

SEIJO ENGLISH MONOGRAPHS

— NO. 19 —

LISTENING AND ITS
INTERFERENCE

— An Observation on the Perception
of English Sounds by the Japanese —

BY

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0. What is the most troublesome problem for the learner of a foreign language? In any respect, the interference of his mother tongue must be considered first of all. Sound features that he does not discriminate in the system of his own language will not be distinguished in learning a language foreign to him if he is not directed by practice to recognize sound differences in connection with meaning. What about the area of sound perception especially when a Japanese learns English? The present study has focused on this point.

1. 1. Language is used in various ways in human life, but the most widely known is its use as a means of communication. However, "communication" can be of several different kinds. In Japan, there have traditionally been two explanations, offered by those concerned with teaching foreign languages, as to why students from high school to college are required to learn at least one foreign language. One is that learning a foreign language enriches the mind of the learner by widening the range of thinking; the other is that it has been necessary for a people destined to acquire advanced technological knowledge from industrially well-developed countries

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through the use of languages of those countries. For either purpose the main procedure has been the reading of literature, books. This means that learning a foreign language is to acquire skills especially in reading and then with less emphasis, writing. Listening and speaking are more concerned with transitory speech and to practice these skills requires native speakers of the foreign language in the learner's neighborhood. However, in Japan before World War II people had not so often been exposed to the opportunity to practice the language that they were learning. On the other hand, written materials were much more easily obtained. Such circumstances caused the Japanese to be unskilled in the aural comprehension of foreign languages. The speaking skill is a little different from the listening one in that a non-native's speech is understandable by a native speaker if a sufficient number of content words are given correctly in grammar and pronunciation, and so in speaking learners can attain the minimum desired level with less difficulty than in the practice of listening.

1.2. Argument has been often raised as to whether practice in speaking should come before that of listening. Let us look at two words used as an example of minimal pair sound contrast: *rice* and *lice*. Although there is a sound contrast between /r/ and /l/ in English which differentiates these two words, the practice of putting the tip of the tongue firmly against the teethridge for the sound of /l/ and detaching it from the teethridge for the sound of /r/ does not necessarily help the Japanese learner to clearly recognize the difference when hearing the above-mentioned words even if he has been trained to pronounce the sounds accurately. It often happens that as the learner's hearing is based upon the system of his native

language, for example Japanese, he cannot discern whatever differences he need not in his own language even though they are essential in the other language, e.g. English.

In my view, a controversy arises when one teaching method puts stress on sound differences at phonetic and phonemic levels, the speaking practice of which may be helpful to listening, and another focuses on long utterances. Practice to speak a long utterance superficially might not be so closely related to the improvement of comprehension skill.

On the other hand, the fact that people born deaf cannot render correct sounds if they are not specially trained seems to show that hearing and listening must be introduced into language practice first. However, just providing for the practice of hearing or listening without appropriate help of explanation is fruitless. One procedure which we found efficient is the explanation of sound shapes in speech in relation to the hearer's native sound system. One example is the American pronunciation of 'got up', which is explained as /gára/. In the actual hearing /t/ sounds like [ɾ] and the final /p/ sounds just like a voiceless stop which is unreleased and so soundless. Another example is 'Have you been', which is easily recognized if explained as /hábujuβiŋ/. To the average Japanese there are no phonemic contrasts between /æ/ and /a/, /v/ and /b/, and /n/ and /ŋ/, therefore the expectation of the wider range of a sound is helpful to the hearer in grasping the actual sound shape of a phrase.

1.3. It is noticeable that in hearing or listening the correct grasping of some sound does not necessarily lead the hearer to the correct understanding of an utterance containing it. A sound contrast which is sometimes presented in the Japanese classes is *I eat rice*.

vs. *I eat lice*. These two sentences are a minimal contrastive pair and the difference between /r/ and /l/ is the decisive feature in differentiating the meanings of the two. However, *I eat lice*. is nonsensical, because no such person who eats lice can be found anywhere in Japan. By the commonsense that people do not eat lice, the hearer sometimes distorts the shape of a sound in his mind which he caught accurately and misunderstands the meaning. The fact raises a question as to what is a good skill of listening comprehension.

1. 4. Listening comprehension can be regarded as the most difficult skill to be acquired in the learning of a foreign language, English, because in Japanese schools the learner has fewer opportunities to practice this skill than reading and writing. This situation is due to the entrance examination of colleges and universities, among which just a few institutions impose a listening test on applicants, so high school students are not inclined to improve their skill for it. Most of the entrance examinations take the form of written tests, a large part of which is allotted to the checking of reading ability. The passages given in them are usually extracted from literary works or articles. Those passages are of the kind that native speakers of English learn or read at schools and nothing is changed for easy understanding of a foreigner. On the other hand, the test of writing ability, if it is tested at all, is simpler, the questions easier, and that of listening is easier still. Still many teachers think it is all right because the Japanese learner of English has many more chances to practice reading than listening in schools.

The following is a passage to be read as a hearing test at an entrance examination of one of the leading national universities in Japan. It is given in the form of dictation and applicants can hear

it three times ; once at a very slow speed. A glance at this passage will confirm that the so-called 'hearing' or listening skill has not been taken seriously in this country.¹

Children go to school to learn their own and foreign languages, arithmetic, geography, history, science and many other subjects. However, there is more in education than just learning facts. We go to school, above all, to learn how to learn. A person who really knows how to study will always be successful.

2.1. What is usually thought of as a significant factor in listening has been the interference of the mother tongue, that is, the interference of Japanese put into the system of English. This feature appears at many levels: in sounds, words, phrases, stresses and pitches. Since listening ability is based upon spoken discourse, the phonological difference stretching upon the passage should be first considered as a clue to the understanding of speech. The big, noticeable difference is the feature by which each speaker of language discerns the prominent part of an utterance. For instance, the Japanese use pitch as a phoneme and native speakers of English use stress. Thus, in standard Japanese a bridge is [hā|f̄i] and in the Kansai Japanese [hā|f̄i], where pitch plays an important role for giving different meanings, because if the standard Japanese speaker says [hā|f̄i] he is mistaken as meaning 'chopsticks', while the Kansai Japanese speaker says [hā|f̄i] for the same word. In Japanese, pitch is used on the unit of syllable, while in English this is not so.

In English the parts which contain more important information are strongly stressed, while in Japanese stress is usually used for emotional emphasis. This is caused by the widely-known feature of Japanese syllables, in which a unit, a syllable, usually ends with

a vowel except for nasals such as /n/, /ŋ/, and an utterance as a combination of syllables is delivered with syllable-timed rhythm. Although Japanese has a bit of stress-timed rhythm when given in an utterance, we cannot say it is a language of stress-timed rhythm.

