

The Phonology of Yánchéng

鹽城話的語音系統

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1 Introduction

Yánchéng is a city in Jiāngsū 江蘇 province in China. The dialect described here is that of Yánchéng City. This is a form of eastern Mandarin, also referred to as the Jiānghuái 江淮 dialects (Norman 1984:191). Yánchéng is similar to other eastern Mandarin dialects in that there is no distinction found between retroflex and coronal sibilants, and Middle Chinese obstruent finals have merged to glottal stop. According to my consultant, this dialect is a type of Sūběi-huà 蘇北話 (dialects spoken north of Sūzhōu), which is also spoken in parts of Ānhuī 安徽 and Shāndōng 山東; neighboring dialects are similar and differ mainly in their tones.

The population of Yánchéng County is about 8 million; the population of Yánchéng City is 630,000 (PRC Districts 2005). Most younger speakers are bilingual, speaking both the local dialect and the national standard spoken language (Putonghua), which is taught in schools.

My consultant is a thirty-seven year old female who lived in Yánchéng until she was 18, then spent four years in Nánjīng, eleven in Shanghai, two in Shēnzhèn, and two in Hong Kong. In addition to Yánchéng dialect and Standard Mandarin, she also speaks English, which she began learning in the third grade in school and now uses in her career in international trade, and understands Shanghainese. She communicates regularly with her family in Yánchéng City.

Relatively little work has been done on this dialect. One description is found in a 1960 survey of Jiāngsū and Shanghai dialects (JSSHFY 1960). Another was published in *Fāngyán* (Sū 1993). These two sources are quite consistent with each other, but differ somewhat from the dialect described in this paper. The descriptions are also quite basic and do not discuss tone sandhi. I will point out the differences between the published descriptions and my own transcriptions as appropriate.

This paper will describe the consonants, vowels, syllable structure, and tonal system of Yánchéng.

2 Consonants

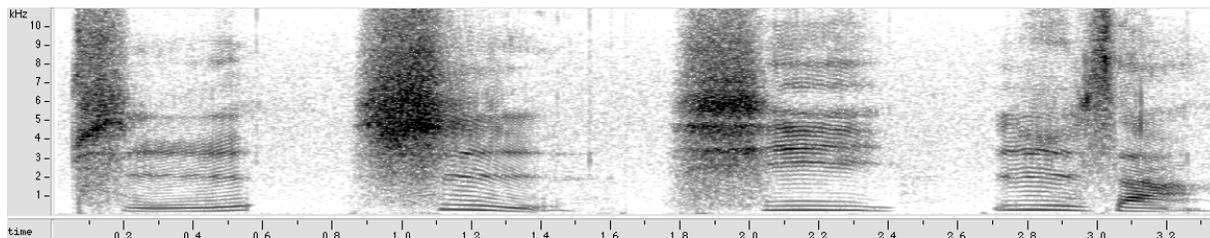
	labial	dental	alveolo-palatal	velar	glottal
plosive	p p ^h	t t ^h		k k ^h	-ʔ
affricate	(p ^f)	ts ts ^h	tɕ tɕ ^h		
nasal	m	n		-ŋ	
fricative	f	s	ɕ	x	
approximant	(w)	l	(j) (ɥ)		

The consonant inventory of Yánchéng is shown in the table above. Glottal stop and velar nasal occur only in coda position. Approximants in parentheses in the last row can occur in syllable-initial position, but these can also be analyzed as zero-initial followed by a glide.

p	paɿ	爸	‘father’	k	kaɿ	家	‘home’
p ^h	p ^h aɿ	怕	‘afraid’	k ^h	k ^h aɿ	卡	‘card’
p ^f	p ^f ɿ	皮	‘skin’	x	xaɿ yɿ	下雨	‘to rain’
ma	maɿ	媽	‘mother’	ts	tseɿ	在	‘at’
f	faŋɿ	房	‘house’	ts ^h	ts ^h eɿ	菜	‘vegetables’
t	taɿ	大	‘big’	s	saɿ	沙	‘sand’
t ^h	t ^h aɿ	他	3sg	tɕ	tɕiɿ	箭	‘arrow’
n	niɿ	你	2sg	tɕ ^h	tɕ ^h iɿ	千	‘thousand’
l	laɿ	拿	‘to take’	ɕ	ɕiɿ	寫	‘write’
ŋ	saŋɿ	上	‘up’	ʔ	səʔɿ	十	‘ten’

The alveolo-palatal series only occurs before the high vowels /i, ɿ, y/, medial glide /j/, and the vowel /ə/. Before /ə/, there is only very slight palatalization, so that /tɕəʔ/ sounds very similar to [tʃəʔ].

The sequence [p^f] occurs as an allophone of /p^h/ before the central high unrounded vowel /i/.



