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(出版者 / Publisher)

法政大学言語・文化センター

(雑誌名 / Journal or Publication Title)

言語と文化 / 言語と文化

(巻 / Volume)

14

(開始ページ / Start Page)

125

(終了ページ / End Page)

138

(発行年 / Year)

2017-01-10

(URL)

<https://doi.org/10.15002/00013569>

# An Effective Means of Improving Prosody in English: Intelligibility and Fluency in Oral Communication

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## Abstract

Prosody in English is important for oral communication and difficult for Japanese EFL learners to acquire. By explaining the contrast between English prosodic features and Japanese ones, the author investigated if intelligibility and fluency in reading aloud and spontaneous speech could be improved. The combination of explicit instruction and repeating practice had a quick effect upon reading aloud. Though approximately half the participants thought they were conscious of pronunciation in the two-way communicative task, the raters determined that they didn't sound as if they were truly interacting in English, and suggested they needed more practice. The study also found that approximately half the participants had been instructed in pronunciation in English, though they were unaware of the differences in prosody, namely, that English is a stress-timed language, and Japanese is a mora-timed language.

**Keywords:** prosody, intelligibility, fluency, oral communication

## 1. Introduction

In the present global society, the importance of English as an international language has been established, and communicating in English as a native, a second, and a foreign language has become essential even in

Japan, where the concept of “World Englishes” and multiculturalism have been observed. According to the Tokyo University of Foreign Studies homepage, there are approximately five hundred and ten million native English speakers, and more than a billion non-native English speakers in the world. Thus, foreign accents have become acceptable in English communication. However, when we, as language teachers, listen to classroom utterances, such as students reading texts aloud or engaging in class conversation, we sometimes wonder if our students can verbally communicate in English with such strong foreign accents.

During the 1940s, audiolingualism was in favor, and minimal pair drills were practiced in English classes. Accurate pronunciation was the ultimate language-learning goal. Later, researchers began to think acquiring native-like pronunciation was impossible to attain; thus, during the 1970s, the goal of language teaching shifted to English communication (Brown, 1994; Celce-Murcia, et al., 1996; Ueno, 1998). In other words, oral communicative skills requiring intelligibility and fluent speech production were sought. The trend has continued to today’s classrooms. Researchers began to seek pedagogies suited to their current needs, and constructed fluency-based language teaching, such as content-based instruction, task-based instruction and so on. They discussed which factors were necessary for oral communication in L2, and many researchers today seem to agree that prosody or suprasegmental language aspects are important for oral communication (Ladefoged, 1975; Munro, 1995; Celce-Murcia, et al., 1996; Sugito, 1996; Okada, 2002; McCrosite, 2004; Katayama, 2010; Taguchi, 2012; Kamijo, 2013). The importance of prosody in oral communication has been discussed for a few decades; however, prosodic instruction has not been widely introduced to English classrooms in Japan (Ueno, 1998; Okada, 2002; Katayama, 2010; Kamijyo, 2013). Only a few studies have been conducted on this topic.

Ideally, one begins teaching segmental language aspects, then progresses to suprasegmentals in a well-balanced manner (Taguchi, 2012). Okada (2002) found that by shadowing, “. . .learners became more fluent

with fewer pauses in reading aloud.” Ueno (1998) compared supra-segmental- and segmental-oriented approaches to teaching pronunciation and found neither approach alone was sufficient to affect suprasegmental and segmental production. Many pedagogies of suprasegmental language aspects simply involve repeating model sentences as in audiolingualism (Taguchi, 2012) and are conducted by reading sentences aloud, not by speaking in spontaneous situations (Nishihara, 2004). In addition, it’s generally believed that negative transfer from L1 Japanese to L2 English is easily perceived in pronunciation, and some researchers (Kasahara, 2012; Taguchi, 2012) suggested that explanations of the English phonetic system in contrast with that of the Japanese would be effective for EFL learners.