This difference between the two languages seems to make the Japanese learner less able to distinguish between strongly and weakly stressed syllables, resulting in inattention to the phonetically heavily loaded portion. It can be said that the Japanese listener is likely to be too careful about each sound which is not treated as important from the viewpoint of entire context, that is, a meaningful word as a whole.

2.2. After surpassing the barrier of recognizing the stress-timed rhythm, the learner has to face a new problem, how to grasp the real shapes of words. This means that even though he can catch the strongly stressed parts, as words, he might not grasp their appropriate meanings, since the pronunciations which he hears are so different from what he would expect. For instance, in the sentence 'We'll print this design immediately', the stressed words are 'print', 'design', and 'immediately'. The actual sound shape of the word 'print' is so far from what is expected by the average Japanese learner, i.e. [printo], he may not think of the word 'print'. Here again the Japanese feature of syllable-timed rhythm causes misunderstanding. Weak or no aspiration on the word-final stop consonants is too far from the anticipation held by the Japanese learner and it is very likely to lead the listener to discern something like [prin], which does not make sense in this context. Borrowed English words are nowadays very often found here and there in Japan and those rendered in the Katakana writing system can easily mislead the hearer

to assume a different original. One example is 'vinyl', which is rendered in the Katakana system with a pronunciation equivalent to [biní:l]. The replacement of [v] by [b] is not crucial, because they can be used as free variation. However [i] used instead of [ai] (in vinyl) and [i:] instead of [ə] (in vinyl) are crucial changes of the sound shape of this word. In an experiment which I conducted, 90 out of 100 make a mistake on this point.

Another example is 'virus'. Since this word is widely used in Japan with the sound of /bí:rus/, nine out of ten hearers cannot associate the word with the one which they have learned when they hear it in the native's speech. The sound difference of /b/ vs. /v/ does not greatly interfere with the correct recognition of the word, but the difference on the stressed point, that is the one between /ái/ and /i:/ is more decisive. /b/ and /v/ are the sounds of free variation in the Japanese phoneme of /b/, although /v/ appears rarely, but /ai/ and /i:/ are different phonemes. Thus, /baka/ and /vaka/ do not have any different meanings, but /tʃaimu/ and /tʃi:m/ have different meanings respectively; /tʃaimu/ is 'chime', and /tʃi:m/ is 'team'. The difference of the unstressed point, that is /rəs/vs./rus/ does not seem to give the decisive factor for difference.

'But' is another example. In the normal conversation 'but' which is pronounced as /bət/ generally leaves an ephemeral impression upon the hearer's ear, because the anticipation in the Japanese hearer's mind is for /baʔto/. The big difference between the anticipated shape of sound and the actual sound prevents him from recognizing the word. Various phonetic features which are used differently to make words distinctive from others are particular to each language, and those found in English and not in Japanese should be attended to more often. That the word-final aspiration

is weak or unreleased is the point which Japanese hearers should pay more attention to, because otherwise this phenomenon will force them to mistake it for soundlessness. In Japanese the word-final sound is, whether weakly pronounced or not, likely to be a voiced vowel.

Dark 'l' is another example. In the phrase, 'Brisk Wallpaper Company', none of the twenty students of my class at a Yokohama language school which comprises both high school and university graduates were able to grasp the word, 'wallaper', accurately.

As a matter of fact 'wallpaper' was mistaken for just 'paper'. The reason seems to be that dark /l/ is close to /u/ or /w/ to the ears of hearers. The gap between the actual pronunciation [wɔ:l] and [uɔ:lu] expected by the Japanese hearer is the main reason for the failure to catch the word correctly. So the necessary procedure for the Japanese student in grasping what is said in English is to be familiar with the right sound connected with each word. Japanese nowadays contains very many loan words in use that are originally English and they are thought to be the cause of major confusion and interference in hearing English, but actually, from my study and the one carried out with my co-investigators, loan words are often helpful in hearing English but there are also cases in which an insurpassable barrier of phonemic difference makes them not helpful.

2.3. It is generally true that content words, which are thought to carry informations more important to convey the speaker's idea, are strongly stressed or highly pitched as for example in 'I'm sórry to interrúpt you, but —,' but unstressed or weakly uttered portions of a sentence sometimes play a role in conveying an idea without

distortion. Thus, in the sentence 'We are now producing *móre* design than we can *séll*,' 'than we can' is unstressed and its pronunciation will be /ð(ə)nwɪkɪ/, and this part is too hard for the Japanese hearer to catch exactly as 'than we can', which makes it extremely difficult for him to grasp the meaning of the sentence as it is meant to be conveyed. Just grasping the single 'than' will make it easier for the hearer to understand the idea to be conveyed through this utterance.

The combination of two or more than two syllables and the combination of two or more than two words often result in such transformed pronunciations as will force the Japanese hearer to be at a loss in deciphering the spoken words.

2.4. In the country like Japan, where English is not a second language but a foreign language and most people rarely have a chance to use English in their daily life although a lot of English words and phrases have been used as ornaments almost everywhere, English is introduced through the eyes. This means that the English words and phrases to be learned are written codes, so the letters and parts of them should have their phonetic counterparts, that is, each letter or combination of letters must always have a sound or combination of sounds related to it. If a Japanese man sees the English words 'Golden Curry' printed on the outer cardboard of a box containing prepared food of curry, he will surely read them as [go:lden kare:] without any special primary stress. The spellings '-den' and '-rry' are read as indicated in the square brackets, and reading them like that entirely corresponds to the system of 'Romaji' taught at Japanese schools. Romaji is the writing system commonly used in Japan to present Japanese speech in

a form of transcription similar to English. Its influence on the effect of learning English must not be underestimated, causing, as it does, so much trouble in acquiring correct pronunciation of English.

The Romaji writing system taught at Japanese primary and secondary schools is as follows :

a	i	u	e	o							
ka	ki	ku	ke	ko		ga	gi	gu	ge	go	
sa	si	[ʃi]	su	se	so	za	zi	[dʒi]	zu	ze	zo
ta	ti	[tʃi]	tu	te	to	da		du	de	do	
na	ni	nu	ne	no							
ha	hi	hu	[Φu]	he	ho						
ma	mi	mu	me	mo		pa	pi	pu	pe	po	
ya	[ja]	yu	[ju]	yo	[jo]	ba	bi	bu	be	bo	
ra	ri	ru	re	ro							
wa											
n											

kya	[kja]	kyu	[kju]	kyo	[kjo]	Here in this list, '-y-' is always pronounced as [j], except when the pronunciation is given in the brackets.
gya		gyu		gyo		
sya	[ʃa]	syu	[ʃu]	syo	[ʃo]	
zya	[dʒa]	zyu	[dʒu]	zyo	[dʒo]	
tya	[tʃa]	tyu	[tʃu]	tyo	[tʃo]	
nya		nyu		nyo		
hya		hyu		hyo		
mya		myu		myo		
rya		ryu		ryo		
pya		pyu		pyo		
bya		byu		byo		

The above shown is the list of syllabic units presented in the Romaji system, and many of them are pronounced in the same way as are transcribed in IPA phonetic symbols. Those syllables which have different sounds from the English system are shown in brackets.