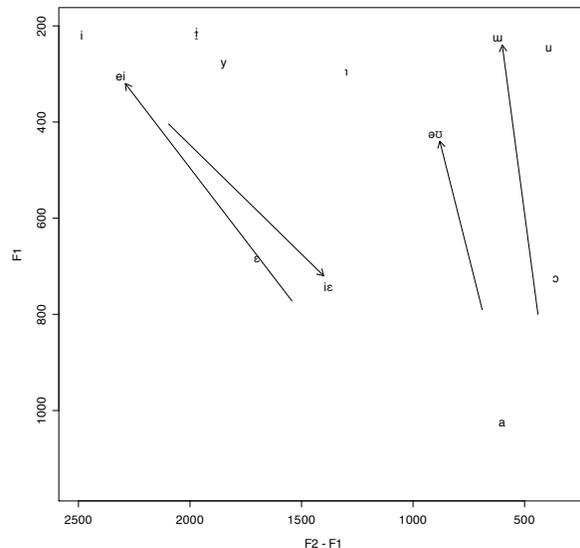
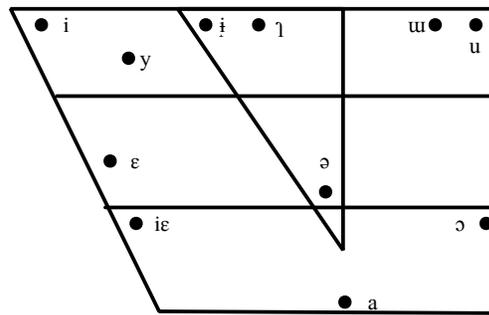
This spectrogram shows /p^fɿ, ɕiɿ, ɕiɿ, ɿ\saŋ/ (皮, 西, 寫, 衣裳/‘skin, west, write, clothes’). For the first two tokens, there is energy around 4700 Hz during the fricative portion (LPC analyses

were performed but are not reproduced here for space reasons); these two sounds, which I have transcribed with different symbols, are actually quite similar (apart from the [p] burst for the first token.) In the third token, the fricative appears to be influenced by the following vowel, carrying traces of the fourth, third, and even second formant, in addition to fricative-specific energy at around 5700 Hz. This implies that the fricatives in tokens 2 and 3 have slightly different places of articulation. We can calculate the length of the front resonant cavity using the formula for a tube open at one end: $F_n = (2n - 1)c/4L$. For token 2, $L \approx 1.9\text{cm}$; for token 3, $L \approx 1.5\text{cm}$. In the fourth token, we see that the energy for [s] is at much higher frequencies, around 8000 Hz. I had also hoped to see evidence for frication in the first syllable, but it is not clear from the spectrogram.

3 Vowels and Rimes

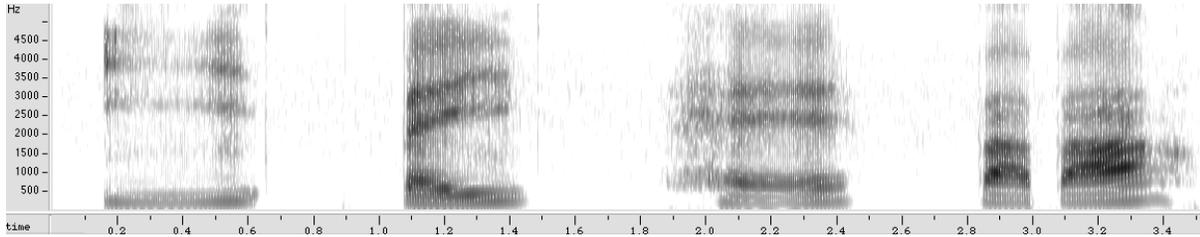
3.1 Open Syllables

	F1	F2	F3
i	215	2700	3850
ei	772	2315	3200
	300	2610	3390
ε	680	2380	3225
a	1020	1620	2860
ɨ	210	2180	3300
ɿ	290	1590	3080
y	272	2120	2600
ie	404	2500	3380
	740	2120	3000
u	240	630	?
ʊ	800	1240	3110
	220	840	?
əu	790	1480	3110
	420	1320	3060
ɔ	720	1080	3190

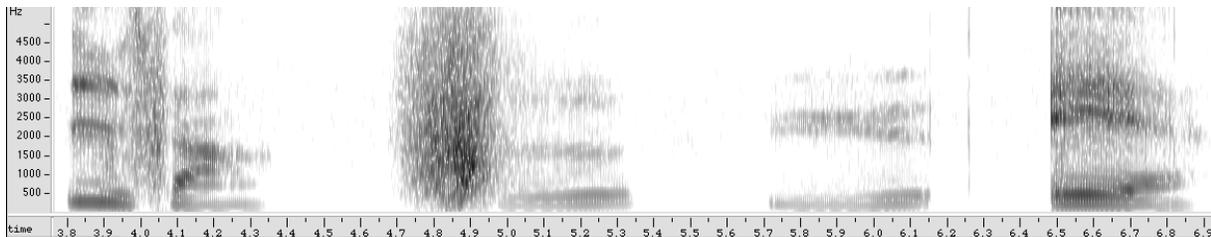


N.B.: Formant measurements for diphthongs were made both near the beginning and near the end of the vowel. F3 was not visible in the spectrum for the high back vowels; I have put ‘?’ as a placeholder in the table above.

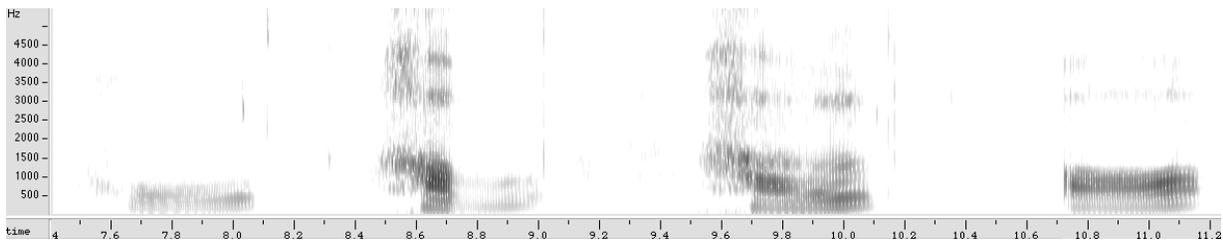
i	iɿ	鹽	'salt'	ɿ	ɿŋ saŋ.l	衣裳	'clothing'	u	xuɿ	河	'river'
ei	peiɿ	被	'quilt'	ɿ	sɿɿ	四	'four'	u	xuɿ	湖	'lake'
ɛ	xɛɿ	孩	'child'	y	yɿ	魚	'fish'	əu	xəuɿ	喉	'throat'
a	paɿ paɿ	爸爸	'father'	iɛ	iɛŋ	安	'peace'	ɔ	ɔɿ	兒	'son'



1. iɿ, peiɿ, xɛɿ, paɿ paɿ



2. ɿŋ saŋ.l, sɿɿ, yɿ, iɛŋ



3. xuɿ, xəuɿ, xəuɿ, ɔɿ

The high vowels /ɿ,ɿ,y,u/ can be very fricated.

