNS-NNS discourse, there has to be a clear-cut boundary of topic in a discourse. Then which discourse unit can be the topical boundary? According to Francis & Hunston (1992), transaction unit is classified as a topical boundary.[3]

With this discourse analysis model, the specific analyses were conducted on the NS-NS and NNS-NNS discourse data. As for the TI, the frequencies of transaction, the patterns of topic-initiating exchanges & acts and the frequencies & patterns of topic-initiating transactional markers are compared between two groups. Regarding the realization of the TC, the frequencies & patterns of topic-continuing exchanges & acts and the structures of topic continuing exchanges are analyzed.

3.4Hypotheses

Hypotheses on TI and TC in comparison of NS-NS and NNS-NNS interactions go like below.

1. Although NNSs change discourse topic more often than NSs do, the

[3] ...the identification of transaction boundary should be consistent with consideration of topic, since the transaction is basically a topic-unit to (Francis & Hunston, 1992: 140).

patterns of exchanges and acts for topic initiation are more widely distributed in NS-NS discourse than NNS-NNS interaction. And the transaction markers, which signals the opponent interlocutors the new topics are in, are more often used in NS-NS discourse with various expressions.

2. Even though NNSs change topics more often, NSs are superior in continuing topics to NNS. Therefore, the frequency of topic-continuing exchanges in a transaction unit is higher in NS-NS interaction. The patterns of topic-continuing exchanges and acts are more widely used in NS-NS discourse. And NS shows more stable and complete structure of topic-continuing exchanges.
3. The differences found between NS and NNS in TI and TC can be decreased by discourse practices even between NNS-NNS.

4. Results and Discussion

4.1 Topic Initiation

4.1.1 The frequency of TI

How often do the NSs and the NNSs change topics in a discourse? In order to compare the frequencies of TI in two groups, the frequencies of transaction unit as topic unit were counted.

Table 3. The number of transactions in a discourse

	Number of groups	Min.	Max.	Mean	Standard Deviation
NS-NS	5	5	10	6.40	1.43
NNS-NNS	5	5	11	8.10	.82

Table 3 shows NNSs (6.4) drop current topics and change into other topics more often than NSs (8.1) do (p-value=. 044, *p<. 05). Then, why did the NNSs change topics so often? This can be explained by two avoidance strategies, message abandonment strategy and topic avoidance strategy. When learners stumble into topic that is difficult to handle, they simply give up delivering messages on it and go on to another. And learners also tend to

avoid specific topics or words to the best of their ability. They usually manage to prevent occurrence of topics that are certain to present difficulties. Although these strategies are communicative strategies, which the L2 learners employ to make up for their lack of linguistic ability, these are all negative strategies in the respect that these strategies show the L2 learners didn't make any real efforts to solve the problems that they faced and deter the NNS from continuing on a given topic.

4.1.2 The pattern of TI

The answer for the question, 'how the NSs and the NNSs initiate topics?' can be found in the data of topic-initiating exchanges. Among the 10classes of exchanges, 8exchanges except boundary and directive exchanges were realized as topic-initiating exchanges. Boundary exchanges were avoided because chatting participants tried to draw interlocutors' attentions by using summon, greet, elicit or inform exchanges, which were more useful in having interlocutors be involved in discourses. Directive exchanges were rarely used for TI, since it's out of manner for conversationalists to initiate new topics by directing others to do something.

Table 4. Topic-initiating exchanges

		Structuring	Greet	Summon	Elicit	Inform	Total
NS-NS	n	10	6	6	27	15	64
	%	15.6	9.4	9.4	42.2	23.4	100.0
NNS-NNS	n	11	9	2	42	17	81
	%	13.6	11.1	2.5	51.9	21.0	100.0
Total	n	21	15	9	69	32	145
	%	14.5	10.3	5.5	47.6	22.1	100.0

Table 4 shows elicit and inform exchanges are the most predominantly used exchanges to open topics in both groups. Both the NSs and NNSs usually begin new topics by means of asking new information, decision or agreement, or giving information to interlocutors. This suggests question forms are powerful and comfortable tools for L2 learners to draw interlocutors' attention into topics and to elicit reply and in the end to bring about

feedback.

