

Pudong and Putonghua: Sound Change and Language Shift in Shanghai

Laura Wellman

乙：“他的普通话怎么样？”

甲：“他的浦东话很好。”

First speaker: “How’s his Putonghua?”

Second speaker: “Well, his Pudong-ese is very good...”ⁱ

Advisors:

Stephen Anderson

&

Joseph Errington

*Submitted to the faculty of the Department of Linguistics
in partial fulfillment of the requirements for the degree of
Bachelor of Arts*

Yale University

May 1, 2013

Table of Contents

| | |
|--|----|
| Abstract | 3 |
| Introduction | 4 |
| A Brief History of Shanghai & Shanghainese | 6 |
| Existing Literature on Shanghainese | 9 |
| Important considerations about methodology and available data..... | 10 |
| Models of Language Shift | 12 |
| Part I: Social Evidence for Language Shift in Shanghai | 15 |
| Language Planning | 16 |
| Urban Development and Dissolution of Speaker Communities | 17 |
| Research on Language Attitudes in Shanghai | 22 |
| Loss of Domains and Shanghainese “Revival” Efforts | 25 |
| Evidence for reduced transmission | 27 |
| Part II: Sound Change & Simplification | 30 |
| Modern Shanghainese Phonology | 30 |
| Influence from Putonghua | 34 |
| Changes In Initials | 34 |
| Example: Loss of Initial [ŋ]..... | 35 |
| Structural simplification: Loss of voicing distinction | 37 |
| Example: z- > dz- , c- | 38 |
| Example: fi > ø or loss of murmur | 39 |
| Example: v > f, ø | 41 |
| Conclusions regarding loss of voicing & predictions for tone change..... | 42 |
| Tone Change | 44 |
| Changes in Rhymes | 46 |
| Simplification of Checked Finals | 48 |
| Putonghua medial -y- | 49 |
| The reversal of the [e] and [ɛ] merger | 50 |
| Diphthongization..... | 51 |
| Other simplification without clear Putonghua correspondence | 52 |
| Conclusions | 54 |
| Acknowledgements | 57 |
| Bibliography | 58 |

Abstract

This paper examines the evidence for major phonological changes in Shanghainese over the last thirty years and the assertions that these changes are caused by contact with Putonghua, China's national standard language. I analyze this evidence in context of sociolinguistic research on the language attitudes of Shanghainese speakers, as well as information about Shanghai's urban development. I find that the sound system of Shanghainese is changing among young speakers to become nearly identical to that of Putonghua; moreover, I argue that we should consider the changes in the Shanghainese sound system to be not just major sound changes but loss of structure and symptoms of language death in a shift towards Putonghua.

Introduction

It is, perhaps, impossible to discuss modern Shanghai without employing hyperbolic language: calling it “the head of the dragon,” as Daniel Brooks does; a newly rebuilt “gateway to modernity” after its “meteoric rise to [become a] global superpower.’ These dramatic, grandiose pronouncements follow Shanghai in the press and in recent literature.

They are all understatements.

Thirty years ago, Shanghai was an antique, with a stagnant closed economy and crumbling infrastructure. Today, Shanghai is not only the largest city in the People’s Republic of China, but also the largest city, by population, in the world. With over 23 million people and an annual GDP of nearly 3 billion USD, Shanghai is the ultimate boom town: in 1990, the eastern side of the Huangpu River lay flat, a pastoral afterthought across the river from Shanghai proper. Today, that same land has erupted with the famous skyline of Shanghai’s Pudong business district, boasting some of China’s tallest skyscrapers. Within just the last twenty years, Shanghai has become almost unrecognizable.

As Shanghai has been transformed, so has its language. The purpose of this project is to determine what conclusions about recent changes in Shanghainese can be drawn from the available literature. Since the founding of the People’s Republic of China in 1949, Shanghainese has been under growing pressure from China’s standard language, Putonghua (also known as Standard Mandarin Chinese). In the last thirty years, Shanghainese has undergone rapid and dramatic phonological changes as a result of the influence of Putonghua.

