

TEACHING ENGLISH PRONUNCIATION TO MANDARIN SPEAKERS:  
SOME PROBLEMS AND SUGGESTIONS

by

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## INTRODUCTION

In this paper I will contrast the sound systems of American English and Mandarin Chinese--the national language of China.<sup>1</sup> Teaching English as a second Language to the Mandarin speaker at the present stage.

It is important for the teacher to realize that there are some sounds in English which closely approximate Mandarin sounds. These sounds in Mandarin can be helpful for the students to find the right articulation of the sounds in English. But as language teachers, we also need to understand why the student cannot correctly pronounce other sounds in the second language.

Taking advantage of the Mandarin phonemic inventory can be very helpful in teaching English to the Mandarin speaker for at least two reasons: first, as I said, there are similarities between the sounds of English and Mandarin; second, by using linguistic knowledge and abilities the student already possesses, the teacher of English as a second language can facilitate the learning process.

1. The Mandarin dialect is used as the national standard language throughout China. It implies the use of the Chinese Phonetic Alphabet as a guide to pronunciation and it stands for national unity. Before 1923 (from the end of Ching Dynasty to the beginning years of the Republic of China) Peiping's was the official dialect and everybody spoke his own dialect according to the province he came from. Since 1923, the Chinese National Phonetic Alphabet has made a tremendous contribution to our country. It helps us to standardize our pronunciation, to advance the implementation of Mandarin. It is a very powerful tool for learning Mandarin. My charts for the consonants and vowels phonemes are all based on the Chinese National Phonetic Alphabet.



Teachers, aware of the mistakes students are liable to make because of interference from their native language, can clearly point out the differences between the two languages through practice drills. Some teachers may ignore the native sounds totally. I think teachers should note the differences, give some explanations about them, and provide practice drills on them for the student. It is foolish to ignore them since students may make particular mistakes through the natural influence of their native language.

John Amos Comenius said 350 years ago in The Great Didactic, "All languages are easier to learn by practice than from rules. But rules assist and strengthen the knowledge derived from practice." Therefore, I am going to emphasize some practice drills stressing the differences between English and Mandarin pronunciation. There are two major sections in my paper: Single sounds and phonetic patterns. Practices will be based on the contrasts between English and Mandarin in each section.

All of the difficulties and the practical solutions offered in this paper are the result of my experiences with Mandarin Chinese speakers. While I have not had an opportunity to use these techniques in a formal classroom setting, I have found them useful in working with individual Mandarin speakers who had already acquired some degree of proficiency in English. I have also worked with some English speakers who were learning Mandarin. I myself am a Mandarin speaker and English is my second language.

To give some suggestions toward building up an effective way of teaching English pronunciation to the Mandarin speaker is my hope for this paper.

## SECTION I

## SINGLE SOUNDS

Consonants

Many of the consonants in English have no equivalent in Mandarin (see Figure 1). Pupils, therefore, may have difficulty in reproducing these sounds because they do not know the correct placement of the tongue, the correct size opening of the mouth, or the correct pattern for aspirated and unaspirated sounds--all of which cannot necessarily be learned by repeated imitation only. The teacher will find it helpful to have on hand well drawn pictures of the articulation of each sound and to ask the students to bring a small mirror to the class.

Voiced & Voiceless sounds

There are two kinds of sounds in languages, voiced and voiceless. How does the teacher teach the students to distinguish the voiced and voiceless sounds and help them to pronounce the voiced consonants which Mandarin does not have?

1. Ask the students to place their hands over their ears and pronounce a sound. If they can hear the sound in their ears, this is voiced. If they cannot hear this sound, it is a voiceless sound.
2. Ask the students to place their fingers on their throats and pronounce a sound. If they can feel the vibration in their throats, it is a voiced sound. Otherwise, it is voiceless.

## English Consonant Phonemes<sup>2</sup>

	bilabial	labio-dental	dental	alveolar	palatal	velar	glottal
voiceless stop	p			t		k	
voiced stop	b			d		g	
voiceless fricative		f	θ	s	ʃ		h
voiced fricative		v	ð	z	ʒ		
voiceless affricate					tʃ		
voiced affricate					dʒ		
nasal	m			n		ŋ	
liquid				l	r		
glide	w				y		

## Mandarin Consonant Phonemes<sup>3</sup>

	bilabial	labio-dental	dental	retro-flex	palatal	velar	glottal
stops	p ph		t th			k kh	
fricative		f	s	ʂ	ɕ		x
affricate			ts tsh	tʂ tʂh	tɕ tɕh		
nasal	m		n			ŋ	
liquid			l	r			
glide	w				y		

2. Langacker, w. Ronald. 1973. Language And Its Structure Harcourt Brace Jovanovich, Inc.
3. Tung, Tung Ho. 1964. An Outline of Linguistics Hong Kong: Hui Tong Book Co.

All of the vowels and many of the consonants are voiced both in English and Mandarin. But there are no voiced stops, fricatives or affricates in Mandarin. So there are no voiced sounds in Mandarin for the following, where there are both voiced and voiceless in English.

voiceless	p	t	k	f	s	ʃ	ç
voiced	b	d	g	v	z	ʒ	j

Pronounce the above sounds in the following way and observe the difference that voiced and voiceless sounds manifest.

[sss zzz sss zzz]      [sz sz sz sz]  
 [fff vvv fff vvv]      [fv fv fv fv]  
 [p b p b]      [pb pb pb pb]

How clear the result is! The student can distinguish the voiced and voiceless sounds clearly by doing this.

The following drill is for the voiceless and voiced sounds. Take /p/ /b/, /t/ /d/ & /k/ /g/ as examples.

