ADJUSTED AND NON-ADJUSTED INPUT IN ENGLISH LANGUAGE TEACHER TALK

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Introduction

In the literature of simplified registers, initial works on the descriptive register studies focused on syntax, phonology, morphology, and vocabulary (Ferguson 1971, 1975, 1977; Henzl 1973, 1979), but later on, in addition to this aspect, conversational or pedagogical functions (e.g., clarification, repetition, etc.) were also studied (Gaies 1977; Freed 1980, 1981). Furthermore, there seems to be an effort to dichotomize the study of modified language by the native speaker into "input" and "interaction" (Long 1981, 1983a, 1983b, 1983c; Gaies 1982) or "input" and "negotiation" (Scarcella and Higa 1982).

The reviews of the studies on input and interaction modifications (Ishiguro 1985) presented several important research questions regarding the speech of foreign language teachers addressed to non-native speakers in the classroom setting. The first question was concerned with Long's (1981) distinction between one-way and two-way information exchange. It is very likely that in the classroom situation the teacher talk includes both one-way and two-way exchanges. So in the current research an attempt was made to examine differences in speech rate, utterance length and utterance complexity between one-way and two-way communication.

Second, the current research attempted to determine how professional foreign language teachers adjust their speech in the classroom situation in comparison to their normal conversational speech with their fellow language teachers. Also the present research examined native/non-native speaker adjustments in speech, depending

on the different levels of oral language proficiency of the learners. Teacher speech adjustment to high, low and perhaps even intermediate levels of student proficiency would indicate an intentional or perhaps intuitive sense regarding the optimal "i+1" level input and would, by implication, point up the problematical nature of classes which contain students of highly heterogeneous proficiency levels.

Third, the research also made a comparison of speech adjustment between native speakers and non-native English speaking teachers in classroom conversation situations. Studies of the speech of non-native teachrs are few. To date there are only two studies about the classroom register of Japanese teachers (Ishiguro 1984, 1986). The above three research questions were answered through the following research design.

Research Design

Setting: The subjects of this research were nine native speakers of English and nine non-native speakers of English (Japanese teachers) who were professional foreign language teachers teaching at a college in Japan. The non-native speaker-teachers' communicative competence was sufficient to carry on meetings with native speakers in the target language, The students were 105 second-year students, majoring in the English language.

Based on the scores on the Basic Inventory of Natural Language (BINL)(for a detailed explanation of the BINL, see the next section on measurement), the students were grouped into three groups, according to oral language proficiency: high, intermediate, and low. Each proficiency level was subdivided into six sections of oral conversation class, making a total number of eighteen sections. This grouping resulted in five or six students per group.

Table 1 below indicates the conversation class schedule for the current research. Eighteen professional foreign language teachers taught each section once a week, and each section of students rotated

from teacher to teacher each week.   Since the students who participated in this conversation majored in the English language, they had other English-related academic subjects such as phonetics, grammar, and composition.   However, these conversation classes were selected for this research because, unlike the other classes, the means of instruction was the target language, regardless of whether the foreign language teacher was a native or a non-native speaker.

Table 1
Conversation Schedule

		Week I	Week II	Week III
Native	1.	a	b	c
	2.	b	c	d
	3.	c	d	e
	4.	d	e	f
	5.	e	f	g
	6.	f	g	h
	7.	g	h	i
	8.	h	i	j
	9.	i	j	k
Non-Native	1.	j	k	l
	2.	k	l	m
	3.	l	m	n
	4.	m	n	o
	5.	n	o	p
	6.	o	p	q
	7.	p	q	r
	8.	q	r	a
	9.	r	a	b

High Proficiency Groups: a, d, g, j, m, p
Intermediate Proficiency Groups: b, e, h, k, n, q
Low Proficiency Groups: c, f, i, l, o, r

Measurement of Oral Language Proficiency: The Basic Inventory of Natural Language (BINL) is a criterion-referenced system

designed to assess oral language proficiency of bilingual children. The task involved in this testing requires the students to select a picture and tell a story about it. The tester records whatever the students say, and later transcribes the first ten sentences (complete or incomplete.)

The analysis of the transcribed utterances demands that the tester have a basic linguistic knowledge of syntax and morphology of the tested language, since the tester's task involves counting the number of words, modifiers, phrases, and clauses. The above grammatical elements were scored in the following manner as suggested by Herbert(1977:15-16).