It may be somewhat unusual to claim that a language with speakers in the double-digit millions is endangered; nevertheless, that is exactly the case of Shanghainese. There are approximately 10-14 million speakers of Shanghainese, which belongs to the Wu dialect family, a group of Sinitic languages spoken in and south of the Yangtze River Delta area. Putonghua is mostly based on a variety of the Northern Mandarin group (Norman, 1988).

Shanghainese and Putonghua are mutually unintelligible, although they have many features in common. In addition to common linguistic features, Shanghainese and Putonghua share a body of written literature and awareness of common descent from Middle Chinese. They also share a writing system. Overall, Putonghua and Shanghainese have much more in common than not. This understanding of shared membership in “Chinese” has implications for linguistic research in China as well as, obviously, social factors and language ideology.

However, Putonghua, as the saying goes, has an army and a navy. First established as a nationalist tool in the early days of the People’s Republic, Putonghua is now the language of both government and higher education in nearly all of China (Zhou, 2004). Since the birth of Putonghua policy in 1956, the People’s Republic of China has enacted extensive language planning policies, promoting the national language with the ultimate result of curtailing China’s myriad dialects.

First, I will review evidence for an ongoing language shift in Shanghai from Shanghainese to Putonghua. Studies of Shanghainese speakers’ language attitudes over time show a trend towards positive views of Putonghua, and Putonghua appears to be encroaching on the old domains of Shanghainese. Additionally, Shanghai’s rapid urban development has resulted in the mass displacement and dissolution of Shanghainese speaker communities, contributing to a drop in transmission.

Second, I will examine evidence for major phonological changes in Shanghainese and the claims that these changes are caused by contact with Putonghua. The sound system of the Shanghainese spoken by younger speakers is converging with that of Putonghua. Shanghainese shows significant loss of phonological features, and there is some evidence that suggests the possibility that morphological features may be lost as well.

Given this situation, I argue that we should consider the changes in the Shanghainese sound system to be not just major sound changes but symptoms of language death in a shift towards Putonghua.

It was not so long ago that Shanghainese was the language of the business elite in Shanghai, when competence in Shanghainese could earn entrepreneurs the

networking cachet and connections that could guarantee them their fortunes (Xie, 2011). But the heyday of Shanghainese is over. Today, and tomorrow, the language of China's largest metropolis is no longer Shanghainese, but Putonghua.



Figure 2: Above, the Shanghai skyline in 1990; below, the same place in 2010. These photographs are also certainly from promotional materials for the 2010 World Expo in Shanghai.

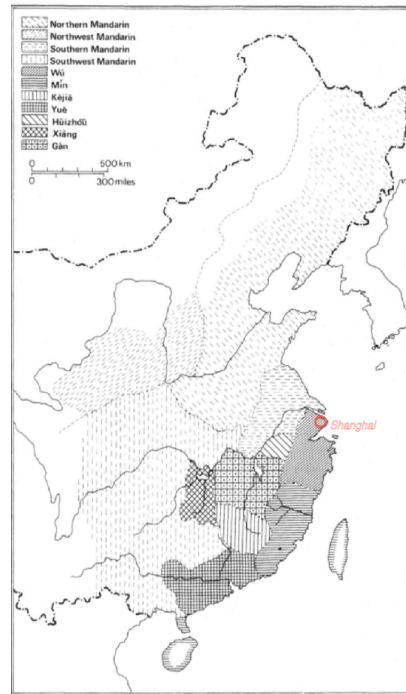


Figure 1: Chinese Dialect Groups Norman, 1988) (Shanghai mark added)

A Brief History of Shanghai & Shanghainese

“Capitalism in its contemporary manifestation has returned to China's most historically capitalist place.” (MacPherson, 2002)

Although this paper focuses on recent changes in Shanghainese, rather than those of the 1920s, the historical background helps explain the long-term development of both the city and its language.