### Drill

/p/ & /b/

[p-p-p] [b-b-b] [pb-pb-pb]

pig      big      ape      Abe

pad      bad      rip      rib

pare      bare      sop      sob

plot      blot      cap      cab

/t/ & /d/

⟨t-t-t⟩ ⟨d-d-d⟩ ⟨td-td-td⟩

<u>t</u> ea	<u>D</u> ee	ei <u>gh</u> t	ai <u>d</u>
<u>t</u> ie	<u>d</u> ie	at <u>t</u>	ad <u>d</u>
<u>t</u> o	<u>d</u> o	nea <u>t</u>	nee <u>d</u>
<u>t</u> own	<u>d</u> own	ta <u>t</u>	ta <u>d</u>

/k/ & /g/

⟨k-k-k⟩ ⟨g-g-g⟩ ⟨kg-kg-kg⟩

<u>c</u> lass	<u>g</u> lass	lo <u>ck</u>	lo <u>g</u>
<u>c</u> oast	<u>g</u> host	ra <u>ck</u>	ra <u>g</u>
<u>k</u> ilt	<u>g</u> ilt	pi <u>ck</u>	pi <u>g</u>
<u>k</u> ale	<u>g</u> ale	tu <u>ck</u>	tu <u>g</u>

/f/ & /v/

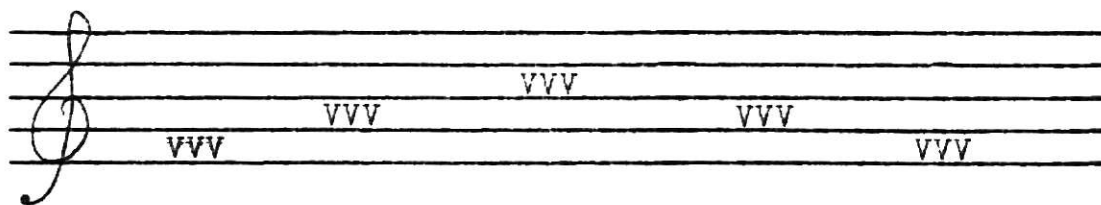
8



/f/ & /v/

There is no /v/ in Mandarin, but the /f/ in both English and Mandarin can be considered identical. We know that /f/ & /v/ have exactly the same point of articulation, differing only in voicing. So, the easy way to help the students to pronounce /v/ is to ask them to pronounce /f/ first, then add voicing to produce the voiced fricative /v/ without changing the other articulatory configuration. Putting our finger in front of the lips (as the above picture shows), we can feel no vibration with the voiceless /f/; but we feel strong, regular vibration when we pronounce the voiced /v/.

Practice as in singing is a useful technique to help the student feel the correct vocal tract position and voicing in this articulation.



### Drill

<u>f</u> ace	<u>v</u> ase	<u>f</u> an	<u>v</u> an
<u>f</u> ail	<u>v</u> eil	<u>f</u> ile	<u>v</u> ile
<u>f</u> erry	<u>v</u> ery	belie <u>f</u>	belie <u>v</u> e
<u>f</u> owl	<u>v</u> owel	proof	prove

/s/ & /z/

According to my experience, I know that the initial consonants in sight, so, saw, and say do not pose a problem for Mandarin speakers. But the /s/ in see is predictably hard for them to pronounce. Instead of saying [si], they will pronounce [çi]. They have difficulties with [s] + [i]. In Mandarin, [s] never combines with the high front vowels [i] and [y], whereas [ç] must precede [i] or [y] wherever it occurs. Thus, because of the influence of the native tongue, English /s/ will be pronounced as [ç] before the high front vowel [i].

$$s \longrightarrow \text{ç} / \text{---} \left( \begin{array}{c} \text{V} \\ \text{-back} \\ \text{+high} \end{array} \right)$$

A final /s/ should not be hard for them, so teachers might follow the exercise below and ask students to repeat:

Miss A, Miss F, Miss E

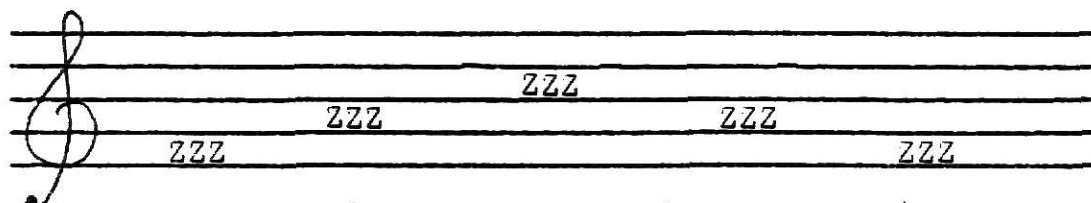
By repeating the above exercise and lengthening the vowel of Miss, gradually shifting the [s] to the following vowel, the students will get the pronunciation [si] instead of [çi].

The contexts in which [s] occurs may be broadened by introducing the students to seem, seat, seek, sit, sick, sip, and so forth, making sure that [ç] is not substituted.

The only difference between /s/ & /z/ is that the first is voiceless and the second voiced. After the earlier practice of [s], the teacher can help the student to pronounce [z] easily by practicing in the way below.



Instead of the voiceless [s], change the manner to voiced and practice:



(This can be good practice for other voiced sounds.)

To make sure students have [z], ask them to pronounce words such as:

### Drill

zoo	as
zone	eyes
zip	easy
zeal	maize

### /θ/ & /ð/

/θ/ & /ð/ are very difficult for Mandarin students, for Mandarin does not have these two sounds.



### /θ/ & /ð/

The Mandarin dental voiceless fricative /s/ differs from the English /θ/ in stridency. So, ask the student to put his tongue in the position for Mandarin /s/, then push it slightly forward and down along the edge of the upper front teeth, flattening the surface of the tongue (as the picture shows) and

thus reducing stridency. In this practice, the student should get [θ]. It will be easy to teach [ʒ] after the student can pronounce [θ], simply by adding voicing.