4.1.2.1 Topic-initiating Elicit exchanges

Elicit exchanges, the most frequently used topic-initiating exchange, have a structure of I(R/I) R (F^n). Among the 4 structural elements, I is directly related to TI. 3 acts – inquire, marked proposal and neutral proposal – can be realized as head acts at I position. Using the same data in topic-initiating exchanges, elicit exchanges are further analyzed to determine the types of topic-initiating acts.

Figure 2. 3Acts in Topic-initiating Elicit exchanges

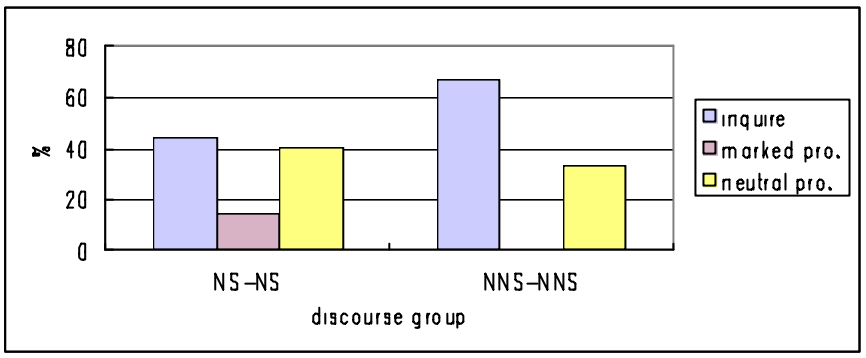


Figure 2 shows both the NSs and the NNSs use inquire acts, which correspond to the wh-questions, most frequently and neutral proposals, which correspond to yes/no questions, next. What's different is the NSs use 3 acts more widely (p-value=. 017, *p<. o5), while the NNSs depend on only the two acts, particularly on an inquire, and didn't show the use of a marked proposal at all. This can be explained by the fact that it takes more time for NNSs to register and to process questions starting with 'aren't you~?' or 'don't you~?' than yes/no and wh-questions. Therefore, it is needed for NNSs to practice various kinds of topic-initiating acts corresponding to wh, yes/no, negative or tag questions.

4.1.2.2. Topic-initiating Inform exchanges

Inform exchanges, which shows high frequency next to elicit exchanges, have function to deliver information, opinion or idea. Inform exchanges have the structure of I(R/I) R (F^n). And an informing move is usually located at I position. Therefore, an informing move plays a topic-initiating role in an

inform exchange. The head acts of informing move in an independent Inform exchange are informative or observation.

Figure 3. 2 Acts in Topic-initiating Inform exchanges

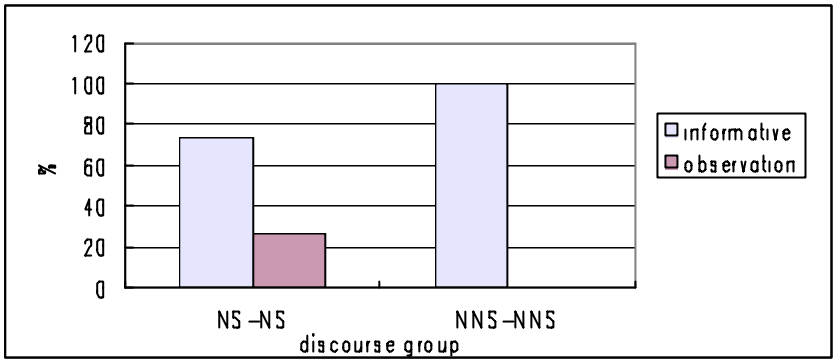


Figure 3 shows NSs use two acts more regularly than NNS do. The difference in distribution rates between two groups is also statistically significant (p-value=. 038, *p<. 05). This result tells the NSs are capable of initiating topics by borrowing already shared information (observation act) as well as by introducing new information, idea, or opinion (informative act), while the NNSs entirely depend on inducing new information for TI.

4.1.3 TI-signaling acts

Transactional markers as TI-signaling acts let the interlocutors know topics move into different direction in a discourse. The transactional marker is an attention-calling device in that it attracts interlocutors' attention on newly coming topics and facilitates processing of information along with the topics. Therefore, the transaction marker comes to play a critical role in successful TI and TC. Then, how the NSs and NNSs differ in their realization of transactional markers?

