



Negotiation of Meaning in Conversational and Information Gap Activities: A Comparative Discourse Analysis

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This article reports an investigation of how meaning is negotiated in two different types of interactions between native speakers (NSs) and nonnative speakers (NNSs): a relatively unstructured conversation and a two-way information-gap task. Three NS-NNS dyads were recorded as they engaged in these two activities, and the data were examined in detail. Negotiation exchanges, lexical and syntactic complexity, and various pragmatic issues were examined and compared qualitatively and quantitatively. The results suggest that conversational interaction has the potential to offer substantial learning opportunities at multiple levels of interaction even though it offered fewer instances of repair negotiation in the traditional sense than did the information gap activity. In addition, the NNS participants stated in subsequent interviews that they found the conversational activity to be more challenging than the information-gap activity because they had to pay attention to the entire discourse in the former but mainly focused on lexical items in the latter. This study thus raises questions about claims that conversational interactions do not provide learners with as much challenging language practice as do more highly structured interactional activities, such as information gap tasks.



A number of SLA studies on input and interaction have argued that unstructured interaction, or opened-ended conversational activity, provides relatively few opportunities for interlanguage development in comparison with more controlled, goal-convergent interactions (e.g., Doughty, 1996a; Long, 1980, 1983, 1996; Pica, 1992; Pica, Kanagy, & Falodun, 1993; Sato, 1988). The argument is that language learners are much more likely to notice the difference between their interlanguage and the target language when a communication breakdown triggers some sort of repair work—called a *repair negotiation*, defined here as interactional modifications resulting from communication problems. Numerous studies have found that controlled, task-based interactions, particularly those that have a single, convergent outcome, promote a greater number of such repair negotiations than does less structured interaction, whose goal is much more open-ended. The explanation is that the successful completion of certain controlled interactional tasks (particularly information gap tasks) requires a highly constrained outcome and consequently requires precise production. In contrast, in more open-ended conversation, interlocutors can quickly drop language and topics that cause communication difficulties or avoid them altogether, therefore sidestepping repair negotiation.

In this article, we present a preliminary examination of how meaning is negotiated in two types of face-to-face interactions between native-English-speaking (NS) and nonnative-English-speaking (NNS) interlocutors. One interaction is a relatively unstructured conversational activity in which the NS interlocutor is given the goal of trying to establish common ground with her NNS interlocutor; the second is an information gap activity in which the goal is to identify differences between two similar pictures. Incorporating insights from social-interactionist and discourse-analytic perspectives, we present a microanalysis of three NS-NNS dyads, each of which engaged in the conversational activity and the information gap activity. The results, although preliminary due to the small sample, suggest that conversation has the potential to offer substantial learning opportunities at multiple levels of interaction (e.g., discourse management, interpersonal dynamics, topic continuity) even though it offers fewer instances of repair negotiation than information gap activities do.

BACKGROUND

Repair Negotiation

Verbal interaction has long been seen as important to second language acquisition (SLA). For instance, as early as 1980, Long hypoth-

esized that interactional modifications made during the course of interaction help make input more comprehensible. In a comprehensive survey, Ellis (1994) concluded that interaction is helpful in making the linguistic data more salient to the learner. Long (1985) proposed that a theoretical connection exists among interactional modification, comprehension, and acquisition. Since then, research has expanded to include the examination of factors beyond comprehensible input that might offer insight into how and when elements of an L2 are acquired. For instance, Swain (1985) proposed that learners might need opportunities to produce *pushed output* (i.e., on-line language production modified as a result of feedback from the interlocutor) in order to restructure their interlanguage grammar. She argued that comprehension alone does not appear sufficient to focus learners on the differences between their interlanguage and the target construction. As Long (1996) states in an authoritative review, "Although necessary for L1 and L2 acquisition . . . there is abundant evidence that comprehensible input alone is insufficient" (p. 423).

Much recent work in this area (e.g., Izumi & Bigelow, 2000) has examined two additional factors involved in interaction and acquisition: the learner's attention and output. The emphasis on the three factors of input, attention, and output is expressed in Long's (1996) updated version of the interaction hypothesis:

I would like to suggest that negotiation, and especially negotiation work that triggers interactional adjustments by the NS or more competent interlocutor, facilitates acquisition because it connects input, internal learner capabilities, particularly selective attention, and output in productive ways. (pp. 451–452)

Repair negotiation is portrayed as a process of clarifying an utterance (or utterance part) that at least one interlocutor experiences as problematic or perceives as not mutually understood. Researchers have used various terms to refer to component features of negotiation (e.g., Long, 1980; Varonis & Gass, 1985a, 1985b). Pica, Holliday, Lewis, and Morgenthaler (1989) and Pica, Holliday, Lewis, Berducci, and Newman (1991) define two significant parts as a *trigger* and a *signal*. The speaker's perception of nonunderstanding acts as the trigger for the negotiation of meaning, and the overt signal of this perception of nonunderstanding is the observable clarification request, confirmation check, or comprehension check that the speaker produces. In other words, the term *signal* refers to utterances or nonverbal indicators made in response to a problematic utterance of the speaker (the trigger).

Doughty (1996a) argues that such a signal generally prompts the original speaker to attempt to repair the problematic utterance or utterance part; this modified utterance will in turn be followed by the

signaler's reaction to the modified utterance or response. This cycle can be summarized as shown in Figure 1. Such sequences have been proposed as providing an optimal linguistic environment for language acquisition, and they have been shown to occur more frequently in certain types of controlled task interactions, particularly those requiring a single, convergent outcome, such as information gap tasks, than in more conversational activities, whose outcomes are opened-ended, such as opinion exchanges or free conversation (e.g., Doughty, 1996a; Pica, 1992; Pica et al., 1993; Long, 1996).