Complete sentence	=10 points
Partial sentence	=1 point
Fluency	=1 point for each word
Modifiers	=10 points for each article, possessive or demonstrative pronoun, adjective or adverb
Phrases	=20 points for each gerund, adjective, adverbial or prepositional phrase
Clauses	=30 points for each subordinate clause (independent clauses are counted as complete sentences).

The series of scores tabulated with the BINL provides the tester with language profiles of the students. The first score, called "fluency," is defined as the total number of words (TNOW) expressed in the sample of the natural language. The second score represents the "average sentence length" (ASL) as it is defined to be the total number of words divided by the number of partial and complete utterances. The third score indicates the "average level of complexity" (ALOC) of the utterance calculated by the division of the total

points ("Total Index of Language Ability") by the total number of partial and complete utterances.

This BINL was used for determining the oral language proficiency levels of the Japanese college students, even though it was originally designed for assessing language proficiency of bilingual children. The primary reason for such a decision was that this test was also considered most appropriate for eliciting spontaneous oral language samples from Japanese adults. This was confirmed by comparisons of sample utterances from three different proficiency levels.

In the present study three language proficiency levels (high, mid, and low) are defined as follows: Those who scored more than fifty-one on their "average level of complexity" are defined as the high level. The scores between forty-one and fifty and the scores bolow forty are classified as the middle and low levels respectively. The following are some of sample utterances from each proficiency level.

(High Level): There are two boys in the room. I can see two sofas. One boy is sitting on the sofa and reading the book. And another boy is sitting on the floor and also and he is also reading, reading a book. The boy, who is sitting on the floor is black, maybe black boy, and another boy who is sitting on the sofa is white boy. I can see white lamp, white lamp on the, on the table, and there are many books on the table. Ah, there is a bag on the sofa. A picture is hanging on the wall. Maybe um-these boys are friends and after, after they, after, after they finished reading, they might, they might went to bed. In the book, in, both of, in the both of the book TO (well), one, one page, one-ETO(well), there is a picture and - there is a picture.

(Middle Level): There are two boys. Both of them are reading

books. One boy have brown hair and the other boy have, has black hair. They are maybe same age. And they wear sweater and jeans. Brown hair boy is sitting and black hair boy is on the floor. They, they are reading different books. I can see the face of brown hair but I couldn't, I can't see the face of black hair. Ah-I don't know well but they are about seven or nine years old. They are in the room.

(Low Level): I can see two boys. They are reading books. One boy sitting comfortable chair. Another boy sitting, another boy sitting floor. One boy, one boy has perhaps one boy black boy. Another boy is white boy. There, there is, there is picture but I can see, I can't see very well. He has, white boy reading books. He stu-, he, he saw picture. Another boy reading sentence.

Data Collection Method: First, the BINL described in the previous section was administered to all sophomores in order to obtain data on the students' level of oral language proficiency. The test was given in the language laboratory where all of the students' speech was recorded for transcription and the classification of the students' oral language proficiency.

The baseline speech ("out-of-class" speech) information on the foreign language teachers talk was obtained by recording informal evaluation meetings. In attempting to secure comparable utterance samples for each teacher, the researcher divided eighteen teachers into three groups, each of which included both native and non-native speakers. In this way, it was hoped that the baseline sample for each teacher would be adequate and comparable to the "in-class" sample utterances in terms of the sample size. These three meetings were recorded and transcribed for the analysis of the baseline teacher talk.

As for the "in-class" teacher talk, eighteen conversation sections, each of which consisted of five or six students at the same level of oral language proficiency, were tape-recorded for three weeks. Each

tape was transcribed, including both the teacher's and the students' utterances.

Dependent Variables Studied: The independent variable for this research was the oral language proficiency level of the learners. The dependent variables, the variables in adjusted speech triggered by the proficiency levels of the interlocutors, were as follows:

1) speech rate: the number of words per minute in the one-way interaction.
2) utterance length: the number of words per T-unit.
3) utterance complexity: the number of subordinate clauses per T-unit.

Dependent variables 1 to 3 were adopted from Henzl's (1979) study. There was a slight difference regarding variable one. It had originally been intended to measure each teacher's speech rate. However, it was found that measuring rate of delivery with a stop-watch was practically impossible, especially in a brief two-way discourse between the teacher and the students. That is, in this study the teacher and students interacted very frequently and their turn-taking changed swiftly on some occasions unlike Henzl's situation, where the teacher told a story in a monologue style. Therefore, the speech rate variable was in fact measured only with the data of the so-called "monologue," in which there was only one-way talk, such as the teacher giving a relatively long explanation of one concept.