Table 5. Transactional markers

Discourse groups	Chatting (C)	Utterance (Act)	n.
E1E2	C1	hi mel! (summon) / So....(framer)/ Sorry about that.(starter) / I've got a question for you.(starter)	4

	C2	I met a dorm supervisor at breakfast this morning whose English was amazing.(starter)/Wait a second.(framer)/ More about medicine.(starter)	3
E3E4	C1	Hey Alex (summon)/ so(starter)	2
	C2	HEY Eddie. (summon)/ hey sorry to be off subject. But (met statement)/ this Friday night will be one to remember, I think.(metastatement)/ during our trip to yongsan(starter)/ but to get off the subject again...(metastatement)/ ok(framer)	6
E5E6	C1	Hey(summon)/ so by the way(marker)/ ok(framer)	3
	C2	anyways(framer)/ so back to the test,(starter)/ so(marker)/ but seriously(marker)/ well(marker)	5
E7E8	C1	Hey(summon)/ so(marker)/um(marker)/ so(marker)/ so(marker)	5
	C2	hello? (summon)	1
E9E10	C1	Guess what?(starter)/ HEY(summon)	2
	C2	Pam?(summon)/ let me explain something quick(metastatement)/ let's chat(metastatement/ hang on(starter)	4
Total			35
K1J6	C1	Hey(summon)/ I am freshman in this university and I major in law(starter)/ well(framer)/ Izumi(summon)	4
	C2	so(marker)/ anyway(framer)/ I'm hungry(starter)/ yeah(marker) / I think the time's up ready.(metastatement)/ at last(framer)	6
K2J7	C1	Hmmm(marker)	1
	C2	Ah..(marker)/ by the way(marker)/ by the way(framer)	3
K3J8	C1	I have to leave now(metastatement)	1
	C2		0
K4J9	C1	I have to go now(metastatement)/ it's time to finish today(metastatement)	2
	C2		0

K5J10	C1	Hi(summon)/ well(marker)/ I'm interested in nail art(starter)/time is running out...(starter)/ anyway(marker)/ well(marker)	6
	C2	Today, sometimes your screen freezed(starter)/ it's time to go(metastatement)	2
Total			25

Among Francis & Hunston (1987)'s 32 acts, framer, marker, starter, metastatement and summon acts were realized as transactional markers in both groups. Table 5 reveals the NSs use more various kinds of transactional markers in explicit ways, while the NNSs use limited and typical expressions or suddenly change topics without giving information about upcoming topics to interlocutors.

Table 6. The frequency of transactional marker

	Number of groups	Min.	Max.	Mean	Standard Deviation
NS-NS	5	1	6	3.50	1.58
NNS-NNS	5	0	6	2.50	2.22

Table 6 shows the mean frequency of transactional markers is higher in the NS-NS discourse than the NNS-NNS discourse. Given that the mean number of topic unit were 6.4 in the NS-NS discourse and 8.1 in NNS-NNS discourse, the NSs use TI-signaling acts significantly more often than the NNS do (p-value=. 025, *P<. 05). The finding for transaction marker shows that NSs often offer linguistic clue about new topics at the initiating point of topic and make interlocutors prepare for the subsequent speech-event. On the contrary, NNSs' less use of transactional markers disturbs understanding new topics and retards discourse move forward and finally has negative effect on successful TC. Considering the failure in TC leads into frequent topic changes, transactional marker as topic-signaling act can be regarded as a structural device, which greatly affects on successful TI and TC. Therefore, it is needed for L2 learners to use explicit and various transactional markers as discourse strategy for better TI and TC.

4.2 Topic Continuation.

4.2.1 The frequency of TC

The number of exchanges in a transaction can be a criterion to measure the stability and the completeness of TC.

Table 7. The number of Topic-continuing exchanges in a transaction

		No. of groups	Min.	Max.	Mean	Standard Deviation
NS-NS	No. of Exchange	5	22	57	40.30	10.64
	Exchange/transaction	5	3.67	11.40	6.6688	2.4135
NNS-NNS	No. of Exchange	5	33	61	44.30	8.37
	Exchange/transaction	5	3.67	10.17	5.7993	2.1016

Table 7 reveals there are average 40.30 exchanges in a NS-NS discourse and average 44.30 exchanges in a NNS-NNS discourse. And the average frequencies of topic-continuing exchanges in a transaction are 6.6 in NS-NS and 5.7 in NNS-NNS. These findings suggest, although NNSs change topics often, they fail to deepen topics further. It can be said NSs are superior to NNSs in continuing topics. This tells L2 learners are needed to put more efforts in broadening topics by changing more information interactively.