/ɿ/ is like a syllabic apical alveolar fricative, not unlike English /ʒ/ (although English /ʒ/ is laminal, not apical); there appears to be a slight degree of lip rounding as well. This vowel, which is derived from historical [i], appears in a surprising number of contexts:

閉	pɿɿ	'to shut'	裡頭	liɿ tʰəu.l	'inside'
皮	pʰɿɿ	'skin'	繫	tɕɿɿ	'to tie'
米	mɿɿ	'uncooked rice'	妻	tɕʰɿɿ	'wife'
地	tɿɿ	'ground'	西	ɕɿɿ	'west'
提	tʰɿɿ	'bring up'	衣裳	ɿŋ saŋ.l	'clothes'
膩	nɿɿ	'greasy'			

/ɿ/ is like syllabic /z/.

/y/ is not as front as cardinal /y/.

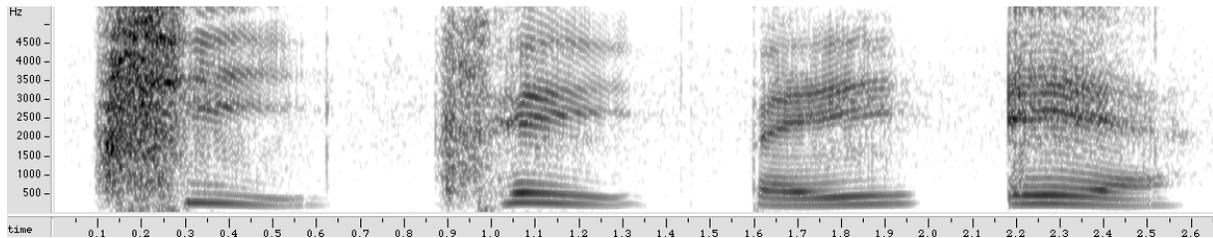
/u/ is like syllabic /β/; the lips are close together and unrounded. After non-labial consonants, /u/ is pronounced more like a diphthong, with an onglide vowel that can be quite low, e.g., [xʌβɿ] ‘lake’ vs. [pʰiʌ fβɿ] ‘skin’.

/ei/ after coronals has a very short onglide, e.g., [tsʰɛiʌ tsɿ.l].

/ɛ/ is higher than cardinal.

The diphthong /iɛ/ starts around [e] and goes a bit lower than /ɛ/, i.e. [ɛɛ]; with a glottal coda it can even approach [ɛæʔ] (see section 3.3 below). I have transcribed it as /iɛ/ for orthographic convenience. Note that this vowel contrasts with /ɛ/ after the labiovelar glide as well: /kwieʌ/ 乖 ‘obedient’ vs. /kwieʌ/ 關 ‘to close’.

/a/ is a low central vowel. /ɔ/ and /u/ are close to cardinal. The diphthong /əu/ is actually unrounded all the way through, i.e., [əɯ].



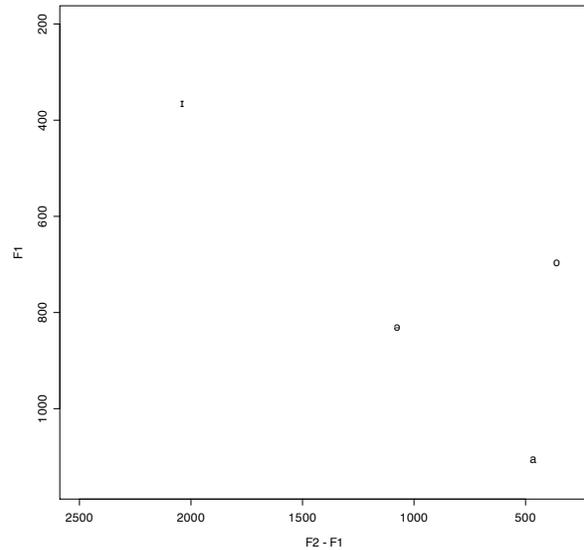
This spectrogram has /tɕʰiʌ, tsʰeiʌ, peiʌ, iɛʌ/ (千, 車, 被, 安/‘thousand, car, quilt, peace’). Notice how high F2 is for /tsʰeiʌ/, compared to /peiʌ/, making it sound almost like [tsʰiʌ]. Also notice that the first part of the diphthong in /iɛʌ/ is comparatively long—almost half the syllable. This is why I have transcribed it as [iɛ] instead of [jɛ].

Sū (1993) has /i, u, ɿ, ʌ, ɛ, ɛ̃, ɔ̃/ where I have /i, u, əu, ei, i, iɛ, u/. Sū does note that the high vowels /i, u, y/ have salient frication, and that /u, y/ are slightly unrounded, but says nothing further about the vowel qualities. The dialect that I have described so far is different from that described in previous literature (for one thing, the vowels are not nasalized), but it is interesting to note that the differences are all plausible sound changes. First, the frication of the high vowels /i, u/ may have influenced their quality so that they became more central and unrounded, respectively. This led to a kind of chain shift where /ĩ, ɔ̃/ underwent raising to /i, u/. Finally, /ɛ̃/ also underwent raising to /iɛ/, in a process similar to that found in Midwest American English.