At the mouth of the Yangtze River, the Shanghai area has always been ideally situated for trade (Wright, 1908). This was not lost on the British or French, as Shanghai was opened as a treaty port after the First Opium War. Shanghai quickly

attracted a variety of foreign “concessions,” which were administered by Western powers and not subject to Chinese law. Between 1846 and 1849, the British, Americans and French each established concessions in the Shanghai area. Foreign involvement and investment built Shanghai into China’s capitalist center (MacPherson, 2002), attracting immigrant workers from all over the area (Chen, Studies on Dialects in the Shanghai Area, 2003). On one side of the river rose China’s first skyscrapers; on the other, poor Chinese workers lived in mud huts and manned the foreign factories (Lee, 1999) (Brook, 2013).

Still, workers and entrepreneurs arrived in droves. In 1927, Shanghai was officially granted city status by the Chinese government, at which time its borders were also redrawn outwards from the old city area; the re-districting raised the official population of Shanghai to two million. Although the influence of re-districting on population reports makes it difficult to pin down precise immigration figures, it is clear from general historic as well as linguistic data that there was a great deal of immigration from the Suzhou region in particular (Chao, 1928). At this time, workers or businessmen arriving in Shanghai needed to learn to speak Shanghainese in order to break into the market (Xie, 2011).

Beginning in the 1930s, war came to Shanghai, first with the Second Sino-Japanese War, then World War II, then revolution. The foreign concessions closed in the 1940s. In 1949, the People’s Republic of China was founded, and life in Shanghai would be relatively quiet until 1991. A household registration system, implemented in 1958, halted migration, which had already been limited during the wars. Once China’s economic reform and opening began, the leaders of Shanghai were at last able to secure Beijing’s approval to reopen Shanghai’s economy in 1991. Shanghai’s subsequent expansion has been an unmistakable success: Shanghai is now the financial center of China, its flagship skyline, boasting double-digit economic growth every year from 1992 until 2008 and with a GDP topping USD \$300 billion.

Shanghai is a symbolic success as well as an economic one: it represents a new China whose success will be economic rather than ideological. The city received an additional facelift to prepare for the 2010 World Expo; old districts, including much of the old-city area, were razed. It has re-framed the European architecture of

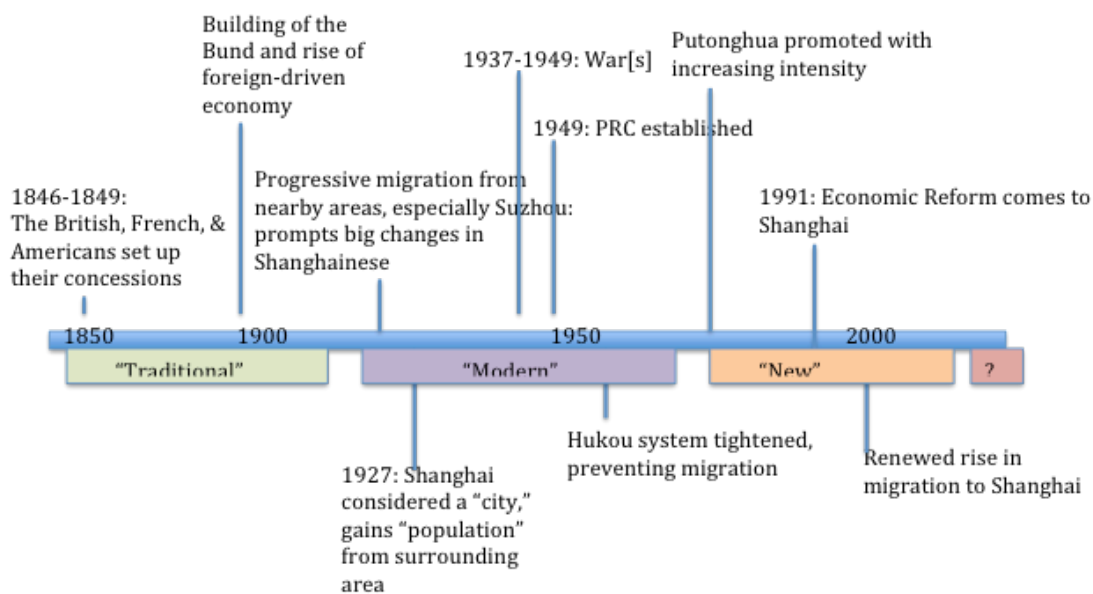
the Bund by dwarfing it with the spires and glass and perfectly square neighborhood blocks of Pudong across the river. And Shanghai's next big wave of change brought the next big wave of changes to Shanghainese.

