

Sounds and symbols: An overview of pinyin

“The writer was required at school to read his lessons aloud sixty times; that was for reading books in his own language.”

Chao Yuen Ren, talking about himself, in Mandarin Primer, Harvard University Press, 1961, fn. 1, p. 118.

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To learn to converse in Chinese, it helps to develop two abilities: the ability to recognize and produce the sounds of the language adequately so you can hear and repeat Chinese material; and the ability to match the sounds of Chinese to phonetic notation so you can read, take notes or otherwise keep track of language material before you have internalized the formal character based writing system. However, it is monotonous – and probably inefficient – to try to learn the sounds and transcription before you learn how to say anything. So this introductory lesson serves a short-term and a long-term purpose. In the short-term, it provides the information you need to proceed to the first speech samples in Unit 1. And in the long-term, it provides detailed information about the sounds and their notation, which you will be able to refer to regularly as you progress through the book.



Station sign at a Beijing subway station, written in characters and pinyin

(the latter showing word divisions but not tones). [JKW 2005]

1 The syllable

As noted in the introduction, Hànyǔ Pīnyīn (literally ‘Chinese-language joined-sounds’), called ‘pinyin’ for short, is the a notation for representing standard Mandarin pronunciation. It has official status not only in China but also in the international community, and is now generally used throughout the Chinese speaking world. Though based on familiar Roman letters (only *v* is not utilized), both consonantal letters (*c*, *x*, and *q*, for example) and vocalic (such as *i*, *u* and *o*) are sometimes matched to sounds in ways unfamiliar, or even counterintuitive to speakers used to modern English spelling conventions.

1.1 Sound versus symbol (letter)

From the start, it is important to make a distinction between sound and the representation of sound. In pinyin, for example, *jī* is pronounced *jee* (with 'level tone'), *qī* is *chee*. Neither is hard (for English speakers) to pronounce, but the way the latter is represented – with a ‘*q*’ (and no following ‘*u*’) – is counterintuitive, and difficult to remember at first. On the other hand, pinyin *r* represents a sound that, for many speakers of standard Mandarin, is a blend of the *r* of *run* with the *s* of *pleasure* (or the *j* of French *je*) – in other words, an ‘*r*’ with friction. This sound may be difficult for a non-Mandarin speaker to produce well, but associating it with the symbol ‘*r*’ is less problematical. So, as you learn pinyin, you will encounter problems of pronunciation on the one hand, and problems of transcription, on the other. It is important to keep the distinction clear.

1.2 The syllable

When introducing the sounds of standard Chinese, it is useful to begin with the syllable, a unit whose prominence is underscored by the one-character-per-syllable writing system. The *spoken* syllable in Chinese is often analyzed in terms of an initial consonant sound and a rhyme, the latter being everything other than the initial. Chinese school children, when focusing on pronunciation, often read out pinyin syllables (which are usually also meaningful units associated with characters) in an exaggerated initial-rhyme division: *tuh--ù* > *tù* (‘hare’), *luh--óng* > *lóng* (‘dragon’), etc.

The pinyin *written* syllable can also be usefully analyzed in terms of an initial and a rhyme. The rhyme, in turn, contains vowels (V), a tones (T) written above the vowels, medials (M) and endings (E). Of these, only the vowel is always present (as, for example, in the sentence-final particle that is simply an untuned *a*). Thus, all possible pinyin syllables can be represented by the following formula:

<i>Initial</i>		<i>Rhyme</i>									
<i>C_i</i>		<table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 0 5px;"></td> <td style="text-align: center; padding: 0 5px;">T</td> <td style="padding: 0 5px;"></td> </tr> <tr> <td style="padding: 0 5px;">M</td> <td style="text-align: center; padding: 0 5px;"><u>V</u></td> <td style="padding: 0 5px;">E</td> </tr> <tr> <td style="padding: 0 5px;">i,u,ü</td> <td style="padding: 0 5px;"></td> <td style="padding: 0 5px;">i,o/u,n,ng</td> </tr> </table>		T		M	<u>V</u>	E	i,u,ü		i,o/u,n,ng
	T										
M	<u>V</u>	E									
i,u,ü		i,o/u,n,ng									

<i>Vowel:</i>	a
<i>Vowel\Tone:</i>	ā, è
<i>Initial + Vowel\Tone:</i>	tā, bǐ, kè, shū
<i>Initial + Medial + Vowel\Tone:</i>	xiè, zuò, duì, xué, jiù, nüé
<i>Initial + Vowel\Tone + Ending:</i>	hěn, máng, hǎo, lèi, dōu
<i>Initial + Medial + Vowel\Tone + Ending:</i>	jiàn, jiǎng, jiāo

Initials are 21 in number, and are usually presented in a chart of representative syllables, arranged in rows and columns (shown in §3.1 below). Whether the initials are written with a single consonant letter (l, m, z) or several (sh, zh), they all represent only one sound unit (or phoneme). Chinese has no initial ‘clusters’ of the sort represented by ‘cl’ or ‘sn’ in English.