3.2 Nasal Coda

	F1	F2	F3
ɪ	360	2400	3275
ə	825	1900	3030
a	1100	1565	2840
o	690	1050	3130

m	pɪn˧	病	‘sick’
ən	pən˧	笨	‘stupid’
aŋ	paŋ˧	磅	‘scales’
oŋ	poŋ˧ tsʰwei˧	□脆	‘very crispy’



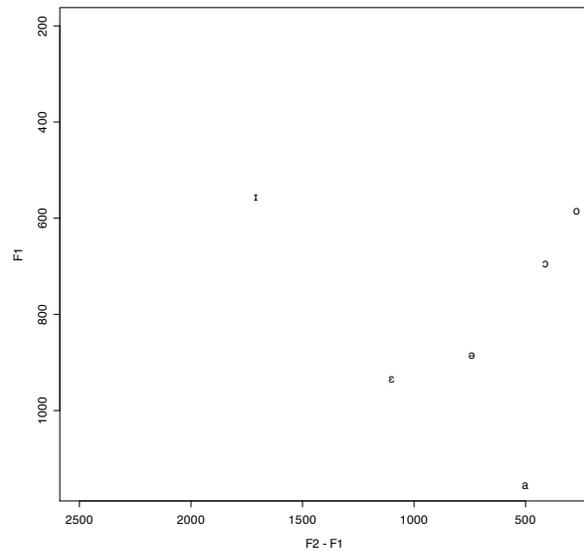
Only four vowels occur before a nasal coda. The place of articulation of the nasal is determined by the vowel. If we consider /a/ to be phonologically a back vowel, we could say that the velar nasal appears after back vowels, and the dental nasal appears after nonback vowels.

Sū (1993) has [ã] where I have [aŋ].

3.3 Glottal Coda

	F1	F2	F3
ɪ	550	2260	3140
ɛ	930	2030	3110
ə	880	1620	3110
a	1130	1650	3150
ɔ	690	1100	3360
o	580	850	2450

jɪʔ˧	pjɪʔ˧	筆	‘pen’
iɛʔ˧	piɛʔ˧	八	‘eight’
əʔ˧	pəʔ˧	不	‘not’
aʔ˧	paʔ˧	薄	‘thin’
ɔʔ˧	pɔʔ˧	白	‘white’
woʔ˧	pwoʔ˧	脖	‘neck’



Vowels in glottal coda syllables tend to be lower than those in open syllables, e.g., /jɪʔl/ sounds like [jeʔl], /iɛʔl/ sounds like [eæʔl], etc.

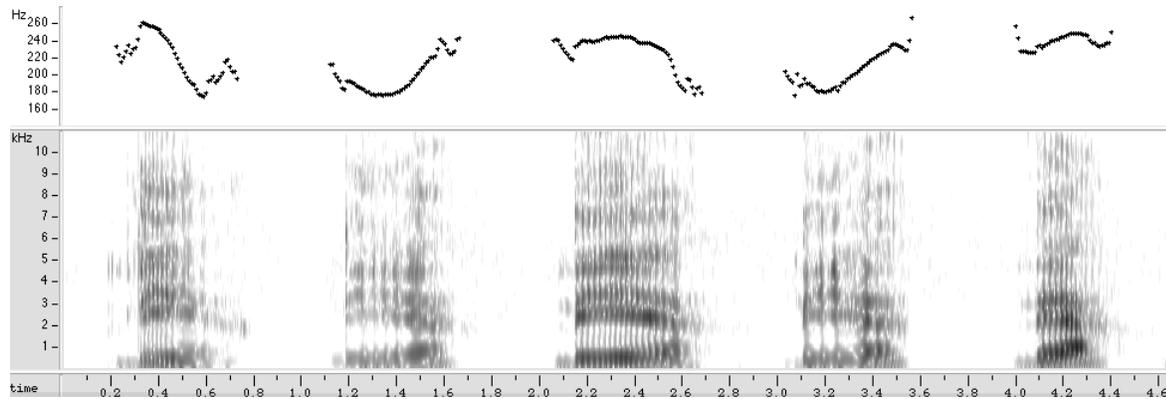
3.4 Syllabic nasals

In the lexical items that I elicited, there was one syllabic nasal [m̩], for the first person singular (note also [m̩ mən.l] ‘1pl’). Sū (1993:123) records this form as a velar nasal [ŋ], along with [m̩ ma\] ‘mother (form of address)’ and [ŋ̩ na\] ‘OK (responding to someone)’. These forms appear to be frequently used lexical items; there do not appear to be a series of syllabic nasals derived from a process of regular sound change.

4 Tones

4.1 Tonal Contrasts

1. 51 \ liɛ\ 爛 ‘rotten’
2. 213 √ liɛ√ 藍 ‘blue’
3. 554 ˘ liɛ˘ 懶 ‘lazy’
4. 24 ˨ liɛ˨ (燦)爛 ‘radiant’
5. 5 ˩ liɛ˩ 辣 ‘hot (spicy)’



There are five tones, as listed above. Tones 1-4 regularly correspond to Standard Mandarin tones 1-4; the fifth tone is the entering tone, which has merged with the other tones in Standard Mandarin.

Tone 3 starts out high level, and drops slightly at the end. This might sound like phrase-final pitch drop to English ears, but there is a clear tonal distinction between tone 3 and tone 5, which has no

final drop in pitch. Sū (1993) notes this as a phonetic fact of tone 3, but transcribes it as 53. Sū also lists tone 1 as 31, and tone 4 as 35. In my recording, tone 1 is clearly falling from the top of the speaker’s pitch range.