Looking through the items it is clearly understood that each unit ends with a vowel, except 'n'. The use of the English alphabet is misleading in that it represents an English sound.

Apart from interferences caused by the mother tongue, the Japanese learner seems to be presuming the sounds for English-spelt words in relation to Romaji.

This especially happens on vowels in such a way that 'i' is always pronounced as [i], and not as [ai]. So, the vowel of the first syllable in 'vinyl' is likely to be pronounced as [i] and the actual sound of [ai] can hardly be predicted. Another misunderstanding caused by being accustomed to Romaji is that the Romaji system represents the English system, therefore, the Japanese learner brings the Japanese system, that is the syllable-timed rhythm, into the recognition of English syllables. Thus, 'have you been' is thought to be uttered as [havu ju bi:n] with each syllable read separately and without any one being specially stressed. 'Johnson' is another example. With the way of pronouncing in Romaji used as a guide the word is uttered as [dʒoŋsɔŋ] instead of English [dʒɔnsɔŋ]. Here, the letters of the vowel 'o' corresponds to only one sound [o], and each syllable unit has about the same phonetic quantity, which makes it difficult for the Japanese listener to recognize the meaningful entity just by grasping the strongly-stressed syllable portion.

The interference caused by learning Romaji is conspicuous when a Japanese sees an English word and relates it to a presumed pronunciation without hearing its actual sound. The two kinds of interference which we mentioned in the earlier part of this section clearly appear, and this tendency is much more typical in speaking than in hearing.

2. 5. In an English utterance words are phonetically combined in its peculiar way of liaison, like r-liaison and n-liaison, where vowels are uttered together with adjacent consonants; thus, 'half an hour ago' result in giving the surface syllabic units [hæf ənærəgou] and in 'no one else', [wənélz] sounds like one word from the Japanese point of view, which is so peculiar that the Japanese hearer cannot predict the sounds of the spoken words. The pronunciations of combined words which are difficult for the Japanese learner to catch are of two types in addition to the previously mentioned 'liaison' type. One is the stressed content word accompanied by one or more than one unstressed words, sounding like one word, such as [tóuldʒə] (told you).

The other is the combination of two or more than two weakly stressed words such as [ðərə] (there are) and [əbautit] (about it). Especially when a 'stressed word + pronoun' occurs the sound change can hardly be guessed as it is by the Japanese, because the liaison is so close that it does not seem to reveal the sound shape that has been imagined. The reason why the Japanese learner finds it difficult to connect what he hears with the meaningful unit, whether a word or words, seems to be that he is first influenced by the Japanese way of phonetic syllabification, that is, almost all syllabic units end in vowels with the enforcement of the Romaji system which is likely to lead the Japanese to misunderstand that each English syllable also ends with a vowel. In the following conversation in a drama produced by BBC, the above-mentioned parts are trouble spots for the Japanese learner.

MR. Brewer: *Théré! I tóld you, there are àlways pláces where you can párk. You júst hàve to knów about them. Thàt's àll.*

MRS. Brewer: *There mùst be a réason why nò one élse has*

parked here.

MR. BEWER: *Péople dòn't knów about it. It's a síde strèet. It's nót the sòrt of stréet where mány pèople cóme.*

(Here, 'stress' indicates whether 'primary' or 'secondary').

In the utterance, "I told you, there are always places where you can park. You just have to know about them." the words which have more important information to be conveyed than others are *told, places, park, know*. These pieces of information will surely be grasped correctly by the native speaker of English because he is accustomed to the stress-timed rhythm and constructing the sentence with stressed informative words. When asked to grasp sentences, one of the students in my class succeeded in recognizing the strongly stressed word *places* but the unstressed portion preceding it was so far from what she was expecting that she was quite unable to decode it. While listening she stopped hearing the latter part of the sentence and could not understand what was said. This was partly because she did not expect that the combined words were pronounced differently from the original isolated ones.

2.6. The spelling often becomes the cause of trouble in grasping the words actually given, because in a country where English is not used as a native or a second language, people rarely have a chance to speak or hear the language. As was mentioned before, in such circumstances people get a clue to the pronunciation related to a spelling by adapting some rule for producing sounds. For a Japanese who is not a skilled speaker of English, the first help will be Romaji as well as spelling pronunciation. Thus, 'got up' in common American pronunciation will be [garóp] spoken as though it were one

word, and you will notice that it is very different from the expected sound [got a²pu] uttered separately as two distinct words. ‘Happily’ and ‘directly’ are another case, where the elimination of a certain sound (underlined here) gives the Japanese listener a seemingly distorted shape of sounds, because according to the Japanese sound system [pi] cannot be reduced to [p], and [t] is always [to] and if [t] is omitted in *directly* the hearer will decode that one syllable has disappeared. In the syllable-timed system an omission of a syllable causes a serious distortion of the sound shape.

2.7. Words cannot convey a message to the hearer if there is no context. The context can be verbal or non-verbal, that is, an auditory or a visual one. In some cases the visual context plays an important role in communication and the verbal speech is only used to give a clear understanding of the scene. We have many occasions of this kind in everyday conversation and this fact is the reason why errors and a slip of tongue are usually not serious. The context gives the outline of the whole content of the message to be conveyed to the hearer and even one word can be a clue to lead the hearer to the understanding exactly intended by the speaker. Suppose a man says “Tori (a bird)!” when he is standing in a field, the context will be that a bird is coming out of the grass or trees and is flying up in the sky. Here, the whole sentence “A bird is flying in the sky.” is not necessary. The verbal expression excluding “a bird” can be replaced by the visual context. This is the usual situation we have in daily communication.

