

# *Using a Speech Trainer to Improve the English of Japanese Learners.*

## (A Problem of Japanese Learners on Speaking English)

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### **Introduction**

It is generally known that most non-native speakers of English lack confidence in communicating with native speakers of English. "Most" is used in the previous sentences because people living in the country where English is spoken and people married to native speakers of English are exceptions. There are so many reasons for us to think that way. Some are that we doubt if our English will be understood and if our pronunciation will be right. Japanese especially tend to care how other people think of us. Communication sometimes occurs without language. Some people say we should not worry about our pronunciation when we talk to native speakers. They think that it is sufficient to talk without perfect pronunciation. However, when we first meet someone, we try hard to understand each other. That is why we can communicate without fluent language. Japanese beginning learners of English study English sentences mostly from books. A book shows how to pronounce and how to read English sentences. It is very difficult for non-native speakers to learn rhythm and intonation from the book. Living in a country where English is spoken would teach many ways of speaking even one sentence. For example, if when talking to a baby, 'You are a fool' or 'Get out of here' in a gentle way, the baby will show a happy face as if the baby had been told, 'You are a good boy'. That is to say, speaking can transmit several meanings by rhythm and intonation, though reading the sentence transmits only one meaning. The language we speak is affected by the people around us. We attempt to master the way of speaking in a second language through that the ability of our mother language. It has been said that English intonation is especially difficult for Japanese learners of English. Checking how much English language learning is affected by the Japanese language would be helpful for teaching and mastering English.

### **System Explanation and General Procedure**

I have used a WE-F450 Speech Trainer for student rhythm and intonation practice. The WE-F450 Speech Trainer consists of an Max 2 microcomputer, RGB Monitor, color printer (red and blue), Speech Trainer Unit (audio input/output unit and A/D converter board), headphones and other cables. The WE-F450 Speech Trainer requires 3.5 inch floppy disks. As software it has model voice processing and application, Vowel processing, Listening processing and applications. This machine also can accept Japanese model voice which means it is good for Japanese language training. We can select any sentences but the sentence length must be within three seconds (it can take six seconds for a model voice to record), and the number of letters of one sentence should be less than forty. Twenty sentences of English with various intonational patterns were prepared and were used for the experiment (called model

sentences.). These sentences consist of declarative, interrogative, wh-question, and tag-question sentences. A native speaker of American English read each sentence at normal speed. The Japanese learners of English were mostly first year students of Tokai Women's Junior College, majoring in English. The sentence read by the students were chosen by them so that they could feel more relaxed reading English sentences. The student can listen to the model sentence of English through the headphones before she records her voice. She can also practice the model sentence as many times as she wants. The model sentence is visually presented in blue on the upper-half of the display in rhythm and intonation sections. The practice sentence is presented in red on the right below the display of the model sentence in rhythm. The display of intonation is shown to the right of the model sentence so that they can be compared visually. In this paper the lines of practice sentences are presented boldly painted instead of red.