### Drill

#### /s/ & /z/

/s-/	/z-/	/-s/	/-z/
<u>s</u> ip	z <u>i</u> p	b <u>u</u> s	buz <u>z</u>
<u>s</u> own	z <u>o</u> ne	peac <u>e</u>	peas
<u>s</u> eal	z <u>e</u> al	ic <u>e</u>	eyes
<u>s</u> ink	z <u>i</u> nc	ric <u>e</u>	ris <u>e</u>

#### /s/ & /θ/

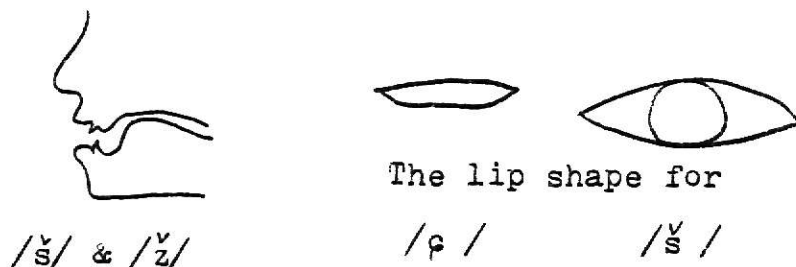
/s-/	/θ-/	/-s/	/-θ/
<u>s</u> ank	th <u>a</u> nk	miss	myth
<u>s</u> in	th <u>i</u> n	mouse	mouth
<u>s</u> ign	th <u>i</u> gh	gross	growth
<u>s</u> ick	th <u>i</u> ck	truce	truth

#### /z/ & /ʒ/

/z-/	/ʒ-/	/-z /	/-ʒ/
<u>z</u> en	th <u>e</u> n	breeze	breathe
<u>z</u> 's	th <u>e</u> se	bays	bathe
		laze	lathe
		tease	teethe
		close (v)	clothe

According to the consonant phoneme charts, /š/ & /ɕ/ have the same point of articulation. There is a slight difference between these two in that /š/ is strident and /ɕ/ nonstrident.

In Mandarin, the palatals are never rounded as English /š/, /ž/, /č/, /ǰ/ are. For English /š/ and /č/ the Mandarin speaker can substitute palatal /ɕ/ & /tɕ<sup>h</sup>/ pronounced with rounded lips.



Look at these pictures! The lip shape for /ɕ/ in Mandarin is the same as English same and sake, which is different from that of shame and shake. If the students pronounce the Mandarin /ɕ/ with rounded lips, spontaneously the English /š/ will be produced nearly perfectly. The affricate /č/ can be produced in an analogous way. /ž/ and /ǰ/ can be found by adding voicing to /š/ and /č/.

Drill

This drill is made expressly for learning lip-rounding in /s̥/ and /č̥/.

/s/ & /s̥/

same      shame

sake      shake

sigh      shy

so      show

sun      shun

sock      shock

suck      shuck

/ts/ & /č̥/

cats      catch

hunts      hunch

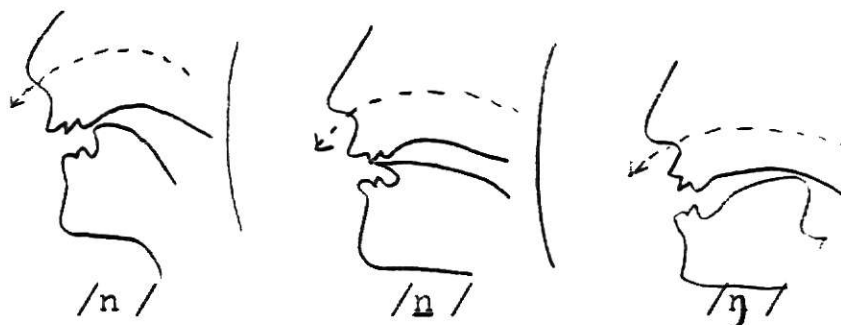
mats      match

pats      patch

its      itch

hats      hatch

coats      coatch

/n/ & /ŋ/

The English /n/ is alveolar whereas /n/ in Mandarin is dental. The difference will not be easily distinguished except through practice, and some books consider them identical for instruction purposes.

According to the charts for consonants, we know that there should not be a problem for Mandarin speakers in pronouncing /n/ and /ŋ/ in English since there are virtually the same /n/ and /ŋ/ in Mandarin. As a matter of fact, many Mandarin speakers can not pronounce /n/ and /ŋ/ correctly. It is probable that those who have difficulty in pronouncing /n/ and /ŋ/ in English must have the same problem in Mandarin. Though attempts have been made to devise and recommend standards for Mandarin, it can not yet be said that any standard exists. Our Mandarin has been influenced more or less by the dialects which our parents speak. Descendants of those from the north part of Mainland China may merge /n/ and /ŋ/ as /n/; and the people coming from the south may merge /n/ and /ŋ/ as /ŋ/.

For example, the former may pronounce king [kɪn]. The latter may pronounce lunch [lənʃ], and make such mistakes as

[tɛŋ] for ten, [mɛŋ] for mean, etc.

Since /n/ and /ŋ/ cause problems for Mandarin speakers and the reason has been found out, we now ask how we can help the students solve the problems.

We know /t / , /d/, /n/ have the same point of articulation, so it will be easier for /n/ to be pronounced correctly if it is before /t/ or /d/. For example:

meantime.....meannn....(time).....mean

ten times.....tennn....(times).....ten

downtown.....downnn....(town).....down

paint.....painnn....(t).....pain

Sunday.....Sunnn....(day).....sun

Similarly, since [ŋ] is a velar nasal, it will be easier to learn it if we use [k] to help the students find the correct tongue position for pronouncing [ŋ].

bank.....bannn(k).....bang

sunk.....sunnn(k).....sung

think.....thinnn(k).....thing

pink.....pinnn(k).....Ping

tank.....tannn(k).....tang

By using [k], students will be helped to find out the pronunciation of [ang], [eng], [ing], [ong], [ung].