Either by verbal or non-verbal contexts a speech can be complete in building up a communicative body. In some cases both verbal and non-verbal contexts may be necessary. If “Tori (a

bird)!" were said in a restaurant it would mean a *chicken* cooked ready to eat and a speaker did not expect it to be served there because all other dishes are fish and the shape of the chicken did not indicate any sign of its being a chicken, so he showed a little surprise as it was unexpected. In this instance, no other verbal expressions are needed to show that 'Tori!' here means something different from the one that comes into a hearer's mind if he is standing in a field. However, the verbal context added to "Tori (a bird)!" will change the frame in which meanings of words are defined. Even though a speaker and a hearer are talking over dinner it may happen that a speaker will indicate something different from the most usual meaning appropriate to the visual context there. For instance, "'Tori (a bird)!" said my wife, when we were walking along a path in the mountains.' Here, *Tori* is a live flying bird. Thus, either visual or verbal context or both of them may help the hearer to fully understand what is to be conveyed in words. In the communication of daily life there often occur situations when verbal expressions are mere supplementation of the context when the visual one has already given almost all needed information. Suppose two friends meeting each other in the campus green are going to greet. They will say "Hello!" or "Hi!" The situation is clear to both of them. They are going to attend a class. The greeting is uttered in order to show the friends notice to each other, and just by looking at them we can recognize that they are students who came to the campus to study; they are going to attend the classes, and so on. The words 'Math?' and 'Psych?' will add the information that either of them is to attend the math or psychology class. There is an old Japanese saying, 'The eyes can speak as well as the mouth.' Two lovers facing each other can

possibly understand what a partner wants to say, although the extent of the message to be conveyed is limited and rather small compared with elaborate verbal expressions.

What can be said by analyzing the above-quoted exchange between the two students is that without observing the actual scene, whether on the spot or through film, the quoted words cannot be understood in the exact sense that has been intended. This shows that the visual context plays a decisive role in making an utterance a complete one as message. In other words, a sentence or utterance given in the form of a series of sounds cannot always be a communicative one, and it may happen that an utterance has only an additional role while the scene or visual message has the principal role in conveying what was in the speaker's mind. If we consider and analyze the contents in a more strict sense, then various levels must be taken into consideration as to how well what is in the speaker's mind can be conveyed to the hearer.

3. 1. To find out what sounds (phonemes) are difficult for Japanese learners of English to distinguish in hearing, a test has been given to nearly 1000 college students.² As has been explained in the previous section, the perception and recognition of sounds leading to the realization of communication is made possible through a complex combination of various elements: especially the relation between the recognition of sounds and the indicated meanings or ideas. Even though a hearer is able to perceive a certain sound or a certain combination of sounds as it is, it may happen that he will not catch what the speaker has intended to convey, because sounds are just like raindrops when they are treated as mere sounds.

However, it is true that if a hearer does not perceive and

recognize a certain sound as it is, he will not have the basis or clues to perceive the meaning which a speaker wants to convey. Silence is golden in some cases, but it can be golden only when the context is one in which the parts before and after the silence are full of sounds. So at the very first stage sounds are essential for communication.

3. 2. When given sets of words which are minimal sound contrasts chances of getting the right answer are better if the number of words in a set is as few as two or three, because he has only to confine his attention to a few sounds. Far fewer than he actually meets in daily speech. On the other hand if the number is increased the memory span has to be considered, for the power of memorization will play a much more important role in monitoring the same sounds. If we give six words in a set of to-be-selected pronunciations the last one will present more difficulty in judgement since memorization ability will have become weaker.

As the prerequisite is that an examinee can't too easily focus his attention on the right answer and yet he can clearly memorize the given words from which he has to choose the right answer, we decided to use four words as a set. Also, we presented the clue word twice, instead of once which is usual in most hearing tests, in order to give him a chance to grasp the shape of sound more assuredly.

There will be no objection about evaluating language skills from four points of view, that is, reading, writing, hearing, and speaking, and in Japan the audio phase of language skill, namely hearing and speaking, has been attracting more attention from those who are concerned with teaching and learning English. Still, the hearing and

speaking skills are rarely treated as the targets of evaluation in most examinations for admission to Japanese academic institutions. In college entrance examinations too, very few colleges, say, less than ten out of nearly three hundred, impose a hearing test on applicants.

The format of the hearing test is thus: the student is asked to listen to a small amount of spoken English three times. After the first reading he can begin writing the sentences and during the third reading he can correct the parts he wants to. This procedure is called 'dictation' and is used as one of the ways to check the hearing ability of the applicant. Another format is this: some story is first told to applicants and the questions are given in four or five sentences from which one appropriate answer should be chosen. The reading of the whole test will be done twice, during which time the examinee chooses what he thinks is the right answer by filling in the answer sheet with the numerals or letters of the alphabet. The second type is most common as a hearing test in Japan, and the widely-known proficiency test "STEP (The Society for Testing English Proficiency) Test"³ also uses this system.

When discussing 'hearing tests', we have to consider one more type which focuses on sound discrimination at the phonemic level. The third type has been a favorite of English teachers when they want to check the hearing skill of the students. The second type of test can be said to be the most appropriate one to test the listening skill in the general sense, because in everyday conversation listening to others and grasping the main points or messages intended to be conveyed will surely be the most important thing in the act of comprehension. However, to make it possible for two persons to communicate with each other the first clues are sounds, and the

ability to differentiate phonemic sound units is the basis for the further process of decoding. The question of to what extent the catching of sounds can contribute to the correct and easier approach to the grasping of a message has not been clarified so far, but if the hearer doesn't have the ability to discriminate one sound from another one or if he confuses one word with another one, it will lead to a situation where he has to depend entirely on the context, that is, the surrounding words, to decide what word it is. In such a circumstance a sound in question cannot be a clue to form up a word, or words, but a kind of burden for the hearer.

3.3. In order to find out what sounds are difficult on the basis of phonemic contrasts, the so-called Michigan test has been dominant in Japan. The format of this test is as follows. The examinee is given three symbols such as *a*, *b*, *c* or 1, 2, 3 which go with three words to be read respectively. If he judges words 1 and 2 are the same he encircles 1 and 2. In another type of the so-called Michigan test four words are given to the examinee. If two words out of three are the same those symbols, for example 1 and 2, should be encircled, and if all these three words are the same, symbols 1, 2, 3 should be encircled. And if none of them are the same, that is, all three are different from each other, no symbol should be encircled.

The procedure taken in the above-mentioned test takes advantage of the examinee's memory, but it gives better odds of choosing the right answer because the corpus of choice is restricted to a rather small area, that is, three words, which means that in many cases he has only to pick out just one item that is different from the other two.

To eliminate this random and easy choice we adopted the following format.

1. Key words are read twice to make the hearer certain of what sound he is going to be asked to find in the succeeding group of words.