There are six possible [written] **vowels**: a, e, i, o, u and ü (the last representing a ‘rounded high front’ vowel, as in German *über* or the last vowel of French *déjà vu*). Vowels can be preceded by **medials** (i, u and ü), and followed by **endings**, two of which are written with vowel symbols (i, o), and two with consonantal (n, ng). There is actually a third vowel ending that can occur after the main vowel (in addition to i and o), and that is u; for with the main vowel o, the ending o is written u to avoid the misleading combination ‘oo’. Thus, to cite words from Unit 1, one finds hǎo, lǎo (both with -o), but instead of ‘dǎo’, you get dǎo, and instead of ‘zhǎo’, you get zhǎo (both with -u).

Notice that the inventory of consonantal endings in Mandarin is small – only n and ng. Regional Chinese languages, such as Cantonese, have more (-p, -t, -m, etc.) The well known name of the Chinese frying pan, the ‘wok’, is derived from a Cantonese word, with a final ‘k’ sound; its Mandarin counterpart, guō, lacks the final consonant. In historical terms, Mandarin has replaced final consonants, Cantonese has preserved them. Surnames often show the same kind of distinction between the presence and absence of a final consonant in Mandarin and Cantonese: Lu and Luk, Yip and Ye, for example.

Tones are a particularly interesting feature of the Mandarin sound system and will be discussed in more detail in §2 in this unit. For now, we note that stressed syllables may have one of four possible tones, indicated by the use of diacritical marks written over the main vowel (V). Unstressed syllables, however, do not have tonal contrasts; their pitch is, for the most part, conditioned by that of surrounding syllables.

Because medials, vowels and some endings are all written with vowel letters, pinyin rhymes may have strings of two or three vowel letters, eg: -iu, -ui, -iao, -uai. By convention, the tone mark is placed on the vowel proper, not on the medial or on the ending: lèi, jiāo, zuò. As a rule of thumb, look to see if the first of two vowel letters is a possible medial; if it is, then the next vowel letter is the core vowel, and that gets the tone mark; if not, then the first gets it: iè, ǎo, ué, ōu, jào.

Exercise 1.

Without trying to pronounce the syllables, place the tone marks provided over the correct letter of the pinyin representations:

xie [˥] jiang [˨˨˩] dui [˥˩] hao [˥˩] lian [˥˩] gui [˥˩] zhou [˨˨˩] qiao [˥˩]

One sound that is not shown in the syllable formula given in §1.2 above is the final r-sound. It is represented, not surprisingly, by r in pinyin, and is obligatory in a few words with the e-vowel, such as èr ‘two’. However, in northern Mandarin, a common word-building suffix, appearing mostly in nouns, and favored by some speakers and some regions more than others, is also represented by a final ‘r’, eg diǎnr, huàr, bànr, huángr. The final r often blends with the rest of the syllable according to rather complicated rules that will be discussed in detail elsewhere.

2 Tones

Words in Mandarin are pronounced with a regular tonal contour, or pitch, much like the stress patterns that distinguish the English verb ‘reCORD’ from the noun ‘REcord’. In Mandarin, the word lǎoshī ‘teacher’, for example, is pronounced laoshi (‘low’ followed by ‘high’), which in English terms is like having to say teacher rather than teacher each time you say the word. The presence of tones in Chinese is often cited as another of those lurid features that makes the language unique and difficult to learn; but tones are, in fact, not unique to Chinese and probably no more difficult to learn than stress or intonation is for learners of English.

As noted earlier, there are four basic tones in Mandarin. Regional dialects of Mandarin, such as those spoken in the Tianjin area or in the far southwest (Kunming, for example) may realize the four tones with markedly different pitch contours from those found in standard Mandarin. Moreover, the regional languages have more than four tones. Cantonese, for example, is usually analyzed as having four tones on two levels, for a total of [at least] eight. Mandarin also differs from most of the regional languages in having a predilection for words with [non-initial] toneless syllables: shūshu ‘uncle’; xíngli ‘luggage. In some cases, toneless syllables are virtually swallowed up by the previous syllable; wǒmen ‘we’, for example, is often pronounced ‘wǒm’ in speech.

2.1 The 4 tones

It is difficult to learn to produce or even recognize tones from descriptions, though we will use the descriptive terms ‘high (and level), rising, low, falling’ as a way of referring to them. These terms are only suggestive of the actual shape of the tone, but they do underscore the symmetry of the system: a high and a low, a rising and a falling. In modern Mandarin, though the tones have formal names (that can only be rationalized by reference to earlier stages of the language), it is common practice to refer to them numerically by using the numbers 1-4 (yī, èr, sān, sì) and the word for sound, shēng [shuhng]: yīshēng, èrshēng, sānshēng, sìshēng. (Toneless syllables are called qīngshēng ‘light-toned’.) In English we can also refer to the tones as ‘first’, ‘second’, ‘third’ and

‘fourth’. As noted earlier, in pinyin, tones are indicated iconically by marks placed over the ‘main’ vowel letter.