Drill

/n / &amp; /ŋ /

gone      gong

kin      king

ban      bang

done      dung

ton      tongue

sun      sung

ran      rang

English Vowel Phonemes

		Front	Center	Back
HIGH	tense	i		u
	lax	ɪ		ʊ
MID	tense	e		o
	lax	ɛ	ə	ɔ
LOW	tense			ɑ
	lax	æ	ʌ	

Mandarin Vowel Phonemes

		Front Spread Round	Center	Back Spread Round
HIGH		i    y		u
MID		e		o
		ɛ	ə	ɔ
LOW			ɑ	

2. Langacker, W. Ronald. 1973. Language And Its Structure Harcourt Brace Jovanovich, Inc.
3. Tung, Tung Ho. 1964. An Outline of Linguistics Hong Kong: Hui Tong Book Co.
4. Chao, Yuen Ren. 1948. Mandarin Primer Harvard University Press.



Looking at the phonemic vowel charts, we can get a clear view of the differences between English and Chinese vowels. In both languages, many words are distinguished solely by a different vowel. There are no lax vowels in Mandarin Chinese, and most English teachers in Taiwan consider the English tense and lax vowels as long and short. This is a wrong concept and it must be changed.



The Mandarin speaker confuses English  $/i/$  and  $/I/$ . The way he pronounces  $/I/$  is to pronounce  $/i/$  shorter. He still pronounces them with the same tenseness no matter how long he makes the  $/i/$  and how short he makes the  $/I/$ . We know that the  $/i/$ s in both English and Mandarin are virtually identical. Each is produced with the tongue close to the palate. The mouth is open. The lips are unrounded and the throat muscles are tense. English  $/I/$  is also a high front open sound. But it is produced with the tongue not so close to the palate as the tongue position of  $/i/$ . The mouth is more open than for  $/i/$ . The lips are still unrounded but are more round than for  $/i/$ . The throat muscles are relaxed. It is easier to pronounce  $/I/$  if we ask the student to pronounce  $/i/$  first and then move the tongue farther from palate and relax the throat muscles (as the picture of the tongue position of  $/i/$  and  $/I/$  show).

Drill

/iiii(...relax...)III/

/iI iI iI/

deed	did
beat	bit
peak	pick
read	rid
eat	it
feel	fill
seen	sin

Hearing Practice

The teacher pronounces some of the words in the above drill. The students point at whatever sound they think they have heard by using one finger or two fingers to represent the /i/ or /I/ sound.

Speaking Practice

The teacher writes down some of the /i/ ~ /I/ words on the blackboard and points at a word. Student A pronounces it. The teacher points to whatever sound he has heard. The student may know immediately if his pronunciation is right or wrong. Repeat this practice until every student has taken part.

Practice

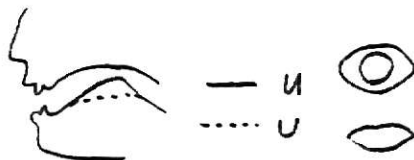
Pronounce the words in the Drill again.

Hearing Test

The teacher pronounces a number of the words in the Drill.

The students write them down. The teacher writes the words on the blackboard and pronounces them. The students correct their own mistakes. (Adapted from Charles C. Fries' Lessons in Pronunciation.)<sup>5</sup>

/u/ & /U/



The Chinese often confuses  $[u]$  with  $[U]$ . Both English and Mandarin Chinese have  $[u]$ , but there is no  $[U]$  in Mandarin. So, how can we teach the students  $[U]$  based on the  $[u]$  they already know?  $[u]$  is produced with the back of the tongue in a high position. The lips are rounded. The muscles are completely tense. And  $[U]$  is also a high back sound. The tongue position is not quite as high as that of  $[u]$  (see the above picture). The lips are less rounded than for  $[u]$ . The muscles are lax and the mouth is more open. According to the comparison, ask the students to pronounce  $[u]$  and then have them lower the tongue position, relax their muscles and make the mouth slightly open more.

### Drill

$[uuu (...relax...) UUU]$

$[uU uU uU uU uU]$

fool                  full

cooed                could

pool                  pull

5. Fries, C. Charles, Lessons in Pronunciation 1948.  
Ann Arbor: University of Michigan Press.

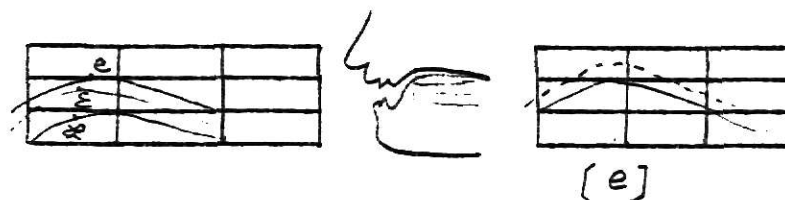
Following the hearing, speaking practices as I mentioned in the previous practice for [i] and [i̥].

After these practices, the students may more clearly produce the lax [i̥] and [u̥] which they do not have in Mandarin Chinese.

[e] [ɛ] & [æ]

Mandarin Chinese speakers often confuse the distinctions between [e], [ɛ] and [æ]. Since there is no [æ] in Mandarin, it is obvious that the students may substitute either their [e] or their [ɛ] for it. As the picture shows, the tongue position for [æ] is the lowest among these three sounds. As an English teacher, it is necessary to teach students the pronunciation of [æ].