2. The number of words in a group from which an item, one right answer, is to be selected is four, numbering 1 to 4, and '?' is the fifth symbol to be encircled if the examinee is not confident of his choice, which means that if he cannot say which out of the four items is the same as the key word he should choose the symbol '?'. Previously in hearing tests, the examinee picked out one of the items as his answer even when he was not certain of his choice and there has been the possibility of choices being made which are only accidentally correct. The addition of '?' is aimed at eliminating such a possibility, though admittedly this device will not work if the examinee does not follow the suggested directions in the test. So a strong request to the examinee on this matter is needed. A cooperative reaction to it can be expected of most Japanese college students.

3. After choosing one item as the right answer the examinee is requested to choose between the symbols ' \triangle ' and '+'. If he chose the item that he thought to be the same to the key word with confidence he would be expected to encircle '+', and if he is not sure of his answer being correct he is expected to encircle ' \triangle '.

It is often the case that the examinee picks out one item randomly because he has to decide on some item, whether he believes it is the right answer or not. The idea of choosing between the symbols ' \triangle ' and '+' comes from the above-mentioned tendency.

The answer section then will appear as follows :

No. 1 1 2 3 4 ? | △ +

Suppose the question section is 'thigh, thigh ; thy, thigh, sigh, tie', the examinee encircles '2' and '+' if he can detect the /θ/ sound with confidence. If he thinks '2' is the right answer but without confidence, then he encircles '2' and '△'. This device will help reveal the correct answers picked out randomly.

4. A question on each key word is given three times. The common procedure taken in other tests is to read each question once, and it is justified as an appropriate way because in everyday conversation speech is usually heard once and the repetition of it is not so often. However, to find out what the hearer really hears we need to check his answers more than one time, because hearing a word more than once gives the examinee more chances to be exposed to the sound in question.

3.4. The test, the procedure of which was explained in the previous section, was given to about nine hundred college students (915, to be exact), and an analysis has been made to find out what problems the general public of Japan have in hearing English concerning the English sounds on the phonemic level. The following is a description of difficult sounds for the Japanese learner of English.

1. Medial /ð/, as in *seether*. The percent of incorrect answers is 45, which means nearly half of the answers were not correct. The sound which the hearers took most out of /z, d, ʒ/ instead of the right one was /d/ (*cedar*). (The words are *seizer, cedar, seizure*.) In the personal interview test some students answered the sound in question was /z/ or /d/ with confidence. This means that they can differentiate the sounds /z/, /ð/, /d/, /dʒ/, but still they recognize

seether as *cedar* or *seizer*, namely /ð/ as /d/ or /z/. Therefore we cannot expect them to understand the meaning of a word which contains the sound /ð/, because it happens that an English speaker utters 'seether' while a Japanese hearer perceives the sound and thinks of the word 'seether' as 'cedar'.

Here, the correct answer is not necessarily connected with the right recognition of a word, and the result is probably misunderstanding of the word. Thus a test on the discrimination of phonemic sounds is usually called a 'hearing test', but it is often just a "discerning test" and not a "listening-comprehension test." *Hearing* and *listening-comprehension* are liable to be separated without being realized, and that is why we carried out the test here explained because it will indicate how we should deal with sounds, that is, what sounds must be focused on as the ones to be differentiated from each other; for example, /ð/ from /d/, and not /ð/ from /z/, where /z/ has often been thought as the most mistakable partner of /ð/ because the articulatory points are near.

2. The second most difficult English sound for the Japanese learner of English is the initial /θ/ (as in *thigh*). The percentage of incorrect answers on this was 42. The sound which was taken for /θ/ more than other sounds is /f/ (as in *fie*). The fact that /θ/ is most likely to be mistaken for /f/ will be rather shocking for Japanese teachers because the most mistakable sound of /θ/ has been said /s/ from the contrastive viewpoint of English and Japanese.

The interview also revealed that /θ/ was mistaken for /f/, and besides, /θ/ was occasionally mistaken for /b/. This seems to indicate that the /θ/ sound is likely to be substituted for those sounds which are articulated at the points further forward to the outer exit of the organs of speech. In addition, the Japanese /b/ does not

have a strong plosion of sound, and in this sense it is close to /v/.

3. The third most difficult sound is the initial /f/, and this sound is most likely to be confused with /θ/. So the case is just like No. 2, where /θ/ is shown as the second most difficult sound in opposition to /f/. The percentage of incorrect answers was 41. In Japan /s/ has been regarded as a most likely counterpart of /θ/ in hearing because of their similar audible effect caused by the articulatory similarity: /θ/ is a fricative made with the tip of the tongue against the teeth, while /s/ is a fricative made with the tip of tongue against the teethridge. /θ/ does not exist in the Japanese phonemic system and articulatory points of those two sounds being near often invites the Japanese hearer to think that they are the same phoneme, namely /s/. However, in our test, the confusion of /f/ and /s/ was found to be very rare. To the Japanese hearer /θ/ has a different sound nature from /s/, though he does not differentiate them phonemically.

4. The fourth most difficult sound is the final /v/, as in *serve*. The percentage of incorrect answers was 40. As /v/ is a fricative and /b/ is a stop, they are different on two points, that is (1) the manner of articulation and (2) the articulatory point, but in Japanese both can be included in the same phoneme /b/, partly because the different manner of articulation cannot be a serious factor in Japanese where the plosion of breath is not so strong as in English and the contrast between a stop and a fricative is not so clear. Especially at the word-final position a sound is half going into silence. In such a circumstance, the contrast of /v/ (fricative) and /b/ (stop) is not sharp.

The interview revealed that there was no difficulty for the examinee in recognizing the final /v/ accurately. One student an-

swered that the meaning of the word, which he correctly differentiated from the other three, was 'to economize'. He was sure that /sərb/ was 'save' in his hearing system. The fact shows that even if a hearer could catch a sound correctly he would not understand the meaning of the word containing that sound.

5. The fifth most difficult sound for the Japanese learner is the medial /b/, as in *saber*. The percentage of incorrect answers here was 37. The sound which is most likely to be mistaken for the medial /b/ is /v/, and the confusion of those two sounds, resulting from the causes explained previously in No. 4, is another example of the same phenomenon, although the position of the sounds /b/ and /v/ is different from the occasion of No. 4, that is, medial.

6. The sixth most difficult sound is the medial /v/, in opposition to /b/, and this is just another manifestation of the same trouble that the Japanese have in No. 5. Both of these sounds are in weakly stressed syllables, which is common in No. 5 and No. 6. The percentage of incorrect answers was 35.