TONES

ā	high	1st	yīshēng
á	rising	2nd	èrshēng
ǎ	low	3rd	sānshēng
à	falling	4th	sìshēng
a	context dependent		qīngshēng

2.2 Tone concepts

To learn to produce tones, it is useful to conceive of them in particular ways. The first tone, for example, which has a high and level contour, can be thought of as SUNG OUT, because singing a syllable in English usually results in sustained level pitch rather like the high tone. The second tone, which rises from mid-low to high, can be associated with DOUBT: “Did you say Wáng?” “Máo?” The third tone is the subject of the next paragraph, but the fourth tone, which falls from a very high pitch to a low, can usefully be associated with LIST FINAL intonation, or – for many people – CERTAINTY: ‘I said Wèi’ or ‘It’s *late!*’; or ‘1,2,3 (all rising) and 4!’

2.3 The low-tone

You will notice that the pinyin symbol for the low-tone is v-shaped, suggesting a contour that falls, then rises. In isolation, it does indeed fall and rise: hǎo ‘be good’; wǒ ‘I; me’; jiǎng ‘speak; explain’. But in close conjunction with a following syllable (other than one with the same low-tone – as shown below), it tends to have a low, non-rising pitch.

If you can find a Chinese speaker to model the following phrases (from Unit 1), you can try listening for relatively low pitch in the low-toned syllable, hěn [huhn] ‘very; quite’, that appear at the beginning of the following phrases:

hěn gāo	‘tall’
hěn máng	‘busy’
hěn lèi	‘tired’

For *most* speakers, a low-toned syllable in *second* position of a phrase will also stay low, without much of a rise. Again, if you can find a speaker to model the following phrases, see if you agree that the second syllable is primarily low:

shūfǎ	‘calligraphy’
tuántǐ	‘group’
kànfǎ	‘point of view’

For learners, regarding the third tone as ‘low’, then learning that it rises in certain contexts, seems to produce better results than thinking of it as falling-rising and canceling the final rise in certain contexts. *So the third tone, we will refer to as ‘low’, and to produce it, you aim low and add the final rise only when the syllable is isolated.*

2.4 The tone chart

The chart below takes 12 of the most common surnames to illustrate the four tones. (In Chinese, the surname is the first component of the full name, not the last: eg Lǐ in Lǐ Liánjié (Jet Li’s Chinese name). In the chart, the four tones are characterized in terms of their pitch contours (high and level, rising, etc.) as well as by the four heuristic concepts (sung out, doubt, etc.) that help us to produce them correctly.

<i>tone:</i>	1	2	3	4
<i>egs.</i>	Zhōu Zhāng Gāo	Wáng Máo Chén	Lǐ Kǒng Mǎ	Wèi Dù Zhào
<i>description:</i>	high, level	rising	low (with rise)	falling
<i>concept:</i>	sung out	doubt (?)	low	finality (!)

Exercise 2.

The following short sentences consist of a pronoun tā ‘he; she’, the verb xìng (think *syìng*), meaning ‘be surnamed’, and one of the 12 surnames presented above. Keeping your tone concepts in mind, and ideally, with feedback from a Chinese speaker, focus on the different tones of the surnames while pronouncing the sentences.

Tā xìng Zhāng.	His/her surname’s Zhang.
Tā xìng Máo.	
Tā xìng Wèi.	
Tā xìng Wáng.	
Tā xìng Kǒng.	
Tā xìng Zhōu.	
Tā xìng Dù.	
Tā xìng Gāo.	
Tā xìng Mǎ.	
Tā xìng Chén.	
Tā xìng Zhào.	
Tā xìng Lǐ	

2.5 On the history of Mandarin tones

Tone systems as complex, or more complex than that of Mandarin are a feature of dozens of languages spoken in southwest China and adjoining regions of mainland Southeast Asia, including the national languages of Burma, Thailand and Vietnam. While tone may

be a more or less permanent feature of the region, within particular languages, tone systems may appear, evolve, or disappear.

The tonal system of Chinese is also known to have evolved over the centuries. Evidence from ancient rhyme tables and other sources indicates that at an earlier stage, prior to the 7th century, the ancestor of modern Mandarin also had four tones. They were named píng ‘level’, shǎng ‘rising’, qù ‘going’ and rù ‘entering’ (which are the modern pronunciations of the names given to them then). The last was found only on checked syllables, those ending with stopped consonants such as -k, -t and -p, which as noted earlier, are no longer found in Mandarin.

The earlier names of the tones are suggestive, but we cannot know precisely what the four sounded like. We do know, however, that they were distributed differently from those of modern Mandarin. In fact, the modern names for the four tones of Mandarin reflect their evolution. The modern tones are called, formally, yīnpíng, yángpíng, shǎng and qù (tones 1 through 4, respectively). The rù-tone has disappeared (along with the consonantal endings), and the words that once had that tone now appear with other tones. As the names suggest, old píng toned words are now divided between yīnpíng (the level) and yángpíng (the rising). It is known that the tonal distinction between level and rising, seen on words such as tīng ‘listen’ versus tíng ‘stop’, emerged from a contrast that was formerly found in the initial consonants. Similar splits in all the original four tones are at the basis of the eight tone systems of regional languages such as Cantonese.

Some linguists have adduced evidence for pre-tonal stages of Chinese, or at least stages when pitch differences were not so prominent. A more detailed discussion of tone in Chinese can be found in books listed at the end of introduction.