Therefore, this paper will address two aspects of Japanese students’ suprasegmental English production: intelligibility and fluency in reading aloud, and spontaneous speech by teaching the contrast between English and Japanese phonetic features explicitly and meaningfully.

## **2. What are prosody, intelligibility, and fluency?**

As mentioned previously, prosody, or suprasegmental aspects of English production, is essential for oral communication. Prosody consists of phonological units larger than segmentals, and many phonologists, such as Crystal (1991) and Roach (1992), have previously defined the concept. Here, I would like to introduce three components proposed by Cruttenden (1986): length, loudness, and pitch. How these three components act upon stressed and unstressed syllables within sentences results in the melody which comprises English prosody.

Intelligibility is one goal of English oral communication instruction. This is the degree to which one can make oneself understood in a language — in other words, the explicitness of one’s speech. Sonobe, Ueda, and Yamane (2009) stated that “intelligibility was judged objectively as the number of words native speakers of English were able to correctly

transcribe when they listened to non-native speech.”

Fluency is the ability to speak smoothly, rapidly and without hesitation, rendering speech understandable to the listener. It is also one of the goals of oral communicative skills acquisition. Taguchi and Iwasaki (2008) defined fluency as “a feature of performance, not knowledge.... It involves the ability to engage in sustained interaction, by understanding the process and skills involved in using the forms and functions efficiently.”

Prosody plays an important role in oral communication. If students improve English intelligibility and fluency, it becomes easier to make themselves understood.

### **3. The Study**

#### **3.1. Participants**

Fifty-one freshmen with non-English majors from a private university in Tokyo participated in this study.

#### **3.2. Procedures**

##### **3.2.1. Writing original teaching materials on English prosody**

English prosody is difficult for many EFL learners to acquire, so the author chose seven aspects of English phonetics which differ from those of Japanese, but are important for producing natural English sounds. The following were described in handouts given to the subjects.

1. Linking “...we sometimes link words together. The most familiar case is the use of linking r.” For example, ‘here are’, ‘four eggs’ (Roach, 1983, p. 128).”
2. Assimilation “...sounds belonging to one word can cause changes in sounds belonging to neighboring words.” For example, ‘in the’, ‘get them’, ‘read these’ (Roach, 1983, p. 124–125).
3. Voiceless plosives (e.g. goodbye and footbal)

4. Elision “Under certain circumstances sounds disappear... a phoneme may be realised as zero, or have zero realisation, or be deleted” (Roach, 1983, p. 127). The examples are family and personal.
5. Consonant Clusters “When we have two or more consonants together, we call them a consonant cluster” (Roach, 1983, p. 68). In Japanese (1) A consonant comes before a vowel but not after a vowel, like “a-so-bu”; (2) Except for glottal stops, consonant clusters don’t appear. On the other hand, in English (1) one or more consonants can appear before and after a vowel. Because of this, Japanese EFL learners tend to insert a vowel after the end of each consonant when speaking English (Kasahara, 2012; Kamijyo, 2013).
6. Japanese is a lexical-pitch-accent language and a syllable (mora)-timed language. In Japanese, differences in pitch create different meanings, for example “ame” (HL for rain and LH for candy). English is a stress-timed language, and “...stressed and unstressed syllables have to be pronounced correctly in order to establish the rhythm of an utterance” (Katayama, 2010), which is an isochronous rhythmic pattern.
7. The main stressed syllable in a sentence is usually placed on the nucleus of the last content word in English.

### 3.2.2. Data collection

The following sentence was chosen to record student utterances: “Paris is a world-class city.” This sentence is taken from *Europe: A Changing Continent*, a textbook used in the author’s own class, though the chapter which includes the sentence had not yet been studied at the time of data collection. This sentence was chosen because the English pronunciation of “Paris” is different from that of Japanese; because “world-class” is a compound word which includes the segmental sounds /r/ and /l/; and because the schwa also appears. For the isochronous rhythmic pattern, “is a” should be pronounced weakly and shortly.

