

INVESTIGATIONS ON JAPANESE WOMEN STUDENTS' MISUSE OF THE ENGLISH /s/ AND /ʃ/

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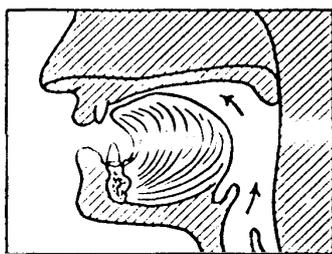
Preface

The English who study in the Tokai Junior College department expect to speak English fluently. They find their greatest pleasure when a foreigner understands their English. Japanese students evaluate their English ability not so much by their articulation as their English grammar when the foreigner doesn't understand them. This happens very often and they don't know where their problems exist. I have observed that the most important thing in articulation results from knowing the differences between English and Japanese pronunciation. I have also observed that there are some English sounds which don't exist in Japanese, and that the way of using the lips are very different in English and Japanese. Comparing the foreign language being learned with their mother language visually could be good for clearing up the phonetic problems for English language learners. Japanese people have many phonetic problems when they speak English to communicate with foreigners, which the foreigners don't understand what the Japanese say. Of course it depends how bad the person's articulation is. I'm sure that by having students watch how sounds in English are shaped visually and analyzing why it happens that they could be useful for helping the students' develop her self-awareness. In an English class where all the students are attempting to improve their pronunciation, criticism could be helpful for them. Good English articulation helps level isn't developed foreigners feel like understanding what the students are trying to say even when their vocabularies enough. I have used a video machine and a camera to take pictures of the students' shape of their lips when they pronounce [si:t] and [ʃi:t]. I want you to see the shape of the students' lips and good articulation are related. "It is said that the physical dimensions of the speech mechanism vary from person to person, so there must necessarily be some variation in the sound of a particular phoneme each time it is made simply because it is extremely difficult to reproduce identically the muscular adjustments used before, just as we do not write a 't' exactly the same way each time."⁽¹⁾ But the language learners whose mother language is Japanese need to start the imitation of the shape of the lips.

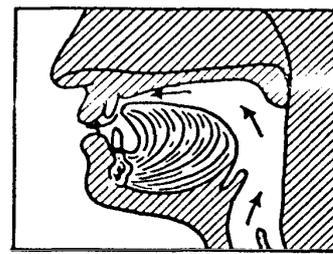
EXPERIMENT AND ANALYSIS

The phoneme of consonant /s/ belongs in [si:t]; the /ʃ/ belongs in [ʃi:t]. "These two phonemes are voiceless, fricatives. /s/ is alveolar; /ʃ/ is palate-alveolar."⁽²⁾ Picture I and Picture II following show their lip shapes.

Picture I
Lip shape of /s/.



Picture II
Lip shape of /ʃ/.



I took a video tape on which the students pronounce [si:t] and [ʃi:t] from the front and side so got four views of student. I did almost all the first year students which is one hundred and fifty-three students and also forty-one second year students. Before I took the video I had taught them to pronounce those words for thirty minutes even though the students know how to do it. Some of the students know how to do it only from knowledge.

Then I edited all the video pictures and divided the students into those with satisfactory pronunciation of /s/ and /ʃ/ and articulation and shape of the lips and those with unsatisfactory pronunciation. Fisher says in his "Improving Voice and Articulation", The sound /s/ can be described as: "The sides of the tongue are in continuous contact with the inside surfaces of the upper back teeth. The blade of the tongue is in contact with the alveolar ridge except for a small V-shaped groove along the middle of the tongue. No breath escapes through this closely constricted, narrow groove in the tongue blade. As the breath is forced through this narrow groove under great pressure and strikes the upper edges of the lower front teeth, it produces the sound of friction. The tip of the tongue may be lowered or raised but must not touch the upper teeth or hard palate."⁽³⁾ "To form the /s/ the lower jaw is shifted forward until the edges of the upper and lower front teeth come together as they would if you were biting a thread in two."⁽⁴⁾ "A description of /ʃ/ is as follows: The sides of the tongue are in contact with the inside surfaces of the back teeth, and the blade of the tongue is in firm contact with the front part of the palate (just back of the alveolar ridge), except for a shallow groove along the middle of the tongue. As the breath is emitted through this constricted passageway, the middle of the tongue blade strikes the cutting edges of the lower front teeth and a fricative sound is produced."⁽⁵⁾ Lips should be rounded. Takeshi Shimaoka says that "the movement of the lips are more active in English than in Japanese and most native English and American English speakers make round lips when they pronounce [p, ʊ, u, ɔ, w, tʃ, dʒ, ʃ, ʒ, r]."⁽⁶⁾ Therefore, I taught the students how to round their lips when they pronounce [ʃi:t]. "Lip-rounding exists even in English vowel /u, ʊ/ but we can not see that much lip-rounding in Japanese vowel /u/."⁽⁷⁾ "There is only one Japanese fricative phone-me which is the voiceless /s/. This Japanese /s/ is palatal; the sound is close to the English /ʃ/ although the lips are not rounded as they are when making the English /s/."⁽⁸⁾ It seems to me that English speaking people use their lips more than Japanese do when speaking. Every time I watch American movies in the theater or on TV, I wonder why Americans use such active facial expressions. I found it interesting to learn how many of the students at Tokai women's junior college shape their lips as English speakers do when speaking English. Table-I below shows the number of the students and the percentages who do so. From the video tape I was able to check only the shape of the students' lips and the sounds they pro-