But the statistical result say such a difference isn't' significant (p-value=. 209, *p<. 05), which is against the hypothesis above. This will be explained in section 4.2.4 by analyzing incomplete exchanges.

4.2.2 The pattern of TC

Since exchanges are not only at P and T but also at M^n in a transaction, analyzing exchanges offers the information on the patterns of TC. Among the 10 exchanges, 9 exchanges, with the exception of a boundary, were realized as topic-continuing exchanges. It seems the computer-mediated discourse context made the NSs and the NNSs use more explicit exchanges to continue

topics effectively.

Table 8. Topic-continuing exchange

		Structu-ing	Greet	Sum m-on	Elicit	Inform	Directi-ve	Clarify	Repeat	Re-Initiation	Total
NS-NS	n	15	17	8	151	183	14	7	5	3	403
	%	3.7	4.2	20	37.5	45.4	3.5	1.7	1.2	.7	100
NNS-NNS	n	20	30	2	197	157	12	17	1	7	443
	%	4.5	6.8	.5	44.5	35.4	2.7	3.8	.2	1.6	100
Total	n	35	47	10	348	340	26	24	6	10	846
	%	4.1	5.6	1.2	41.1	40.2	3.1	2.8	.7	1.2	100

Table 8 shows elicit and inform exchanges are the major topic-continuing exchanges. But, looking closely, NSs prefer to use inform exchanges (45.4%) for TC and the NNSs still favor elicit exchanges (44.5%) for TC as in the TI. This means the NSs can keep their on-going topics in the forms of statements containing information, opinion or idea, while the NNSs mainly rely on question forms to continue topics as in TI. And the finding for the dispersion rates of the 9 topic-continuing exchanges reveals the NSs use the 9exchanges more widely than the NNSs do (p-value-.004, *p<. 05). The NSs use various types of exchanges for TC, which is different from the NNSs' use of exchanges.

4.2.2.1 Topic-continuing Elicit exchanges

Elicit exchanges occur most frequently for TC as well as for TI (Table 8). There were three acts that can be realized as head acts in independent elicit exchanges.

Figure 4. 3 Acts in Topic-continuing Elicit exchanges

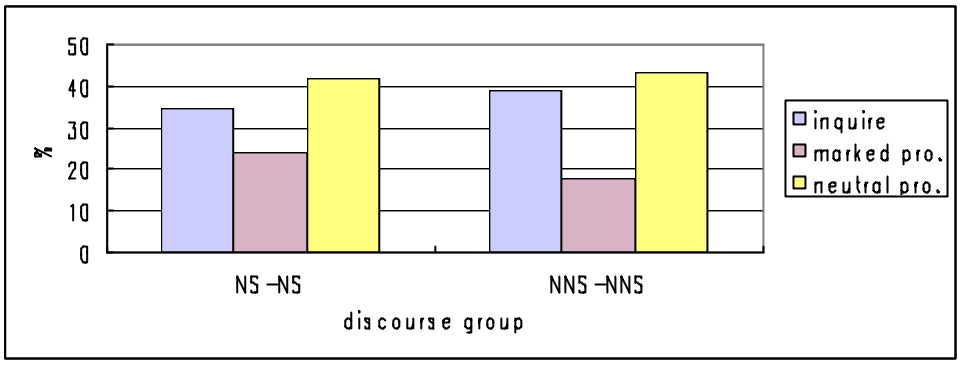


Figure 4 shows the neutral proposal corresponding to yes/no question is the most preferred topic-continuing act and the inquire corresponding with wh-question comes next. This is a little bit different results found in the pattern of topic-initiating acts, in that the inquire act was the most frequently used act for TI. The marked proposal found only in the NS-NS discourse for TI is realized in both discourse groups for TC. And the three topic-continuing acts are used with almost same proportional rate in both groups (p-value=. 353, *p<. 05). But it seems that NSs still heavily depend on a neutral proposal for TC as well as TI.

4.2.2.2 Topic-continuing Inform exchanges

Inform exchanges, which shows the second highest frequency for TC as a whole, is the most preferred topic-continuing exchanges in the NS-NS discourse. The head acts available at I position of inform exchange are informative and observation acts.