3 Initial consonants

Many pinyin letters are pronounced ‘like English’: the ‘el’ of lǎo, for example, is very like English ‘l’, and pinyin f, s, n and m all have more or less the same values in Chinese and English scripts. Unfortunately, such cases are liable to make you think of English even where the pinyin letters have rather *different* values from those of English. Below is a table of symbols that represent all the possible initial consonants of Mandarin. Following Chinese custom, they are presented with a particular set of vowels, and ordered from front of the mouth (labials) to back (velars, and glottals).

3.1 The consonant chart

Two notes: First of all, letters w and y, which do appear initially in pinyin (eg in the numbers wǔ ‘five’ and yī ‘one’), are treated as special cases of ‘u’ and ‘i’, respectively, in initial position; thus, instead of ‘ī’, one finds yī, instead of ‘ǔ’, wǔ, instead of ‘iě’, yě, instead of ‘uǒ’, wǒ, etc. Second, the vowels conventionally placed with the different classes of initials to make them pronounceable turn out to be some of those that have quite idiosyncratic values for speakers of English. Thus ‘o’ in the first line of the table below is not pronounced ‘oh’, but ‘waw’; ‘e’ in the second line is ‘uh’; ‘i’ in the third and fourth lines is swallowed up by the initial, but in the fifth line, it represents the more expected ‘ee’. The vowel sounds will be discussed in §4 below, but for now, you can use

the hints provided on the right hand side of the chart, and imitate your teacher or some other speaker of Chinese:

<i>like</i>			I	II	III	IV	<i>V-sound</i>
	1	lips	bo	po	mo	fo	(‘waw’)
	2	tongue tip at teeth ^	de	te	ne	le	(‘uh’)
dzz/tsz/sz	3	flat tongue at teeth $\bar{\quad}$	zi	ci	si		(not ‘ee’)
jr/chr/shr	4	tongue tip raised $\bar{\quad}$!	zhi	chi	shi	ri	(not ‘ee’)
‘yie[ld]’	5	spread lips \triangleleft	ji	qi	xi		(‘ee’)
	6	back of tongue high \sim	ge	ke	he		(‘uh’)

3.2 Notes

Columns I and II

In English, the distinction between sounds such as ‘b’ and ‘p’ or ‘d’ and ‘t’ is usually said to be one of voicing (vocal chord vibration): with ‘b’ and ‘d’, voicing begins relatively earlier than with ‘p’ and ‘t’. However, in Chinese, the onset of voicing of the row I consonants is different from that of English. The that the sound of pinyin ‘b’ is actually between English ‘b’ and ‘p’, that of pinyin ‘d’, between English ‘d’ and ‘t’, etc. That is why the Wade-Giles system of Romanization (mentioned in the introduction) writes ‘p/p’ rather than ‘b’ and ‘p’ (T’aipei rather than Taibei); in phonetic terms, both are voiceless, but the first is unaspirated, the second aspirated. Being aware of this will help you to adjust to what you hear; and remembering to articulate the column I initials ‘lightly’ should keep you from sounding too foreign.

Row 1

These consonants are ‘labials’ – all involve the lips. Pinyin writes the sound ‘waw’ (cf. English ‘paw’) with just an o only after the labials; otherwise it writes it uo. Thus bo, po, mo, fo rhyme with duo, tuu, nuu, luu (the latter set not shown in the table above). In other words, o by itself always equals uo (and never ou). Apparently, the creators of pinyin felt that after the labial initials it was unnecessary to indicate the labial onset with ‘u’. It will be important to keep the sound of o / uo separate from that of ou, which rhymes with both syllables of English ‘oh no’.

Rows 3, 4 and 5 – the crucial rows!

With z, c, and s in row 3, the tongue is flat and touching the back of the teeth at the gum line. The letter i following row 3 initials is *not* pronounced ‘ee’; it simply represents a continuation of the voicing of the consonantal sound. So for zi, ci, si, think ‘dzz’, ‘tsz’, ‘ssz’ (as indicated on the left of the chart). English does not have consonants comparable to the first two row-3 initials, z and c, except at the end of words and across root boundaries: *pads*; *cats*. In German and Russian, though, similar sounds do occur at the beginning of words, eg German *zehn* [dz-] ‘ten’, or Russian *cená* [ts-] ‘price’. [The last, also written with a c, suggests the source of the pinyin convention.]

With zh, ch, sh and r in row-4, the tip of the tongue is raised towards the roof of the mouth (on or near the rough area behind the teeth known as the alveolar ridge) in what is called a retroflex position. As with the row-3 initials, the letter i in this position

represents only a persistence of the consonantal sound. So for zhi, chi, shi and ri, think ‘zhr’, ‘chr’, ‘shr’, and ‘rr’. In English, an ‘r’ following a consonant will often produce the retroflex articulation of the tongue that is characteristic of the row-4 consonants; so another way to get your tongue in the correct position for those initials is to make reference to English, and match zh to the ‘dr’ of ‘drill’, ch to the ‘tr’ of ‘trill’, sh to the ‘shr’ of ‘shrill’ and r to the ‘r’ of ‘rill’.