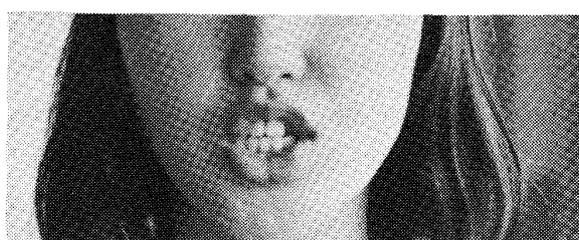
duced. If I could see both the shape of the lips and the positions of the tongues, I could more easily diagnose the pronunciation problems the students are having.

Table-I		Shape of Lips			First Year Students
	natural		unnatural		total
seat [si:t]	82	53.6%	71	46.4%	153 students
sheet [ʃi:t]	64	41.8%	89	58.2%	153 students

Table-II		Shape of Lips			2nd Year Students
seat [si:t]	17	41.5%	24	58.5%	41 students
sheet [ʃi:t]	14	34.1%	27	68.6%	41 students

The results of the data taken from the students indicates that the /ʃ/ sound is more difficult for the students to pronounce than /s/ is because of the shape of the lips. I divided the first and second year students into two groups so that the slight differences that exist between them could be more clearly seen. Also, I feel that the first year students are more enthusiastic to speak foreign languages than the second year students are. They also are less shy than the second year students are in front of the cameras. My idea of checking the shape of the students' lips came mostly from the two years I spent living in the United States. I discovered that native English speaking people are more likely than Japanese to use their facial muscles when speaking. This fact is due to the nature of the English language sound system. From my experience when I speak Japanese I don't have to open my mouth and use my facial muscles as much as when I speak English. Therefore, every time I speak English I have to open my jaw wide and use my facial muscles a great deal to produce the correct pronunciation in English. When first learning English, I found that I needed some exercises to develop these muscles around my jaw and lips to prepare me for speaking English. At that time, my speech instructor, an American, suggested to me that I try to open my mouth more and use the muscles around my lips more. He also mentioned that Japanese women don't open their mouths wide when speaking or eating. What he said was too much exaggeration, I suspect. But it is true in one respect. Long ago in the feudal ages most Japanese thought it was impolite to show their teeth. That behavior may have carried over into the Japanese language. According to Takahashi Shimaoka, "the reason why it's so difficult for Japanese to articulate English clearly is that Japanese speaking people are not trained in making a particular position of the tongue that connects the phonemes in a word."⁽⁹⁾ He also goes on to say that "both the Japanese [e:] sound and the English /e:/ sound are basically made the same way in each language with some slight differences. This is to say that the front of the tongue is raised forward and jaw is narrowed in Japanese while the tongue is pulled back slightly from the Japanese [e:] position with the jaw opened a little wider. Most Japanese use the [e:] sound when they hesitate to speak the first word in a sentence as an interjection."⁽¹⁰⁾ It is very natural for Japanese not to open their jaws widely. If we had an X-ray mechanism, it would be very easy to check the tongues position and range of motion. From the following picture we can see how two students open their mouths in a correct fashion.

Picture III



[si:t]

[ʃi:t]

These two students seem relaxed as they pronounce each word although it's hard for me to judge from the picture. The next picture shows two students who didn't open their mouths wide.