Tone 2 and tone 4 can be quite difficult to tell apart, the main difference being that tone 2 goes to a slightly lower pitch and stays there longer than tone 4.

Tone 5 is transcribed here with a glottal stop coda, but in many cases there is no perceivable glottal stop, only tenseness in the voicing and a shorter syllable duration. There is also noticeable breathiness in this recording (visible in the spectrogram above). A spectrum slice taken at approximately time 4.33 shows the first harmonic at -29 dB and the second at -55 dB, consistent with breathy phonation. I believe this to be an utterance-final effect, since this does not seem to appear in utterance-medial contexts, and there is also slight breathiness at the ends of the other syllables in the spectrogram above; however, it is striking that the breathiness shows up so early, about halfway through the vowel.

As stated above, tones 1-4 generally correspond with Standard Mandarin, but there is one major class of exceptions: Middle Chinese syllables with voiced initials in the Departing tone, which we expect to be tone 4, are tone 1 in their colloquial pronunciations, and tone 4 in their literary readings. Although I did not specifically elicit literary pronunciations from my consultant, I will list below Departing tone words which have tone 1 pronunciations, along with literary pronunciations if I happened to transcribe them.

二	ɔʌ	‘two’	厚	xəʊʌ, xəʊʌ	‘thick’
餓	uʌ	‘hungry’	夜裡	jaʌ lɿ.l	‘night’
後	xəʊʌ	‘behind’	夜	iʌ	‘night (lit.)’
壞	xwɛʌ	‘bad (food)’	下雨	xɑʌ yɿ, ɕjaʌ yɿ	‘to rain’ ¹
壞	xwɛʌ	‘bad (person)’	飯	fɿɛʌ	‘cooked rice’
爛	liɛʌ	‘rotten’	路	luʌ	‘road’
爛	liɛʌ	‘radiant’	巷	xɑŋʌ, xəŋʌ	‘alley’

4.2 Toneless syllables

Some syllables appear to be toneless (a.k.a. “zero tone”), taking their pitch value from the preceding syllable. Often, this syllable is the diminutive suffix /tsɿ/ 子, but many other syllables can be toneless as well.

¹The colloquial/literary distinction here is only apparent through the initial consonant. However, xɑʌ may be a tone 1 which has changed to tone 4 through tone sandhi. See section 4.3 below. Sū (1993) lists the colloquial reading as [xɑʌ].

- | | | | | | |
|-------|-------------|---------|----|-------------|--------------|
| 1. 杯子 | pei\ tsɿ.ɿ | ‘cup’ | 哥哥 | ku\ ku.ɿ | ‘brother’ |
| 2. 孩子 | xɛɿ tsɿ.ɿ | ‘child’ | 游泳 | jəu\ jonɿ | ‘swim’ |
| 3. 爪子 | tswaɿ tsɿ.ɿ | ‘claw’ | 晚上 | wiɛɿ saŋ.ɿ | ‘night time’ |
| 4. 被子 | peiɿ tsɿ.ɿ | ‘quilt’ | 太太 | tʰɛɿ tʰɛɿ | ‘wife’ |
| 5. 鼻子 | pjiɿ tsɿ.ɿ | ‘nose’ | 月亮 | yəʔɿ ljaŋ.ɿ | ‘moon’ |

Note that some of the tone 2 and tone 3 syllables have different tones from the citation form. This is the result of tone sandhi, which we address in the next section.

4.3 Tone Sandhi

For two-syllable combinations, there are five lexical tones which can combine with the same five lexical tones along with the zero tone, yielding $5 \times 6 = 30$ combinations. The zero tone was discussed in the previous section. Following are the remaining 25 combinations. The chart lists the first syllable horizontally, the second syllable vertically. Unfortunately, there were three combinations I was not able to get.

	T1\	T2ɿ	T3ɿ	T4ɿ	T5ɿ
ɿ	抽煙 tsʰəuɿ i\	辭工 tsʰɿɿ koŋ\	眼睛 iɛɿ tɛm\	丈夫 tsəŋɿ fu\	白天 pəʔɿ tʰi\
	燒雞 sɔɿ tɕiɿ\	其他 tɕʰiɿ tʰa\	好多 xɔɿ tu\		
	新雞 ɕm\ tɕiɿ\		頸項 tɛmɿ kʰəŋ\		
ɿ	拖鞋 tʰu\ xɛɿ		小孩 ɕjoɿ xɛɿ		出頭 tsʰwəʔɿ tʰəuɿ
	車頭 tsʰei\ tʰəuɿ		羽毛 yɿ məɿ		
ɿ	多晚 tu\ wiɛɿ	如果 luɿ kuɿ	小鬼 ɕjoɿ kweiɿ	大膽 taɿ tieɿ	說謊 swoʔɿ xwaŋɿ
	多少 tuɿ sɔɿ		水果 sweiɿ kuɿ	自己 tsɿɿ tɕiɿ	
ɿ	因為 m\ weiɿ		打架 taɿ tɕjaɿ	弟弟 tɿɿ tɿɿ	不快 pəʔɿ kʰweɿ
				去世 tɕʰyɿ sɿɿ	
				害怕 xɛɿ pʰaɿ	
				睡覺 sweiɿ kɔɿ	
ɿ	呼吸 xuɿ ɕjiɿ	頭髮 tʰəuɿ fiɛʔɿ	打獵 taɿ ljiɿ	動物 toŋɿ wəʔɿ	一百 jiɿ pəʔɿ
	燒鴨 sɔɿ iɛʔɿ				

Tone 5 does not appear to change at all.