In many ways, however, Shanghainese has been in a constant state of change since the 1840's when the foreign concessions opened. Most, if not all, popular discussions of Shanghainese depend on the idea that "Shanghainese" has previously been linguistically static: in fact, it has been anything but static for the last approximately 170 years. Shanghainese, along with Shanghai, has seen several major periods of change (Chen, 2003)(Qian, 2003).

Shanghainese can be divided broadly into three categories: Traditional Shanghainese, Modern Shanghainese, and New Shanghainese. While these terms are often used to draw approximate distinctions in the language, there is no consensus about when one ends and the next begins. However, Chen (2003) and Qian (2003) both compare the documentation of Shanghainese throughout its history and note that although Shanghainese has seen many changes in its history, the biggest changes occurred in the 1920s, when Shanghai saw a high number of immigrants from nearby Suzhou (Chen, 2003). Accordingly, I divide Urban Shanghainese into the following categories: Traditional Shanghainese, spoken from about 1850 to 1920; Modern Shanghainese, which includes the Suzhou-influenced pronunciations developed during the 1920s, and New Shanghainese, which includes Shanghainese spoken after about 1985 and is the subject of my investigation. Although there are valid reasons to subdivide further, there is no need to do so for my project.

Insofar as there is a "standard" Shanghainese, it roughly corresponds to Modern Shanghainese as it was spoken by the majority of urban Shanghai residents during the 1960s. For the most part, Shanghainese was relatively stable between the 1930s and the 1980s. For this project, in order to assess recent changes, all comparisons will be between present pronunciations and variations with their Modern Shanghainese counterparts.

Figure 3: Traditional, Modern, and New Shanghainese on a timeline of Shanghainese history



Existing Literature on Shanghainese

As a result of Shanghai's unusual history, Shanghainese has been remarkably well-documented over the last 170 years. After the foreign concessions were established, there was a significant demand for documentation and production of instructional materials for arriving foreigners. Accordingly, the first published materials on Shanghainese were produced by Westerners: *A Grammar of Colloquial Chinese, as Exhibited in the Shanghai Dialect* by Joseph Edkins in 1853 and *Collection of Phrases in the Shanghai Dialect* by Rev. John MacGowan in 1862. These, especially the former, contain a variety of notes on pronunciation a wealth of examples, which provides a basis for diachronic comparison.

In the late 1920s, as Chinese dialectology became a popular field of study, Chao Yuen Ren and Bernhard Karlgren each documented a variety of dialects, including Shanghainese. Chao focused on a study of the Wu group, and Karlgren's work included comparative morphemes from a wider variety of dialects. Chao in particular observed the large amount of variation present in Shanghainese at that time, as it was undergoing its first round of major changes due to large-scale development and in-migration. In the 1950s, the new government launched a

countrywide effort to assess China's linguistic situation, which produced further comparative morpheme-syllabary lists and common word lists. While Shanghainese was relatively stable during this period, there was still some minor synchronic variation, which Xu Baohua and Tang Zhenzhu studied first in 1962, then again in 1982 and 1988.

The 1990s saw an increased interest in Shanghainese, although much of the study of Shanghainese in the 1990s focused on Modern Shanghainese, which at that point was spoken largely by the middle-aged. Qian Nairong, in particular, has studied Shanghainese and the surrounding dialects in great detail, including a 1997 grammar and 2003 *Shanghainese Historical Development*, in which he details both the changes in Shanghainese over 160 years as well as several more recent shifts and variations. Chen (2003) also focused on the relationship between Urban Shanghainese and its nearby varieties in *Studies on Dialects in the Shanghai Area*. Zhu (2006) also contributed a grammar of Modern Shanghainese, which, together with Qian (1997) cover the entirety of what serves as the standard version. Most recently, Gu Qin has specifically studied the speech of young people in Shanghai, first with *Phonetics in New Shanghainese* in 2004 and *The Influence of Language Contact on Sound Change in Shanghainese* in 2007.