### Discussion and Analysis of Japanese Learners' Utterances

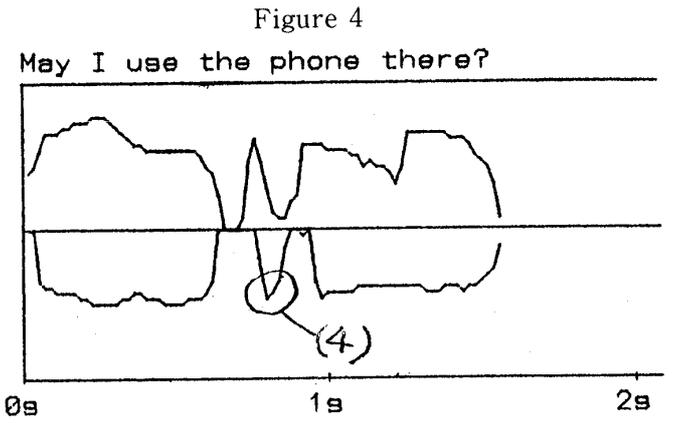
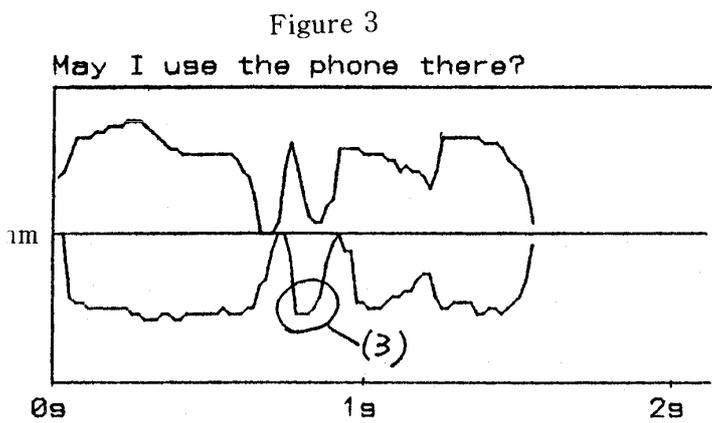
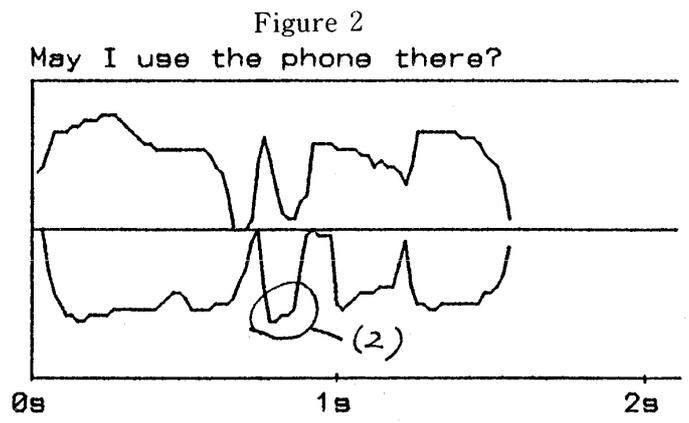
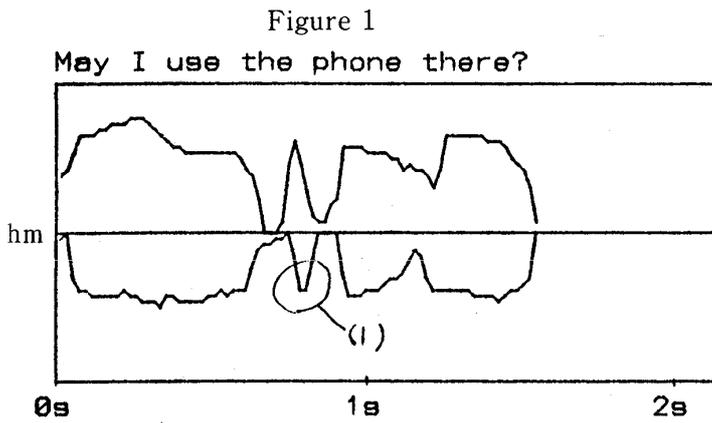
It is inevitable that the English of Japanese learners is called 'Japanese English' or 'Japanized English' to some extent. (Japanese learners have already acquired Japanese as habit.) Furthermore, these days there is a flood of katakana (chinese character) English in the cities and Japanese learners sometimes mix up the true pronunciation of English words. 'Tokyo dome' is pronounced Tokyo [dɔ:mu] in Japanese but Tokyo [dɒm] in English, 'running' is pronounced [ranniŋu] in Japanese but [rʌniŋ] in English. These pronunciation sound almost the same to some Japanese. Pronouncing [dɔ:mu] takes twice as long as that of [dɒm]. These phenomena of language come from syllabic structure, that is to say, Japanese language is isosyllabic. (1) *According to Shigeru Takebayashi, the Japanese syllabic is quite simple because Japanese words basically end with a vowel (open syllable). The structure of Japanese words consists of one vowel (V) and one consonant (C) and making CV structure. On the other hand, English syllable has 'open syllable' and 'close syllable' which is VC structure. The numbers of consonants are three before vowel and four after vowel. According to this theory, the maximum structure of English words will be CCCVCCCC, for example, strengths [streŋkəs]. This English feature produced a big difference between the Japanese syllable structure and the English one. The vowel comes after the consonant in Japanese words, while some consonant sometimes continue before or after the vowel in English which is spoken by Japanese learners. Extra [ɛkstrə](VCCCCV) in English, for example. EKISUTRA [ekisutora] (CVCVCVCVC) in Japanese, for example. However, the structure in continuation of consonants often exists in speaking Japanese because of devocalization and disappearance of vowel.*

It may well take a little more time for non-native speakers of English to speak English sentences as native speakers do. The speed of reading and speaking depends on the person. When we think of a word, it needs a certain speed for each letter to be recognized as one word. Twenty students attempted to read the model sentence (a). Most of the students who presented the model sentences tended to pick this (a) sentence. The point to note is that the utterances by Japanese learners have longer durations in the total length of the sentences. The Speech Trainer correct them automatically so that we can compare the rhythm and intonation of each sentence easily.