1. The students recorded their readings of the target sentence into recording devices. The speech of seven randomly chosen female students was recorded with two IC recorders, Sanyo ICR-PS004M and Sony ICD-UX71.
2. Handouts containing seven points for good English pronunciation were distributed, and each point was illustrated with an explanation and verbal examples. The explicit explanation took about 20 minutes. However, the students were not instructed how to pronounce the target sentence.
3. The students were divided into pairs, and then discussed the seven points to ensure they understood the instructor's explanation. They then practiced reading the target sentence several times, checking each other's pronunciation for 10 minutes.
4. The students next listened to the target sentence, spoken by a native English speaker on a CD, and they repeated it three times. For this paper, the procedures 2., 3., and 4. are called "the explanation and the practice."
5. The same seven students recorded their reading of the target sentence again and compare their utterances before and after the explanation and the practice. The other students recorded the target sentence again and did the same procedure.
6. Paired students participated in a two-way communicative task called "Spot the Difference," collaborating in finding differences between two similar pictures. The task is designed to induce interaction within as natural a setting as possible. In this study, two pairs were randomly selected for recording, and the two recordings were called Sample 1 and Sample 2.
7. Lastly, students were asked to answer a questionnaire. (1) What phonetic features were you careful of when you read the sentence aloud the second time? (2) Were you careful of pronunciation in "Spot the Difference"? (3) What phonetic features were you careful of in "Spot the Difference"? (4) Have you ever been instructed

English pronunciation? (5) In what features of pronunciation were you instructed? (6) Out of seven points of pronunciation, what did you hear about for the first time?

### 3.3. Rating

Two raters were selected for this experiment; a native English speaker from America with 13 years of experience in teaching Japanese EFL students (the native rater), and a native Japanese speaker who spoke English as a second language in an American workplace for three years and continues to occasionally speak English as a foreign language at work, but infrequently listens to English spoken by Japanese (the non-native rater). As mentioned above, the global prevalence of “World Englishes” necessitated the additional judgment of a non-native English speaker.

One Japanese student was chosen to provide a standard for judgment. She has studied English for six years and earned STEP Test Grade 2 certification. Before the rating commenced, it was confirmed that the raters understood the terms “intelligibility” and “fluency”. The native rater judged the model student’s intelligibility while reading aloud at “5” and fluency at “4” on a five-point scale (1 is poor and 5 is excellent). The rating was provided independently. Thus before the rating by the non-native rater, the Japanese student was asked to read aloud two passages, and the rater was told she had been rated with an intelligibility of “5” and a fluency of “4” by the native rater. The non-native rater also listened twice to the target sentence as read by a native English speaker on a CD.

Recordings of the seven students were transferred into a personal computer, and one of each recording was played at random for the raters to prevent identification of which utterance occurred before or after the explanation and practice. Next, recordings of the two-way communicative tasks were presented, and the raters were asked to provide their overall impression of the participants’ interaction. Each rating session took approximately 40 minutes.



### 3.4. Results and Discussion

As seen in Tables 1 and 2, none of the participants were evaluated lower by the both raters after the explanation and practice. Two participants were evaluated as the same in total points, and five of them were evaluated as having improved by the non-native rater. According to both raters, none of the participants' English worsened. To assess inter-rater reliability for the two raters on participant improvement before and after the explanation and practice, Cronbach's alpha was used; alpha coefficients for intelligibility and fluency were .97 and .97, respectively. These results suggest that the combination of the 20-minute explicit instruction in prosody differences between English and Japanese, the 10-minute pair

**Table 1 Judgment by the native rater**

Participant#	Intelligibility Before/After	Fluency Before/After
1	2/4	3/3
2	3/4	3/4
3	3/4	2/4
4	3/4	3/4
5	2/3	2/3
6	3/4	3/4
7	3/4	2/4

