

Some Linguistic Difficulties in Teaching Pronunciation to the Japanese Learner of English

著者	TAKEMOTO Shozo
journal or publication title	Memoirs of the Muroran Institute of Technology
volume	5
number	1
page range	485-498
year	1965-07-08
URL	http://hdl.handle.net/10258/3255

Some Linguistic Difficulties in Teaching Pronunciation to the Japanese Learner of English

Shozo Takemoto

Abstract

It seems to be one of the fundamental tenets of the modern methods of teaching a foreign language that the best results can be achieved when we make a careful comparison of the structure of the learner's mother tongue and that of the foreign language to be taught with a view to discovering trouble spots and arranging the teaching materials accordingly.

This kind of comparative study is of much importance and of necessity especially when we teach pronunciation to the Japanese learner of English. In spite of the fact that there are striking differences between some sounds of Japanese and those of English, Japanese learners are very often apt to substitute Japanese sounds for the English ones without being conscious of these differences.

The present writer, therefore, tries in this paper to discuss various conceivable points in teaching pronunciation concerning ways in which the Japanese learner may be handicapped in acquiring a habit of pronouncing natural English.

Preliminary Remarks

C. Fries suggests in his *English Pronunciation* that there are in general three means of teaching specific sound segments. They are: 1) by imitation, 2) by articulatory description, and 3) by comparison with the nearest sound in the learner's native language¹⁾.

With this suggestion in mind the present writer tries in this paper to find out a clue to the betterment of teaching English pronunciation for the Japanese learner through a comparative study of the sound structure of Japanese and that of English.

Although some sounds of Japanese are approximately equivalent to those of American English, some are strikingly different. The Japanese learner of English, for instance, very often has extreme difficulty with American English sounds²⁾, such as [f], [v], [θ], [I], [æ], since the Japanese language lacks these sounds.

The same organs are used in pronouncing the sounds of Japanese and those of English, but they are used in somewhat different ways. Those organs are parts of the mouth, the tongue, the nose and the throat. Therefore, when we try to overcome the difficulty in acquiring natural English pronunciation, we should, first of all, learn a bit about how those organs are used to make the different sounds which are more or less unfamiliar to the Japanese.

There would be many more points to be discussed if we pay close attention to the slight differences between even those sounds which are most alike in the two languages. The present writer, however, confines his discussion to the most salient trouble spots which we usually experience in teaching English pronunciation to the Japanese learner³⁾.

They are to be discussed under the following nine headings.

1. Distinction Between [ɪ] and [i]
2. The Low Front Vowel [æ]
3. The Vowels [u] and [ʊ]
4. The Consonants [t] and [d]
5. Distinction Between [r] and [ɹ]
6. The Consonants [dʒ] and [ʒ]
7. Labio-dental [f] [v] and Dental [θ] [ð]
8. The Sounds [h] [s] Before Vowels
9. Vocalic Intrusion and Addition

THE SYMBOLS TO BE USED IN THIS PAPER⁴⁾

SYMBOL	ENGLISH EXAMPLES	APPROXIMATE EQUIVALENT IN JAPANESE	SYMBOL	ENGLISH EXAMPLES	APPROXIMATE EQUIVALENT IN JAPANESE
<i>Consonants</i>			<i>Vowels</i>		
1. b	<u>boat</u>	[bɒt] <u>ban</u>	1. a	<u>far</u> [fɑː]	<u>ā</u>
2. d	<u>dark</u>	[dɑːk] <u>dan</u>		<u>hot</u> [hɒt]	
3. f	<u>far</u>	[fɑː] <u>furui</u>	2. æ	<u>am</u> [ɑːm]	(none)
4. g	<u>gold</u>	[gɒld] <u>gakkō</u>	3. e	<u>late</u> [leɪt]	<u>eigo</u>
5. h	<u>home</u>	[hɒm] <u>hachi</u>		<u>raise</u> [reɪz]	
6. k	<u>gold</u>	[kɒld] <u>kin</u>	4. ε	<u>get</u> [gɛt]	<u>empitsu</u>
	<u>kodak</u>	[kɒdæk] (none)		<u>bread</u> [brɛd]	
7. l	<u>let</u>	[lɛt] (none)		<u>said</u> [seɪd]	
8. m	<u>man</u>	[mæn] <u>uma</u>	5. i	<u>see</u> [siː]	<u>ie</u>
9. n	<u>next</u>	[nɛkst] <u>nani</u>		<u>receive</u> [rɪsɪv]	
10. ŋ	<u>ring</u>	[rɪŋ] <u>ginkō</u>		<u>reach</u> [riːtʃ]	
	<u>sink</u>	[sɪŋk] (none)	6. ɪ	<u>in</u> [ɪn]	(none)
11. p	<u>part</u>	[pɑːt] <u>ippatsu</u>		<u>become</u> [bɪkəm]	
12. r	<u>rest</u>	[rɛst] (none)	7. ɔ	<u>for</u> [fɔː]	<u>oru</u>
13. s	<u>send</u>	[sɛnd] <u>suru</u>		<u>all</u> [ɔː]	
	<u>city</u>	[sɪtɪ] <u>shuppatsu</u>		<u>ought</u> [ɔːt]	
14. ʃ	<u>ship</u>	[ʃɪp] <u>to</u>	8. o	<u>go</u> [gɔː]	<u>hirou</u>
15. t	<u>ten</u>	[tɛn] (none)		<u>coat</u> [kɔːt]	
16. θ	<u>think</u>	[θɪŋk] (none)	9. u	<u>rule</u> [ruːl]	<u>kū</u>
				<u>too</u> [tuː]	
17. ð	<u>that</u>	[ðæt] (none)	10. ʊ	<u>put</u> [pʊt]	<u>putto</u>
18. v	<u>very</u>	[vɛrɪ] <u>violin</u>		<u>could</u> [kʊd]	
19. w	<u>went</u>	[wɛnt] <u>waru</u>		<u>good</u> [gʊd]	
20. y	<u>you</u>	[juː] <u>yuku</u>	11. ə	<u>but</u> [bʊt]	(none)
21. z	<u>zoo</u>	[zuː] <u>zashiki</u>		<u>bird</u> [bɜːd]	
	<u>rose</u>	[roz] (none)		<u>other</u> [əðər]	
	<u>knows</u>	[noʒ] (none)		<u>ago</u> [əgɔː]	
22. ʒ	<u>pleasure</u>	[plɛʒər] (none)		<u>reason</u> [rɪzən]	
	<u>vision</u>	[vɪʒən] (none)			
23. hw	<u>when</u>	[hwen] (none)			
24. tʃ	<u>children</u>	[tʃɪldrən] <u>cha</u>			
25. dʒ	<u>jury</u>	[dʒʊri] <u>jama</u>			
	<u>edge</u>	[ɛdʒ] (none)			
	<u>age</u>	[ɛdʒ] (none)			