Method of Data Analysis: The basic unit of analysis used in the present study was the T-unit, which is defined as a main clause plus its possible dependent clauses (Hunt, 1970). The analysis of the transcripts involved three distinct procedures: 1) the division of the texts into T-units, 2) measurement of three dependent variables, and

3) the distinction between one-way and two-way communication. Two raters, working separately, accomplished the first task with all of the texts. Inter-rater reliability was calculated in terms of the percentage agreement for the task (see Politzer et al., 1981). The second and the third tasks were performed on sample texts which were randomly chosen and which were analysed by two raters (see Scarcella and Higa, 1982). Inter-rater reliability for all these tasks was calculated in terms of percentage agreement, with 90 % agreement or better being considered acceptalbe.

As far as statistical analyses are concerned, the means of the dependent variables were compared with those of the baseline speech and the modified classroom speech (three language proficiency groups). An analysis of variance was used to test the significance of differences among the four groups (three language proficiency groups and the baseline group). Then, further analyses were made to locate a significant difference among various pairings of the groups. In addition, the mean differences between native and non-native speakers were compared by using t-tests.

Results

"One-Way" and "Two-Way" Exchanges: Initially it was presumed that classroom talk would be characterized by predominant "two-way" communication between the teacher and students. However, it was found that most of the teachers spent some time explaining a concept or a new word at various places in the conversation. This kind of talk can be called "monologue," characterized by the teacher making statements since he/she did not get any oral feedback from the students during that time. This talk could also be compared to the "one-way" talk which Long (1981) contrasted with the "two-way" communication in his experimental study. From the present data the following is an illustration of the difference between one-way talk and two-way talk:

Student: I think the horse in her house are not useful.

Teacher: Mm, very old.

S: Yes.

T: Big?

S: Big.

T: Big horse. Mm, what color?

S: Brown.

T: Mm, your typical horse. Is it a Japanese horse?

S: (Laugh) Japanese.

T: Anyway, we'd better get back to the subject.

Yeah, anyway, that's interesting. Good.

Thank you. Well... then the next section.

Let's go on to your parents. mm, if, if one of your parents died or if, if both died, then... If you can tell us something about them, then please do. If you don't want to talk about them, then that... that's OK.

In my case, ahm my father is very quiet, doesn't talk so much. But my mother's very talkative XXXXX and she likes asking questions of other people, so I think my personality is more like my mother than my father, because... well. My brother, I have one brother and he's very quiet like my father, maybe. So I think I'm more like my mother. And ah, I had a sister, but she died like your, your aunt. She died at birth when she was born. So I think my mother was sorry, she didn't have any girl. So she taught me to do many things, so.

For some examples I'm quite good at cooking and I can also knit - do knitting and sewing. I'm good at buttons and so on. Sewing, knitting, cooking, quite good.

So um that...I suppose that's a good thing. Sometimes useful. Cooking ... I'm not sure. But anyway, I think my personality's more like my mother. So let's try to hear what you, you think about your

parents. Miss K.?

The beginning of the "monologue" is marked by a succession of statements describing some ideas or concepts. When the teacher uses imperatives or questions the "monologue" is considered not to have started yet. Therefore, the starting point of a monologue or one-way talk in the above text is "In my case, ahm my father is very quiet, doesn't talk so much." Toward the end of the teacher's turn-taking he uses the imperative, "So let's try to hear what you, you think about your parents." This is the indicator of the beginning of a two-way exchange in the present data. That is, one-way talk ends just before the teacher begins using the imperative form.

The distribution of one-way and two-way exchanges in native speakers' speach will be illustrated in Table 2 and the distribution in non-native speakers' speech in Table 3. According to these results, in baseline talk, native and non-native speakers used two-way exchanges in 59% and 56% of their utterances, respectively, and one-way talk in 41% and 44%, respectdvely. However, in conversation classes, native speakers used two-way exchanges in the range of 85 % to 88 % and one-way communication in about 12 % to 15 % of the total utterances while non-native teachers spent 90% to 93% for two-way communication and 6 % to 10 % for one-way talk. Furthermore, all of the native speakers except for one native speaker used one-way speech in their classes, whereas five of nine non-native speakers did not use one-way talk in eight conversation groups.