Since there are the [e] and [ɛ] sounds in Mandarin Chinese, we could base [æ] on the two and learn it in a better way. [e] is a mid-front tense vowel and [ɛ] is a mid-front lax vowel.



The tongue for English [e] begins in a mid-front tense position but rises toward a high front position. This change in position causes the vowel to be slightly diphthongized (notice the change in the tongue position in [e] shown in the picture). Have the students begin with a Mandarin [e], (or [ɛ]) then lower their tongues as low as possible, keeping their lips unrounded and the muscles of their throat tense.

Drill

[e]	[æ]	/ɛ/	[æ]
sake	sack	beg	bag
rake	rack	fen	fan
cane	can	bed	bad
main	man	said	sad

## SECTION II

## PHONETIC PATTERNS

Phonemic Charts Alone are not Enough

As we have seen, a comparison of the phonemic charts of English and Mandarin can predict certain teaching problems involving phonemes in English which are not found in Mandarin and which require the establishing of new habits. But the problems involved in the production of a stream of sounds are more than just the mastery of individual phonemes. Sapir calls our attention to the importance of phonetic patterning, which helps to explain, he says, "why people find it difficult to pronounce certain foreign sounds which they possess in their own language."<sup>6</sup>

Fries also has pointed out that "each language has not only its own set of distinctive sound features, it also has a limited number of characteristic sequences of consonants and vowels which make up the structural pattern of syllables and words...Ease of pronunciation or difficulty of discrimination in hearing are matters primarily of the 'patterning' of the sounds in a new language rather than matters of the articulation of the sounds per se."<sup>7</sup>

Phonemic charts do not show submembers of the phonemes, variations of phonemes due to certain distributions, nor

6. Sapir, Edward. 1925. "Sound patterns in Language." Language 1.37-51.

7. Fries, C. Charles. 1945. Teaching and Learning English as a Foreign Language. Ann Arbor: The University of Michigan Press.

possible phoneme combinations or arrangements. In other words, phonemic charts often do not show the phonological structure of a language.<sup>8</sup> But it is essential for the English teacher to know all the significant sounds and all the sound-arrangements in English as well as those in Chinese. Language use involves sounds in the stream of speech--not sounds in isolation.

It is generally true that any difference found in the comparison of two phonemic charts is an important point that may need special attention. But the presence of an identical phoneme in both languages does not always mean no trouble exists. Often the problem involved is not because a particular sound is not found in the student's native language, but rather because the environment of that sound is different. The position where a given sound occurs may be different and the arrangement of the same sound may be different. A few examples will make this clear:

Both English and Mandarin Chinese have affricate [ts]. But the position where the sound occurs is different. In Mandarin [ts] occurs initially; in English it cannot. A comparison of the phonemic charts of Mandarin Chinese and English will show that the phoneme /a/ as in father and the phoneme /ŋ/ as in thing are found in both languages. Nevertheless, we often hear Miss [waŋ] addressed Miss [~~wa~~ŋ],

8. Sapir, Edward. 1925. "Sound Patterns in Language",  
Language 1. 37-51

Miss [yaŋ] addressed as Miss [yæŋ], and Miss [čaŋ] addressed as Miss [čæŋ]. Only a comparison of the phonological structure will indicate that while in Mandarin [ŋ] can be preceded by [a] to form [aŋ], in English [ŋ] is usually not preceded by [a]. Consequently, English-speaking students often produce [aŋ] as [æŋ].

A close examination of the phonemic charts will show that in both Mandarin and English there are /s/, /t/, and /r/. In Mandarin, there is initial /s-/ as in /san/ 'three', /t-/ as in /tan/ 'to talk', and /r-/ as in /ran/ 'to burn'. But there is no final /s/ or /t/ as in English miss, sit, or must. A study of the phonological structures of the languages will reveal something further. That is, in English one will find stew, true, and strew. Such combinations as /st/, /tr/, and /str/ are not found anywhere in Mandarin. Hence Mandarin speakers will find it difficult to produce such consonant clusters. In their pronunciation of stew, true, and strew (and other consonant clusters) Mandarin speakers often insert a vowel between every two consonants.<sup>9</sup> For it is within the established habit of Mandarin speakers that an initial consonant must be followed by a vowel (but see discussion of glides P.36 ). Such troubles as lack of consonant clusters, no final stops, and epenthetic vowels are certainly due to the difference in the arrangement of sounds in the two languages.

<sup>9</sup>. For example, 'They prayed down the street' and 'They parade down the street' are pronounced alike.



The above examples are given to illustrate the fact that a mere comparison of the phonemic charts of Mandarin Chinese and American English is not sufficient in teaching English pronunciation to Mandarin speakers. Teachers must be acquainted with the phonological structures as well.

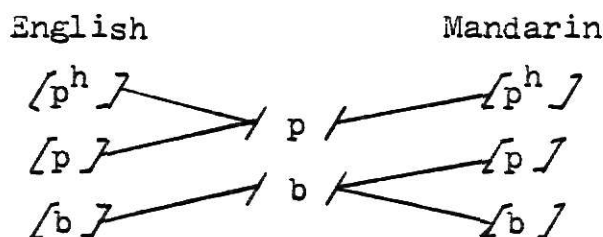
### Aspirated & Unaspirated

"Phonetic deals with 'overt speech-behavior'. Phonemics deals with 'catagories' of speech-behavior in language."<sup>10</sup> Not all forms of speech-behavior occur in all languages. Some occur in certain languages but not in others. "within each language some different speech acts are used contrastively to differentiate meaning; these differences are phonemic or distinctive. Some differences between speech acts do not differentiate meanings; these differences are phonetic or allophonic, that is, non-distinctive."<sup>11</sup>

In English bilabial stops, voicing is usually regarded as phonemic; aspiration is allophonic. There are two phonemic bilabial stops: one voiced, one voiceless. In Mandarin bilabial stops, aspiration is phonemic; voicing is allophonic. There are two phonemic voiceless bilabial stops: one aspirated, one unaspirated.