1. Distinction Between [I] and [i]

Since the [I]-sound is lacking in Japanese, learners of English are more likely to substitute the sound either for the [i]-sound or for Japanese /i/ rather than otherwise⁹⁾. Thus, the Japanese learner does not distinguish and can not reproduce the difference of the sounds such as in *been* and *bean*, *live* and *leave*, and so on. We should notice, however, that there is a striking difference between these two sounds. It is not the duration but the quality of the sounds that makes a distinction between [I] and [i]⁹⁾.

The symbol [I] represents a sound intermediate between [i] and [e] as shown in Figure 1. In other words, [I] is pronounced farther back than [i], but farther forward than [e]; it is pronounced with the jaw and tongue lower than for [i], but higher than for [e]. This relationship should be obvious to us if we will repeat several times the series [i-I-e]. The /i/-sound in Japanese is somewhat similar to the [i]-sound except that the position of the tongue is slightly lower than for [i].

When we change [i] to [I], we notice the jaw relaxes and drops very slightly, the pressure of the sides of the tongue against the upper bicuspid decreases, and the forced spreading of the lips disappears. The tongue tip may merely touch the back of the lower front teeth.

Most important of all, the opening between the tongue blade and the palate becomes wider and rounder. This means that the place where tongue and palate are closest together moves a little farther back in the mouth.

Whenever [i] is prolonged it is characterized by a gradually increasing muscular tension which can be symbolized by [Ii]. On the other hand, [I] remains lax throughout its duration, and this lax utterance is completely unfamiliar to the Japanese.

In beginning our practice, therefore, it is helpful for us to put our fingers under our jaws, and to try to feel the increasing muscular bulge which indicates tongue position for [i], and at the same time to try to avoid any such tension for [I].

Some suggested materials for practice are :

a. Minimal pairs

eat	it	seat	sit	sleep	slip
sheep	ship	beat	bit	bead	bid
bean	been	deed	did	leave	live

b. Series [i-I-e]

seat	sit	set	beat	bit	bet
------------	-----------	-----	------------	-----------	-----

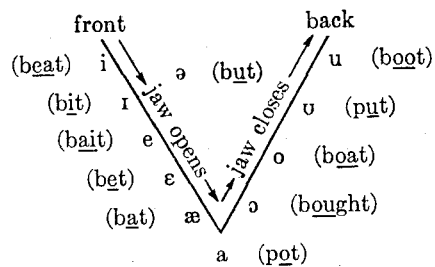


Fig. 1. Relationship of Eleven Vowels of American English

The tongue tip may merely touch the

bead bid bed deed did dead

c. [i] and [I] sentences

He bought a sheep. He bought a ship.

Not in the least. Not in the list.

She's going to leave. She's going to live.

2. The Low Front Vowel [æ]

Japanese learners of English may often have difficulty with this vowel sound since none of the sounds in Japanese are equivalent to the [æ]-sound.