Tone 3 loses its final drop, becoming high level. Before tone 5 or another tone 3, it seems to not be as high in pitch as the following tone, so I have transcribed changed tone 3 as a 44 tone. There are two unexplained exceptions, /xɔɿ tu\, tɛmɿ kʰəŋ\/ (‘many, neck’). Interestingly, when I asked my consultant to create disyllables with tone 4 as the first syllable, she said that there was no change in the tone, even though the final pitch drop had disappeared.

Tone 4 changes to a low (21) tone before another tone 4.

Tone 2 changes to a low (21) tone before any other tone. There are two exceptions, /luɿ ku˥, jəuɿ joŋ˥/ ('if, swim'). These are also difficult to explain. For 'swim', since it is a verb+object combination, one might guess that the tone change is sensitive to syntax and does not apply in this case, but this is merely a hypothesis.

Tone 1 changes to a low (21) tone before tone 5. Before other tones, it sometimes changes to a rising (24) tone. This change may be lexically determined, e.g., /sɔɿ tɕi˥/ 'roast chicken' is dish you can buy at the shop, whereas /ɕim˥ tɕi˥/ 'new-chicken' is not a common collocation. However, at this point, there is not enough data to draw any conclusions.

Finally, we touch on the topic of words with more than two syllables. Take, for example, the following:

皮夾子 pʰiɿ kiɛ˥ tsɿ˥ 'wallet'
老頭子 lo˥ tʰəuɿ tsɿ˥ 'husband/old man'
小姐妹 ɕjo˥ tɕei˥ mei˥ 'close girlfriends'

The second two examples can be accounted for with the tone sandhi rules posited above, but the first, 'wallet', has a tone 5 syllable pronounced with a mid tone. There is much that remains unexplained about tonal phenomena in this dialect.

5 Conclusion

Although Chinese is a language family that has had a lot of work done on it, there remain hundreds upon thousands of dialects that have not been adequately described. The dialect of Yánchéng has had only cursory descriptions written about it, none of which so far have even mentioned the existence of tone sandhi phenomena. I hope that this study of Yánchéng Mandarin will help to bring about further studies to increase our understanding of Chinese dialects, their historical development, and tone systems of the world's languages.

6 References

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7 Appendix

This is the word list I collected, in approximately the order in which I collected them. Alas, time constraints do not permit me to do such fancy things as arrange them by semantic category.

and	跟	kən\		弟弟	tʃɿ tʃɿ (less common)
animal	動物	toŋɿ wəʔɿ	brother(figurative)	弟兄	tʃɿ ɕjoŋɿ
ashes	灰	xwei\	sister(older)	姐姐	tɕiɿ tɕiɿ
at	在	tseɿ	sister(younger)	妹妹	meiɿ meiɿ
back	後頭	xəu\ tʰəu.l	close girlfriends	小姐妹	ɕjoɿ tɕiɿ meiɿ
bad	壞	xwɛ\ (白), xwɛɿ (文)	burn	燒	sɔ\
bark	叫	tɕjoɿ	child	小把戲	ɕjoɿ paɿ ɕiɿ
because	因為	(?)m\ weiɿ		小鬼	ɕjoɿ kweiɿ
stomach	肚子	tuɿ tsɿɿ		小孩	ɕjoɿ xɛɿ (formal)
big	大	taɿ	clothing	衣裳	ʃɿ saŋɿ
small	小	ɕjoɿ	cloud	雲	yənɿ
bird	鳥	ŋjoɿ	claw	爪子	tswaɿ tsɿɿ
bite	咬	ɔɿ	one	一	jiɿ
black	黑	xəʔɿ	two	二	ɔ\
white	白	pəʔɿ	two(w/ CL)	兩	ljaŋɿ
red	紅	xoŋɿ	three	三	siɛ\
yellow	黃	xwaŋɿ	four	四	sɿɿ
blue	藍	liɛɿ	five	五	uɿ
green	綠	lɔʔɿ	six	六	lɔʔɿ
purple	紫	tsɿɿ	seven	七	tɕʰəʔɿ
pink	粉紅	fəŋɿ xoŋɿ	eight	八	piɛʔɿ
orange	橙	tsʰənɿ	nine	九	tɕjuɿ
gray	灰	xwei\	ten	十	səʔɿ
blood	血	ɕyəʔɿ	hundred	一百	(?)jiɿ pəʔɿ
snow	雪	ɕyəʔɿ	thousand	一千	(?)jiɿ tɕʰiɿ
blow	吹	tsʰwei\	ten thousand	一萬	jiɿ wiɛɿ
bone	骨	kwəʔɿ tʰəu.l	1sg	我	(?)uɿ, ɱɿ
breast	胸	ɕjoŋɿ	1pl	我們	uɿ mən.l, ɱɿ mən.l
breathe	呼吸	xuɿ ɕjiɿ	2sg	你	niɿ
brother(older)	哥哥	kuɿ ku.l	2pl	你們	niɿ mən.l
brother(younger)	兄弟	ɕjoŋɿ tʃɿ.l	3sg	他	tʰa\