Figures 1 to 3 were done by the students and Figure 4 was done by an American lady who is English instructor. All these sentences were read in two seconds; therefore, it was impossible for the students to read the sentences consciously. Examining these figures presented by Japanese learners and an

(a) May I use the phone there ?

[mei ai ju:z ðə foun ðeə]

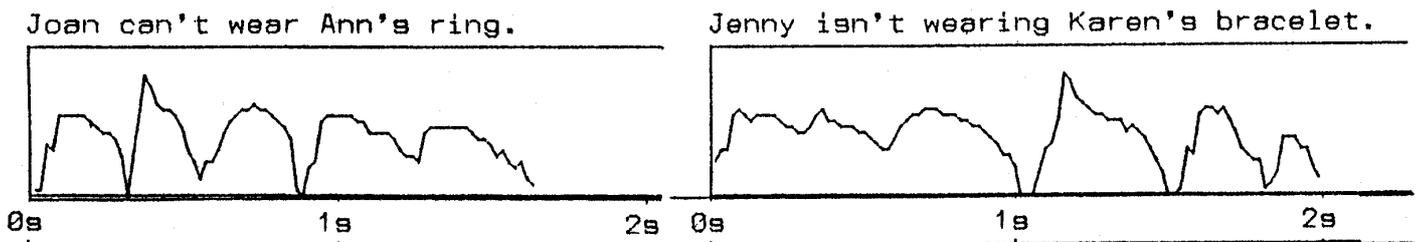


instructor, number (1) to (4) showed the contours of pronouncing 'the'. The peak of the numbers (1), (2), and (3) were a little longer than the model voice and than the number (4). As I listened to the students reading the sentences, the number (1), (2) and (3) seemed acceptable good English. It is natural for Japanese learners to take five seconds reading a Japanese sentence with five syllables and also to take ten seconds with ten syllables. Japanese KANA characters always take the same time as each letter to pronounce. How are English sentences with five syllables and with ten syllables read?  
(2) J. Donald Bowen explains it in the book called 'Patterns of English Pronunciation' as follows;

- (b) *Jone can't wear Ann's ring. (5 syllables)*
- (c) *Jenny isn't wearing Karen's Bracelet. (10 syllables)*

Comparing two sentences, all the words of sentence (b) have strong stresses and it sounds rather strong. The sentence (c) sounds natural. If (b) and (c) are syllable-timed sentences, reading (c) ought to take twice as long as reading (b). However, both (b) and (c) take almost the same time (two seconds). Figure 5 shows the sentences (b) and (c).

Figure 5



In a word with stress-accent, there is the strongest part and weak part to read. As a matter of course, the strongest part and the weak part always exist in a sentence. Though sentence (b) has words with all strong accents, it sounds unnatural. The words 'to' 'the' 'and' are read weakly in En-

English sentences. It is quite difficult for Japanese learners to read these words weakly. Japanese learners are likely to lengthen vowel sounds when they pronounce English words. Figure 6 to 9 are examples.

(d) Come and see me anytime.