To form [æ] the jaw is lowered quite a bit, until the mouth is almost as wide open as it can be without making a muscular effort. We should notice that this is the last front vowel that can be made; when we move on to [a], the sides

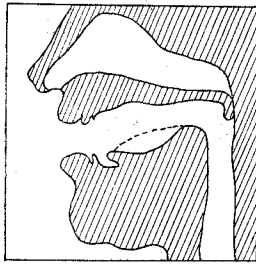


Fig. 2.

— Tongue position in [æ]

..... Tongue position in [ɛ]

Sometimes Japanese learners confuse this vowel with the [ɛ]-sound, but [ɛ] is pronounced with the tongue in a higher position than for [æ] as shown in Figure 2.

Also, the Japanese learner very often substitutes the [æ]-sound for [a]. Thus, for example, he tends to pronounce *sat* as [sat] instead of [sæt]. The usual causes for mistakes of this sort seem to be:

a. The learner cannot hear, and consequently cannot reproduce, the difference between [æ] and [a].

b. The learner is deceived by the inconsistencies of English spelling. The [æ]-sound is spelled in words as *a*; therefore the learner is apt to pronounce it always as [a] even when he finds such words as *gas*, *map*, *adjective*, *ancestor*, *ask* and so on.

Another mistake which is likely to be made by the Japanese learner is the substitution of [æ] for "consonant+[ya]", since we have the sound of this combination in Japanese. Some examples of this are the following⁷⁾:

pan as /pyan/ instead of [pæn]

ban as /byan/ instead of [bæn]

map as /myap/ instead of [mæp]

wrap as /ryap/ instead of [ræp]

Attention should also be directed to distinctions between [ɛ] [æ], and [ə].

Especially in a aural-oral situation the [æ]-sound is often confused with the [ɛ]-sound; for example, pan [pæn]: pen [pɛn], sat [sæt]: set [sɛt], and so on.

Some suggested materials for practice are:

- a. Distinctions between [ɛ], [æ], [ə]
- | | | | | | | | | | | |
|------|-------|-----|-------|------|--|------|-------|------|-------|------|
| pet | ..... | pat | ..... | putt | | bet | ..... | bat | ..... | but |
| dead | ..... | dad | ..... | dud | | pen | ..... | pan | ..... | pun |
| ten | ..... | tan | ..... | ton | | peck | ..... | pack | ..... | puck |
- b. Minimal sentences:
- He made a large bet. He made a large bat.
 These are mighty big gnats. These are mighty big nuts.
 This isn't batter. This isn't butter. This isn't better.

3. The Vowels [u] and [ʊ]

These two vowels are made with the tongue high in the back of the mouth.

[u] requires tense muscles for both tongue and lips, and the lips should be rounded and protruded as much as possible, leaving a little circular opening about the size of a pencil. The teeth are not visible⁹⁾.

Japanese /u/ is also formed with the tongue at the same position as [u]. The sound of /u/ is, however, utterly different from that of [u] since it is produced with the lips unrounded.

The vowel [ʊ] requires a lax tongue and lip muscles, and the lip rounding is less vigorous than for [u], though it should be present. This sound occurs only in the middle of words, as in *pull* [pʊl], *wolf* [wʊlf], *look* [lʊk], and *could* [kʊd]⁹⁾. Because of the identical spellings and the differences in muscular tension which characterize [u] and [ʊ], Japanese learners usually have great difficulty in differentiating them.

To form [ʊ] the lips are, in fact, less rounded and protruded than in the production of [o]. The opening between them is wider across than for [o], but a good bit smaller in distance from upper to lower lips. The teeth may be visible; the tips of the lower teeth approach the backs of the upper ones. Though the tongue tip touches nothing, the tongue itself is pulled back and up, more than for [o], until its sides touch the upper tooth ridge.

A few more comparisons will help us to place these two vowels more accurately. In comparison with [o], which is mid high, back, tense, and rounded, [u] requires a higher tongue position and more vigorous lip rounding. In comparison with [i], which is high, front, and tense, [u] requires the tongue to be retracted into the back position, with vigorous lip rounding. In comparison with [ʌ], which is mid high, back, and lax, [u] requires a higher tongue position, and lip rounding. In comparison with [ɪ], which is high, front, and lax, [u] requires the tongue to be retracted into the back position, with lip rounding.

Some suggested materials for practice :

a. Minimal pairs

pool	pull	fool	full	coed	could
wooded	wood	boom	book	room	rook
who'd	hood	tomb	took	food	good

b. Minimal pair sentences

They ought not to pull them. They ought not to pool them.
I don't like this soot. I don't like this suit.

c. [u] and [ʊ] sentences

Put the books on the stool in the back room.
He pushed the food away from him with a spoon.
The tourist saw the moon shining on the brook.

4. The Consonants [t] and [d]

For the pronunciation of [t] and [d], most Americans touch the front of the tongue or the tip against the gum ridge, or even farther back than that¹⁰⁾. The sound [t] is voiceless and [d] is voiced. These two sounds are formed by closing the velum, compressing the breath, and then exploding the sound by suddenly removing the tongue from the gum ridge¹¹⁾.