Speech Rate: following Henzl's (1979) study, speech rate in this research was defined as the number of words uttered per minute. Measuring speech rate was possible only when teachers were involved in one-way talk because of a technical problem: turn-taking between the teacher and students in a two-way exchange was too rapid to measure the speech rate.

First, an analysis of variance was used to test whether there was

Table 2

Native Speakers' Distribution of
One-Way and Two-Way Talk

Levels	One-Way		Two-Way		Total	
	n*	%	n	%	n	%
Baseline	364	41.36	516	58.64	880	100
High	312	14.56	1831	85.44	2143	100
Middle	281	12.05	2050	87.95	2331	100
Low	258	11.70	1948	88.30	2206	100

*n = number of T-units

Table 3

Non-Native Speakers' Distribution of
One-Way and Two-Way Talk

Levels	One-Way		Two-Way		Total	
	n*	%	n	%	n	%
Baseline	182	44.17	230	55.83	412	100
High	126	7.53	1547	92.47	1673	100
Middle	164	9.63	1539	90.37	1703	100
Low	122	6.32	1807	93.68	1929	100

*n = number of T-units

a significant mean difference in speech rate among the four groups·

The results are shown in Tables 4 and 5. The speech rate of native speakers differed significantly among the four groups (F=6.36, d.f.= 3,30,p<0.01). In order to find the locations of significant differences among each of the two groups, further analyses were made. As indicated at the bottom of Table 4, significant differences were found between native speakers' baseline and H groups (t=2.61), NS baseline and M groups (t=2.55) and NS baseline and L groups (t=3.85). However, non -native speakers did not differentiate their speech rate among the four groups (F=1.40, d.f.=3, 23, p>0.05).

Table 4
Native Speakers' Number of Words per Minute

Levels	Number	Mean	S.D.
Baseline	8	137.88	27.23
High	8	111.49	8.65
Middle	9	106.73	23.09
Low	9	97.53	14.92

$F = 6.3575$, d.f. $= 3,\ 30$, $p < 0.01$

Baseline vs. High	$t = 2.612^*$
Baseline vs. Middle	$t = 2.553^*$
Baseline vs. Low	$t = 3.851^{**}$
High vs. Middle	$t = 0.548$
High vs. Low	$t = 2.317^*$
Middle vs. Low	$t = 1.004$

$^*p < 0.05$
$^{**}p < 0.01$

Table 5
Non-Native Speakers' Number of Words per Minute

Levels	Number	Mean	S.D.
Baseline	8	103.80	22.27
High	7	85.55	23.29
Middle	6	86.49	21.46
Low	6	86.33	11.56

$F = 1.3978$, d.f. $= 3,\ 23$, $p > 0.05$

Secondly, t-tests were performed in order to determine whether there was a statistically significant difference between native and non-native speakers regarding their speech rate in each group. A significant difference in speech rate was established between native

and non-native speakers in the baseline groups (t=2.74, d.f.=14, p<0. 05) as well as in high groups (t=2.94, d.f.=13, p<0.05), but not in middle (t=1.71, d.f.=13, p>0,05) and low (t=1.55, d.f.=13, p>0.05) groups.

Utterance Length: In this research utterance length was defined as the number of words per T-unit. The first comparisons were concerned with the mean utterance length among the four groups (baseline, and three language proficiency levels). The results of the analysis of variance (see Table 6) reveal that there was a significant difference at the 0.01 level among the means of the number of words per T-unit in one-way talk by native speakers (F=19.83, d.f.=3,30). Further analyses show that the locations of significant differences were between the native speakers' baseline and each of the other three levels (baseline vs. high t=5.99, baseline vs. middle t=6.25,

Table 6
Native Speakers' Number of Words per T-unit
(One-Way Talk)

Levels	Number	Mean	S.D.
Baseline	8	15.260	2.069
High	8	10.376	1.016
Middle	9	10.103	1.123
Low	9	10.238	1.873

F=19.8320, d.f.=3, 30, p<0.01

Baseline vs. High	t=5.992**
Baseline vs. Middle	t=6.25**
Baseline vs. Low	t=5.245**
High vs. Middle	t=0.334
High vs. Low	t=0.185
Mid vs. Low	t=-0.059

**p<0.01

baseline vs. low t=5.25).

For the non-native speakers, utterance length in the four groups (Talbe 7) was significant at the 0.05 level (F=3.61, d.f.=3,23). Further analyses identified that significant differences were found between the baseline and M groups (t=2.54), and the baseline and L groups (t=2.68).