Picture IV



[si:t]

[ʃi:t]

They also are relaxed as they pronounce [si:t] and [ʃi:t]. However, there are not so many differences between Picture III and IV. It is especially difficult to see the lip-rounding that occurs when they're pronouncing [ʃi:t]. I believe that the students have attempted to open their mouth wide to produce the correct pronunciation. When I watch the students speak

their native language, I see them keep their mouths closed with little lip-rounding. They speak rather quietly, too. This is the way Japanese women traditionally speak. So, it's possible to see that to speak Japanese in a traditional fashion is inconsistent with speaking English correctly. Their English articulation as they utter the two words, [si:t] and [ʃi:t] is quite weak, which indicates that they aren't using much stress. If students believe that only the shape of their lips creates good pronunciation in English they will have hard time pronouncing English correctly. Although it can be said that because each person's mouth is somewhat different some variation in pronunciation will occur among individual speakers. Again, good English pronunciation depends on the degree the mouth is opened and the tension of the muscles surrounding the lips.

It is also difficult for Japanese students to distinguish individual sounds as they listen to English being spoken. The problem lies in the fact that Japanese has far fewer sounds in it than English does. Reduction of the entire English sound system into the Japanese one means that separate sounds, clearly distinguishable in English, become lumped together into units of related sounds. The consequence being that Japanese speakers of English cannot distinguish between English sounds (example: /i/ and /iy/) because in their "Katakanized" version of English they have learned there are no distinctions made. In Japanized English /i/ and /iy/ are combined into a related unit and pronounced as /iy/. Further difficulties exists in consonant phonemes in English such as s/ʃ and t/tʃ and dʒ/z. If students cannot clearly recognize the English sounds, they hear it will be extremely unlikely that they can reproduce them accurately. From the same video tape I took of the students I wanted to get an idea of how many of them could naturally produce [si:t] and [ʃi:t]. I divided their speech into two categories: acceptable and unacceptable. I regret to say that I'm not a native speaker myself and felt uneasy dividing the students' work into two groups. Still, sounds are the most important factors in communicating with others. Clear articulation and intonation help us all to understand each other more.

Table III				Sounds		First Year Students
	acceptable		unacceptable		total	
seat [si:t]	69	45%	84	55%	153 students	
sheet [ʃi:t]	48	31.3%	105	68.7%	153 students	

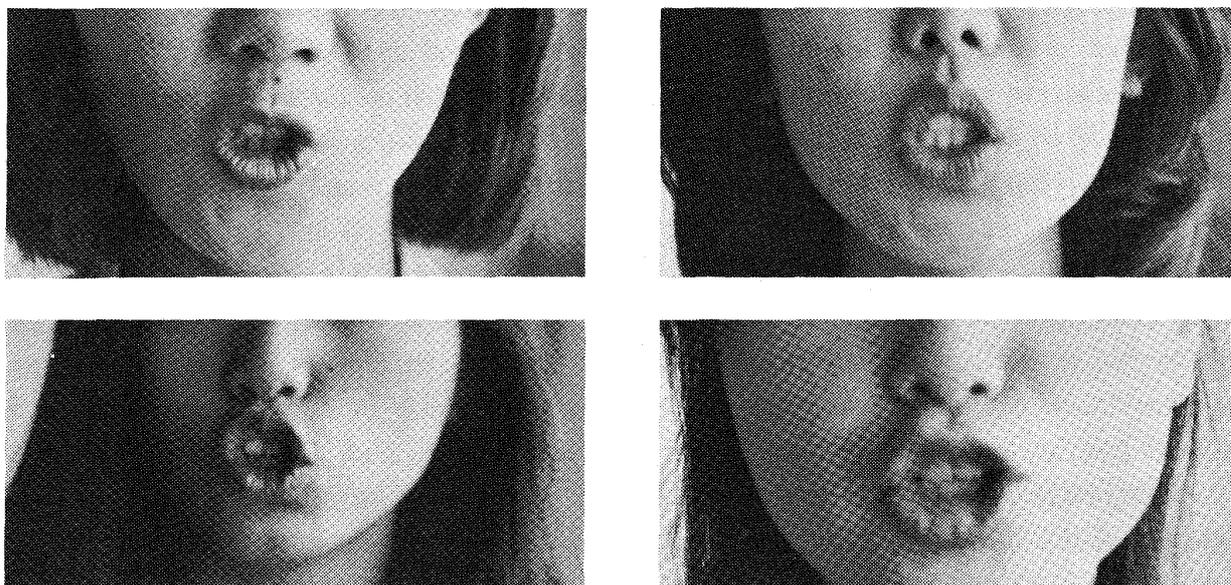
Table IV				Sounds		Second Year Students
	acceptable		unacceptable		total	
seat [si:t]	15	36.5%	26	41%	41 students	
sheet [ʃi:t]	12	29.3%	29	70.7%	41 students	