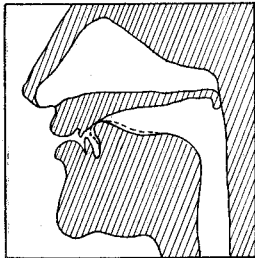


Fig. 3.

— Tongue position in [t] [d]
..... Tongue position in /t/ /d/

The Japanese sounds /t/ and /d/ are, on the other hand, made farther front than the English equivalents, and the tongue is pushed forward against the teeth themselves as shown in Figure 3. In other words, the English sounds are alveolar consonants, while the Japanese sounds are dental. This gives the Japanese sounds a sharper quality; the English sounds sound somewhat dull and indistinct to a Japanese.

When [t], [d] occur directly before [ɛ] [a] [o], the difference between English [t] [d] and Japanese /t/ /d/ is not so significant. However, when [t] [d] occur before [i] [u], the Japanese learner often finds difficulty with the pronunciation of [ti] [di] [tu] [du], for no similar sounds exist in Japanese. The Japanese learner, therefore, tends to pronounce *tea* as [tʃi] instead of [ti], deep as [dzip] instead of [dip], two as [tsu], instead of [tu] and so on.

Some suggested materials for practice are :

a. [t] and [d] contrast

1. tore	door	toes	doze	time	dime
2. fate	fade	debt	dead	heart	hard
3. bitter	bidder	writer	rider	traitor	trader

b. [t] and [d] sentences

The team made two touchdowns in the first quarter.

The painting depicted a freight train caught in a snowdrift.

The admiral tuned in the London radio.

The desk was covered with dust and dirt.

5. Distinction Between [r] and [ɹ]

It is well known that Japanese learners of English usually have, in particular, difficulty in making a distinction between [r] and [ɹ]¹²⁾. We should spend a great deal of time pronouncing such pairs of words as *grass* [græs] and *glass* [glæs], *crime* [kraɪm] and *climb* [klaɪm], *free* [fri] and *flee* [fli], making the tip of the tongue touch the tooth ridge for [ɹ] and stay away from the roof of the mouth and teeth for [r]. In a sense, [ɹ] and [r] are made in exactly opposite ways: for [ɹ] the tongue tip touches the tooth ridge and the air goes out over the sides; for [r] the sides of the tongue touch the tooth ridge while the air goes out over the middle and tip.

Speakers of English normally pronounce [ɹ] with the tongue touching the tooth ridge, just behind the upper teeth. We should remember that the sides of the tongue do not touch anything.

Figure 4 illustrates the two main varieties of American English [ɹ]. The clear [ɹ], with the upper surface of the tongue sloping gradually back from the point of contact on the tooth ridge, always occurs immediately before a vowel. It may occur at the beginning of a syllable, as in *let*, *allow*, and *quickly*; or after a consonant, as in *sled*, *play*, and *acclaim*.

The dark [ɹ], in which the back of the tongue rises slightly toward the soft palate in addition to the contact on the tooth ridge, occurs at the ends of words, as in *tell* and *hustle*, and before consonants, as in *told* and *else*¹³⁾.

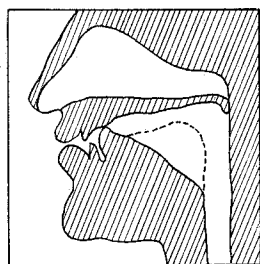


Fig. 4.

— Tongue position in clear [ɹ]
 Tongue position in dark [ɹ]

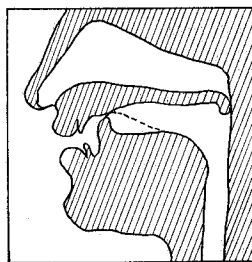


Fig. 5.

— Tongue position in [r]
 Tongue position in /r/

The [r]-sound is pronounced by a large majority of English-speaking people with both sides of the tongue touching the back part of the tooth ridge and the back teeth. Here we should also note that the tongue tip does not touch anything

as shown in Figure 5; the middle of the tongue, including the tip, is lower than the sides, and the air goes out through the channel formed between the middle of the tongue and the roof of the mouth. The glide, the characteristic [r]-sound, is produced as the speech organs move to this position from a vowel, as in *are* [ar], or away from this position to a vowel, as in *red* [rɛd]. In whatever direction the movement may end, it always begins by a motion toward the back of the mouth.

The Japanese sound /r/, on the other hand, is made by lifting the tip of the tongue backwards, then quickly and decisively bringing it down with a brief flick against the gum ridge. It is somewhat similar to the sound which many Americans pronounce in the middle of words like *Betty*, *letter*, *latter*, *cottage*.

Some suggested materials for practice are:

a. [r] and [l] contrast

- | | | | | | | | | |
|----------|-------|--------|--------|-------|--------|---------|-------|---------|
| 1. rest | ..... | lest | rock | ..... | lock | road | ..... | load |
| rhyme | ..... | lime | wrong | ..... | long | royal | ..... | loyal |
| 2. fruit | ..... | flute | crowd | ..... | cloud | grazier | ..... | glazier |
| parrot | ..... | palate | marrow | ..... | mallow | correct | ..... | collect |

b. Minimal sentences with [r] and [l].