**Table 2 Judgment by the non-native rater**

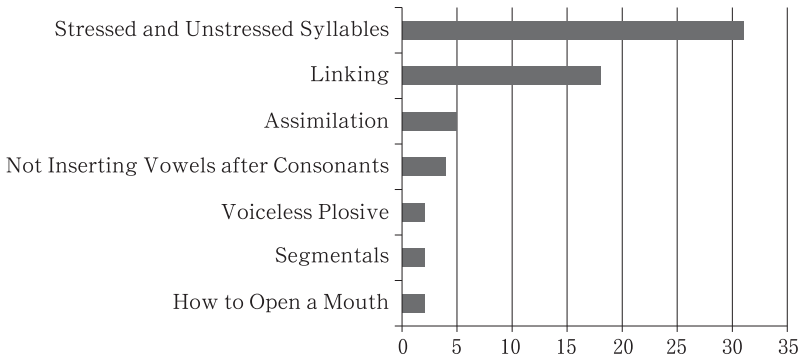
Participant#	Intelligibility Before/After	Fluency Before/After
1	4/5	4/4
2	3/4	3/4
3	4/4	3/4
4	4/4	3/4
5	3/3	2/2
6	4/4	3/3
7	5/5	4/5

work, and the repeating practice have strong potential to make English more natural. In addition, this pedagogy is easily applicable in almost all language classes, even with a large number of students, and even in the absence of a native-speaking teacher.

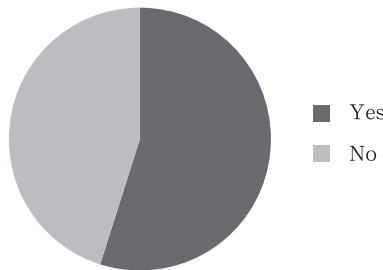
Two pairs of two-way communicative tasks were recorded, the raters listened to the recordings and were asked their opinions of this spontaneous speech. In regard to Sample 1, the native rater mentioned hesitation, lack of fluency, and poor sentence construction, and in regard to Sample 2, suggested one of the pair needed grammar drills, especially in the use of be-verbs and conjunctions, while the other participant of the pair conveyed confidence, speed and fluency in English. The native rater said his overall impression of the two-way communicative task was a sense of frustration, because the participants spoke very slowly and their prosody tended to be very flat and restrained. Additionally, the participants, like other Japanese English students, mixed up /r/ and /l/ sounds.

In regard to Sample 1, the non-native rater said the participants seemed to try very earnestly to talk to one another, but they didn't sound as though they were interacting through language, but instead, simply expressed in words what they were viewing on the paper. Judging from their English skills, they were not ready to participate in English conversation. In a nutshell, the conversation in Sample 2 was better than that in Sample 1. The participants in the Sample 2 sounded partially natural; however, just as the word "umbrella" sounded like "umbllea" to native speakers of Japanese, and probably to the speaker whose native language was not Japanese. They used be-verbs and general verbs together in a single sentence. First, they needed to master basic English skills such as vocabulary and grammar. They tried to make themselves understood, but again, didn't sound as if they were interacting through language.

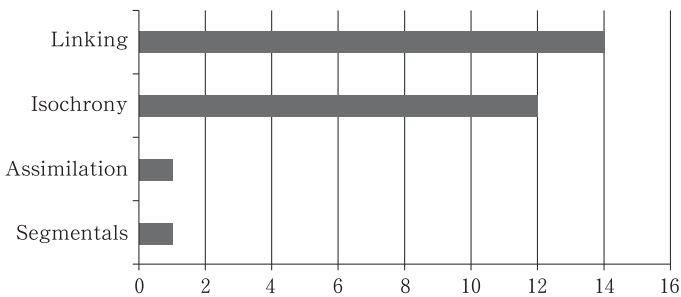
The results of the questionnaire are shown in Figures 1, 2, 3, 4, 5, and 6.



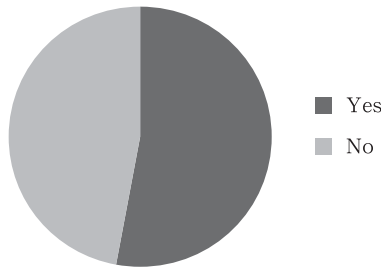
**Figure 1** What phonetic features were you careful of when you read the sentence aloud the second time?