The tables above briefly summarize the result of this experiment. Or course, if we heard the sounds of these two words included in a spoken sentence we might be able to distinguish the students' pronunciation differently. Forming [si:t] requires shifting the lower jaw forward until the edges of the upper and lower front teeth come together, holding this position until pronouncing /t/. It is quite easy to do this correctly when one knows what do. Pronouncing [ʃi:t] is more difficult for the students to do in my opinion. Another consideration

concerning this experiment is that it was attempted just after the students returned from summer vacation. The students may have forgotten how to breath correctly when speaking in English. the students' pronunciation would likely improve as they immerse themselves in an English environment.

Some students, twelve in all, who pronounced [si:t] and [fi:t] unacceptably might have been too nervous while standing in front of a video camera to speak with correct pronunciation. Their problem seems to be that they put too much stress on their lips. The pictures below show this.

Picture V



The four students in the picture are all pronouncing [fwi:t]. Also three students pronounced [fu:t] instead of [fi:t]. These three had trouble holding their tongues in the right position which would be. "the tongue blade touching just behind the alveolar ridge for [fi:t]."⁽¹¹⁾ For [fui:t] the tongue tip would touch the back of the alveolar ridge. A description of this would say that "the Japanese consonant /si/ belongs to a type of the English phoneme /ʃ/, while it is a palatalized /s/. When articulating the Japanese /si/, the front part of the tongue is lifted quite high to the alveolar ridge and the back of the alveolar. Then the tongue tip forms a wide position which makes a small opening just in front of the teeth. At the same time, the jaw is opened widely and the lips are spread open wide. The Japanese /si/ is a clear palatized sound that is like the English /ʃ/. In Japanese, the sounds /sha, shu, sho/ are made by the center part of the tongue being lifted slightly to the back of the alveolar ridge compared with the Japanese /si/."⁽¹²⁾ Consequently, the Japanese phoneme doesn't belong to the English phnemes /s/ and /ʃ/.

There were six students total who pronounced [si:to] or [fu:to] instead of [si:t] or [fi:t]. This happens quite often especially in the young or very old students of English learners because they transfer Japanese sounds to English without modification. It's an examples of

English learning students being affected by their native language. As long as Japanese students of English live in a Japanese language environment their pronunciation is likely to be affected by their first language. "It has been said that these learners can't hear correct English sounds because they are likely to listen to similar Japanese sounds by habit instead of learning the English ones. They eliminate correct English sounds unconsciously as they listen. This is one reason why Japanese speak English with a Japanese accent."⁽¹³⁾ One of Akira Ota's statements in *Comparison of the Phonetic System in Japanese and English* is as follows: "The Japanese language is an open syllable language while English is a closed syllable one. Both /hi/ and /to/ have the same rhythm and speed in Japanese. Also consonants are followed by vowels so there would be a pause between /hi/ and /to/ in Japanese. Consequently, Japanese who learn English pronounce [hiqto]. Pronouncing [hiq] takes twice longer than that of /to/. As long as /q/ exists in the word, /hi/ and /to/ combines together well. It sounds so natural that those learners are under the illusion to the (correct) English word /hit/. The words "hitting" and "batter" are sometimes pronounced [hiqtingu] and [baqtaa] for the same reason."⁽¹⁴⁾ This happens not only from the comparison of Japanese sounds to English ones but also in society's use of "Japanized" English as "normal" English. Japanese, therefore, become accustomed to listening to Japanized English daily. These same students find it difficult to improve their English pronunciation. To do so, they need to listen to English more carefully.

Finally, most of the students at Tokai Women's Junior college come from Gifu or near Gifu and have been raised speaking the Gifu dialect sounds a bit stronger than Kansai or Tokyo dialects do. This might also affect the way they speak the English language. Studying this will become my next project. I'd like to thank Michael Oehler who helped my English grammar and sharpen my thinking.

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