Table 7
Non-Native Speakers' Number of Words per T-unit
(One-Way Talk)

Levels	Number	Mean	S.D.
Baseline	8	12.669	2.518
High	7	9.996	2.404
Middle	6	9.630	1.710
Low	6	9.638	1.287

$F=3.6076$, d.f.$=3, 23$, $p<0.05$

Baseline vs. High	t=2.094
Baseline vs. Middle	t=2.537*
Baseline vs. Low	t=2.678*
High vs. Middle	t=0.31
High vs. Low	t=0.325
Mid vs. Low	t=−0.009

*p<0.05

Next, the utterance length in two-way communication was compared among the four groups. Tables 8 and 9 show that the mean differences were significant at the 0.01 level in both native (F=37.73, d.f.=3,32) and non-native teachers' groups (F=19.03, d.f.=3,32). The results of further analyses reveal that in both native and non-native teachers' two-way communication significant differences at the 0.01 level were obtained between the baseline talk and each of the other three groups (native speakers' baseline vs. H groups t=7.46, NS baseline vs. M groups t=6.84, NS baseline vs. L groups t=7.08; non-

native speakers' baseline vs. H group t=6.31, NNS baseline vs. M groups t=4.98, NNS baseline vs. L groups t=5.90). These findings indicate that although both native and non-native speakers did not differentiate the number of words per T-unit in accordance with the three language proficiency groups in class, they shortened their in-class utterance length in comparison to their baseline outside-class talk.

Table 8
Native Speakers' Number of Words per T-unit
(Two-Way Talk)

Levels	Number	Mean	S.D.
Baseline	9	9.7778	1.6386
High	9	5.5211	0.4930
Middle	9	5.4133	0.9893
Low	9	5.6089	0.6596

$F=37.7301$, d.f.$=3, 32$, $p<0.01$

Baseline vs. High	$t=7.462**$
Baseline vs. Middle	$t=6.84**$
Baseline vs. Low	$t=7.08**$
High vs. Middle	$t=0.292$
High vs. Low	$t=-0.139$
Middle vs. Low	$t=-0.493$

$**p<0.01$

The second comparison of means with regard to utterance length was done with t-tests for determining significant mean differences between one-way and two-way talk. The results showed that the native speakers' mean differences were significant at the 0.01 level (t=14.40, 13.26, 8.42 for H, M, L, respectively). Likewise, in non-native teachers' classes, significant differences were found in H, M, L language proficiency groups (t=6.30, 8.28, and 7.37). It can be inferred from these results that both native and non-native teachers

Table 9

Non-Native Speakers' Number of Words per T-unit
(Two-Way Talk)

Levels	Number	Mean	S.D.
Baseline	9	8.8833	1.5102
High	9	5.2422	0.8437
Middle	9	5.4811	1.3844
Low	9	5.2978	1.0241

$F = 19.0253$, d.f. $= 3$, 32, $p < 0.01$

Baseline vs. High	$t = 6.314$**
Baseline vs. Middle	$t = 4.982$**
Baseline vs. Low	$t = 5.895$**
High vs. Middle	$t = -0.442$
High vs. Low	$t = -0.125$
Middle vs. Low	$t = 0.319$

**$p < 0.01$

used shorter utterances in two-way communication and longer utterances in one-way talk.

The third type of comparison of mean utterance length was done with t-tests for establishing significant differences between native and non-native teachers. The results revealed that the significant difference between native and non-native teachers at the 0.05 level was found only in one-way talk in the baseline talk ($t = 2.25$, d.f. $= 14$). The rest of the means comparisons did not show significant differences.

Utterance Complexity: The first type of comparison with regard to utterance complexity was made to test whether or not there was a significant difference among the means of subordinate clauses per T-unit among the four groups. Table 10 shows that there was a significant difference among the four means in native speakers' one-

way talk at the 0.01 level (F=11.21, d.f.=3,30). Further analyses reveal that the locations of significant differences were found between the baseline and H groups (t=3.61), the baseline and M groups (t=4.05), and the baseline and L groups (t=4.76).

Table 10
Native Speakers' Number of Subordinate Clauses per T-unit
(One-Way Talk)

Levels	Number	Mean	S.D.
Baseline	8	0.791	0.271
High	8	0.381	0.171
Middle	9	0.348	0.175
Low	9	0.294	0.149

F=11.2124, d.f.=3, 30, p<0.01

Baseline vs. High	t=3.612**
Baseline vs. Middle	t=4.054**
Baseline vs. Low	t=4.762**
High vs. Middle	t=0.397
High vs. Low	t=1.129
Middle vs. Low	t=0.71

**p<0.01

Table 11 also indicates significant differences in their two-way communication (F=26.21 d.f.=3,32). Further analyses found the locations of significant differences to be between the baseline and H groups (t=6.54), the baseline and M groups (t=5.3), and the baseline and L groups (t=5.99).