In the medial position /b/ and /v/ are very confusing sounds, but the medial /v/ sound seems to be more difficult to hear. The interview test shows that if the medial /b/ is given and mistaken it is always /v/ that is replacing, but when /v/ is presented as a key word, both /b/ and /v/ are probable as a sound perceived by the hearer's ear. Also, in hearing the word *curving* there happened the cases that other mistaken sounds led to the correct choice made confidently. Those sounds are /ur/, /a/ or /ə:/ instead of /ər/, and /n/ instead of /ŋ/. The above phenomena may be explained as showing that the preceding vowel to /v/ undergoes some change in its sound form. For the average Japanese the difference between /ər/ and /ə:/, that is the existence or nonexistence of /r/, can be

trivial. And the case where /ər/ is replaced by /ur/ also seems to be liable, since /ə/ is not as much close to /a/ as /u/ if it is put into the Japanese phonemic system.

7. The seventh most difficult sound is the final /m/, as in *gam*. The percentage of incorrect answers was 33. Although it is possible in Japanese to pronounce /m/ in the word-final position and this sound can be an element of a communicative word without a foreign derivation, for instance in rather rapid or informal speech, the Japanese word-final usually consists of /m/+V, as in /kamu/ which means 'bite', and the independent syllable made of a nasal and a vowel makes it clearly sounding in contrast to a different nasal; for example, /kami/ is 'paper' and /kani/ is 'crab'. Except in the cases of rapid or informal speech the word-final /m/ does not occur in Japanese, while /n/, which is [N] to be exact in Japanese, occurs in the word-final position. So, in the Japanese phonological system a nasal in the word-final position might as well always be regarded as /n/ instead of /m/. No. 7 seems to be the instance where the Japanese system very strongly influenced the receiving of English sounds. The interview revealed that among the students who gave correct answers are those who think /g/ as /dʒ/ or /æ/ as /a/, and the problem is that they take these sounds as a decisive clue to discern *gam* from other words containing other word-final sounds which are phonemically different in contrast.

However, there is misunderstanding of /g/ as /dʒ/ and /æ/ as /a/, where the former pair of two sounds are similar in that they have a voiced stop sound in common and the /dʒæm/ is more likely to remind the hearer of the more common word which is also used in Japanese as /dʒamu/, while /gæm/ does not remind him of anything meaningful. So, here the examinee may have depended on

meaning in grasping the word. In the latter case of confusion the intervention of Japanese is clear because /æ/ does not appear so commonly in it except in loan words and exclamatory remarks such as /kæ:/ (a cry of surprise).

8. The eighth most difficult sound is the final /n/, as in *sun*, and the percentage of incorrect answers was 29. The difficulty is apparently caused by the same feature which we noticed in No. 7, because it is the final nasal that causes trouble, but the contrast is different, namely /n/ vs. /ŋ/. There is a sound /ŋ/ in Japanese which is commonly noticed as different from other nasals, /n/ and /m/, but it is used in complementary distribution with /n/ by some speakers, especially older people, when the word containing this /ŋ/ sound is a particle, as in the sentence /ga'ko: ŋə/ (School is~). In my research, nearly three-fourths of the students in a class about the size of 50 students do not use /ŋ/ even in a particle.

This means that many Japanese, especially young people, do not differentiate /n/ from /ŋ/, and besides in a particle they do not use the sound /ŋ/ instead of /g/. So, in the present-day Japanese most people include /ŋ/ in /n/ from the reason that both of them have a nasal sound and /ŋ/ in /g/ because both of them have the articulation at the point of velum. In other words Japanese does not have a sound which has the quality of a nasal and velar stop. Here, in No. 8 again, we have an example of the mother tongue, Japanese, interferring with the correct perception of a foreign, English, sound. From the interview test, we can say that some Japanese hearers think of the vowel /ʌ/, which is mistaken for /a/, as the crucial difference among given items. He correctly chooses the answer but what he hears is a different sound from the real one.

9. The ninth most difficult sound is the medial /dʒ/, as in

legion, in contrast with /ʒ/. The percentage of incorrect answers was 29, which is just the same as No. 9, /ŋ/. The confusion between /dʒ/ and /ʒ/ will be understood as natural, because they are in the same phonemic sound area /dʒ/ in the Japanese phonological system, and also because of a previously explained Japanese feature, i.e. that each sound or syllable is uttered without strong stress if it is not a case of exclamation or strong emotion. The weak release of stop makes these two sounds, /dʒ/ and /ʒ/, come close to each other to the ear of the Japanese hearer.

10. The tenth most difficult sound is the final /ŋ/, as in *ding*, especially in contrast to /n/. The percentage of incorrect answers is 24. No. 10 is just another case of No. 8, the question of the final /n/. It is understandable that the same phonemic sound can be differently treated depending on the position, that is, initial, medial or final, and the hearer finds more difficulty in grasping a sound in the final position than in the initial position. But, why can the same phonemic sound in the same position be perceived differently if they appear in different words? In No. 8 the final /n/ is presented in the word *sun*, and the word assumed instead of it is *sung*, the percentage of which is 29; while in No. 10 the final /ŋ/ is presented in the word *ding*, and the word perceived instead of it is *din*, the percentage of which is 24. We can see here a gap of 4 percent in giving incorrect answers. The same kind of phenomenon comes to light in the relation between No. 1 and No. 11. Both questions are on the same sound, the medial /ð/. Here, in No. 1 incorrect answers amount to 45 percent, while in No. 11 the percentage is 23, and there is a remarkable gap of 22 percent. The words as presented in the hearing test are *seether* and *cedar* (in No. 1), *breathing* and *breeding* (in No. 11). The common feature

is seen in those pairs concerning /ð/ and /d/, as well as /n/ and /ŋ/.

Examining the relations among four words, we found that if a sound is presented in a word where the following vowel is "high," or rather closer to the similar Japanese phonemic sound, the hearer can grasp it more easily than if it is given in a word where the following vowel is "low," or rather apart from the Japanese phonemic sound. The interview test shows that the examinees, who answered correctly saying *sun* confidently, never failed to catch the sound /n/ (in No. 8), but some of those who gave correct answers confidently failed in perceiving /ŋ/ and mistook it for /n/ (in No. 10). This indicates that the average Japanese do not tell /ŋ/ from /n/ due to the Japanese phonological system and the sound /ŋ/ is drawn into the phoneme of /n/ when he hears English. Set in the same context, which means (a) in the same position, such as initial, medial or final, (b) the same vowel follows or precedes in the same syllable, like *ding* (No. 10) vs. *bin* (No. 13), both of the contrasted sounds (here, they are /n/ and /ŋ/) give about the same degree of difficulty, although the percentage of mistaken cases is slightly different: /ŋ/, 24 and /n/, 22. So, in giving a hearing test on consonants we have to consider what vowels are following and preceding.