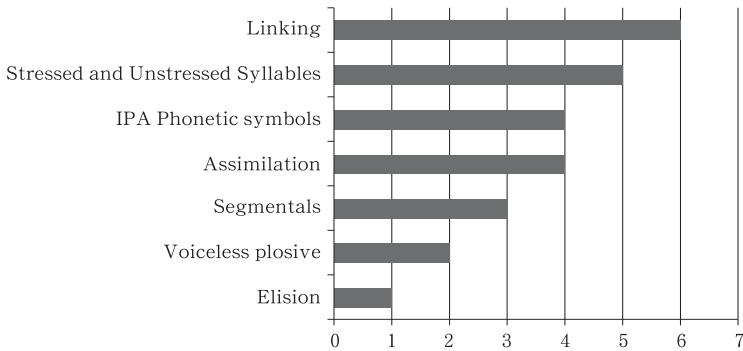
**Figure 2** Were you careful of pronunciation in “Spot the Difference”?



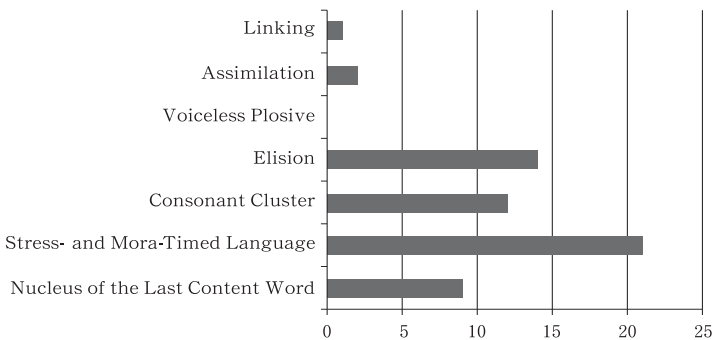
**Figure 3** What phonetic features were you careful of in “Spot the Difference”?



**Figure 4** Have you ever been instructed English pronunciation?



**Figure 5** In what features of pronunciation were you instructed?



**Figure 6** Out of seven points of pronunciation, what did you hear about for the first time?

According to the two raters and the participant questionnaires, there are four points to be mentioned: By learning prosodic differences between English and Japanese consciously and meaningfully: (1) the participants learned a great deal and acquired some language skills immediately during a reading aloud task. The most frequently-answered phonetic feature they became conscious of is English rhythm comprised of stressed and unstressed syllables. The raters also thought they became conscious of pronunciation after the explanation and practice; (2) more than half the students answered that they were conscious of their pronunciation in two-way communicative tasks, and the most two frequently-answered features they were careful about were linking and isochrony in English. In spite of their efforts, the raters didn't think the participants paid attention to pronunciation and needed more practice; (3) about half the participants indicated that they had received instruction in English pronunciation. This number was higher than expected, according to previous research (Kasahara, 2012). Linking and stressed/unstressed syllables were the second most common features they had been taught; (4) out of the seven points for English pronunciation taught in class, the majority of participants answered that comparison between English as a stress-timed language and Japanese as a mora-timed language was new to them.

#### **4. Summary**

This study suggests that explicit instruction on prosodic English features in contrast to Japanese ones will enable students to read English sentences aloud more naturally, which leads to the conclusion that the theory of pronunciation should be explicitly taught. For natural conversation, about half the students were confident that they were conscious of pronunciation. Provided with more opportunities to talk, they may be able to improve their pronunciation, or they may need additional pedagogies. In any case, the teaching method illustrated in this paper helped motivate the students to improve their pronunciation.

As for this study's limitations, it bears mentioning that; (1) a follow-up study must be conducted with a larger number of participants; and (2) the speaking ability of the student chosen for the standard was relatively high. The raters may have had difficulty in judging lower-level students, so the standard student selection must be carefully determined in future studies.

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