Chen (2003), Qian (2003) and Gu (2004, 2007) have, together, collected what seems to be the only available phonological data from younger speakers of New Shanghainese: each collected and analyzed data at different times, which helps to create a timeline for each of the changes they describe. In particular, Gu's data is unique in its scope and its span of very young speakers; I will rely largely on her reports for evidence of the young people's variety of Shanghainese. Her work, however, is limited to phonological change; at present, there is no literature describing morphological or syntactic changes in New Shanghainese or providing the basis for comparison to previous documentation. As such, my analysis will be confined mostly to phonological change.

Important considerations about methodology and available data

It is nearly impossible to understate the hegemony of the Chinese character writing system in Chinese linguistics. The characters, which are older than the languages they are now used to write, provide the basis for the Chinese understanding of Chinese as a single language, and contribute heavily to Chinese identity and language ideology.

The characters are not without their virtues: they are quite useful in historical work, for example, and have proved invaluable for many Chinese regimes controlling subjects of many divergent languages and dialects. However, they are all too often used in linguistic work instead of phonetic transcription, and likewise all too often one is used to represent a group of sounds or words – groups which may not be common across all dialects, as these groups or classifications are derived largely from Middle Chinese and may no longer apply to modern dialects in any meaningful sense.

Among Chinese linguists, the dominant method for phonetic data collection relies, unfortunately, on having participants read characters from lists, and there does not seem to be very much effort to control for obvious factors that might affect phonetic data collection, such as stress or the position of the syllable within a word. This guarantees a narrow selection of data that may not be as representative as it is intended to be. Additionally, this method is particularly unsuited to varieties that do not map neatly onto the character system; Shanghainese, for example, uses a handful of nonstandard characters to represent common words, none of which will be represented on standard character lists. Furthermore, written stimuli are presented as if the only differences between the standard and the dialects are phonological, which is not true. This method also confounds pronunciation in normal speech by risking that participants, while reading, will be more likely use a standard schoolroom pronunciation than a conversational one: given that Putonghua reigns in all standard and academic settings, this could risk a considerable influence.

Gu (2007) provides her interview and data collection materials, which very clearly do not control for any of the above-mentioned issues; however, though Chen (2003) and Qian (2003) do not provide their exact materials, what they describe

does not suggest that they used any more thorough methods than Gu did. In fact, it's probable that Gu's collection methods are based on Qian (2003). So, while Gu's data may not have been collected using reliable means, at least all the recent data probably has the same collection flaws. I will discuss some of the more specific flaws in data collection as it pertains to the data itself in later sections.

Models of Language Shift

There is not much doubt that Putonghua, rather than some other internal motivation, is the source of many, if not most, recent developments in Shanghainese. Most scholars of Shanghainese simply take it for granted that this is the case: historically, this explanation seems obvious enough, and linguistic evidence backs up this assumption clearly in many instances, as I will show later.

Language shift, the process in which a community abandons one language in favor of another, by and large follows a familiar sociolinguistic pattern: first, as a result of historic or social events, an uneven relationship develops between two languages. The speakers of the disadvantaged language, usually the minority, are subject to pressure, social, economic or otherwise, to learn the majority language, and as a result of these pressures may eventually develop negative attitudes towards their own language. Accordingly, speakers of the minority language increasingly become bilingual, and may not pass their minority language onto their children, who might learn it incompletely or not at all. Eventually, younger generations will be monolingual only in the dominant language, and the minority language will no longer be spoken in ordinary situations, and it will eventually "die" with the last generation that spoke it (Thomason, 2001). Although this pattern has a wide variety of variations, it is broadly applicable to most well-documented cases of language shift and eventual language "death."