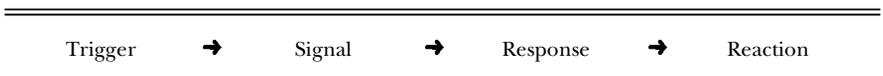
Studies of task-based interaction have found that the presence of repair negotiation appears to lead to better comprehension (e.g., Doughty & Pica, 1986; Pica, 1991, 1992; Pica & Doughty, 1985; Pica, Young, & Doughty, 1987). The crucial importance of this finding was clarified by the three steps Long (1985) suggested to indirectly connect negotiation with acquisition:

1. Show that (a) linguistic/conversational adjustments promote (b) comprehension of input.
2. Show that (b) comprehensible input promotes (c) acquisition.
3. Deduce that (a) linguistic/conversational adjustments promote (c) acquisition. (p. 378)

The Role of Tasks

Recognizing the indirectness of the link between negotiation and acquisition via comprehension, and the fact that not all comprehension will necessarily lead to acquisition, recent studies have more fully explored the relationship between negotiation and acquisition (e.g., Doughty, 1996b; Ellis, Tanaka, & Yamazaki, 1994; Gass & Varonis, 1994; Loschky, 1994; Mackey & Philp, 1998). These studies have shown mixed results concerning the effects of repair negotiation on SLA; thus the claim that repair negotiation directly leads to acquisition is not conclusive. In fact, Doughty (1996b) found that repair negotiation generally did not lead to more targetlike learner production and posited three possible explanations: (a) The tasks themselves may hinder negotiations that promote linguistic change; (b) any interlanguage changes that

FIGURE 1
Negotiation of Meaning in the Context of a Communication Breakdown



Source: Doughty (1996a).



occur might take a longer period of time to emerge (suggesting the need for longitudinal study); and (c) negotiation may be useful only for L2 comprehension. One of Doughty's most interesting findings emerged from her careful matching of the NS interlocutors' successful placing of pieces in the task and the talk produced by the NNS interlocutors. She found that the NS interlocutors did not necessarily attend to the NNS interlocutors' contributions as they completed the task. This unexpected result raises many questions about the nature of the discourse that emerges from controlled tasks.

In this article, we explore Doughty's first hypothesis, that is, that the tasks themselves may have additional, heretofore unrecognized effects on repair negotiations. We also broaden the range of interactional modifications to be examined beyond the repair negotiations, which in information gap activities focus primarily on the informational (or transactional; see Brown & Yule, 1983) plane of the talk. When researchers examine repair negotiation exclusively, they overlook a number of other features of naturally occurring interaction, such as those studied in the literature on discourse and conversation analysis, including discourse markers (Schiffrin, 1987), contextualization cues (Gumperz, 1982), discourse management (Sacks, Schegloff, & Jefferson, 1974), textuality (Halliday & Hasan, 1989; Johnson & Tyler, 1998), contingency (van Lier, 1996), and others (see Tyler, 1992, 1995, for further discussion).

Moreover, the study of repair negotiation tends to direct researchers' attention to local features of discourse required for the step-by-step completion of the information gap activity. Equally important is how the discourse emerging from the conversational activity attains a greater overall complexity as the talk progresses. Therefore, we examine the element of the talk that triggers some sort of further (e.g., clarifying) talk. Although a number of studies have investigated the signal-response elements of the four-part cycle identified in Figure 1, few have examined the triggers, which are claimed to initiate the cycle. An exception is the study by Chun, Day, Chenoweth, and Luppescu (1982), who studied trigger types that initiated response negotiations in free conversations and in gamelike tasks between NNS and NS friends. Chun et al. found that relatively few errors by the NNS friends were treated as triggers for repair negotiation, suggesting that in social settings error correction is avoided. More important, from our perspective, is Chun et al.'s finding that there was no difference between the types of triggers leading to corrective feedback in the conversation and in the gamelike task. This is surprising, as Nakahama (1997) found that the trigger types in conversation were quite distinct from those in information gap tasks. Specifically, information gap tasks contained primarily discrete types of triggers (e.g., lexical items and low-level morphosyntactic items) whereas in conversations more global types of triggers were more common (cf. the distinction

between local and global errors made by Burt & Kiparsky, 1972; see also James, 1998, for further discussion).

We suggest in this article that the distinction between trigger types appears to be closely related to the characteristics of the repair negotiation that is going on. From a discourse-analytic perspective, the precise linguistic environment that surrounds a repair negotiation offers crucial information concerning the interpretation of the repair itself. In other words, the interpretation as to whether a trigger-signal sequence addresses a local or global comprehension problem is crucially determined by the ongoing discourse and the particular context in which the sequence occurs. In addition, we propose an expanded definition of negotiation that goes beyond instances of repair to include other interactional phenomena. These insights follow from examining the differences between the two different interactions from several complementary perspectives.

METHOD

Participants

The NNS participants in the present study (Mika, Sumiko, and Mayumi) were female, intermediate-level ESL students whose L1 was Japanese.¹ Mika and Sumiko were placed in an intermediate-level ESL class at one U.S. university, and Mayumi was in an ESL class at another U.S. university. The participants were approximately at the same level as measured by their TOEFL scores (Mika, 545; Sumiko, 535; Mayumi, 550), and they had all received a college education in Japan as well as 6 years of mandatory English language education beforehand. All three participants had resided in the United States for approximately 1 month and were between 25 and 30 years old. The NS interlocutors for Mika, Sumiko, and Mayumi were Donna, Rita, and Mindy respectively, all graduate students in linguistics at U.S. universities. The NS and NNS participants met one another for the first time on the day of the data collection.

Interactions

The activity used in the information gap interaction was a spot-the-difference task taken from Ur (1990; see the Appendix). This particular activity was selected because none of the participants had seen it before

¹ Names of the six participants are pseudonyms.



and because there were numerous subtle differences in the pictures. The spot-the-difference task is categorized as a problem-solving task by Pica et al. (1993), who suggest that this type of task requires a single, convergent goal and outcome. Such tasks have been found to generate more opportunities for the interactants to negotiate than do tasks that do not require a convergent outcome, such as opinion exchange and free conversation.

Before starting the activity, the participants were informed that there were at least eight differences in the pictures, and they were prohibited from looking at each other's pictures. Because this was not a writing activity, the participants were not required to write down the differences; however, they were allowed to circle the differences if they so desired.

The conversational activity was designed to produce an engaged interaction but was relatively uncontrolled and open-ended. The participants were asked to discuss their common experiences related to the university where they were studying, their experiences living in the same city, and their mutual interests in a fairly general sense. In addition, the NS interlocutors were asked to focus on building common ground with the NNS interlocutors. They were specifically encouraged to reveal information about themselves as well as to find out about the NNS interlocutors. Finally, they were encouraged to try to project a sense of valuing the NNS interlocutors' contributions.