Finally, with i, q, and x of row-5, the tongue is positioned like the ‘yie’ in English ‘yield’; and this time, the letter i is pronounced ee, so for ji, qi, xi think ‘jyee’, ‘chyee’, ‘syee’. Later, you will see that row-5 initials are only followed by the written vowels i and ü. The first will always be pronounced ‘ee’ in this context, the second, always ‘ü’.

The initial-r of row-4

R-sounds vary considerably among languages: the Scots trill their tongue tips; the Parisians flutter their uvulas; Spanish flap their tongues; and Barbara Walters (a TV news broadcaster and interviewer) has an r that sounds like a cross between ‘r’ and ‘w’. The Chinese r is different again; it has a little bit of a buzz to it. Like zh, ch, and sh, it is retroflex (with tongue tip up) so it resembles the initial sound of English ‘rill’ or ‘ridge’; but it also has friction like the ‘s’ in ‘pleasure’ (or French *je* ‘I’). You will observe considerable variation in the quality of Chinese r, depending on the following vowel and on the particular speaker. Examples: rén, rè, rù, ràng, ruò, ròu, rì.

Exercise 3.

a) Try pronouncing the following syllables, randomly selected from rows 3, 4 and 5 initials, on level (ie 1st) tone:

qi	si	zhi	zi	ji	qi	si	ri	chi
xi	shi	ci	zhi	qi	si	chi	ji	xi

b) Now try pronouncing these Chinese names:

Cí Xì	Qí Báishí	Lǐ Shízhēn	Qízhōu
(last empress)	(famous calligrapher)	(16 th C herbalist, from <i>Qizhou</i>)	

3.3 An expanded chart of initials

The conventional chart of initial consonants exhibits a rather restricted and idiosyncratic set of rhymes. We can make the initial consonant chart a little more comprehensive by adding one or two lines to each row, as follows:

	(i)	(ii)	(iii)	(iv)
(1)	bo	po	mo	fo
	ban	pan	man	fan

(2)	de	te	ne	le
	duo	tuo	nuo	luo
	dai	tai	nai	lai
(3)	zi	ci	si	
	zao	cao	sao	
(4)	zhi	chi	shi	ri
	zhuo	chuo	shuo	ruo
	zhou	chou	shou	rou
(5)	ji	qi	xi	
	ju	qu	xu	
	jian	qian	xian	
(6)	ge	ke	he	
	gan	kan	han	

4 Rhymes

A table showing all possible rhymes follows below. It is too long and complicated to be quickly internalized like the chart of initials, but you can practice reading the rows aloud with the help of a teacher or native speaker. You can also map your progress through the rhymes by circling syllables, or adding meaningful examples, as you learn new vocabulary. The table is organized by main vowel (a, e, i, o, u, ü), and then within each vowel, by medial (i, u and ü) and final (i, o/u, n, ng). The penultimate column, marked ‘w/o C_i’ (ie ‘without initial consonant’), lists syllables that lack an initial consonant (with the rarer ones placed in parentheses) and so begin with a (written) vowel or medial (the latter always represented with an initial y or w). The final column gives pronunciation hints. Asterisks (*), following certain numbered rows, mark sets that need special attention. Final-ɿ, whose special properties were mentioned above, is treated separately.

<i>Rhymes with (a):</i>	<i>egs</i>						<i>w/o C_i</i>	
1	a	ta	cha	da	ma	ba	la	a
2	a-i	tai	chai	dai	mai	chai	zai	ai
3	a-o	tao	chao	dao	pao	zao	rao	ao
4	a-n	tan	ran	zhan	can	lan	pan	an
5	a-ng	dang	sang	zhang	mang	lang	zang	ang
6	i-a	jia	qia	xia				ya
7	i-a-o	jiao	qiao	xiao				yao
8*	i-a-n	jian	qian	xian				yan [yen]
9	i-a-ng	jiang	qiang	xiang				yang
10	u-a	hua	gua	zhua	shua			wa
11	u-a-i	chuai						(wai)
12	u-a-n	huan	guan	zhuan	shuan	cuan		wan
13	u-a-ng	huang	guang	zhuang	shuang			wang [wahng]

Rhymes with (e)

14	e	zhe	che	she	re	le		e	[uh]
15	e-i	zhei	shei	lei	fei	bei		(ei)	[ay]
16	e-n	zhen	shen	fen	cen	men		en	[uhn]
17	e-ng	leng	sheng	ceng	deng	zheng		(eng)	[uhng]
19	i-e	jie	xie	lie	mie			ye	[yeh]
20*	u-e	jue	que	xue	nüe	lue		yue	[yüeh]

Rhymes with (i)**the ‘ee’ rhymes**

21a	i	li	bi	ti				yi	[yee]
21b		ji	qi	xi				yi	[yee]
22	i-n	jin	qin	xin	lin	bin		yin	[yeen]
23	i-ng	jing	qing	xing	ling	bing		ying	[yeeng]
24*	u-i	dui	gui	shui	rui	chui	[-way]	wei	[way]

the ‘buzzing’ i-rhymes

25*	i	zi	ci	si					[dzz, tsz...]
26	i	zhi	chi	shi	ri				[jr, chr...]