I don't want rice. I don't want lice.

That's quite right. That's quite light.

The races are expensive. The laces are expensive.

6. The Consonants [dʒ] and [ʒ]

Although we have similar sounds in Japanese, /dʒ/ to [dʒ] and /ʒ/ to [ʒ], there seems to be no definite distinction between these two Japanese sounds. When we say, for example, "I write a character." in Japanese, we put it either in /dʒi o kaku/or in /ʒi o kaku/.

In the same way we say /dʒikan/ or /ʒikan/ to mean time, and both of them are generally accepted. This fact makes the distinction between the English sounds [dʒ] and [ʒ] all the more troublesome, since, for instance, *ledger* and *leisure* sound the same all the time to the ears of Japanese learners.

Also in a reading situation, Japanese learners mostly pronounce these two words in the same way; i. e., either as [lɛdʒɚ] or as [lɛʒɚ]; hence the following examples of distorted pronunciation:

a) distorted pronunciation of /ʒ/ type

[ʒi] engine as [ɛnʒɪn] instead of [ɛndʒɪn]

[ʒæ] jam as [ʒæm] instead of [dʒæm]

[ʒʌ] jump as [ʒʌmp] instead of [dʒʌmp]

—[ʒ] courage as [kʌrʒ] instead of [kʌrdʒ]

b) distorted pronunciation of /dʒ/ type

[dʒi] Asiatic as [ɛdʒɪætɪk] instead of [eʒɪætɪk]

- [dʒə] treasure as [trədʒər] instead of [trɛʒər]
- [dʒu] usual as [judʒʊəl] instead of [juʒʊəl]
- [dʒ] prestige as [prɛstɪdʒ] instead of [prɛstɪʒ]⁽⁴⁾

The consonant sound [ʒ] is a voiced fricative. During the pronunciation of [ʒ] the tip of the tongue is very close to the tooth ridge and the middle of the tongue is close to the palate; the tongue is grooved and the lips are pushed outward. The teeth are close together. The sound [ʃ] is a voiceless fricative. We should notice that the only difference between these two sounds is that [ʃ] is voiceless and [ʒ] is voiced. Therefore, the position of the tongue and lips during the pronunciation of [ʃ] and [ʒ] is identical as shown in Figure 6.

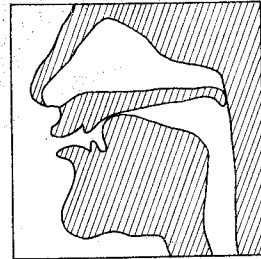


Fig. 6. Lip and Tongue position in [ʃ] and [ʒ]

In the same way, the [dʒ]-sound is the voiced counterpart of the [tʃ]-sound. [dʒ] is spelled *j*, *g*, *d*, or *dg* as in *judge*, *age*, and *grandeur*. As with [tʃ], the compound nature of [dʒ] can be demonstrated by trying to prolong it.

The lips, tongue, and teeth are in almost the same position as for [ʒ]. However, in the pronunciation of [dʒ] the tip of the tongue touches the tooth ridge and stops the air stream during the first part of the sound.

Some suggested materials for practice are :

- a. [ʒ] and [dʒ] contrast

leisure	.....	ledger	azure	.....	agile	visual	.....	vigil
division	.....	religion	version	.....	virgin	measure	.....	major
- b. [ʃ] and [ʒ] sentences

The missionary measured the sugar into three dishes.
After the collision the glazier showed unusual composure.
- c. [tʃ] and [dʒ] sentences

The judge charged the jury in the forgery case.
The budget provided for bridges and a large orchard.

7. Labio-dental [f] [v] and Dental [θ] [ð]

Each of the consonants [f] [v] [θ] and [ð] has no similar sound in Japanese. When we pronounce these consonants, therefore, the substitution of them for Japanese sounds are most likely to occur. Some examples of the distorted sounds are as in the following :

- [f] fit as /hʊɪt/ instead of [fɪt]
- fine as /fuəɪn/ instead of [fəɪn]
- forest as /hɔɾɛst/ instead of [fɔɾɛst]
- [v] very as /berɪ/ instead of [vɛrɪ]
- vase as /bes/ instead of [ves]

	vote	as /bout/	instead of	[vout]
[θ]	thank	as /sæŋk/	instead of	[θæŋk]
	thick	as /sɪk/	instead of	[θɪk]
[ð]	bathe	as /bez/	instead of	[beð]
	clothe	as /klouz/	instead of	[kɪouð]

[f] and [v] are formed by pressing the lower lip against the upper teeth and forcing breath between the narrow spaces between the teeth. [f] is voiceless, with strong breath pressure. [v] is voiced, with moderate breath pressure. For both sounds the soft palate valve must remain closed as shown in Figure 7.