We hoped that setting up the conversational activity in this way would promote a reasonable level of mutual engagement and interactional symmetry, thus approximating the interactional processes of some naturally occurring conversation. We assumed that under these conditions the NNS interlocutors would have the opportunity to provide information about their own backgrounds and thus be in the role of *knower* (Tyler, 1995) for part of the conversation, thereby counterbalancing to some extent the superior status a native speaker tends to have in NS/NNS dyads (Woken & Swales, 1989; Yule, 1990; Zuengler & Bent, 1991).

Data Collection

The conversational activities were videotaped and the information gap activities were audiotaped for data analysis. Each recorded interaction was then transcribed. After the data collection was completed, one of the researchers met individually with Sumiko and Mika to obtain retrospective verbal reports in order to gain insight into the participants' perspectives on the interactions. (We were unable to hold a retrospective interview with Mayumi.) The researcher and participant reviewed the tapes together. The participants were encouraged to stop the tape whenever they had a question or wanted to comment on what was



happening in the interaction. If the participant did not stop the tape at certain points, the researcher did so and queried the participant. The researcher also asked more global questions, such as which interactions the participants found more challenging and why they did so.

Data Analysis

The data were analyzed both quantitatively and qualitatively in order to identify different ways in which repair negotiation took place in conversational and in problem-solving interactions. All the interactions lasted 20 minutes except for two, which were 15 minutes long. To establish comparability with the 20-minute interactions, the quantitative data from these two 15-minute interactions were multiplied by 1-1/3 (i.e., the data were normalized to 20 minutes). The qualitative analysis involved examining overall patterns of interaction, including the manner in which negotiation was carried out in both types of interaction.

For the quantitative analysis, we first located the signal (the *head* of the negotiation sequence), such as a clarification request. Then, looking back from the signal, we coded an earlier utterance as the trigger. The triggers were classified into four types: (a) lexical, (b) morphosyntactic, (c) pronunciation, and (d) global, referring to content and discourse (see Table 1 for examples).²

Lexical. As the name suggests, lexical triggers refer to discrete word groups, such as verb phrases and noun phrases. This category also includes word choices.

Morphosyntactic. Morphosyntactic triggers include verb inflections, partitives, and plural morphemes.

Pronunciation. Based on an analysis of the audiotaped conversations, we categorized triggers as lexical or pronunciation. For instance, if the NNS participant knew the word and attempted to say it, but her pronunciation of the words prevented the NS interlocutor from comprehending the word, it was classified as a pronunciation trigger.

Global (discourse, content, or both). Triggers that involved more than simple lexical items or local morphosyntactic elements were coded as

² Chun et al. (1982) classified trigger types into discourse errors, factual errors, word choice errors, syntactic errors, and omissions. In our data, we combined what Chun et al. called factual errors and discourse errors, referring to both as global triggers because they relate to the content of the discourse as a whole. Further, we treated omission errors as syntax errors.

TABLE 1
Types of Triggers

Trigger type			Examples
Lexical	1.	Sumiko: Rita:	And there is a dart? A dart board?
Morphosyntactic	2.	Mika: Donna:	One, two . . . five paper. Pieces of paper?
Pronunciation	3.	Sumiko: Rita: Sumiko:	Preschool . . ? [prEskul] Pre-school . . ? [priskul] Pre-school. [priskul]
Global	4.	Mindy: Mayumi:	So how are you finding it? How what? Sorry.
	5.	Donna: Mika: Donna: Mika: Donna:	But you were here last spring for the um . . Naa You were already here I came here umm this umm this January 2 Oh just January

global. By *local*, we mean triggers that affected the interpretation only of an isolated segment of the turn in which it was uttered. Global triggers involved elements such as anaphoric reference, deixis, interpretation of an entire utterance, and elements that can cause a reanalysis of more than one turn.

As an illustration, in Example 4 in Table 1 Mindy's statement was analyzed as a global trigger because Mayumi's response indicated that she understood only the question word *how*. The idiom *how are you finding X* (which means roughly *what is your assessment of and response to X*) seems to have confused Mayumi. Moreover, *it* refers to Mayumi's assessment of living in the United States, which was the topic of discussion over a number of utterances prior to the trigger. Here *it* has a discourse-level referent rather than a simple lexical one. By contrast, in Example 5 in Table 1, Donna's statement "But you were here last spring for the um" was considered a global trigger because Mika's response indicated that misinterpretation began several turns earlier in the conversation and affected Donna's interpretation of a long stretch of the discourse. Note that the syntactic form in which the trigger occurs does not look like a request for clarification, a confirmation request, or an exact repetition of the interlocutor's immediately preceding utterance. Analyzing the exchange for these features would miss the fact that the misunderstanding and subsequent repair negotiation had taken place.



RESULTS AND DISCUSSION

The data from the two types of interactions were subjected to analysis to identify trigger types, repair negotiations, and other discourse strategies. Comparisons were made between the two interactions on the basis of these features.

Triggers and Repair Negotiation

Two raters independently coded the transcripts for trigger types and negotiation cycles. Interrater reliability (coefficient alpha) for both trigger types and negotiation cycles was 0.99, indicating a high level of agreement between the raters.³

A comparison of the occurrence of repair negotiations, or trigger-signal sequences, revealed that the information gap activity triggered more repair negotiation than the conversational activity in all three dyads, but especially for Sumiko/Rita and Mayumi/Mindy (see Table 2). We used *t* tests to compare the mean frequencies of negotiation in information gap ($M = 42.67$; $SD = 14.64$) and conversational ($M = 29.67$; $SD = 17.04$) tasks. To compare negotiation in the two different types of interactions, we used *t* tests, treating occurrences like test scores and calculating a mean for each type of interaction (information gap, 42.67; conversational, 29.67). By so doing, we could take into account the variation among the three dyads. Although the *t* test was not significant, $t(df\ 4) = -1.0$, $p = .373$, the mean difference was in the predicted direction. The nonsignificant results were most likely due to the small sample size.

TABLE 2
Repair Negotiations by Activity and Pair

Activity	Mika/Donna	Sumiko/Rita	Mayumi/Mindy	Total
Conversational	40	39	10	89
Information gap	45	56	27	128
Total	85	95	37	

³ The most commonly used index for interrater reliability is Cohen's kappa; however, it is appropriate only when the rating is on ranks with limited values. In our case, we need to indicate the raters' agreement on frequencies that may have many values. Thus, coefficient alpha is the appropriate index here. When only two raters are involved, coefficient alpha is similar to the moment correlation coefficient for the raters' frequencies.