11. The eleventh sound from the top of the list is the medial /ð/, as in *breathing*, and the apparently strange thing about the different percentage of incorrect answers between No. 1 and No. 11, both of which deal with the same sound in the same position, has been already analyzed in the previous section, No. 10. In both of these, *seether* and *breathing*, /d/ is the most liable mistake, but in the former, /d/ and /z/ were found out as the likely mistaken sounds, while in the latter case, /d/ and /dʒ/. The fact seems to indicate

that the interference of Japanese occurs in the hearing of /ð/ in the former case. The sound /z/ would instantly come up in the Japanese hearer's mind when he hears /ð/ because /ð/ and /z/ are not different phonemes but allophones in Japanese. On the other hand, /dʒ/ is a phonemic sound different from /z/ which may not usually be discerned from /ð/, and if /dʒ/ is followed by /i/, that is /dʒi/, the syllable is a very common one in the Japanese phonological system. This means that a Japanese can easily recognize /dʒ/. Coming back to the word *breathing*, the interview revealed that sometimes /ð/ in the word is mistaken for /dʒ/ by the Japanese, and so the interference from the mother tongue is less likely to come up when the syllable is the combination of /ð/+/i/ than /ðə/.

12. The twelfth sound from the top most difficult one is /ar/ (as in *far*) in contrast to /a:/ (*fa*), and the percentage of incorrect answers is 23, but it does not seem that the case when we must discern /ar/ from /a:/ will occur very often in daily speech. Theoretically /ar/ has to be recognized differently from /a:/ in speaking, but in hearing the importance is not so great as those sound differences which have been previously analyzed.

13. The thirteenth sound from the top is /n/ in the word-final position, preceded by the vowel /i/ (as in *bin*). The percentage of incorrect answers is 22, and an analysis concerning this sound has already been made in the previous sections.

These 13 sounds can be said to be the most difficult ones for the Japanese hearers to recognize if based upon the standard of one out of five people making a mistake in correctly perceiving the sound. The following is a list of sounds mistaken with percentages of from ten to twenty.

14. initial /s/ (θ, z)

- | | | | |
|-----|---------|------|-----------|
| 15. | initial | /e/ | (æ, i) |
| 16. | ” | /wu/ | (u:, hw) |
| 17. | medial | /t/ | (d, g) |
| 18. | initial | /s/ | (ʃ, z) |
| 19. | ” | /i:/ | (ji:, je) |
| 20. | medial | /ŋ/ | (n, m) |
| 21. | initial | /r/ | (w, l) |
| 22. | medial | /s/ | (θ, t) |
| 23. | ” | /m/ | (n, ŋ) |
| 24. | initial | /l/ | (r, d, w) |
| 25. | initial | /j/ | (i, wi) |
| 26. | final | /b/ | (v, d) |

In the parentheses are shown the contrasted sounds given in a set of items. For example, in No. 26 the model sound is first given twice (*robe...robe*), and then four words (*rove, road, robe, rove*) are read once each so that the examinee will choose one item from these which is the same to the model. The first sound shown in the parenthesis, i.e. ‘v’ in No. 26, is the one which is most likely to be mistaken.

Looking through the thirteen sounds from the most difficult ‘medial /ð/’ to the ‘final /n/’, all of which resulted in incorrect perception with the percentage of over 20%, (a) 7 of them are those which are not found in the Japanese phonological system, (b) 4 of them are nasals in the final position, (c) and 2 are those which have no counterpart in minimal pairs in Japanese.

3.5. In (a) we see that the very difficult sound contrasts for the Japanese hearer are ‘/f/ vs. /θ/’ in the initial position, ‘/b/ vs. /v/’ in the medial position, and ‘/n/ vs. /ŋ/’ in the final position, because these contrasts cause more trouble than the others and both of the

tests on either sound of each pair showed there was great difficulty in hearing them. In (b) the final nasal sounds /m, n, ŋ/ present the utmost difficulty in every case. What about the other sounds? The following is a list of English sounds which were perceived incorrectly with the percentage of over 5%, and contrasted sounds for each are also shown with indications of what sounds replaced it most often among the contrasted sounds.

Vowels

	Front	Central	Back
High	/i:/ initial → /i/		
	/i/ „ → /e/		
Mid	/e/ { initial → /ə/	/ə/ initial → /æ/	/ou/ medial → /ɔ:/
	{ medial → /æ/		/ɔ:/ „ → /ou/
Low	/æ/ initial → /a/	/a/ initial → /ar/	
		/ar/ { initial	
		{ medial	
		{ final	
		→ /a:/	

Consonants

	Voiced	Voiceless
Stop		
	/b/ { initial	
	{ medial	
	{ final	
	→ /v/	
	/d/ final → /ð/	/t/ medial → /d/
Fricative		
	/v/ { medial	/f/ { initial → /θ/
	{ final	{ medial → /p/
	/ð/ { medial → /d/, /z/	/θ/ initial → /f/, /s/
	{ final → /z/	

/z/ { initial → /ð/
 final → /dz/

/s/ { initial → /θ/, /ʃ/
 medial } → /θ/
 final }

Affricate

/dʒ/ medial → /ʒ/

Nasal

/m/ { medial } → /n/
 final }

/n/ { initial → /m/
 final → /m/, /ŋ/

/ŋ/ { medial } → /n/
 final }

Fluid

/l/ initial → /r/

{ initial → /w/

/r/ { medial } → /l/
 final }

Semivowel

/w/ initial → /u/

/ji/ „ → /i:/

3.6. To sum up, the following are the findings concerning sound perception by the Japanese.

(1) Comparing consonants with vowels of English, consonants cause more trouble in hearing.

(2) All nasals, except the initial /m/ and the medial /n/, are very difficult to be differentiated from each other.

(3) Fricatives are the most difficult among consonants and the replacing sounds are both fricatives and stops.

(4) Among stops, voiced ones are more difficult than voiceless ones.

NOTES

1. There is a hopeful test like the JACET Test, though not for the entrance exams. The "JACET (Japan Association of College English Teachers) Listening Comprehension Test" consists of three sections. The first section contains 20 questions of the true-or-false type, the second section 20 questions of the same-or-different type, and the third section 10 questions of the multiple-choice type. Examples are shown below.

Type 1. (True or false)

There are seven days in a week. And there are twenty-four hours in a day.

Type 2. (Same or different)

- (a) Mary cooks better than any other member of her family.
- (b) Mary cooks best in her family.

Type 3. (Multiple-choice: Choose the correct answer)

Do barbers in Japan usually work on Sundays?

We don't go to school on Sundays. Most people don't work on Sundays. Those who work on Sundays usually have a day off on weekdays. Usually, barbers in Japan work on Sundays and they don't work on Mondays.

Do barbers in Japan work on Sundays?

- A. No, they don't.
- B. They work on Mondays.
- C. Yes, they do.