[kʌm ənd si: mi: énitaim]  
nd

—— model intonation  
—— practice intonation

Figure 6

Figure 7

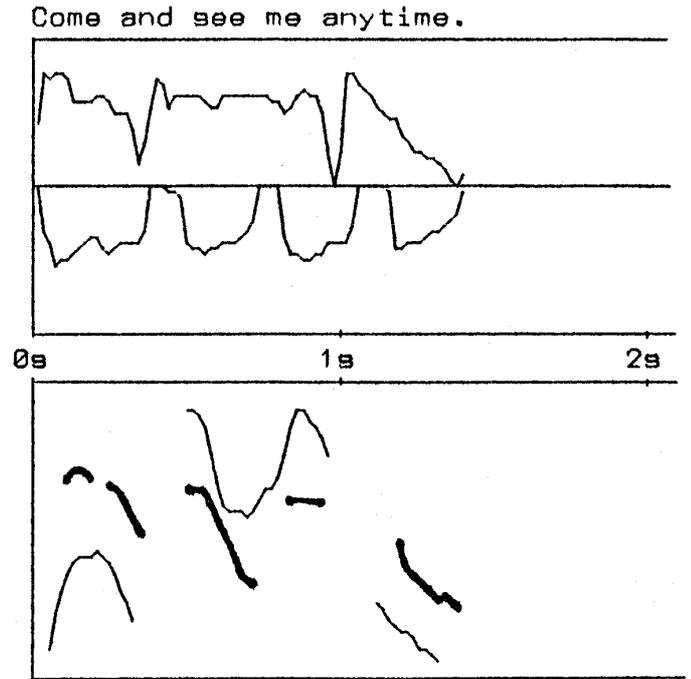
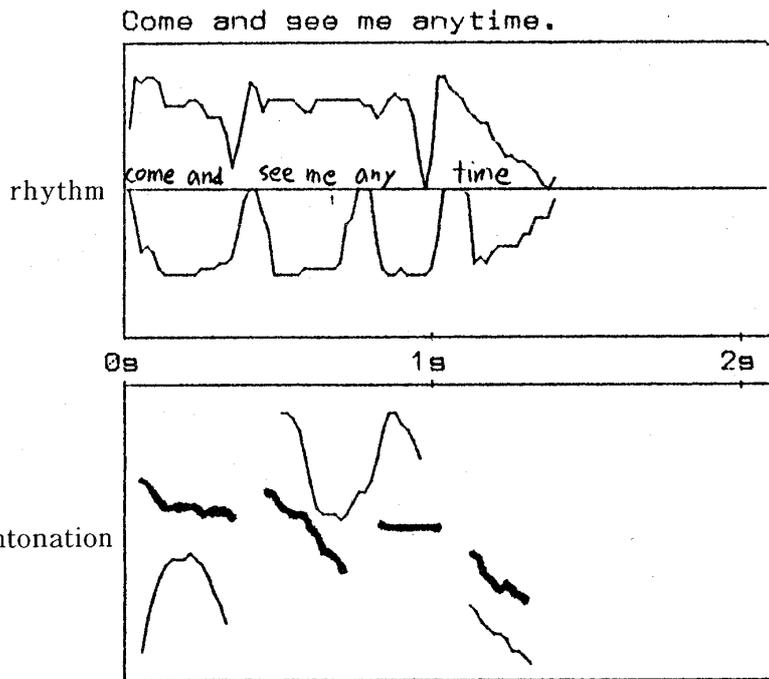
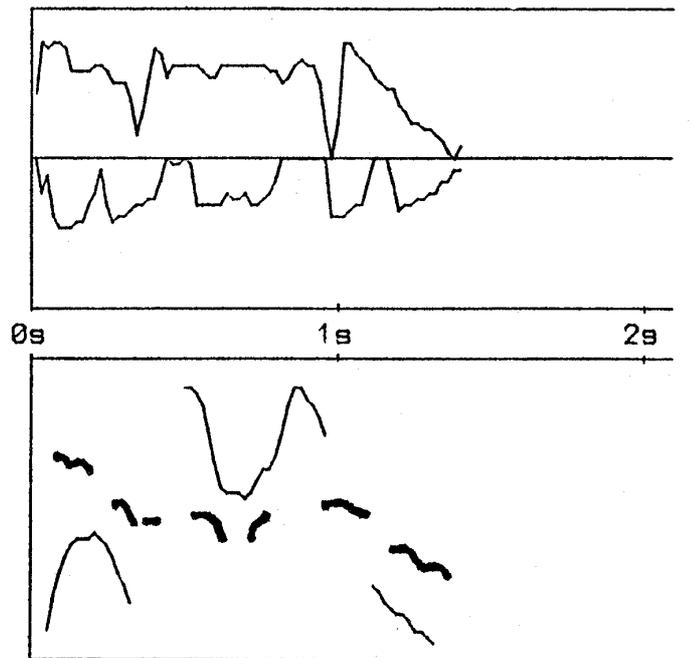
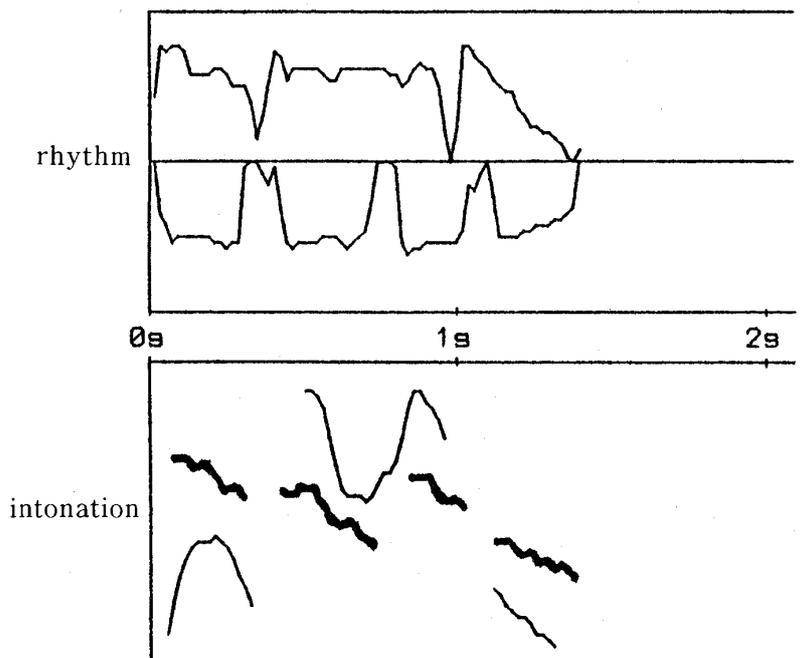