TABLE 3
Trigger Types by Activity and Initiator of Negotiation

Trigger type	Activity			
	Conversational		Information gap	
	NNS	NS	NNS	NS
Lexical	0	9	19	52
Morphosyntactic	0	6	1	14
Pronunciation	1	9	0	6
Global	14	50	10	26
Total	15	74	30	98

An examination of the trigger types, however, reveals that the main trigger type for negotiation varied by activity type. Within the conversational activities, the primary trigger was global (an average of 76% across all three dyads; see Tables 3 and 4). In contrast, in the information gap activities, lexical items, which were generally local triggers, were the main trigger type (an average of 55% across the three pairs), whereas global triggers accounted for only one quarter (25.6% across the three pairs) of the repair negotiation initiations.

Comparing the quantity of repair negotiation across tasks thus does not seem to tell the whole story. If in the present analysis we attended only to the mean frequencies of repair negotiation, information-gap activity could once again be said to provide more learning opportunities

TABLE 4
Trigger Types by Pair and Activity

Trigger type	Mika/Donna				Sumiko/Rita				Mayumi/Mindy			
	Conversational		Information gap		Conversational		Information gap		Conversational		Information gap	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Lexical	8	20.0	16	41.0	1	2.6	34	63.0	0	0.0	14	61.0
Morpho-syntactic	5	12.5	11	28.2	1	2.6	2	3.7	0	0.0	3	13.0
Pronunciation	3	7.5	3	7.7	5	13.2	3	5.5	1	12.5	0	0.0
Global	24	60.0	9	23.1	31	81.6	15	27.8	7	87.5	6	26.0
Total	40	100.0	39	100.0	38	100.0	54	100.0	8	100.0	23	100.0



than conversational activity, as the task-based interactions triggered more instances of repair even though the difference was not significant for this small sample. However, we argue that attending only to the overall numbers of repair negotiations masks important discourse dynamics and therefore masks important learning opportunities beyond the ideational or informational level.

These differences in trigger type may reflect different properties of repair negotiation present in conversational and information gap activities, which in turn are tied to differences in the interlocutors' goals and views of their roles in the two types of interaction. On the one hand, our analysis suggests that an ideational or strictly informational focus dominated in the information gap activity. On the other hand, in the conversational activity the focus was on aspects of overall discourse or textual coherence, the creation of shared schema and frame, the maintaining of face and the building of rapport, and the exchange of information. Thus in the information gap activity repairs involved primarily individual lexical items whereas in the conversational activity repairs focused on an overall understanding of the interlocutors' contributions. Because the goal in the information gap activity was to find the differences between two pictures, the interlocutors concentrated on understanding individual lexical items uttered by their partners that might signal a difference. Consequently, meaning was negotiated rather mechanically around lexical items, strictly at the ideational level.

Pushed Output

The quantity of repair negotiation has been a primary concern of SLA researchers because repair negotiations are assumed to provide the ideal locus for learners to recognize the gap between their interlanguage grammar and the target grammar. Thus, the more repair negotiations, the more opportunities for comprehension and learning. If in the present analysis we had attended only to the amount of repair negotiations, the data would support the assertion that information gap activities provide more learning opportunities than conversational activities do, as the information gap activity triggered more instances of repair. Subsequent analysis examined important discourse dynamics to reveal important learning opportunities beyond the ideational or informational level. In particular, we examined pushed output (Swain, 1985), looking for some evidence in terms of the length of turns, the complexity of utterances, pragmatic markers, and negotiation cycles.

Length of Turns

In the information gap activity, the NNS interlocutors' utterances tended to be short and characterized by repetition of lexical items or simple backchanneling (to answer the NS interlocutor's questions. In the conversational activity, on the other hand, all three NNS interlocutors produced utterances that were much longer (as measured in words per turn) than those seen in the information gap activities (see Table 5, top panel). We noted in the introductory section that Swain (1985) argued that NNSs may need pushed output, which requires the on-line production of longer, more complex utterances, for acquisition to take place. The significantly longer and more complex turns in the conversational activities suggest that these activities offered the contexts in which such pushed output could occur. We defined a turn as a stretch of speech of a single interlocutor; backchannels (e.g., *uh-huh*) were not considered to constitute turns unless they were uttered to answer the interlocutors' questions.

TABLE 5
Average Words per Turn, Complexity of Utterances, and Tense/Aspect and Modal Shifts by Pair, Activity, and Speaker

Speaker	Mika/Donna		Sumiko/Rita		Mayumi/Mindy	
	Conversa- tional	Information gap	Conversa- tional	Information gap	Conversa- tional	Information gap
Words per turn						
NS	8.9	8.9	12.1	6.8	9.9	7.0
NNS	10.1	5.6	7.2	3.2	9.6	3.3
Complexity of utterances						
NS						
Phrase	3	5	4	12	7	3
S1 ^a	42	33	27	22	35	32
S2+ ^b	10	10	9	8	27	2
NNS						
Phrase	11	7	0	5	2	7
S1 ^a	29	14	20	12	14	12
S2+ ^b	6	3	6	2	21	0
Shifts						
NS						
Tense/aspect	21	1	4	1	40	0
Modal	6	9	11	6	14	3
NNS						
Tense/aspect	14	0	4	0	25	0
Modal	8	1	0	3	4	0

^aUtterances with one verbal construction. ^bUtterances with more than one verbal construction.



Considering the NS and NNS interlocutors separately, we used *t* tests to compare the mean number of words per turn in the two types of interactions. For NNS interlocutors, the difference was statistically significant, $t(4\ df) = 4.14$, $p = 0.014$, $M = 8.96$ (conversational activity) and $M = 4.0$ (information gap activity). However, the difference was not significant for the NS interlocutors, $t(4\ df) = 2.36$, $p = 0.078$, $M = 10.3$ (conversational activity) and $M = 7.5$ (information gap activity). On average, all three NNS interlocutors produced utterances that were more than twice as long in the conversational activity as in the information gap activity whereas no specific patterns were discernible for the NS interlocutors.