Rhymes with (o)

27*	o	bo	po	mo	fo				[-waw]
28	u-o	duo	tuo	guo	shuo	zuo		wo	[waw]
29*	o-u	zhou	zou	dou	hou	chou	[-oh]	ou	[oh]
30	o-ng	zhong	dong	long	zong				
31	i-o-ng	jiong	qiong	xiong				yong	

Rhymes with (u)**the ‘oo’ rhymes**

32	u	shu	lu	zhu	zu	cu	[-oo]	wu	[woo]
33*	u-n	shun	lun	zhun	kun	cun	[-wuhn]	wen	[wuhn]
34*	i-u	jiu	qiu	xiu	liu	diu	[-yoo ~ -yeo]	you	[yeo]

Rhymes with (ü)**the ‘ü’ rhymes**

35*	u	ju	qu	xu	lǜ	nǜ	[-yü]	yu	[yü]
36	u-n	jun	qun	xun			[-yün]	yun	[yün]

4.1 Notes on the rhymes

The relationship between the i- and u-rhymes and C_i

Recall that in the C_i chart presented earlier, the row-4 C_i (zh, ch, sh, r) are distinguished from the row-5 (j, q, x) by position of the tongue. In English terms, the distinction is a ‘j’, ‘ch’ or ‘sh’ with the tongue in the position of ‘dr’, ‘tr’ or ‘shr’ (respectively), versus a ‘j’, ‘ch’ or ‘sh’ with the tongue in the position of the ‘y’ of ‘yield’ (ji, qi, xi). But this difference, even if it is appreciated, seems, nonetheless, very slight. And, indeed, it would be much more difficult to perceive it if the vowels that followed were identically pronounced. But they never are!

Note that row-5 C_i initials (j, q, x) are ONLY followed by the sounds (not the written letters, the sounds!) ‘ee’ and ‘ü’, written i and u, respectively. Here are some examples:

ji, jie, jian, qi, qie, qian, xi, xie, xian; ju, jue, jun, qu, que, qun, xu, xue, xun.

Row-4 C_i, on the other hand (and the same goes for row-3) are NEVER followed by the sounds ‘ee’ and ‘ü’:

zhi, zi, zhu, zu, zhan, zan, chi, ci, chu, cu, chan, chen etc.

Because the creators of pinyin let i and u each represent two different sounds, this complementary distribution is obscured: the vowels of ji and zhi look alike, but they do not sound alike; the same for ju and zhu. So if you hear ‘chee’ it must be written qi, for ‘ee’ never follows ch; if you hear ‘chang’, it must be written chang, for q can only be followed by the sound ‘ee’. And so on.

Exercise 4.

The following syllables all contain the written vowels i and u. Practice reading them clearly, on a single tone. As with all the exercises in this lesson, repeat daily until confident.

chi qi xie qu chu chun jia qin cu qu shun
qun shu ju ci xu zi zhu shi xi xia qu

4.2 The value of the letter ‘e’

The value of e also violates the expectations of English speakers. It is ‘uh’ in all contexts (ze, deng, chen) except where it follows written i or u, when it is pronounced ‘eh’ (xie, nie, xue), or when it precedes a written i, where it is pronounced ‘ey’ (lei, bei, zei).

Exercise 5.

a) Practice reading the following syllables containing e:

chen wei zhen xie ben ren lei re bei jie e leng zeì che bie

b) Now try pronouncing the following proper names:

[uh] Zhōu Ēnlái (premier)	[uh] Máo Zédōng (chairman)	[eh] Jiǎng Jièshí (Chiang Kai-shek)	[ey] Běijīng
Lǐ Dēnghuī (former Tw pres.)	Éméi shān (Omei Mtn.)	Lièníng (Lenin)	Sòng Měilíng (wife of Chiang)

4.3 The ‘o’ rhymes: ou versus uo / o

On early encounters, it is easy to confuse pinyin rhymes that are spelled similarly, such as -ou and -uo. This can lead to some pronunciation problems that are very difficult to correct later, so you need to make sure you master them early. The rhyme ou, with the ‘O’ leading, is pronounced like the name of the letter ‘O’ (in English) – rhyming with ‘know’. The rhyme, uo, on the other hand, with the ‘O’ trailing, is pronounced like ‘war’ without the final ‘r’. However, as you now know, after the row-1 C_i, uo is spelled o: bo, po, mo, fo rhyme with duo, tuu, nuo and luo.