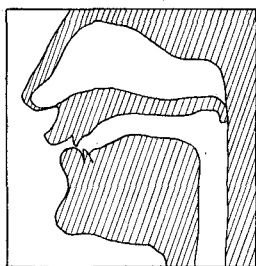


Fig. 7. Lip and Tongue position in [f] [v]

The Japanese /f/, on the other hand, is made by placing both lips close together as if about to whistle and then let the air come out in a puff between. The /f/-sound in Japanese, then, is a sound without any teeth.

The contrast between stop and explosion for [p] and [b], and continuous emission of the breath for [f] and [v], marks the essential difference between these two groups of sounds. We should aim for a light touch of the teeth on the lips. The breath stream should be allowed to come out easily for [f] and [v], without exaggerated facial movements.

Some suggested materials for practice :

a. [f] and [v] contrast

feel	.....	veal	fan	.....	van	fat	.....	vat
fail	.....	veil	leaf	.....	leave	life	.....	live

b. Minimal sentences with [f] [h]

He found it in the hold. He found it in the fold.
It's hard to feel sorrow. It's hard to heal sorrow.

c. Minimal sentences with [b] [v]

We need a hundred bolts. We need a hundred volts.
They have TB at their house. They have TV at their house.

For [θ] and [ð] the tip of the tongue must touch the front teeth. It may protrude slightly between them, or lightly touch the back of the upper teeth. Both sounds are frictional: [θ] voiceless, with strong breath pressure; [ð] voiced, with moderate pressure. [θ] is also often confused by the Japanese learner with [t] or [f]; [ð], with [d] or [v]. We should concentrate our attention on touching the tip of the tongue lightly against the teeth for both [θ] and [ð].

Some suggested materials for practice are :

a. [θ] and [ð] contrast

teeth	.....	teethe	sooth	.....	soothe	ether	.....	either
loath	.....	loathe	wreath	.....	wreathe	sheath	.....	sheathe

b. Sentences with [θ] and [ð]

The youthful athletes dashed across the path.

The rusty old lathe was worse than worthless.

The clothing store on Seventh Street held a closing-out sale.

8. The Sounds [h] [s] Before Vowels

I. The [h]-sound before vowels

The /h/-sound in Japanese has no characteristic position of the tongue or lips, but adapts itself to the tongue or lip position of whatever sound immediately follows it. Thus, the /h/-sound as in *haita* (toothache), is by no means identical with the /h/-sounds as in *hima* (=spare time) and *huben* (=inconvenience).

The Japanese /h/-sound may be classified into the following three sound groups according to the type of vowels which follow immediately after it.

- a. The /h/-sound before /a/, /ε/ /o/.

hakari (=measure), *hake* (=brush), *hakken* (=discovery), *hatsuon* (=pronunciation), *hensai* (=repayment), *henka* (=change), *homare* (=honour), *hokoku* (=report), and so on.

- b. The /h/-sound before /I/. (may be symbolized by /X/)

himo (=string), *hitozuma* (=married woman), *hitotsu* (=one), *hitsuyo* (=necessity), *hitsuji* (=sheep), and so on.

- c. The /h/-sound before /u/. (may be symbolized by /φ/)

hukin (=neighbourhood), *hunto* (=struggle), *huri* (=disadvantage), *husai* (=debt), *huzai* (=absence), *huun* (=misfortune), and so on¹⁵).

The English [h]-sound, however, remains altogether the same even before [i] and [u]. Thus, the [h]-sounds as in *he*, *hood*, *hay*, are always identical regardless of the kind of vowels it may precede. Therefore, Japanese learners who are accustomed to use the above three /h/ sounds each in its own proper way tends to pronounce *he* as /Xi/ instead of [hi], *hit* as /Xit/ instead of [hit], and *hood* as /φud/ instead of [fud], *who* as /φu/ instead of [hu], and so on.

The English [h]-sound consists of a puff of breath which is usually accompanied by enough contraction within the larynx to produce audible friction. The sound is limited in occurrence: it is used chiefly at the beginning of stressed syllables before vowels. It does not occur before consonants or at the end of syllables.

II. The [s]-sound before [i] and [ε]

A. The [s]-sound before [i].

When the [i]-sound immediately follows the [s]-sound, Japanese learners are most likely to pronounce the sequence as [ji] instead of [si], since there is no [si]-sound in Japanese. The native speaker uses both the [si]-and [ji]-sounds each in its proper way such as in *seat* and *sheet*, *see* and *she*. The Japanese, on the other hand, tends to use [ji] only in both cases; hence no distinction between the two.

B. The [s]-sound before [ɛ].

When the [ɛ]-sound, instead of the [i], immediately follows the [s]-sound, we tend to pronounce the sequence always as [sɛ] and not as [ʃɛ] even when it should be pronounced as such. The [ʃɛ]-sound, instead of the [sɛ]-sound, is lacking in Japanese in this case. Thus the Japanese learner is likely to pronounce *shave* as [sev] instead of [ʃev], *shake* as [sek] instead of [ʃek] *shed* as [sɛd] instead of [ʃɛd], and so on.