10. Joss, Martin. 1950. "Description of Language Design"  
The Journal of the Acoustical Society of America.  
XX. P.704

11. Yao Shen "Some Allophones can be Important" 1959. Language Learning. 9. P.7



Of interest is the relationship between the bilabial stop phonemes and their allophones in English and in Mandarin. In Mandarin, the phonetic  $[p]$  &  $[p^h]$  comprise phonemic  $/p/$  &  $/p^h/$ . In English, phonetic  $[p]$  and  $[p^h]$  comprise only one  $/p/$  phonemically. Therefore, Mandarin speakers cannot tell when they should pronounce  $[p]$  or  $[p^h]$  for the  $/p/$  in English. How can we help students know when they should pronounce with aspiration or without? The following drill may be helpful for them.

### Drill

<u>p</u> an	s <u>p</u> an
<u>p</u> ain	s <u>p</u> ain
<u>p</u> arse	s <u>p</u> arse
<u>p</u> ace	s <u>p</u> ace
<u>p</u> eak	s <u>p</u> eak

After the above drill, spontaneously, the students will get the idea that the stop consonants which follow "s" will be unaspirated. The rule is:

$$[+stop] \longrightarrow [-asp] / s \_\_\_$$

/j/ /ç/ /š/ in a phonetic pattern

When a phonetic pattern in the foreign language cannot be found in the students' native language, they very likely are going to make predictable errors. Because of the patterns in Mandarin Chinese, and unless a new habit is formed in pronouncing English, there will continue to be errors in pronouncing English correctly. Consider the following data from Mandarin Chinese.<sup>12</sup>

$\{t\varphi \quad t\varphi^h \quad \varphi\}$  always come before  $[i]$  or  $[y]$   
 $\{t\varsigma \quad t\varsigma^h \quad \varsigma\}$   
 $\{k \quad k^h \quad x\}$  } never come before  $[i]$  or  $[y]$   
 $\{ts \quad tsh \quad s\}$

$[t\varphi \quad t\varphi^h \quad \varphi]$  are palatalized, pronounced with the tongue in the position for  $[y]$ , when followed by  $[i]$  or  $[y]$ .

$[t\varsigma \quad t\varsigma^h \quad \varsigma]$  are retroflexed, pronounced with the tongue curled back to the position of  $[r]$ .

For Mandarin speakers,  $/j \quad \check{c} \quad \check{s} /$  in English will either be palatalized, as in sheep, cheap, jeep, or retroflexed, as in drop, chop, shop. Thus we have:

sheep	* $[ \varphi ip ]$	shop	* $[ \varsigma ap ]$
jeep	* $[ t\varphi ip ]$	drop	* $[ t\varsigma ap ]$
cheap	* $[ t\varphi^h ip ]$	chop	* $[ t\varsigma^h ap ]$

12. Chao, Yuen Ren 1957 "The non-uniqueness of phonemic solutions of phonetic systems" Linguistic Writing P.18 Berkeley, University of California

### The Confusion between /r-/ & /l-/

It has long been noted that Mandarin speakers tend to have problems with /r / in English, pronouncing for example lice for rice. During listening comprehension, students have trouble distinguishing /r / and /l / in certain words such as read / rɪd / and lead / lɪd /, led / lɛd / and red / rɛd /. Why should this be if both English and Mandarin have initial /r / and /l /? What is the cause of the Mandarin speakers' difficulties in pronouncing the initial /r/ in some of the words or distinguishing /r/ and /l/ in listening comprehension?

I have discovered that an /r/ in initial position in Mandarin is sometimes pronounced with rounded lips and sometimes not, depending upon the nature of the vowel that follows.<sup>13</sup> There is no lip rounding when /r/ is followed by an unrounded vowel, as in ren 'man' and ranq 'to let'. When /r/ is followed by a rounded vowel, it is rounded, as in rong 'wool' and ruenn 'to moisten'. But in English, /r/ is usually pronounced with rounding of the lips regardless of the nature of the vowel that follows, as in read, raid, rid, rook room and road.

13. Chao, Yuen Ren. 1948. Mandarin Primer, Harvard University Press. p.21

	English	Mandarin
	(rounded)	(unrounded)
/r/: followed by unrounded vowel	read	raan 'to dye'
	race	raang 'to shout'
	ran	rau 'to forgive'
	rug	ren 'man'
	red	reh 'hot'
/r <sup>w</sup> /: followed by rounded vowel	room	ruoh 'weak'
	rook	ruh 'to enter'
	road	row 'meat'

Thus when Mandarin-speaking students try to pronounce an /r/ before an unrounded vowel in English, they pronounce it without any rounding of the lips. This native habit results in an "accent", which native English speakers perceive to be a substitution of /l/ for /r/.

Having discovered the cause of the "accent", teachers now need to provide oral drills in order to remove it. There is a point at which the English /r/ and the Mandarin /r/ are similar. Exercises should begin with what is already within the students' experience (/r/ before rounded vowels), then proceed to the point where English is different.

### Practice 1

The teacher starts practicing words with initial /r/ followed by rounded vowels. Since this practice is based on

virtually identical phonetic features, the teacher does not need to spend much time on it.