Non-native speakers, on the other hand, established a significant difference among the four groups in their two-way talk at the 0.05 level (F=3.10, d.f.=3,23), as shown in Table13 but not in their one-way talk (F=1.81, d.f.=3.23), as shown in Table 12. Further analyses indicate that significant difference in two-way talk was found only between the baseline and H groups (t=2.24).

Table 11

Native Speakers' Number of Subordinate Clauses per T-unit
(Two-Way Talk)

Levels	Number	Mean	S.D.
Baseline	9	0.424	0.140
High	9	0.109	0.033
Middle	9	0.133	0.086
Low	9	0.120	0.059

F=26.21 d.f.=3, 32, p<0.01

Baseline vs. High	t=6.541**
Baseline vs. Middle	t=5.3**
Baseline vs. Low	t=5.988**
High vs. Middle	t=−0.777
High vs. Low	t=−0.477
Middle vs. Low	t=0.377

**p<0.01

Table 12

Non-Native Speakers' Number of Subordinate Clauses per T-unit
(One-Way Talk)

Levels	Number	Mean	S.D.
Baseline	8	0.503	0.273
High	7	0.273	0.212
Middle	6	0.367	0.236
Low	6	0.253	0.167

F=1.810, d.f.=3, 23, p>0.05

The second comparison regarding utterance complexity concerns
the difference between native and non-native speakers in each of the
four groups. T-tests were used for testing whether or not there was
a significant difference between the means of the number of subordi-
nate clauses uttered by native and non-native teachers. The results

Table 13

Non-Native Speakers' Number of Subordinate Clauses per T-unit
(Two-Way Talk)

Levels	Number	Mean	S.D.
Baseline	9	0.275	0.190
High	9	0.117	0.094
Middle	9	0.142	0.103
Low	9	0.127	0.088

$F = 3.10$, d.f. $= 3$, 32, $p < 0.05$

Baseline vs. High	$t = 2.235^*$
Baseline vs. Middle	$t = 1.848$
Baseline vs. Low	$t = 2.111$
High vs. Middle	$t = -0.536$
High vs. Low	$t = -0.248$
Middle vs. Low	$t = 0.316$

$^*p < 0.05$

reveal that there was not a significant difference between native and non-native speakers' use of subordinate clauses per T-unit in all of the groups (the baseline and three language levels) during one-and two-way exchanges.

To summarize, native speakers simplified their baseline utterance complexity by using fewer subordinate clauses per t-unit in one-way and two-way talk. As for the non-native speakers, the number of subordinate clauses per T-unit differed only between their baseline talk and their H groups in two-way talk. No differences between native and non-native speakers were found in any of the groups in one-and two-way talk.

Discussion

One-Way and Two-Way Talk: One-way talk was defined as the succession of teachers' statements without any oral feedback from the

students. This type of talk occurred especially when the teacher was involved in explaining one concept or idea, or giving some instructions about a certain procedure. On the other hand, two-way exchanges were brief oral interactions between the teacher and the students. This distinction of two types of communication in the data allowed the researcher not only to be able to measure speech rate (number of words per minute) in one-way talk, but also to discover the differences in the variables between one-and two-way talk.

The difference in one-way talk between baseline (41 % of the utterances by native speakers and 44 % by non-native speakers) and classroom talk (in the range of 12 to 15 % by native speakers and 6 to 10 % by non-native speakers) was not surprising. It had been assumed that teachers in a conversation class would be engaged in a mainly two-way talk with the students, unlike lecture type classes. A rather problematic result was that the proportions of one-way talk in class lead one to raise some questions in terms of comprehensible input. The one-way talk included more words per minute and more words per T unit than the two-way talk, and the variables in one-way talk were much closer to those in the two- way baseline talk.

A possible reason for shifting from modified classroom talk to the level of the two-way baseline talk during the one-way class talk seems to lie in the fact that the teacher is busy thinking about his/her own idea or organizing his/her thoughts rather than adjusting his/her speech to the student's language level. In other words, the teachers' accommodation phenomena are perhaps less sensitive when they concern their own utterances.