Exercise 6.

a) Here are some more names (mostly), all containing ‘o’:

Bōlán (Poland)	Sūzhōu (city near Shanghai)	Mòxīgē (Mexico)
luòtuo (camel)	Zhāng Yímóu (film director)	Zhōu Ēnlái (premier)
luóbo (radish)	Guō Mòruò (20 th C writer)	Lǐ Bó (aka Lǐ Bái) (Tang poet)

b) And more single syllables, which you can read on a tone of your choosing:

mou tuo bo fo zhou duo po dou zuo fou luo rou

4.4 The ü-rhymes

The first note in §4.1 (under the list of rhymes) makes the point that many of the ü-rhymes are revealed by the class of consonantal initial. Written ü after row-5 initials (j, q, x) is always pronounced ü; after any other initial, it is ‘oo’; thus (with any particular tone): zhu - ju, chu - qu, shu - xu, but pu, fu, du, ku, hu, etc. However, the sound ‘ü’ does occur after two initials other than the j, q and x of row-5. It occurs after n and l, as well. In these cases, ü may contrast with u, and the difference has to be shown on the vowel, not on the initial: lù ‘road’ versus lǜ ‘green’; nǚ ‘a crossbow’ versus nǚ ‘female’. In addition to being a core vowel, the sound ‘ü’ also occurs as a medial. Again, when it follows row-5 initials, it is written as ü: jue, que, xue; but following l or n it is written with ü: lüèzì ‘abbreviation’; nüèjì ‘malaria’. In the latter cases, it is redundant, since there is no contrast üe versus ue.

5 Miscellany

5.1 Tonal shifts

Before leaving the survey of sounds and notation, we need to return to the subject of tone, and take note of the phenomenon of tonal shifts (called ‘tone sandhi’ by linguists). It turns out that in certain contexts, tones undergo shifts from one to the other. (In Mandarin, the contexts where this occurs are very limited; in regional languages such as

Hokkien, such shifts are much more pervasive.) We will mention these shifts here, and then practice producing them more systematically over the course of later units.

5.2 Low-tone shift

If two low tones (tone-3s) appear consecutively *in the same phrase*, the first shifts to a rising tone:

3 + 3	>	2 + 3	
low + low	>	rising + low	
hěn + hǎo	>	hén hǎo	‘good’
hěn + lěng	>	hén lěng	‘cold’
Lǐ + lǎoshī	>	Lí lǎoshī	‘Professor Lee’

It is, of course, possible to have three or more low tones in a row, but such cases will be considered later.

5.3 Two single-word shifts

There are also a few more idiosyncratic shifts that involve only single words. The negative, bu, is falling tone except when followed by another falling tone, in which case it shifts to a rising tone: bù hǎo ‘not well’, but bú lèi ‘not tired’. In the latter case, the result is a trajectory like the sides of a mountain, up, then down, and students in the past have kept track of this shift by calling it the ‘Fuji shift’, after Mount Fuji (which is, of course, in Japan, not China). Below, bu is shown in combination with some adjectival verbs (called Stative Verbs in Chinese grammatical tradition); these sets (involving stative verbs from the conversational material in Unit 1) should be repeated regularly until fully internalized.

	bù gāo	‘not tall’	
	bù máng	‘not busy’	
	bù hǎo	‘not well’	
<i>And exaggerated ></i>	bú lèi	‘not tired’	bú è ‘not hungry’
	bú rè	‘not hot’	bú cuò ‘not bad’

Another single-word shift involves the numeral yī ‘one’. In counting, and in many compounds, it is level toned: yī, èr, sān, sì ‘1, 2, 3, 4’; yīshēng. But where yī is grammatically linked to a following ‘measure word’, it shows the same tonal shift as bu, rising before a falling tone (yí fēn ‘a copy’), but falling before any other (yì bāo ‘a pack’).

	yì zhāng	‘a [table]’
	yì tiáo	‘a [fish]’
	yì běn	‘a [book]’
<i>but</i>	yí fēn	‘a copy [of a newspaper]’

Note that the low tone shift (hěn + hǎo > hén hǎo) applies to any word (or syllable) that fits the grammatical condition (of being within a phrase); but the shift from falling to rising affects only a few words, including bù and yì.

5.4 The apostrophe

In certain contexts, an apostrophe appears between the syllables of a compound written in pinyin: Xī'ān [the name of a city in China]; hǎi'ōu 'seagull'; chǒng'ài 'dote on'. The apostrophe is used when a syllable beginning with a vowel letter (a, e, o) is preceded (without space) by another syllable; in other words, where the syllable boundary is ambiguous. By convention, the apostrophe is only used when the trailing syllable begins with a vowel; a word like yīngān, with two potential syllable divisions, is always to be interpreted as yīn + gān, never yīng + ān (which would be yīng'ān).

6 Writing connected text in pinyin

Unlike earlier systems of Chinese phonetic notation, some of which were intended as fully fledged auxiliary writing systems that could co-exist with (or even replace) characters, pinyin was intended as an adjunct to characters, used to indicate pronunciation and to provide a means for alphabetical ordering. For this reason, the rules and conventions for writing connected text in pinyin were not well defined at first. However increasing use of computers for the production of text and in everyday communication, as well as the proliferation of contact between China and the rest of the world has put a premium on the use of pinyin. Nowadays, in addition to its use in pedagogical materials such as this book, pinyin is used for emailing, for input in word processing, for url or email addresses, and to complement characters on advertisements, announcements, and menus, particularly those intended for an international audience in Chinese cities and abroad.