Mandarin:	ruh	'to enter'
English:	room,	(rook, road, etc.)
Teacher:	ruh	room
All Students:	ruh	room
Student A:	ruh	room
Student B:	ruh	room

### Practice 2

Perhaps in this practice the teacher should start with an explanation of the difference between the English /r/ and the Mandarin /r/ when they are followed by unrounded vowels. I do not really know how much it is going to help students to explain the cause of an "accent" to them. I believe it is harmless to try (if this is kept within reasonable limits), though it may only be understood by about 25% of the students in the class. A language teacher must remember that a particular method or technique of teaching always has different results with different students. At any rate, the purpose of Practice 2 is primarily to have students recognize the difference. Students should not be asked to produce the difference before they can recognize it. The teacher pronounces the following words and asks the students to notice the difference in the shape of the lips: no lip rounding in the Mandarin words but lip rounding in the English words.

Mandarin:	ren	'man'	reh	'hot'
English:	read,	rid,	red,	rat, rug.

The next step is to bring the familiar act into the new environment.

### Practice 3

Teacher	ruenn ' to moisten' [r <sup>w</sup> r <sup>w</sup> r <sup>w</sup> wən]
	(with lip rounding) [r <sup>w</sup> r <sup>w</sup> r <sup>w</sup> wiyd ], [r <sup>w</sup> iyd]
All students:	(with lip rounding) " "
Student A:	(with lip rounding) " "
Student B:	(with lip rounding) " "

Following this practice, the teacher should find out whether the students can produce an English [r<sup>w</sup>] followed by an unrounded vowel.

### Practice 4

Teacher:	ring
All students:	ring (with lip rounding)
Student A:	ring (with lip rounding)
Student B:	ring (with lip rounding)

The last practice contains English words whose /r/ is followed by either a rounded or an unrounded vowel. By this time the lip rounding should be fairly automatic.

### Practice 5

Teacher:	room
Student A:	room (with lip rounding)
Teacher:	rag
Student B:	rag (with lip rounding)
Teacher:	rib
Student C:	rib (with lip rounding)

Omission of Final Stops

Mandarin allows no syllable-final consonant other than /n/ or /ŋ/. But English allows much richer possibilities.

Thus for single syllable-final stops, the situation is:

English:    /-p/, /-b/, /-t/, /-d/, /-k/, /-g/

Mandarin:   none

In order to learn the final stops of English, which they naturally may tend to omit, Mandarin speakers need to build new linguistic habits. We shall use three pairs of test words in English to see how Mandarin speakers produce the six final stops in English.

The practice below will allow students to feel the difference between a final vowel and that vowel followed by a stop consonant. Auditory and productive discrimination can be developed in this way.<sup>14</sup>

Drill

[ə...tə] [ət̚t̚t̚t̚t̚ə] [ət̚t̚t̚t̚t̚...ə] [ət̚t̚t̚t̚t̚... ] [ət̚ t̚ ]

[ə...d̚ə] [əd̚d̚d̚d̚d̚ə] [əd̚d̚d̚d̚d̚...ə] [əd̚d̚d̚d̚d̚... ] [əd̚ d̚ ]

[ə...p̚ə] [əp̚p̚p̚p̚ə] [əp̚p̚p̚p̚...ə] [əp̚p̚p̚p̚... ] [ə p̚ ]

pop            Bob

tat            Dad

kick           gig

Abe got a job for Bob.

The map was opened by the ape.

14. Fries, C. Charlres. and Yao Shen 1946. An Intensive Course in English for Chinese Students English Language Institute University of Michigan.



The actual words chosen for the early part of this drill are those in which the final stop consonants are the same as the beginning ones. These simple forms will be easiest for students to master, and then they can move on to those like got, job, map, opened, and so on.

### Epenthetic Final Vowels

Learning the final stops in English seems to be very difficult for Mandarin speakers. Besides their omission of these final consonants, they often form open syllables, through the addition of a final [ə]. Thus:

peep	[pip]	becomes	[pipə]
tube	[tub]	"	[tubə]
cheat	[čit]	"	[čitə]
code	[kod]	"	[kodə]
poke	[pok]	"	[pokə]
rogue	[rog]	"	[rogə]

This can not be accepted by the teacher since, as Yao points out,<sup>15</sup> with a stop and words with the same sound sequence followed by [ə]. Compare with the above:

cheetah	[čitə]
polka	[polkə]
tuba	[tubə]
coda	[kodə]
toga	[togə]

15. Yao Shen. 1962 "Linguistic Experience and Linguistic Habit" Language Learning Vol. 12, No. 2

Further examples from Yao show how the presence or absence of [ə] after a stop can make a grammatical difference also.

sip dinner ≠ skip [ə] dinner

at home ≠ at [ə] home

cook fish ≠ cook [ə] fish

attend school ≠ attend [ə] school

This epenthetic [ə] may sometimes even lead to what will be interpreted as syntactic errors rather than pronunciation difficulties:

make sense ≠ \*make [ə] sense

make sentences ≠ \*make [ə] sentences

My primary concern now is how to eliminate the uncalled-for vowel after the stop: how to establish the new linguistic habit. Applying the principal that we frequently hear others' mistakes as obvious but are completely oblivious to our own, the teacher can ask one student to listen to another's production, and vice versa. This is only a teaching device aimed at recognition.<sup>16</sup> Nevertheless, once each focuses on mistakes coming from the other, both students can aim to monitor their own production more carefully until they can at last produce the final stops without the epenthetic [ə].

16. Fries, C. Charles. and Yao Shen, 1950. Mandarin Chinese for English Speaker, an Oral Approach, Ann Arbor.

## Consonant Clusters

When phonemes are combined in syllables and words, there are limitations on the positions they may occupy and on the ways in which they may be arranged in sequences. Thus languages may not only differ in their stock of phonemes, but also in the ways they permit these phonemes to associate together.