Figure 5. 2 Acts in Topic-continuing Inform exchanges

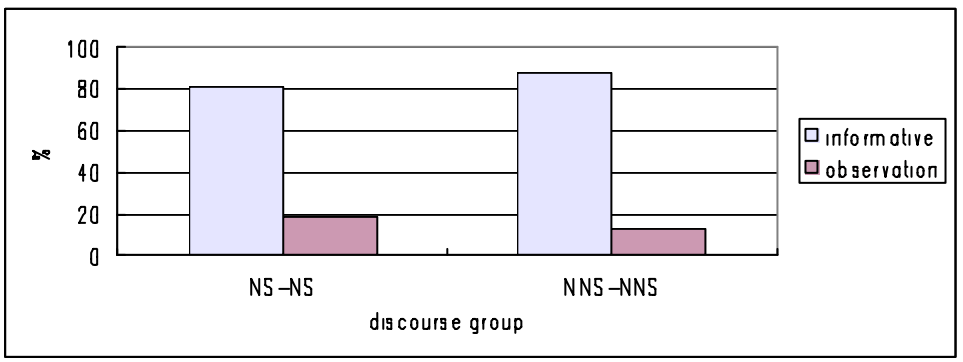


Figure 5 shows there are no big differences between two discourse groups in their proportional rates of informative and observation acts. And it's statistically supported, too (p<. 111, *p<. 05). Both NSs and NNSs continue their topics by introducing new information and already-known information, which are contrary to TI where none of the observation acts were found in the NNS-NNS discourse.

4.2.3 Move structures in Topic-continuing exchanges

Topic-continuing exchange has a structure of I(R/I) R (F^n). Each of the structural elements should be occupied by a move. The combination of move elements in an exchange tells the stability of TC. Since R and I are obligatory elements, an exchange consisted of IR is a basic exchange and is called a 2-part exchange. 3-part exchange composed of IR/IR or IRF, 4-part exchange composed of IR/IRF and over 4-part exchange composed of IR/IRF^n are all possible move structures. And an exchange which is realized by only I element and is followed by bound-elicit exchanges was analyzed as a 1-part exchange.

Four types of exchanges - 1-part, 2-part, 3-part and 4-part – were found in this study.

Tale 9. Move structures in an exchange

		1-part	2-part	3-part	4-part	Total
NS-NS	n	35	243	60	9	347
	%	10.1	70.0	17.4	2.6	100.
	%	39.3	53.9	58.8	75.0	53.1
NNS-NNS	n	54	208	42	3	307
	%	17.6	67.8	13.7	1.0	100.0
	%	60.7	46.1	41.2	25.0	46.9

The proportional number of 1-part exchange is higher in NNS-NNS discourse. Considering that the 1-part exchange consists of I element followed by clarify, repeat or re-initiation exchanges, it seems that NNSs' limited linguistic knowledge about L2 causes the high frequency of 1-part exchanges in NNS-NNS discourse. 2-part exchange is the most pervasive exchange structure in both groups. As for 3-part (58.8%) and 4-part exchanges (75.0%), NS-NS discourse shows relatively high frequency

compared to NNS-NNS discourse. This suggests NSs build up their topics more interactively by initiating topics, receiving responses and sending feedbacks in a series of exchange structures. The fact NNSs just reply on 1-part and 2-part exchanges indicates NNSs are short of cooperation in information exchange on topics and need to be taught to delivering responses and feedbacks actively for successful TC.

4.2.4 Incomplete exchanges

Where a predicted element of an exchange, like response (R) or feedback (F), is missing, the exchange must be classified as an incomplete exchange. In this respect, incomplete exchange can be regarded as negative TC in some way, but it is classified as a 1-part exchange.

Table 10. The ratio of incomplete exchanges to a transaction

		No. of groups	Min.	Max.	Mean	Standard Deviation
NS-NS	No. of incomplete exchange	10	2	11	5.60	2.91
	Incomplete exchange /transaction	10	.20	2.20	.9770	.6229
NNS-NNS	No. of incomplete exchange	10	8	21	13.60	4.14
	Incomplete exchange /transaction	10	.91	3.17	1.8287	.8706

Table 10 shows there were 13.60 incomplete exchanges in the NNS-NNS discourse, while 5.6 incomplete exchanges in the NS-NS discourse. The pervasive use of incomplete exchanges in NNS-NNS discourse raises the frequency of topic-continuing exchanges (1-part) in that group. And this explains why it had turned out there were statistically no big differences between two discourse groups in the number of topic-continuing exchanges.