Figure 8

Figure 9



The practice sentence has more than four peaks as opposed to three peaks in the model sentence about rhythm. Fifteen students tried to present (d) but no student could show the same contours as the

model sentence. The model sentence shows the continuation of the pronunciation, 'come and see me any ...'. Japanese learners have long durations after they pronounce, 'come and ...' 'see me ...' and 'any ...'. Japanese learners pronounce the word anytime [eniytaim] instead of [enitaim]. The students take long durations to pronounce [i]. Japanese speakers of English cannot distinguish between [i] and [iy] because the Japanized version of English shows no distinctions. In Japanized English [i] and [iy] are combined into a related unit and pronounced as [iy]. In Figure 8, the word 'come' was pronounced [kamu] instead of [kam]. Furthermore, we can see a big difference between the model sentence and the practice ones with regard to intonation.

(d) Come and see me anytime.  


Examining the contour by Japanese learners in the sentence (d), their contours have several characteristics. The strongest stress part of (d) should be on the word 'come', 'see' and 'any'. The summit of their contours are flat although the contour of the model sentence is acute. All other practice sentences show the same patterns as figures 6 to 9. The best intonation is shown by the sentence(a). In the students' opinion, they tried to imitate the model sentence as hard as they could after they listened to it a few times. They also say that they read the practice sentence flatter if they didn't listen to it. Japanese language is originally spoken flatly. It isn't spoken with rising and falling tones. Japanese language has a postpositional word called, 'joshi' for changing and emphasizing the meaning. For example, emphasizing 'WATASHI (I)', 'WATASHI WA' will be 'WATASHI GA'.

(3) *Allan Cruttenden states his idea about Japanese characteristics in the book called 'Intonation' as follows: Japanese does not allow the type of intonational variation permitted in English and is hence not an intonational language. Nor does it involve tonal contrast on one-syllable and in this sense is not a tone language. It comes rather closer to those languages using 'characteristic tone' as many Bantu languages do. Many of these languages, like Japanese, can be analyzed as having a higher or low tone at various points in a word. But these Bantu languages can change the highs and lows under the influence of surrounding affixes and where modifications of grammatical meaning are involved. Japanese does not do this. Since the term 'pitch accent' has been used so often for Japanese, I propose to keep it.*

That is to say, intonation has been one of the trouble spots for Japanese learners of English. We also don't often have chances to see how native speakers of English vary their intonational patterns in linguistic behaviors. We non-native speakers of English don't realize how different our ways of intonation are from those of native speakers. The figures below are presented by some of the students in the English Department. The chosen sentences are interrogative, wh-question and declarative sentences. These sentences are quite familiar to the students.