9. Vocalic Intrusion and Addition

I. Vocalic intrusion

In Japanese we do not have consonants in sequence. The typical syllable in Japanese consists of a vowel preceded by a consonant, as in *ka*, *ke*, *so*, etc.; also there is no syllable ending with a consonant such as *ak*, *ag*, *et*, etc. Therefore, English consonantal sequences, such as [spr] as in *spring*, [scr] as in *scrap*, [str] as in *street* are sometimes very difficult for Japanese learners to pronounce properly. Thus, when we hear an English consonantal sequence, we are apt to reinterpret this as one of our combinations of 'consonant + vowel,' and say, for example, *tree* as [turi] instead of [tri], *street* as [storit] instead of [strit], *train* as [toren] instead of [tren], and so on¹⁶.

II. Final vocalic addition

As is described above, no Japanese word has a consonantal ending, whereas in English words a vowel sound for the ending of a word is less frequent rather than otherwise. The Japanese learner is apt to suffix some unneeded prop vowel even to the ending of an English word which usually ends in a consonant, and this mispronunciation is especially conspicuous at the end of sentences. Some examples are the following:

Thank you very much.	as	/mətʃI/	instead of	[mətʃ]
I bought a ticket.	as	/tɪkɛto/	instead of	[tɪkɛt]
He has a nice book.	as	/bʊkʊ/	instead of	[bʊk]
She hands on to a strap.	as	/storæpʊ/	instead of	[stræp]

Concluding Remarks

The present writer has discussed in this paper chiefly the common mistakes involving the substitution of Japanese sounds for their English counterparts. The substitution of this kind, compared with the substitution of one English phoneme for another, may be regarded as a problem of more importance especially when we teach Japanese learners at their early stage of practicing.

The present writer is, however, well aware of the fact that in advanced classes the substitution of Japanese sounds is relatively infrequent in the speech of learners; instead, a few such substitutions—[i] for [I], [a] for [ə], [b] for [v], [s] for [θ], etc.—accounted for the great majority of cases.

Also, he realizes the fact that in most cases of phonemic substitution, even in those where the mispronunciation should result in giving the word a completely different meaning—*sit* as [sit] (*seat*) instead of [sIt], *glass* as [græs] (*grass*) instead of [glæs]—, the context usually makes the intended meaning clear and intelligible¹⁷⁾.

The present writer, further, understands that a knowledge of voicing alone, such as described in this paper, does not enable the learner to make a clear distinction between words like *plays* [plez] and *place* [ples]. Better results may be obtained when we also point out and practice the so-called secondary differences between [ez] and [es]: vowel length, consonant aspiration, and so on; he will, however, need another paper to deal with them properly.

(Received Apr. 30, 1965)

NOTES

- 1) Fries, C.C., *English Pronunciation*, English Language Institute, Univ. of Michigan, 1954, p. 5.
- 2) This paper is based on the type of English known as General American, the language which may be heard, with only slight variations, from Ohio through the Middle West and to the Pacific Coast, and is also based on the Standard Japanese when Japanese sounds are used in contrasting with English ones. As for the regional types of American English pronunciation, see: Thomas, C.K., *An Introduction to the Phonetics of American English*, The Ronald Press Company, New York, 1947, pp. 142-175.
- 3) Matsumine introduces various trouble-spots in teaching pronunciation, together with Lado's findings resulted from *Test of Aural Perception for Japanese Students*, (1950). Matsumine, R., *Eigo no nyumon ki* (Teachers' Manual Series 2), Taishukan Publishing Company, Tokyo, pp. 79-80.
- 4) Adapted from Prator Jr., C.H., *Manual of American English Pronunciation*, Holt, Rinehart and Winston, Inc., New York, 1960, pp. 4-5. Slightly modified.
- 5) One of the definite reasons for this mispronunciation may be due to the fact that the [I]-sound is symbolized by [i], and the [i]-sound by [i:] in most of English dictionaries published in Japan.
- 6) The sounds are phonetically different; the substitution of one for the other makes a different word. The substitution of [a] or [a:] or [ɑ:] for [ɑ], however, is for most speakers merely a phonetic difference. Brown, V., "Teaching English Effectively" *Eigo Kyoiku*, Vol. IX, No. 10, 1961, p. 17.
- 7) There are nine cases in which such a substitution is most likely to occur: they are; /pya/, /bya/, /kya/, /gya/, /nya/, /mya/, /nya/, /rya/, and /hya/.
- 8) Jones points out that many native speakers use in place of [u:] a diphthongal sound which may be represented by [uu], and that this diphthongal pronunciation is particular noticeable in final position, as in [tʊu] (two, too). Jones, D., *The Pronunciation of English*, The Synics of the Cambridge Univ. Press, London, 1950, p. 42.
- 9) In unstressed syllables before a following vowel, [u] regularly weakens to [ʊ] as in *casual* [kæʒʊəl], *graduate* [grædʒʊət], and the phrase *to Ithaca* [tʊIθəkə]. Unstressed [o] may also shift to [ʊ] or a weak [u], as in [wɪndʊ] or [wɪndu] for *window*, and [næru] or [uæru] for *narrow*. The weakened [u] and [ʊ] parallel, in some respects, the weakened [i] and [I] of any [eni] or [enI]. Thomas, C.K., *ibid*, p. 94.
- 10) In English, the dental articulation is normal only when [t] [d] occur in combination with the dental [θ], as in *eighth* and *width*. In other positions, the dental [t] [d] sound foreign, especially when [n], and [l] are similarly dentalized. Thomas, C.K., *ibid*, pp. 39-40.
- 11) The native speaker of English tend to weaken the [t]-sound, especially in the middle of a word which make the distinction between [t] and [d] more difficult for the Japanese learner of English. [t] may then change to a kind of [d], to a variety of [r] made with a single tap of the tongue against the gum ridge, or it may vanish completely. The careless pronunciation of such