However, these incomplete exchanges do disturb smooth progress of topics in NNS-NNS discourse.

The ratio of incomplete exchange to a transaction is 1.8 in the NNS-NNS discourse, while it's less than 1 in the NS-NS discourse. There are 2 times more incomplete exchanges in the NNSs' discourse. The difference between two groups in the frequency of incomplete exchange is statistically significant, too(p=. 047, *p<. 05). Now it's clear that NSSs are in want of discourse competences to manage stable and complete discourses. Therefore, it's required for the NNSs as second language learners to do discourse practices which centers on managing cooperative discourse and engaging for longer TC.

4.3 Discourse practices between NNS-NNS

Now it has come to wonder whether the differences found above in terms of TI and TC can be narrowed down through discourse practices. As mentioned in 3.2 procedures, the NNS joined in chatting average 6 times during 6weeks. Among the 6 chatting data, the very first one and the last one were compared to see whether there's any improvement in their discourse competence.

Table 11. TI and TC in NNS-NNS discourses

Analysis unit	Chatting (C)	No. of groups	Min.	Max.	Mean	Standard Deviation
TI (Transaction)	C1	5	6	10	7.80	1.64
	C6	5	3	10	6.20	2.86
TC (Exchange)	C1	5	33	50	40.60	8.08
	C6	5	30	61	45.00	11.02
Exchange /transaction	C1	5	3.67	8.33	5.49	2.0253
	C6	5	4.60	14.33	8.44	3.9136

There were average 7.8 topics in the first NNS-NNS discourse and 6.2 in the last one. The frequency of topic change decreased in the progress of chatting discourse practices during 6weeks. What's noticeable is the

frequency of topic-continuing exchanges. The topic-continuing exchanges have increased from 40 to 45 and the ratio of topic-continuing exchanges to a transaction is considerably jumped up from 5 to 8 in the last one. These results reveal the NNSs came to deepen and widen given topics further rather than to be obsessed with changing topics.

Regarding TC, the stability and completeness of the TC need to be checked out here.

Table 12. Incomplete exchanges in NNS-NNS discourses

Analysis unit	Chatting (C)	No. of groups	Min.	Max.	Mean	Standard Deviation
Incomplete exchange	C1	5	11	21	15.6	4.22
	C6	5	7	16	9.80	3.63
Incomplete exchange /transaction	C1	5	1.10	3.17	2.14	.9191
	C6	5	1.00	2.67	1.81	.8342

Table 12 shows the number of incomplete exchanges in a discourse has declined from 15.6 to 9.8. Therefore, the incomplete exchange in a topic-unit occurs about 1 time in the last discourse, which has decreased from the one in the first discourse.

These findings tell NSs improve their discourse competences through discourse practices between the NNS-NNS. They became to go into deep and detailed discussion on on-going topics by sending and receiving responses and feedbacks more actively and more often. Discourse competence as a language competence containing abilities to attract attention on topics, to initiate and to develop topics, has greatly improved by several discourse practices even between the NNS-NNS.

5. Conclusion

This study finds out discourse differences between NS-NS and NNS-NNS discourses focusing on TI and TC and suggests some pedagogical

implications.

NNSs change topics more often and lack the ability to keep their topics further compared to the NSs. And the transactional marker, which functions as an attention-calling device for the newly coming topics, was realized more often in the NS-NS interaction in an explicit way. As for the pattern of TI and TC, the NSs employ various kinds of exchanges and acts for TI and TC, while the NNSs realize very typical exchanges and acts. Regarding the structure of topic continuation, the NSs show more stable and complete exchange structures than the NNSs do by sending responses and receiving feedbacks in cooperation with their interlocutors.

Given the findings above, it is suggested that more concerns about discourse competence, focusing on TI and TC, are needed in English education. The goal and design in the classroom should be put more emphasis on discourse competence by encouraging learners to deliver response and feedback actively and explicitly each other and at the end to exchange information wider and deeper within the on-going topics. And this study offers some optimistic view that there can be improvements in the NNSs' discourse competence through discourse practices even between NNS-NNS as well as NS-NNS.

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