Adjusted/Non-Adjusted Input: In this section the combinations of the three variables in linguistic forms (speech rate, utterance length, and utterance complexity) will be discussed. The variables of speech rate by native speakers differed significantly among the four groups. The locations of significant differences were identified

between the baseline and each of the other three groups, and furthermore the difference between H groups and L groups was significant. The variables of utterance length differed significantly between the baseline talk and the three different levels, but there were no significant differences among the levels themselves. (This unadjusted utterance length among the different proficiency levels differs from the reports of Henzl (1973, 1979) and Gaies (1977).) As far as the number of subordinate clauses in T-unit is concerned, native speakers reduced the number of subordinate clauses per T-unit in classes, compared with the baseline data. However, there was not a significant difference between the three levels of classes.

When one examines the combinations of speech rate, utterance length and utterance complexity, the following facts are disclosed. In spite of the significant difference among the four groups in speech rate, the utterance length and utterance complexity were actually the same in the three groups. This means that the native speakers uttered the same number of words per T unit with the same level of utterance complexity in each group, but fewer words per minute in lower groups. In other words, native speakers did something different in the lower groups, i.e. they slowed down in pronouncing words and at the same time added longer pauses between words.

To conclude, native speakers adjusted their speech by modifying their utterances using a combination of changed speech rate, utterance length, and utterance complexity in accordance with the level of the students' language proficiency in one-way talk and two-way talk.

Second, non-native speaker adjustment/non-adjustment in speech will be discussed. Compared with their baseline data, non-native speakers reduced their utterance length in classes (except in H groups during one-way talk), but did not differentiate speech rate and number of subordinate clauses per T-unit (except between their baseline and H groups in two-way talk). Furthermore, they did not differentiate their speech rate, utterance length, and utterance

complexity among the three different proficiency levels. Even though three kinds of variables were considered together, as suggested in the discussion of adjustment phenomena by native speakers, one can conclude that non-native speakers used the same utterance length which includes the same number of subordinate clauses per T-unit with the same speech rate across the three levels of language proficiency.

There are some possible reasons for non-adjusted speech by non-native speakers. First, it might be reasoned that non-native speakers cannot adjust their speech, depending on the level of the interlocutor's language proficiency. Scarcella and Higa(1982) claim that even native speakers cannot perceive the learner's language level and cannot adjust their utterance in accordance with the student's level. Corder (1981) also states that foreigners and children who have not mastered the code of the target language cannot simplify the code. Language proficiency level as an independent variable for adjustment cannot, however, be totally denied because both native and non-native speakers simplified their speech in class, compared with baseline speech. Then what are the reasons for the consistent non-simplification phenomena among the three levels of classes?

The second possible reason could be the "subtle" differences in the language levels among H, M, and L groups. If the students in the low groups had had much less training, there might have been a more clear-cut adjustment. This viewpoint may be correct. However, the current study was concerned with language variation to see if students were receiving optimal input, i.e., comprehensible input at the college level where students had the same background of seven years of English. Yet, if one considers the sample sentences from H, M, L groups (p.p. 141-142), it appears that the three types of students have different levels of language proficiency. Thus, there seems to be other reasons for non-native speakers' non-adjustment phenomena.

The third reason may be related to the teachers' elaborated

speech including increased use of subordinate clauses in the M and L groups during two-way talk by non-native speakers. Widdowson (1979) commented on the seemingly "perversely paradoxical" phenomena: the teacher's adjustment "may involve either the increase or decrease in complexity of usage" (p. 197). He further explains that "simplification" involves linguistic complexity, because "effectiveness of use in a particular communicative situation might well require explicitness or a conformity to accepted convention which calls for linguistic elaboration" (p.197). Because of such elaborated speech in M and L groups, the degree of adjustment depending on the interlocutors' proficiency level might not have been observed. In light of the above discussion, the author believes that the last reason would be the main contributor to the findings of non-native speakers' non-adjustment in their speech.

Finally, when the modifications of input are compared between the native and non-native speakers, it was found that significant mean differences were established with 1) speech rate in the baseline and H groups, and 2) utterance length in one-way baseline talk. Among these significant differences, the meaningful difference in terms of comprehensible input lies in H groups where the students with the high language proficiency received faster speech than in non-native speaker classes. On the other hand, the students in lower groups received input which did not differ statistically significantly from non-native speakers' classes. This input difference between native and non-native speakers indicates that native speaker teachers are more likely to be able to provide challenging enough input for the H group students.