In 1988, the State Language Commission issued a document with the translated title of “The Basic Rules for Hanyu Pinyin Orthography,” and with a few minor exceptions, this textbook conforms to those proposed rules. [The ABC Chinese-English Dictionary, cited at the end of the Background chapter, contains a translation of this document as an appendix.] Only two general points will be mentioned here. First, normal punctuation practices hold. Sentences begin with capital letters, as do proper names; they end with periods, and other punctuation marks are used more or less as in English. Second, words, not syllables, are enclosed by spaces. Thus ‘teacher’ is written lǎoshī, not lǎo shī. Characters, by contrast, which always represent syllable-length units, are separated by a space regardless of word boundaries. Of course, defining what a word is can be problematical, but pinyin dictionaries or glossaries can be relied upon to make those decisions for us. Other conventions, such as the use of the hyphen, will be noted when needed. So when you write pinyin, it should look like this:

Gémìng bú shì qǐngkè chīfàn....

revolution not be invite-guests eat-meal

Revolution isn't [like] inviting guests over for a meal....

Mao Zedong

Writing pinyin in this way makes it readable. And in fact, where emailing in characters is restricted by technical problems, pinyin can serve even without tone marks so long as the above orthographical conventions are observed: Geming bu shi qingke chifan....

7 Recapitulation

That completes our survey of the sounds and transcription of Mandarin Chinese. Already you will be able to pronounce the names of Chinese people and places considerably better than television and radio newscasters and announcers generally do. Exercise 7 reviews what you have covered in this lesson.

Exercise 7

a) Write out the formula for all possible pinyin syllables; list the medials; list the finals.

b) Place the tone marks given in the parentheses in the correct position in the syllables:

xue (/) bei (–) sou (v) jie (\) bie (/) suo (v)

c) List (or recite) 12 surnames, grouped by tone.

d) Write out the table of initial consonants. How many rows are there? Which rows are particularly problematical? What sounds (and vowel symbols) can follow the row-5 initials?

e) Pronounce the pairs on the tone indicated. Note: in this exercise, as well as in (h) below, not all syllables are actual Chinese words on the tone cited; cf. English 'brink' and 'blink', 'bring' and 'bling', but only 'brick' – no 'blick' (yet).

i. (tone 1) qi – ci, xi – si, ji – zi, qu – cu, xu – su, ju – zu

ii. (tone 2) zi – zhi, ci – chi, ji – zhi, xi – shi, si – shi, qi – chi

iii. (tone 3) de – dei, ge – gei, le – lei, zhe – zhei

iv. (tone 3) bie – bei, lie – lei, pie – pei, die – dei.

v. (tone 1) po–pou, bo–duo, luo–lou, tuo–po, ruo–rou, mo–luo, tuo–tou

f) Pronounce the following personal and place names:

Zhōu Ēnlái (premier)	Máo Zédōng (chairman)	Jiǎng Jièshí (Chiang Kai-shek)	Cáo Yǔ (20 th C playwright)
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Lǐ Dēnghuī (former Tw pres.)	Lǐ Xiāngjūn (a patriotic courtesan)	Sòng Měilíng (wife of Chiang)	Wáng Zhìzhì (b-ball player)
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Dèng Xiǎopíng (post Mao leader)	Zhū Róngjī (recent premier)	Lǐ Xiǎolóng (Bruce Lee)	Cáo Cāo (historical figure)
Běijīng (capital)	Xī'ān (in Shaanxi)	Guǎngzhōu (Canton city)	Zhèngzhōu (city in Henan)
Sìchuān (province)	Jiāngxī (province)	Chóngqìng (city in W. China)	Chǔxióng (city in Yunnan)

g) Apply the tone-change rules to the following phrases:

hěn lěng cold	bu gāo not tall	lǎobǎn 'boss'	bu guì cheap	lǎo Lǐ old Lee	yì běn one book
bu hǎo not good	yǔsǎn umbrella	bu duì wrong	nǐ hǎo hello	bu cuò not bad	yì fēn one copy

h) Read the sets listed below aloud. Each set of three syllables follows the pattern 'rising, rising, falling', like the usual list intonation of English '1, 2, 3', or 'boats, trains, planes'; lá, wéi, jìn!

lá	wéi	jìn!
láo	tái	dù!
sóu	sí	mìng!
zí	xiá	qìng!
ní	zhí	hòu!
lái	duó	zhèn!
fó	qí	cì!
xíng	cuó	shì!
móu	guó	shòu!
rén	béi	zhà!

Coda

Chinese who studied English in China in the sloganeering days prior to the 80s can often remember their first English sentence, because in those days textbook material was polemical and didactic and lesson content was carefully chosen for content and gravity. So let your first sentence also carry some weight, and be appropriate for the endeavors you are about to begin. Here it is, then:

種瓜得瓜，種豆得豆。
Zhòng guā dé guā, zhòng dòu dé dòu.
plant melon get melon, plant bean get bean
'[You] reap what you sow.'

(Cf. xīguā 'water melon'; dòuzi 'beans; peas'.)

Zàijiàn. 'Goodbye. (again-see)'
Míngtiān jiàn. 'See you tomorrow! (tomorrow see)'



Shrine in a Kūnmíng restaurant to Guāndì, a guardian spirit revered by owners of small businesses, soldiers, secret societies and others. [JKW 1997]