2. Other members of the research group were Ikuo Koike, Keio Univ. (Chief), Harumi Tanaka, Nanzan Univ., and Kiyoshi Tajima, Kyoto Univ. of Education. The details are explained in Section 3.

The whole list of items used in our hearing test is as follows:

1. look: Luke, look, lock, luck
2. dear: rear, we're, Lear, dear
3. thy: thy, die, sigh, thigh
4. are: ore, err, are, ah
5. lead: read, deed, lead, weed
6. zip: gyp, zip, dip, gyp

7. eat: it, eight, yet, eat
8. raging: raiding, raising, raiding, raging
9. miss: myth, miss, Ms., myth
10. bud: bed, bud, bad, bard
11. supping: subbing, sucking, supping, summing
12. red: lead, dead, wed, red
13. fawn: fawn, phone, fern, Farn
14. pick: pig, ping, pin, pick
15. name: maim, name, maim, dame
16. sack: sake, sock, sack, suck
17. bitter: bidder, bigger, bitter, bidder
18. gam: gam, gan, gang, gan
19. boat: bought, boat, boot, bought
20. chick: tick, chick, thick, tick
21. serve: surf, Serb, serve, surd
22. fool: foal, fool, full, foal
23. ship: sip, ship, zip, sip
24. robe: rove, roam, robe, rove
25. Ben: Ben, bin, ban, bane
26. thigh: tie, fie, sigh, thigh
27. dig: ding, Dick, dig, ding
28. on: Arne, earn, Anne, on
29. fin: thin, fin, sin, tin
30. banging: banning, banning, banging, bamming
31. bore: bar, burr, bore, Baugh
32. breathing: breathing, breezing, breeding, breezing
33. bin: bin, bing, Bim, bing
34. fail: feel, fell, fail, fill
35. phase: faith, face, faith, phase
36. belly: bury, belly, Betty, Betty
37. far: fur, fare, fa, far
38. sink: think, sink, zinc, think
39. breed: breed, breathe, breeze, breathe
40. owe: oh, awe, owe, ah
41. mare: mayor, mail, mare, mail
42. legion: lesion, lead in, legion, lesion
43. were: were, woe, wear, war

44. ether: either, easer, ether, eater
45. might: bite, might, night, night
46. heat: wheat, feet, wheat, heat
47. east: yeast, yessed, east, yeast
48. Zen: then, Zen, den, then
49. woos: ooze, whose, woos, ooze
50. saber: saver, safer, sapor, saber
51. bog: bag, bug, bog, berg
52. safer: safer, saver, saber, sapor
53. sun: sun, sung, sum, sung
54. deal: dale, dell, dill, deal
55. neath: niece, neath, knees, neat
56. madder: matter, matter, madder, manner
57. err: awe, ore, are, err
58. fours: Fords, forge, fours, forge
59. wage: ways, wage, wade, ways
60. bore: bar, bore, bow, burr
61. mucky: muggy, muggy, mucky, muddy
62. thee: thee, D, Z, tea
63. ill: eel, ail, ill, L
64. ding: din, ding, din, dim
65. masher: masser, masher, matcher, masser
66. barn: burn, born, Bon, barn
67. see: she, zee, she, see
68. rigging: ringing, ricking, rigging, ringing
69. add: add, odd, odd, Ed
70. curving: curbing, curving, curding, curbing
71. search: surge, cert, surge, search
72. eight: ate, eight, it, at
73. Jew: do, zoo, Jew, zoo
74. coring: coring, calling, cording, courting
75. ought: oat, art, ought, oat
76. year: ear, year, we're, ear
77. tome: dome, roam, loam, tome
78. N: an, in, N, an
79. bathe: bays, base, bayed, bathe
80. hammer: hanger, Hannah, hammer, hanger

81. owes: owes, awes, ooze, awes
82. unsought: unthought, unsought, untaught, unthought
83. lap: lab, lamb, lap, laugh
84. dare: there, dare, tear, there
85. us: us, os, ass, S
86. leaf: leave, leap, leaf, leave
87. bine: bine, vine, fine, wine
88. pash: pass, path, pash, pass
89. or: err, are, ah, or
90. tile: tide, tire, tile, tide
91. thistle: Dis'll, Sis'll, this'll, thistle
92. buzzing: budging, buzzing, budding, budging
93. bird: bird, bard, board, bud
94. sinner: singer, sinner, singer, simmer
95. veil: bail, veil, fail, wail
96. catching: catching, cadging, cashing, cadging
97. hid: hid, head, he'd, head
98. seether: seizer, cedar, seether, seizure
99. port: poured, pork, port, pause
100. mass: math, mash, math, mass

3. The STEP test has been enjoying popularity in Japan since 1963, and it was officially announced that the total number of those who took this test amounted to about 1 million during the year of 1979. There are four levels in the STEP tests, from the 1st grade to the 4th grade, in which the 1st grade is the most difficult. The format and the material of the 'Hearing Test Grade 2' which was presented in 1978 are shown below. Each test consists of three parts; written, hearing and interview tests.

The test is broadcast through the radio. An English passage and four questions about its content are read once. Then the passage is read again, and four questions are read with five to-be-selected answers, once each. The applicant picks out what he thinks right from those five sentences.

Example :

A salesman must be good at expressing himself; a carpenter must be capable of using his hands and tools; a journalist must be skilled at writing quickly and effectively. We all have abilities which we use to earn our living. Even the simplest job needs skill. Skills are so important in life that we must do

all we can to develop them from our younger days. Few of us are certain about our careers, but if we keep developing our skills, they are sure to help us get jobs. If we are good at figures, for example, naturally we will sooner or later become good accountants.

Questions

No. 1 What must a salesman be good at?

- a. He must be good at expressing himself.
- b. He must be good at speaking English well.
- c. He must be good at using his hands and tools.
- d. He must be good at writing quickly and effectively.
- e. He must be good at buying goods.

No. 2 In what way must a journalist be skilled at writing?

- a. He must be skilled at writing kindly.
- b. He must be skilled at writing slowly and well.
- c. He must be skilled at writing quickly and effectively.
- d. He must be skilled at writing correctly.
- e. He must be skilled at writing naturally.

No. 3 Who are certain about their careers?

- a. None of us are certain about them.
- b. Few of us are certain about them.
- c. A few of us are certain about them.
- d. Most of us are certain about them.
- e. All of us are certain about them.

No. 4 Will a man good at figures naturally become a good accountant sooner or later?

- a. No, he isn't.
- b. Yes, he will.
- c. No, he won't.
- d. Yes, he is.
- e. No, he didn't.

5. Thanks go to Mr. Ray Ormandy for his minute proof-reading of this paper.