3pl	他們	t ^h a\ mən.l	sharp(pointed)	尖	tɕi\
hungry	餓	u\	dust	灰	xwei\
crispy	脆	ts ^h wei\	ear	耳朵	ɔ\ tu\
very crispy	□脆	poŋ\ ts ^h wei\	earth/soil	土	tu\
	poŋ\	'very', only for crispy	eat	吃	tɕ ^h əʔ\
word	詞	tshŋ\	egg	蛋	tiɛ\
to leave one's job	辭工	ts ^h ŋ\ koŋ\	eye	眼睛	(ʔ)ie\ tɕm\
crazy person	癡	ts ^h ŋ\ tsŋ.l	fall down	跌	tʃiʔ\
leg	腿子	t ^h wei\ tsŋ.l	far	遠	ju\
arm	膀子	paŋ\ tsŋ.l	close	近	tɕm\
shoes	鞋子	xɛ\ tsŋ.l	oil	油	ʃəu\
child	孩子	xɛ\ tsŋ.l	father	爸爸	pa\ pa\
cup	杯子	pei\ tsŋ.l	mother	媽媽	ma\ ma.l
quilt	被子	pei\ tsŋ.l	fear	害怕	xɛ\ p ^h a\
sandals	拖鞋	t ^h u\ xɛ\	feather	羽毛	y\ mɔ\
wallet	皮夾子	p ^h ɿ\ kieʔ\ tsŋ.l	few	少	sɔ\
car	車子	ts ^h ei\ tsŋ.l	fight	打	ta\
nose	鼻子	pʃiʔ\ tsŋ.l		打架	ta\ tɕja\
head	頭	t ^h əu\	quarrel	吵	ts ^h ɔ\ tɕja\
cold	冷,凍	lən\, toŋ\	fire	火	xu\
come	來	lɛ\	fish	魚	y\
cook	煮,燒	tsu\, sɔ\	float	漂	p ^h ʃɔ\
count	數	su\	flow	流	lʃəu\
cut	切	tɕ ^h ʃiʔ\	flower	花	xwa\
vegetables	菜	ts ^h ɛ\	fly(v.)	飛	fei\
dance	跳舞	t ^h ʃɔ\ u\	coupon	飛子	fei\ tsŋ.l
day	天,白天	t ^h i\, poʔ\ t ^h i\	fog	霧	u\
night	晚上	wie\ saŋ.l	foot	腳	tɕjaʔ\
	夜裡	ja\ li.l	freeze	凍	toŋ\
go	去	tɕ ^h y\	fruit	水	swei\ ku\
die	死	sŋ\	full(eating)	飽	po\, pɔ\ la\
dig	挖	wieʔ\	full(container)	滿	mu\
dirty	髒	tsaŋ\	naughty	皮死	p ^h ɿ\ sŋ.l la\
dog	狗	kəu\	give	把	pa\ (口)
drink	喝	xɔʔ\		給	kei\ (書)
dry	乾	kie\	good	好	xɔ\
dull(knife)	鈍	twən\	grass	草	ts ^h ɔ\
	不快	pəʔ\ k ^h wɛ\	daring	大膽	ta\ tie\
sharp(knife)	快	k ^h wɛ\	hair	頭髮	t ^h əu\ fiɛʔ\
dull(blunt)	禿	t ^h ɔʔ\	hand	手	səu\

head	頭	tʰəu˥	wash	洗	ɕi˥
hear	聽	tʰm˥	arrow	箭	tɕi˥
heart	心	ɕm˥	knee	磕膝頭子	kʰaʔi˥ tɕʰəʔi˥ tʰəu˥ tsɿ˥
heavy	重	tsəŋ˥	know	曉得	ɕjəŋ˥ tə˥
here	這□	tsəʔi˥ kʰwaʔi˥	lake	湖	xu˥
	這快	tsəʔi˥ kʰwɛ˥	laugh	笑	ɕjə˥
there	□□	ləʔi˥ kʰwaʔi˥	leaf	葉子	jiʔi˥ tsɿ˥
	□快	ləʔi˥ kʰwɛ˥	left	左	tsu˥
hit	打	ta˥	right	右	jəu˥
take	拿	la˥	lie	說謊	swoʔi˥ xwan˥
hold	抓	tswa˥	lie down	躺	tʰaŋ˥
horn	角	kaʔi˥	live	活	xwoʔi˥
hunt	打獵	ta˥ ljiʔi˥	liver	肝	kiɛ˥
husband	丈夫	tsaŋ˥ fu˥	long	長	tsʰaŋ˥
	老頭子	ləʔi˥ tʰəu˥ tsɿ˥	louse	虱子	səʔi˥ tsɿ˥
old man	老頭子	ləʔi˥ tʰəu˥ tsɿ˥	male	男	niɛ˥, niɛ˥ ti˥
wife	太太	tʰɛ˥ tʰɛ˥	female	女	ny˥
	老婆	lə˥ pʰu˥ (□)	meat	肉	ləu˥ (tone)
old lady	老婆子	lə˥ pʰu˥ ts˥	moon	月	yəʔi˥ ljaŋ˥
house	房子	faŋ˥ tsɿ˥	mountain	山	sie˥
home	家	ka˥	mouth	口	tswei˥
ice	冰	pɪn˥	name	名	mɪn˥ tsɿ˥
if	如果	lu˥ ku˥	narrow	狹	xieʔi˥
inside	裡頭	li˥ tʰəu˥	neck	脖子	pwoʔi˥ tsɿ˥
kill	殺	sieʔi˥		頸項	tɕiŋ˥ kʰaŋ˥ *kh assimilation
chicken	雞	tɕi˥		頸項脖子	tɕiŋ˥ kʰaŋ˥ pwoʔi˥ tsɿ˥
west	西	ɕi˥	new	新	ɕin˥
how(lit)	怎麼	tsəm˥ mə˥	spit(v.)	吐	tʰu˥
how(colloq)	甚法	sən˥ fiɛʔi˥	spit(n.)	談	tʰiɛ˥
who	哪個	la˥ kəu˥	old	老	lə˥
what	甚□	sən˥ ni˥	other	其他	tɕʰi˥ tʰa˥
what(lit)	甚麼	səm˥ mə˥	pants	褲子	ku˥ tsɿ˥
when	幾點	tɕi˥ ti˥, tu˥ wiɛ˥	person	人	lən˥
why	為甚麼	wɛi˥ sən˥ ni˥	play	玩	wiɛ˥
how many	多少	tu˥ sə˥	pull	拉	la˥
where	哪快	la˥ kʰwɛ˥	push	推	tʰwei˥
a few	幾個	tɕi˥ kəu˥	rain	下雨	ɕja˥ y˥, xa˥ y˥
a lot	好多	xə˥ tu˥, lə˥ tu˥, xə˥ tu˥	correct	□	təu˥
son	兒子	ə˥ tsɿ˥	river	河	xu˥
daughter	姑娘	ku˥ nian˥		江	tɕjaŋ˥