- words as *little*, *better*, and *bottle* illustrate these weekend forms.
- 12) As to the difficulty the Japanese experience in distinguishing between [l] and [r] sounds, Ota introduced an amusing example in his paper. He wrote: "When Dr. and Mrs. Fries went to Kyoto and put up at a hotel called Tawaraya, they asked the hotel-keeper what the name meant. The hotelkeeper, who happened to know some English, answered that it meant 'licebag', meaning, of course, 'rice-bag.' For some time, Dr. and Mrs. 'Fleas' in the 'Lice-bag' was a joke that tickled everybody". Ota, A., "The Teaching of English in Japan", *Eigo Kyoiku*, Taishukan Publishing Company, Tokyo, Vol. XII, No. 6, 1963, p. 22.
 - 13) Thomas points out that most Americans use the dark [l] between vowels, as in *silly* and *hollow*, but most Southerners use the clear. Thomas, C. K., *Handbook of Speech Improvement*, The Ronald Press Company, New York, 1956, p. 48.
 - 14) *prestige* can also be pronounced as [prestidʒ]. No. English words begin with the [ʒ]-sound, and quite a few words have the sequence of [ʒæ], [ʒa], [ʒu]. In case of two words sequence, however, such as "grage of...[gəɾəʒ av...]", the [ʒa]-sequence occurs.
 - 15) In this case, *f* is used instead of *h* in the Hepburn system of the Romanized letters. The /f/-sound in Japanese occurs only before *u*.
 - 16) To cite another example, *citron* in English is a two-syllabled word, but when borrowed by Japanese, it is pronounced as a four-syllabled word: *sitoron*.
 - 17) Gauntlett made an interesting report on his aural perception test given to his Japanese students. As to the result of the test he examined its validity and added: "In short, whether a student has in his English phonological framework an [l]-[r] distinction or not does not necessarily handicap understanding on his part when he listens to a native speaker of English. This is assumedly because he has a larger framework to go by, when listening, than the merely phonetic or phonological. In other words, if he hears [rʊk æt zæ grɑːs], when what has been said was *Look at the glass*, he responds to the stimulus by hearing the statement in a context of situation, or in a stretch larger than he actually hears, so that he is most unlikely to 'hear' what has not been said".
Gauntlett, J. O., "Some Matters Requiring Attention in the Field of English as a Foreign Language", *Eigo Kyoiku*, Taishukan Publishing Company, Vol. XIII, No. 1, 1964, pp. 23-24.

Bibliography (other than listed above)

- Grosvenor, R. L., *Pronunciation Handbook for Foreign Students*, California Book Co., Ltd., Berkeley, 1956
- Kenyon, J. S., *American Pronunciation*, George Wahr Publishing Company, Michigan, 1951
- Kruisinga, E., *The Phonetic Structure of English Words*, A. Francke Ag., Bern, 1943
- Jones, D., *An Outline of English Phonetics*, Heffer & Sons Ltd., Cambridge, 1956
- Jones, D., *The Pronunciation of English*, The University Press, Cambridge, 1950
- Fries, C., *Teaching and Learning English as a Foreign Language*, Univ. of Michigan Press, Ann Arbor, 1960
- Abraham & Yamamoto, *Conversational Japanese*, R. D. Cortina Co. Inc., New York, 1956
- Martin, S. E., *Essential Japanese*, Charles E. Tuttle Company, Tokyo, 1964
- Womack & Miura, *A Linguistic Approach to English*, Kaibunsha, Tokyo, 1961
- Takenaka, J., *Knowledge and Usage of American English*, Kaibundo, Tokyo, 1962
- Hill, A. A. *ELEC English Course, Part I*, Taishukan, Tokyo, 1963
- Oguri, K., *The Pronunciation of English*, Shinosaki Shorin, Tokyo, 1953
- Takenaka, J., *Studies in American Pronunciation*, Kenkyusha, Tokyo, 1950
- Nakajima, F., "Understanding New English Phonetics" *Modern English Teaching*, Vol. I, No. 1-12
- Torii & Kaneko, "Teaching English Pronunciation" *The English Teachers' Magazine*, Vol. XIII No. 1-No. 12