From a sociolinguistic perspective, there are a variety of frameworks that can be used to evaluate the vitality of a language: Dwyer (2009) compares and contrasts several, including Fishman's Graded Intergenerational Disruption scale, Lewis & Simmons' expanded version of same, and UNESCO's nine-factor scale: overall, these assessments all touch on the robustness of domains of use, the existence of a

dynamic and engaged speaker community, and the transmission of the language from one generation to the next as the most important factors for linguistic vitality (Dwyer, 2009). A language that lacks these factors is considered to be endangered or, at the extreme, dying.

A dying language may also see significant change. This can arise in the form of interference as the speakers of the minority language become bilingual, bringing influence from the majority language into the system of the minority language (Crowley & Bower, 2010). As transmission is reduced, a generation of semi-speakers may learn the language imperfectly, so that the variety of the language spoken by young speakers may be quite different from the variety spoken by their parents' generation (Crowley & Bower, 2010).

As a result, as language shift progresses, the minority language may undergo significant structural change. Lexical loss results in a reduced vocabulary. In particular, there may be extensive structural simplification or loss of features in the minority language (Thomason, 2001). The structural simplification may include phonological, morphological, or syntactic simplification; morphological and syntactic examples are usually considered more advanced or extreme, but that is not always the case (Crowley & Bower, 2010). Discussing examples of language death in Australia, Austin (1986) enumerates the possibilities of "lexical reduction; phonological leveling, with loss or confusion of earlier contrasts; morphological reduction and leveling; [and] syntactic reduction and fossilization, including a decrease in frequency or loss of strategies for producing complex sentences" (Austin, 1986, p. 203).

Of course, contact-induced change can occur in perfectly lively languages with no risk of endangerment; in fact, Putonghua has several words that were originally borrowed from the Shanghainese lexicon in the 1920s (Xie, 2011). Thomason (2001) predicts that there are three major factors in assessing the likelihood that contact-induced change will occur: first, the intensity of the contact between the two languages; second, the relative size of the speaker groups involved; and third, and most important, the degree of socioeconomic imbalance between the two groups; the precise "social reasons are complex, but one obvious point is that

members of the subordinate group are likely to become bilingual and, again, this makes extensive interference possible” (Thomason, 2001, p. 66). Although these are given as factors in contact-induced change, Thomason (2001) also articulates them as possible factors in language shift depending on the circumstances.

Accordingly, in order to assess whether recent phonological changes in Shanghainese are ordinary contact-induced change arising from close interaction with Putonghua, or something more drastic, it is necessary to assess social as well as phonological evidence. In Shanghai, studies of college students’ language attitudes display a clear pattern of shift away from Shanghainese, in addition to linguistic evidence for loss of phonological and some morphological structure. As Thomason notes, the process of language shift commonly includes a gradual loss of “speakers, domains, and ultimately structure” (Thomason, 2001, p. 227). As I will show, Shanghainese is now losing each of these things at an extremely rapid rate.

Part I: Social Evidence for Language Shift in Shanghai

In the Chinese literature, discussions of changes in Shanghainese proceed largely without reference to the possibility of language shift. For example, although Gu (2004 & 2007) discusses the contact relationship between Shanghainese and Putonghua in depth, she avoids the subject of language shift entirely. I believe this is a politically motivated rather than academic oversight; although the language planning measures enacted by the central government are strict, there is also a rhetorical emphasis from Beijing on the idea that the language policies are not meant to, and will not, lead to the extinction of dialects (Zhou, 2004). Therefore, claims that Shanghainese might be becoming endangered could be viewed as accusatory rather than intellectual.

Although Shanghainese may be changing at an apparently increasing rate, change in Shanghainese is not necessarily cause for alarm, especially not in a language that has changed as much as has Shanghainese within the last 170 years. No one, perhaps, knows this better than Qian Nairong, who has studied Shanghainese history extensively and written several books discussing the different periods of change in its history, including several of my main sources for this paper. So it cannot be phonological changes alone that have prompted Qian and others to express concern about the future vitality of Shanghainese. “A language is like a living thing, after it gets old, it must die,” Qian said in a 2012 interview, lamenting the dim prospects of his native language and the subject of his scholarship (Savadove, 2012).