The basic syllable structure of English and Mandarin is as follows:

English: (C)(C)(C) V (C)(C)(C)

Mandarin: (C)(C)V(G)(N)

where C = consonant (refer to P.5)

V = vowel (refer to P.17)

G = glide

N = nasal

( ) = optional

Of course, in each language there are many further restrictions. For example, in Mandarin we may have a syllable of the shape CCV. But of these two consonants, the second must be a glide. Similarly, we may have VN. But here N must be /n/ or /ŋ/, not /m/. In English we may have CCCVC, but the third C must be a liquid and the first must be /s/. Similarly, if in English we have CCV and the first C is /t/ or /d/, then the second C must be either a glide or /r/.

In English, then, there are many consonant clusters which occur in either the initial or final position of a syllable. These consonant clusters can be a real headache for Mandarin speakers. As Malick says, "We are emphasizing these consonant clusters because in learning a new language it is the unknown linguistic habits that constitute the problems, and it is only by discovering these difficulties that we can attempt to overcome them."<sup>17</sup>

Let us consider the phoneme /f/. Analysis will show that in English, /f/ can occur utterance initially and utterance-finally, as in fine and knife. In Mandarin /f/ occurs utterance-initially as in fan 'cooked rice' but not utterance-finally. In English, there are also the following initial consonant clusters with /f/:

/fr-/	<u>freedom</u>	/fl-/	<u>flee</u>
/fy-/	<u>fuel</u>	/sf-/	<u>sphere</u>

and the following final consonant clusters with /f/:

/-ft/	<u>soft</u>	/-lf/	<u>self</u>
/-fs/	<u>laughs</u>	/-mf/	<u>nymph</u>
/-fθ/	<u>fifth</u>	/-lfs/	<u>golfs</u>
/-fts/	<u>lifts</u>	/-mfs/	<u>nymphs</u>
/-fθs/	<u>fifths</u>	/-lft/	<u>engulfed</u>

None of the above consonant clusters, either initial or final, can be found in Mandarin Chinese.

17. Malick, Paul Alice. 1956-1957. "A comparative study of American English and Iraqi Arabic Consonant Clusters" Language Learning Vol. VII No. 3&4 P.65

Similarly, /s/, /p/, /t/, and /r/ occur in both English and Mandarin. But /sp-/, /tr-/, /pr/ occur only in English. As Yao points out, in such cases two kinds of substitutions that have been observed. There is substitution of a sequence that occurs in English, leading to possible confusion. For example, [səpɪr] heard as Sapir rather than spear. And there is substitution of a sequence that does not commonly occur in English, leading to possible unintelligibility. For example, [səri] for three.<sup>18</sup>

18. Yao Shen. 1961. "Sound-Arrangement and Sound-Sequences"  
Language Learning Vol.XI, No.1&2

## FINAL COMMENTS

Effective English teaching requires a knowledge of the significant sounds in English as well as those in the native language of the students. Such significant sounds ("phonemes") are determined according to rigorous linguistic procedure and can then be presented in tabular form according to the points of articulation and types of release. These sounds are often further classified into consonants and vowels, represented as "C" and "V". Both languages have their characteristic consonant and vowel arrangements: (C)V, (CCC)V(CCC). For the language teacher it is essential to know the significant sounds and the sound-system itself in English as well as in the student's native language.

A teacher of pronunciation must be able to predict what pronunciation problems his students will have and how to help them to recognize such problems that they can overcome the difficulties.

There are two questions the modern language teacher must without choice ask himself before he enters the classroom. The first is, "Have I done a comparative linguistic analysis between the students' native language and the foreign language they are going to learn?" There are some essential points that we must always keep in mind. The most important question is, "Who is learning to speak the language?" Here the answer had better be "the students." If so, the next question we should ask ourselves is, "Am I giving the students the maximum opportunity to practice?" This is important because no one

can learn to speak a language without production.

First, explanations should be short and clear and without waste of words. A constructive teaching technique is to decrease emphasis on exposition and discussion of the nature of the sounds and increase emphasis on exercises toward production. Many useful examples must be given so that the students can repeat with the teacher and by themselves. For example, repetition with students individually, hearing exercises in which students are to identify the sounds to be distinguished, and production exercises in which they are requested to produce such sounds are all helpful.

The class should spend more time on the production of sounds and less on their description of the sounds does not always result in a satisfactory production of the sounds. A modern language class is not primarily a class about the language but a place where the students have the opportunity to produce the language. I really feel that the classroom door can be a signal to remind the modern language teacher that his duties before and after he enters the room are different, and that the two aspects of his responsibilities must not be confused.

The Techniques of  
Linguistic Analysis

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Classroom  
Door

--

Language  
Teaching

Of course, to establish a new habit is often difficult. Continuous drill on what the students are trying very hard to master can be tiresome and discouraging if they keep slipping into their native habits. Therefore, the emphasis of this paper is primarily to give the learner an opportunity to realize the native habit he must avoid. It is advantageous and time saving to work from the known to the unknown. It is an efficient means to an essential end. This means can help to achieve the end effectively when the teacher is bilingual.

We are far from knowing everything about teaching English pronunciation to Mandarin speakers. There are still many questions that await further investigation. My analysis may be defective and incomplete; some problems outside my competence were left unsolved. It is hoped that future investigations will shed further light on these problems.



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TEACHING ENGLISH PRONUNCIATION TO MANDARIN SPEAKERS:  
SOME PROBLEMS AND SUGGESTIONS

by

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AN ABSTRACT OF A MASTER'S REPORT

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## ABSTRACT

In this paper I contrast parts of the sound systems of American English and Mandarin Chinese, my purpose being to give some suggestions toward building up an effective way of teaching English pronunciation to the Mandarin speaker.

It is important for the teacher to realize that there are some sounds in English which closely approximate Mandarin sounds, but we also need to understand why the student cannot correctly pronounce other sounds in the second language.

The paper has two major sections, one dealing with single consonant and vowel phonemes and one dealing with various phonetic patterns. Many drawings and practical suggestions to help the teacher are included.