Conclusions and Educational Implications

The trigger for the adjustment phenomena in foreign language teacher talk was hypothesized to be the level of the students' language proficiency. This idea was supported by the clear-cut

modificatioins of baseline talk in the classroom situations. All the input variables were simplified in the classroom, compared with the baseline situations.

However, some of the variables were not simplified depending on the students' language proficiency level. For example, non-native speaker teachers did not differentiate speech rate, utterance length, and utterance complexity across the three language levels of the students.

The identification of these adjusted and non-adjusted variables in teacher talk creates some problematic environments for the students to receive their comprehensible input. First of all, the variables (e. g., speech rate, utterance length, and utterance complexity) of one-way talk are closer to the teachers' two-way baseline data. Therefore, it is expected that utterances with those variables could be beyond the students' level of comprehension, based on the assumption that slower and shorter speech with fewer subordinate clauses would be more easily comprehended. Given the nature of Krashen's i + 1 hypothesis (Krashen 1980, 1981, 1982, 1985) , it could be suggested that native speakers who spend more time for one-way talk should reconsider their use of one-sided talk in conversation class. This caution may be further applied to other English classes. For example, in British and American literature classes where the academic content is presented in a lecture style in the target language, the class often ends up with a succession of meaningless monologues.

Second, when the modifications of input were compared between the native and non-native speakers, it was found that the native speakers made use of a wider range of modifications in speech than did non-native speakers. Native speakers adjusted their speech by modifying their utterances with a combination of speech rate, utterance length, and complexity in accordance with the level of the students' language proficiency in one-way talk. More precisely, they produced the same utterance length with the same number of

subordinate clauses per T-unit across the three levels but with fewer words per minute in lower classes. On the other hand, non-native speakers did not change their utterance length, utterance complexity and speech rate across the three levels of classes. Judging from these findings, it is concluded that the students from H groups may benefit more from native speakers' classes. On the other hand, non-native speakers may not provide challenging enough input for H groups.

Third, it was originally hypothesized that teachers would use fewer subordinate clauses in lower level classes to provide for the student's need of comprehensible input. However, both native and non-native teachers in class did not differentiate the number of subordinate clauses per T-unit among the three levels of classes. This seemingly contradictory phenomenon must be connected with the modification of interaction variable, i.e., more rephrased utterances with clauses in lower level groups (Ishiguro 1986) . These phenomena led the researcher to interpret that teachers, especially, native speakers, may initially provide input beyond students' comprehension in lower level classes. Therefore they had to rephrase their own utterances more frequently than did non-native teachers. The use of subordinate clauses in rephrased utterances can be interpreted as the manifestation of the teachers' intent to simplify their speech. However, paradoxically this clausal complexity in a succession of rephrasing seemed to have caused more confusion on the part of the learner as was demonstrated by Chaudron (1982, 1983) .

Before concluding, there should be some mention regarding the generalizability of the findings. Non-native speaker teachers, i.e., Japanese teachers of English in this research were those who were able to carry on meetings in English with native speakers -- a level of oral proficiency much higher than that of most English teachers in Japan. Therefore, the findings may not necessarily be applicable in general, to foreign language teachers in Japan. However, the findings with regard to native speakers are generalizable to conversation

classes conducted in the target language by native speakers in the Japanese educational setting, provided that they are "professional" language teachers with at least five years teaching experience at the college level.

To conclude, the present research has the following implications for the field of foreign language education.

1) Foreign language teachers, especially native speakers should refrain from using one-sided talk in conversation class, since their frequent monologues contain input much closer to their baseline data, which is suspected to be beyond the level of students' comprehension. Furthermore, this caution may be further applicable to the teaching of academic subjects if they are presented in the target language in a lecture style.

2) During two-way talk native speakers' rephrasing their own utterances with subordinate clauses, especially in lower level classes, has to be re-evaluated as to whether or not the intent to simplify speech results in more confusion on the part of the learner. In order to lessen the burden of comprehending a series of rephrased utterances, teachers should give either longer pauses between utterances or provide a clear "signal" (e.g., Let me say that in another way...) to indicate to the learners that what follows is a simplified utterance, not new information.

3) Non-native speaker teacher's inability to modify input across the three language levels points out the problematical nature of classes if classes contain students of highly heterogeneous proficiency levels: students with high language proficiency do not receive challenging enough input and at the same time students with low proficiency may suffer from input far beyond their level of comprehension.

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