————— model intonation  
 ————— practice intonation

Figure 10

I'm very happy to see you.

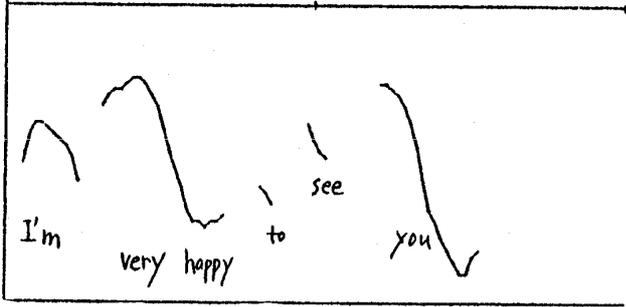
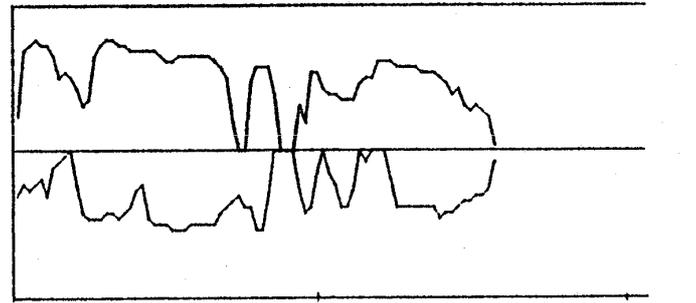


Figure 11

I'm very happy to see you.



model intonation

12 students' intonation

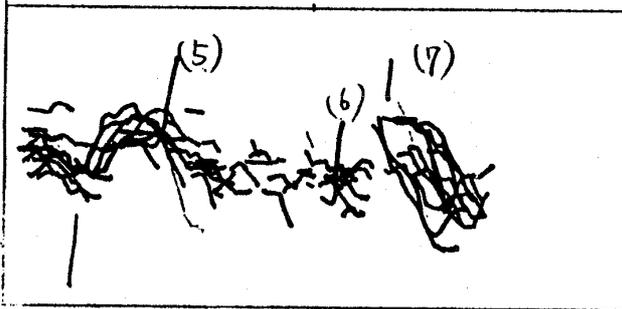
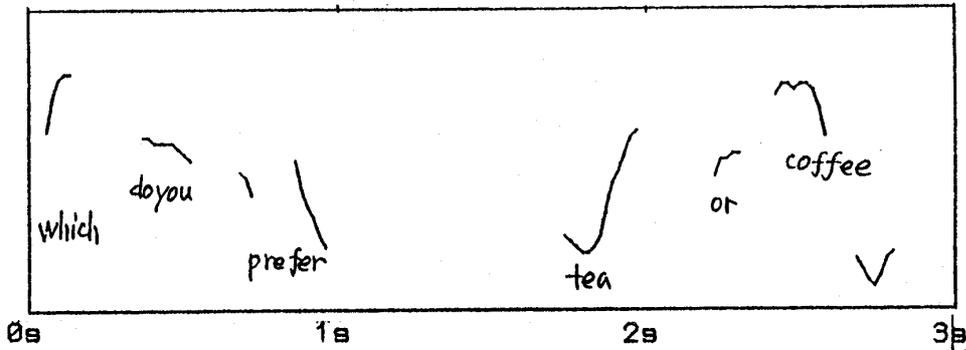


Figure 12

Which do you prefer, tea or coffee?