Interestingly, in the information gap activities the NS interlocutors' turns were much longer on average than those of the NNS interlocutors (7.6 vs. 4.0 words, respectively), whereas both groups produced approximately equal amounts of speech per turn in the conversational activities (NS interlocutors, 10.3 words; NNS interlocutors, 9.0 words). This result suggests that, in this respect, the conversational activities evidenced a more symmetrical relationship between the NS interlocutors and the NNS interlocutors. Excerpts 1–4 are typical of the information gap activity and the conversational activity.

Information gap activity:⁴

1. Mindy: . . . there's something- a rectangle with four dots?
 Mayumi: Yes.
 Mindy: You have that?
 Mayumi: Yes.

2. Mindy: The uh under under the table leg?
 Mayumi: Yes.
 Mindy: Under the desk leg?
 Mayumi: Yeah, yeah.
 Mindy: Yeah, I have that, too.

Conversational activity:

3. Mayumi: Hm. Um, do you know Tokyo?
 Mindy: Well, I've heard of Tokyo, yeah.
 Mayumi: All right. [laughs] and my hometown is near from Tokyo.

⁴Transcription conventions are as follows:

- brief pause of up to 1 second
- short pause
- [] metacomment or longer pause; short backchannel by partner
- (??) unintelligible
- :: elongation

4. Mindy: So what made you decide to get into journalism?
Mayumi: Um, I think, uh, if I I may be a journalist . . .
Mindy: Uh-hunh
Mayumi: . . . so I can I can work by myself. Uh, I mean, uh, I don't need to, uh, work for a company?

Complexity of Utterances

As Excerpts 3 and 4 illustrate, the conversational activity provided learners with opportunities to produce longer and more complex utterances. Longer utterances often, but not necessarily, result in more complex morphology and syntax. To clarify the possible differences in morphosyntactic complexity elicited by the two interaction types, we coded 100 turns⁵ from each transcript (Turns 16–115) for occurrences of the following units: (a) phrases (defined as prepositional or adverbial phrases) and (b) number of sentence nodes per utterance (number of underlying sentence nodes, as demonstrated by verbs marked and unmarked for tense). An utterance was defined as a single intonational contour, forming a single propositional or meaning unit, and bounded by brief pauses or interlocutor change. A turn could thus contain more than one utterance (see Crookes, 1990, for a detailed discussion of such units). For instance, utterances with one verbal construction were coded as S1 (e.g., *Well, I've heard of Tokyo*), and utterances with more than one verbal construction were coded as S2+ (e.g., *uh, I don't need to work for a company*). (For similar measures of syntactic complexity, see Chaudron & Parker, 1990; Pica & Long, 1986.)

Consistently across all six pairs, the interlocutors produced more complex syntactic constructions (S1 and S2+) in the conversational activities than in the information gap activities (see Table 5, middle panel). This trend was true for both NS and NNS interlocutors and was more pronounced for the NNS interlocutors, who tended to produce utterances that were clearly more elaborated in grammatical terms in the conversational activity than in the information gap task. Overall, the conversational activity may have provided the NNS interlocutors with more opportunities to hear more complex input from the NS interlocutors and with more opportunities to produce syntactically complex output.

Another measure of increasing complexity in the linguistic code, and presumably concomitant cognitive demand, involves shifts between various tenses and verbal aspect. The transcripts were analyzed for shifts

⁵ The first 15 turns from each transcript were eliminated because they contained primarily introductions and a number of false starts.



in tense and aspect (see Table 5, bottom panel). We assumed that simple present was the default for both tense and aspect marking because it is the most unmarked verb form in the English language and tends to be used by learners who have not yet acquired more complex tense and aspect forms. Instances of either past or future tense were counted as marking a shift in tense. Instances of perfective and progressive aspectual marking were counted as shifts in aspect; the use of modals was included in the latter category for the sake of economy.

For both the NS and the NNS interlocutors, the conversational activity elicited far more instances of tense and aspect shift and modal use than did the information gap activity. The substantial increase in use of nonpresent tense and aspectual forms—as well as modals—in conversational activity suggests that this activity presented the interlocutors with more cognitive challenges. Shifts in tense and aspect reflect that the discourse involved content beyond the simple here and now and demanded that the interlocutors rely on language to communicate about events and activities that were not occurring in the immediate environment. The increased use of modals reflects that the interlocutors were attending to interpersonal dynamics and a more nuanced presentation of information. In the information gap activity, the discourse was primarily structured by the pictures, and the interlocutors' task was limited to describing the static visual representation. As a result, they were able to accomplish the task without shifting from the simple present tense. The patterns of tense, aspectual form, and modals indicate that in the conversational activity, the interlocutors were creating more complex discourse and also attending to more than just the informational level within the discourse.

In sum, by all three measures of complexity—turn length, syntactic complexity, and morphological complexity—the conversational activity provided the NNS interlocutors more complex input and led to more complex output.

Discourse Strategies

In Excerpt 3 above, the NNS interlocutor engages in several important discourse moves. She responds to the NS interlocutor's question, "Where are you from?" with the question, "Hm. Um, do you know Tokyo?" The NNS interlocutor does not just assume her interlocutor is or is not familiar with Japanese geography; she provides an opportunity to negotiate the extent of the NS interlocutor's background knowledge. This discourse strategy simultaneously reveals the NNS interlocutor's intention to build rapport by taking her interlocutor's perspective into account and directs the focus to a mutually shared schema in order to



appropriately anchor the information in her utterance to her interlocutor's background knowledge. Moreover, the NNS interlocutor's turn begins with two hesitation markers, "Hm. Um," which softens the question's potential to cause the NS interlocutor to lose face. Tokyo is a well-known city in a major Asian country, but Americans are notorious for their lack of geographical knowledge. Ascertaining the NS interlocutor's knowledge of Japan thus offers many opportunities for face-threatening missteps. The NNS interlocutor arguably uses hesitation markers to deftly downgrade the threat. Moreover, by posing a question the NNS interlocutor manages a change of footing. Although this segment of the exchange begins with the NS interlocutor asking a question that establishes the topic, thus placing the NS interlocutor in a position of higher status, the NNS interlocutor's question places her in the role of knower, thus raising her status in the conversation (Goffman, 1981; Tyler, 1995; Zuengler & Bent, 1991). The conversational activity provides numerous opportunities for changes of footing, which allow the NNS interlocutor to take context-appropriate initiative in the conversation.