road	路	lu\	stick(n.)	棍子	kwən\ tsɿ\
root	根	kən\	stone	石頭	səʔ\ tʰəu\
rope	繩子	sən\ tsɿ\	straight	直	tsəʔ\
rotten	爛	liɛ\	suck	吸	ɕjɿʔ\
rub	擦	tsʰiɛʔ\	sun	太陽	tʰɛ\ jaŋ\
salt	鹽	i\	swell	漲	tsaŋ\
Yancheng	鹽城	i\ tsʰən\	swim	游泳	jäu\ jon\
sand	沙子	sa\ tsɿ\	story	故事	ku\ sɿ\
say	說	swəʔ\	tail	尾巴	wei\ ba\
scratch(itch)	抓	tswa\	this	這個	tsəʔ\ ku\
ocean	海	xɛ\	that	那個	ləʔ\ ku\
seed	種子	tsəŋ\ tsɿ\	thick	厚	xəu\, xəu\
sew	縫	fəŋ\	thin	薄	paʔ\
weave	織	tsəʔ\		□	ɕjə\
shoot	射	sei\	think	想	ɕjaŋ\
short	短	tu\	throw	扔	lən\
	矮	ɛ\		□	ljəu\
sing	唱	tsʰaŋ\	tie	繫	tɕi\
sit	做	tsu\	tired	累	lei\
skin	皮膚	pʰi\ fu\		吃力	tɕəʔ\ ljiʔ\
sleep	睡覺	swei\ kə\	tooth	牙子	ja\ tsɿ\
smell	聞	wən\	tree	樹	su\
smoke(n.)	煙	i\	turn	轉彎	tsu\ wɛ\
smoke(v.)	抽煙	tsʰəu\ i\	twenty	二十	ə\ səʔ\
smooth	滑	xwiɛʔ\	vinegar	醋	tsʰu\
snake	蛇	sei\	walk	走	tsəu\
some	有的	ju\ ti\	warm	暖	lu\
spear	矛	mə\	water	水	swei\
split	分	fən\	wet	濕	səʔ\
squeeze	擠	tɕi\		潮	tsʰə\
stab/pierce	刺	tsʰɿ\	wide	寬	kʰu\
poke	戳	tsʰwaʔ\	wing	翅膀	tsʰɿ\ paŋ\
feel	覺得	tɕjaʔ\ təʔ\	wipe	擦	tsʰiɛʔ\
	覺□	kaʔ\ saʔ\	woods	森林	sən\ lɪn\
have	有	jəu\ (compare 'some')		樹林	su\ lɪn\
blind	瞎	xieʔ\	work	工作	koŋ\ tsaʔ\
hot	熱	ljɿʔ\	worm	蟲子	tsʰəŋ\ tsɿ\
tongue	舌頭	siʔ\ tʰəu\	write	寫	ɕi\
stand	站	tsiɛ\	wrong	錯	tsʰu\
star	星星	ɕɪn\ ɕɪn\	year	年	ni\

齊 tɕʰi̯ɿ
 妻子 tɕʰi̯ɿ tsɿ
 俗 sɔʔ
 熟 sɔʔ
 普通 pʰu tʰoŋ
 日 ləʔ
 茸 loŋ
 辱 ləʔ
 讓 laŋ
 弱 laʔ
 仍 lən
 扔 lən
 軟 lu
 疑 i̯
 如 lu
 界 tɕiɛ
 買 me
 賣 me
 埋 me
 內 nei
 外 wiɛ
 離 li̯
 奇 tɕʰi̯ɿ
 移 i̯
 美 mei
 地 tɕi
 自己 tsɿ tɕi
 tsɿ kiɛ
 酒 tɕju
 答 tiɛ
 合 xwo
 參 tsʰiɛ

鹹 xiɛ
 攝 si
 甜 tʰi
 跌 tɕi
 協 ɕji
 凡 fiɛ
 立 lji
 汁 tsə
 集 tɕji
 入 lə
 安 (?iɛ
 達 tiɛ
 渴 kʰwo
 然 li
 連 li
 浙 tsɿ
 結 tɕji
 末 mə
 闊 kʰwo
 脫 tʰwo
 灣 wiɛ
 關 kwie
 話 xwa
 匯 xwei
 戶 xu
 項 ɕiaŋ, xaŋ
 巷子 xaŋ tsɿ, ɕiaŋ tsɿ
 本 pən
 孫 swən
 春 tsʰwen
 夏 ɕia
 秋 tɕʰju

冬 toŋ
 各 ka
 床 tsʰwaŋ
 學 ɕia
 雙 swaŋ
 胖 pʰaŋ
 朋 pʰoŋ
 能 lən
 力 lji
 立 lji
 客 kʰə
 生 sən
 耕 kən
 責 tsə
 病 pin
 石 sə
 正 tsən
 哭 kʰɔ
 木 mə
 毒 tɔ
 中 tsoŋ
 風 foŋ
 母 mu
 刮 kwie
 夜 i (白)
 疾 tɕji
 悉 ɕji
 膝 tɕʰji
 膩 ni
 布 bu