model intonation



ten students' intonation

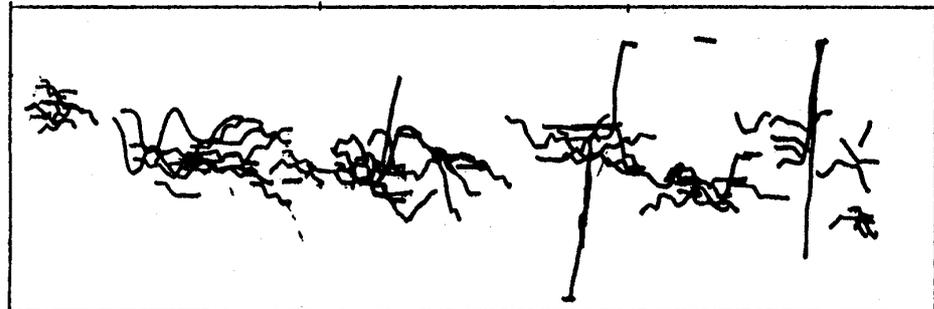


Figure 13

Figure 14

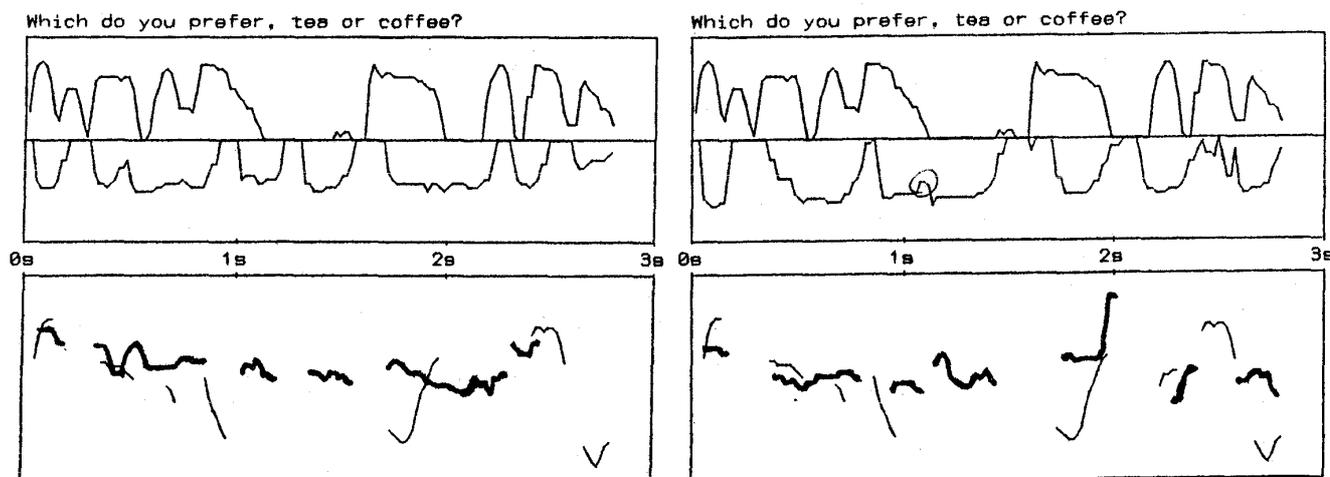


Figure 10 and Figure 12 are presented by twelve and ten students each shown altogether in each figure. Figure 14 is one of the intonations in Figure 10. Figure 14 is one of the intonations in Figure 12. In intonations shown on the bottom-half of the display, the thin lines are model intonations and the thick lines are practice intonations. Though Figure 10 shows three vertical lines and Figure 11 shows four vertical lines, those lines are each presented by three and four students. Figure 14 is a good example of presenting the rising and the falling sufficiently. Some students pronounced 'which' [hwitchi] instead of [hwitch] and 'or' [ɔ : r], [ɔ : rə] instead of [ɔr]. Meanwhile, if the sentence 'I'm very happy to see you' shows good rising and falling intonation, this clearly shows the speaker's feeling. Based on the figure 10, 11, 12, 13, and 14, it has become quite clear that the intonation of Japanese learners has some striking characteristics. The first one is that their intonation is almost flat. The second one is that they misjudge the time between the words in a sentence. The third one is that they are not good at pronouncing a falling intonation. The model sentence was presented by a male American instructor. Some may suggest that Japanese girls can't make a correct falling intonation because of the difference of the female tone. However figure 11 presents a correct falling intonation by a female American instructor.

### Summary

The present study showed some problems which most Japanese learners of English have. It is possible for Japanese learners to use correct English intonation and pronunciation by visual correction of our faults, using the Speech Trainer. The ability to recognize the differences between similar sounds and intonations by listening may be quite difficult for those severely handicapped by their mother tongue. The main problem of using the machine is the time limitation of three seconds. It is too short for Japanese learners to utter English sentences comfortably. Finally I would like to thank Steve Clark at Asahi University for focussing my ideas and I also would like to thank Kirk Wiltshire, Barbara Johnston, Mark Borja and Sarah Williams for recording their voices and correcting my English.