In Excerpt 4 above, the NNS interlocutor uses a paraphrase cued by the pragmatic particle *I mean*. One important function of such pragmatic particles or discourse markers is to signal how the utterance should be integrated into the ongoing discourse (Schiffrin, 1987). Therefore, this use of *I mean* may indicate that the NNS interlocutor is attending to the textual plane. At the same time, the use of the marker shows the NNS interlocutor's concern that her first statement, "so I can work by myself," might not have been sufficient to convey her intended meaning. This use of the pragmatic particle illustrates simultaneous attention to the informational and the interpersonal planes. Thus, this excerpt shows the rich opportunities to attend to the textual, interpersonal, and informational planes offered by the conversational activity.

In sum, while engaging in the conversational activity, the learners attended and contributed to a number of discourse dimensions simultaneously rather than attending only to lexical information on the informational plane. These two exchanges from the conversational activity contrast sharply with the representative exchange from the information gap interaction (Excerpt 1), in which the NNS interlocutor answers informational questions with one or two words.

Negotiation

In the SLA literature, it has been argued that some types of negotiation (such as clarification requests) promote pushed output (Swain, 1985). For instance, a confirmation check does not require nonnative speakers to reformulate their own speech or that of others whereas an



open-ended clarification request by a native speaker encourages the nonnative speaker to modify a previous utterance (Pica et al., 1989). Pica et al. claim that when learners receive a clarification request from a native speaker, they are *pushed* to elaborate their interlanguage output.

As noted earlier, a number of studies have shown that information gap interaction triggers more repair negotiation than unstructured conversation; it is widely presumed that information gap interactions tend to push learners to produce more interlanguage. This perception is supported by Long's (1983) claim that in unstructured conversation learners and their interlocutors can drop troublesome topics and therefore avoid repair negotiation and pushed output. In contrast to this hypothesis, the data in the current study indicate that the conversational activity contained a good deal of pushed output. The NNS interlocutors produced longer, syntactically more complex utterances in the conversational activity than in the information gap interactions. In the stimulated recall sessions, the NNS interlocutors also stated that they found the conversational activities more challenging. They noted that in the conversational activity they felt the need to pay careful attention to the NS interlocutors and work to fit their comments to those of their interlocutors. They claimed that in the information gap interaction they relied heavily on the picture and listened primarily for key words to figure out how their picture differed from the NS interlocutor's.

As mentioned earlier in relation to Excerpt 4, the conversational activity provided an opportunity for all three NNS interlocutors to use a variety of discourse strategies (or markers of negotiation in the broader sense, as discussed earlier), such as hedges, reformulations, and demonstrations of understanding. In fact, all six participants used far fewer discourse strategies in the information gap interaction. Interestingly, then, the conversational activity was richer in terms of negotiation activity in the broader sense even though the information gap interaction contained more repair negotiation sequences.

Pragmatic Markers

In this section we discuss briefly three examples of pragmatic markers: silence, *okay*, and *oh*. This type of microanalysis could be extended considerably, but here we merely give some further evidence for the differences between the two types of activities. Work in discourse analysis (e.g., Schiffrin, 1987) has clearly established that native speakers use a wide variety of pragmatic markers to indicate such phenomena as the speaker's stance toward the information, text structure, and aspects of interpersonal dynamics. Discourse that lacks these pragmatic markers is likely to strike the NS interlocutor as odd or even incoherent (e.g., Tyler,

1992, 1995); thus, an understanding and appropriate use of pragmatic markers is an important part of attaining nativelike communicative competence. Comparing the occurrence of pragmatic markers across activities is an important way of gathering evidence on learning opportunities and the social and cognitive work that participants are doing, including issues of discourse control, initiative, and asymmetry.

Silence. An interesting difference between the two types of interaction is that, for one NNS interlocutor in particular, silence (defined as a pause that lasts more than 1 second) was observed more frequently in the information gap activity. In many instances, silence signaled some form of repair work. A typical example of the NNS interlocutor's silence and the help she received is shown in Excerpt 5, from Rita and Sumiko's information-gap activity.

5. 456 Rita: What does your floor look like?
457 Sumiko: mm . . . [2-second pause]
458 Rita: Mine has lines that go a bunch of different directions.
459 Sumiko: Um . . . the lines . . . [incomprehensible]

In Excerpt 5, silence signals nonunderstanding of the preceding utterance. Sumiko (in Line 457) was silent for about 2 seconds after her backchannel, *mm*, because she either did not understand Rita's question (Line 456) or did not know how to describe her floor. After the short silence by Sumiko, Rita took charge of the descriptions. Recall that NS interlocutors on average produced close to twice as much speech as the NNS interlocutors in the information gap interactions whereas in the conversational activity the ratio of NS interlocutors' to NNS interlocutors' words per turn was 10.3 to 9.0 (see Table 5). In fact, if any interlocutor was pushed to produce in the information gap interaction, it appears to have been the NS interlocutor, not the NNS interlocutor.

We suggest, however, that in the information gap activity neither NS nor NNS interlocutors are pushed to produce language. Instead, they are pushed to produce a task solution. In the context of the task, language is not constitutive but ancillary (Halliday & Hasan, 1989, p. 57) because it accompanies the activity of finding the differences between two pictures. Clearly, language use is essential for the completion of the task (because the participants are not allowed to see each other's pictures); however, at the same time, the picture and its components, rather than the language itself, determine the structure of the information gap activity. The post hoc interview with Mika supports this interpretation. She stated that she did not feel much pressure in the information gap interaction because the picture was there, and as long as she understood the location in the picture her interlocutor was talking

about, she could merely state vocabulary items around it to find the differences. In contrast, the structure of a conversation is directly determined by the language that constitutes the conversation as it progresses. Mika's comments on the conversation (translated into English) are as follows: "Since the questions or the topics of the conversation were continuous and not on a discrete basis, I had to pay attention to the whole discourse and tried to be understood as well as understand the interlocutor. So, I thought it was very difficult."

In the current data, the use of silence was insufficiently different in the two types of interaction to produce quantifiable results. As we mentioned, the use of silence was particularly marked in one pair, and there it predominated in the information gap activity. All silences observed were attributable to the NNS interlocutors and none to the NS interlocutors, but the number of silences overall does not warrant conclusions beyond the suggestions made above.

Use of okay. The use of *okay* was predominantly a feature of NS interlocutors' talk (overall, 109 NS versus 6 NNS occurrences in the information gap activities; 30 NS versus 1 NNS occurrences in the conversational activities), but its use did not discriminate between the two activity types. NS interlocutors appeared to use it to indicate *I get it*, and it may be a marker of asymmetry between NS and NNS interlocutors, particularly in the information gap activities, where it occurred much more frequently. (Further evidence of asymmetry between interlocutors in the information gap activity is the fact that NSs produced approximately twice as many words per utterance as NNSs in the information gap activity whereas production in the conversation activity was roughly equal; see Table 5.) In both types of interaction, but more frequently in the information gap activities, *okay* also functioned as a boundary marker, indicating *okay, got that, next item*. Using such markers, the NSs provided closure to an episode (e.g., identification of an object on the picture) and started the next one, thus demonstrating that they controlled the progress of the activity. However, we did not investigate the use of *okay* in exhaustive detail and leave it as a potentially interesting topic for further research.

Use of oh. The pragmatic particle *oh* is considered a linguistic resource used to signal mutual understanding in interactions (see van Lier, 1998, for further discussion). Furthermore, the analysis of pragmatic particles is a part of the study of discourse coherence, that is, how the interlocutors jointly integrate elements of discourse (e.g., meanings) in order to understand what is said (Schiffrin, 1987). If the two types of interaction produce different kinds of discourse, one might expect differences in the interlocutors' uses of these markers.

In the conversational activities, the NS interlocutors used *oh* quite frequently in their responses to the NNS interlocutors (112 times versus 38 by NNSs; in the information gap activities, there were 46 instances by NSs versus 21 by NNSs). The particle *oh* has several functions, and its most common use is to acknowledge receipt of information (Heritage, 1984; Schiffrin, 1987). Schiffrin states that although *oh* is a marker of cognitive tasks (i.e., acknowledging receipt of information), its use may also have various pragmatic effects in interaction, such as signaling subjective orientation and surprise. Heritage argues that *oh* is often used to display understanding.

Such uses of *oh* were observed quite frequently in the conversational data across the three pairs. Consider Excerpt 6, taken from Mika and Donna's conversational activity:

6. 60 Donna: But you were here last spring for the um . .
 61 Mika: Naa.
 62 Donna: You were already here
 63 Mika: I came here umm this umm this um January 2
 64 Donna: Oh just January Oh so you haven't been here for one
 year you've been you're going to
 65 Mika: From
 66 Donna: stay for a year
 67 Mika: A ya

The use of *oh* in this excerpt is quite similar to that in examples given by Heritage (1984), in that Donna uses *oh* to show that she has finally come to understand that Mika has not been in the United States for a year but instead has recently arrived. In prior discourse, Mika mistakenly mentioned that she had been in the country for a year. As Mika revealed to one of the researchers immediately after her conversation with Donna, Mika thought she had been asked how long she would stay; thus her answer, "for a year," meant that she would stay for a year. Later in the conversation the interaction did not make sense to the participants because of their misunderstanding, and Donna asked for clarification. The interlocutors engaged in this negotiation of meaning in order to clarify each other's discourse because they were trying to achieve mutual understanding. The work of clarifying information for the purpose of building mutual understanding may carry a much greater cognitive load in terms of processing the interlocutor's discourse and responding appropriately than information exchange about lexical items in an information gap task. The receipt token *oh* (Heritage, 1984) may play an important role in this process. As the following section suggests, such tokens may signal closure to negotiation cycles that stretch over varying lengths of discourse and are structured in different ways.



Negotiation Cycles

Both types of interaction were analyzed sequentially in a qualitative manner. We used the notion of *side sequences* (Jefferson, 1972) to interpret the negotiation cycles and determine how they related to the entire interaction. The term *sequence* refers to occurrences of incidents as serial units. Side sequences are sequences embedded into the main discourse, mostly to resolve misapprehension problems or as subtopics. After a side sequence, the discourse returns to the main topic. Jefferson showed the triplet structure commonly found in conversation to be *ongoing sequence, side sequence, return to ongoing sequence*, or (O)-(S)-(R). The following example is taken from Jefferson's data.

- 1 A: An' everybody's askin'im t'dance.
- 2 B: An' because he's scareda dancing he's gonna dance in private till he learns how.
- 3 A: And a good-looking girl comes up to you and asks you, y'know,
- 4 B: "Gi(hh)rl asks you —". . .
- 5 C: Well it's happened a lotta times,
- 6 B: Okay okay go ahead
(1.0)
- 7 B: So he says "no."
(1.0)
- 8 B: Cause he's scared to admit that he can't dance an' he's scared to try. Cause he's gonna make a fool of himself. (p. 317)

B (Line 4) interrupts the main topic, a story about a girl asking him to dance with her. Another interactant, C, responds to B's comment. Then B signals his understanding and his consent to go back to the main discourse. After a pause, B (Line 7) continues with the topic in force before the side sequence occurred. At the end of the (O) sequence and inside the side sequence is a *misapprehension sequence*, composed of "a statement of sorts, a misapprehension of sorts, and a clarification of sorts: (s)-(m)-(c)" (Jefferson, 1972, p. 316). In Line 4 (m), B shows surprise about A's statement (Line 3) (s), which is then clarified by C's explanation (Line 5) (c). This misapprehension sequence is superficially somewhat similar to the negotiation cycles discussed in the SLA literature, but a qualitative analysis reveals differences in the way it is realized in the two different types of interaction.

Excerpt 7, from Donna and Mika, is illustrative of the information gap interaction across the three pairs.

7. 111 Donna: Do you have a cobweb next to the clock on the wall?
112 Mika: Yes. A cobweb?
113 Donna: A spider makes a cobweb.

- 114 Mika: Spider!
- 115 Donna: Spider web. A Spider's web.
- 116 Mika: Web aa
- 117 Donna: You have that?
- 118 Mika: yes
- 119 Donna: er you know a cobweb or spider web.
- 120 Mika: (??) the spider's the making spider made it.
- 121 Donna: Right, it's called a web.
- 122 Mika: um . . . what can I say? Under the clock. Pee coo clock?
- 123 Donna: Cuckoo clock?
- 124 Mika: Cuckoo clock, um . . . There's two drawerr . .
- 125 Donna: Oh. Umhum I think it's a filing cabinet.
- 126 Mika: Cabinet. There's cabinet with two draw . .
- 127 Donna: drawers
- 128 Mika: drawers . . and top of . . Top one of these, are little bit open
- 129 Donna: Little bit same here
- 130 Mika: and I can see a little few piece of paper . .

In Excerpt 7, Donna starts talking about a cobweb, which is followed by Mika's not understanding the word *cobweb*. The negotiation cycle begins in Line 112 and lasts until Line 121. Then Mika starts talking about a filing cabinet under the cuckoo clock (Line 122), which is not the item they were discussing before they began to discuss the spider web. After the discussion of drawers, they start discussing what is in them (not shown). Thus, this excerpt does not display the triplet structure described by Jefferson (1972). The talk in this information gap activity seems to contain no ongoing (O) sequence or resumption (R); instead, the whole interaction is composed of chained sequences, with the interlocutors moving from one sequence to another in order to find more differences between the pictures. This structure makes sense because "finding the differences" is the topic of the entire interaction, and after negotiating the misunderstanding and exchanging the information, the interlocutors proceed to another item, not worrying about what they were talking about before because they have already solved the previous problem. In that sense, it is the information gap activity that controls the discourse and determines the structure in these task-based interactions. Thus, in this type of interaction neither the NS nor the NNS interlocutor carries the burden to carry the talk forward because they need not pay much attention to the flow of the talk or to the shared meanings accumulated during its course.

In the conversational activity, on the other hand, the triplet sequence occurred in the same way as in Jefferson's (1972) data, as shown by Excerpt 8, from Rita and Sumiko's conversational activity:

-
8. 14 Rita: Um . . What do you think of Washington? Have you been here before?
- 15 Sumiko: Yes, Um . . My friend, she is American [uh huh]. She's :: she lived in Washington D.C. She's my old friend? when she was a high school student, [uh huh] she stayed in my house in Japan for two:: or three months, and then we are very good friend long time good friend, so she looked for this university and my dormitory for me.
- 16 Rita: Is she a student here, too?
- 17 Sumiko: No. she is student . . she is Size? Hopkins
- 18 Rita: Oh John Hopkins ?
- 19 Sumiko: Yeah.
- 20 Rita: Okay . . Oh. That's what made you pick Georgetown, too?
- 21 Sumiko: Um . . . I went to . . I visited here the . . 2 years ago. . [Uh huh] I went I visited my friend [Uh huh] We're. . we're we went went out Washington D.C. and we we met here we thought this university it's very beautiful [oh yeah] I liked this place, so I want to study here [Uh huh] and then I came here.

In Excerpt 8, Rita's question regarding Sumiko's friend in Line 16 serves as a side sequence in the triplet structure (O)-(S)-(R). The negotiation cycle takes place in Lines 17–19. Next, Rita returns to the main discourse about the original discussion of Sumiko's experience and impressions of Washington, DC. *Okay* in line 20 is a preclosing device, offering the listener an opportunity to reinstate a previous topic or open another set of topics before conversational closure (Schegloff & Sacks, 1973). After stating *okay*, Rita returns to the main discourse, which is followed by Sumiko's continuing to explain why she came to Georgetown (Line 21). Although not shown in this excerpt, her ongoing sequence (Line 21) is followed by Rita's question, "To do English classes?" which serves as a side sequence. We observed such triplet structures in the conversational activities of all three pairs, which indicates that this activity type shared important features with the types of conversations studied by Jefferson (1972).

The striking differences between the two types of interactions in terms of negotiation cycles show that, in information gap interaction, negotiation cycles occurred locally and independently of one another. In other words, the participants negotiated in order to achieve local cohesion. In conversation, on the other hand, they negotiated meaning in order to achieve coherence in the entire interaction. This claim coincides with the findings on trigger types for negotiation in the information gap and conversational activities. Discrete items (especially lexical items) were



negotiated in the former type of interaction, whereas global items (content and discourse trigger combined) were the major triggers for the latter type (see Tables 3 and 4). Because the main purpose of negotiation was to achieve local cohesion in information gap interaction, local items such as lexical items served as triggers, whereas in the conversational activity more global triggers were the focus of signals in order to reach global cohesion and coherence.

CONCLUSION

This study suggests the kinds of learning opportunities information gap and conversational activities may offer nonnative speakers of English. Investigation of the quantity and quality of interactions revealed that the conversational activity provided NNS interlocutors with a larger range of opportunities for language use than the information gap activity did. First, the conversational activity provided learners with more opportunities to produce more complex utterances. Second, in the conversational activity learners tended to provide a context for their use of pragmatic knowledge, as demonstrated, for example, by their use of *oh*. Third, the retrospective interviews with the two NNS interlocutors revealed that the learners perceived themselves to be more challenged in the conversational activity because they felt that they had to understand their NS interlocutors' questions and statements in order to get to know the other person on the interpersonal plane. The information gap interaction did not place the same demands on the NNS interlocutors. The interlocutors focused on discrete items such as single words to complete the activity, and their focus shifted from one local item to the next so that meaning was negotiated on the basis of discrete (e.g., lexical) items in order to achieve local cohesion.

The finding that the conversational task appeared superior to the information gap task in these ways is contrary to the assertion that conversation allows learners to drop troublesome topics and switch to new ones instead of pursuing negotiation. Both the NS and the NNS interlocutors struggled to get their meanings across through negotiation in a broader sense instead of dropping the topic. This study found differences between conversational and information gap interaction not only in the quantity of negotiation sequences but also in their quality. In addition, the conversational activity required the interlocutors to pay close attention to and relate their utterances to the context of the other interlocutors' utterances and of the topics discussed. Based on these data, conversation should be studied in much more detail as a potential source of rich learning opportunities rather than being disregarded



because it does not trigger as much repair negotiation as information gap interaction does.

The interaction we investigated in the current study took place between NS and NNS interlocutors. However, NNS/NNS interaction might also offer opportunities to learn a variety of communication strategies (for relevant discussion, see, e.g., Donato, 1994; van Lier & Matsuo, 2000). Further, NNS/NNS interaction is more practical in the classroom setting. Although the current study was limited in scope and therefore does not provide definitive evidence, it raises important questions about the value of conversational activity, which appears to be worthy of further research.

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APPENDIX

Task for Information Gap Activity



Fig. 4c

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