However, today’s Shanghai is very different than during previous periods of change in Shanghainese. Today, wide-scale urban redevelopment and unprecedented migration are leading to the dissolution of Shanghainese speaker communities. This, combined with aggressive language planning from Beijing, has had a powerful effect on attitudes toward Shanghainese and Putonghua. Academic studies, as well as anecdotal evidence, suggest that Shanghainese is losing both speakers and domains to Putonghua, as would be expected in a language shift situation.

Language Planning

Although varieties of Mandarin are the most widely spoken in China – and variants of Northern Mandarin have been dominant in academic and governmental or official settings in China for a very long time – language planning in China in its current form began with the founding of the PRC. Putonghua was standardized by government linguists in the early 1950's and formally adopted as China's national language in 1956. The standard was based largely on the version of Northern Mandarin spoken near the capital and has been implemented as a nationalist tool with dual purposes of establishing a common language for the PRC and furthering the communist goal of national homogeneity. As Premier Zhou Enlai wrote in 1956:

“Many unintelligible dialects have hindered the communication between people from different dialect communities and caused many inconveniences for China's socialist construction... these phenomena must be effectively eliminated in order to protect the interest of China's political, economic, cultural and national defense development” (Guo, 2004).

Encouraged by both free education and propaganda, mastery of the national language opened the doors to political and social advancement. All national standard educational tests are carried out in Putonghua, and Putonghua capability across the country has risen continually since 1956. As of 2004, 53% of Chinese achieved a passing grade on an evaluation exam in Putonghua; however, Putonghua proficiency is much higher in China's first-tier cities among the educated and the elite. Putonghua's value as a lingua franca has expanded as China's economy has boomed and mobility between different language areas in China has increased.

The promotion and enforcement of language policy in Shanghai since 1956 has followed the national rhetoric very closely. Putonghua was gradually incorporated into Shanghai's educational system. Then, in 1985, policy dictated that schooling in Shanghai would from then on be conducted entirely in Putonghua (Liang, 2010). In 1992, the regulations were strengthened: pupils were urged to report each other for the offense of speaking Shanghainese, which if reported led to a variety of punishments including lost points in inter-classroom competitions (Qian

Y. , 2010). National campaign slogans, such as “Be a civilized person! Speak Putonghua!” are printed on banners in Shanghai schools, and students celebrate “Putonghua Promotional Week” yearly with speeches (Jones, 2011). Campaigns like these are part of nationwide efforts, not limited to Shanghai.

As China’s economy has expanded, the government has increased its campaigns: for example, in preparation for the 2010 World Expo, all service workers in Shanghai were required to pass a Putonghua proficiency test, and new regulations demanded that they greet customers first in Putonghua before considering a switch to Shanghainese (Dugan, 2005). Likewise, neighborhood watch groups were formed in order to update Shanghai’s street signs and restaurant menus to remove any Shanghainese phrases and display correct Putonghua, and advertisements portraying dialect use as a “backwards or uncivilized” habit were aired for months in advance of the Expo (Dugan, 2005). While current rhetoric from Beijing denies that the goal of such policies is to eliminate the use of dialects such as Shanghainese, it is quite clear that dialects are meant to be replaced by Putonghua in the public sphere.

Urban Development and Dissolution of Speaker Communities

Language planning is not the only force affecting the use of Shanghainese in Shanghai: Shanghai’s ambitious urban planning and redevelopment has also had an enormous impact. This aggressive out-with-the-old-in-with-the-new urban development strategy has been as dramatic as it has been successful. Daniel Brook describes the way the plan for redeveloping Pudong dealt with pre-existing communities in the area, as then-Mayor Zhu Rongji explained it in 1990 to potential investors:

Zhu directed the assembled bankers to look out across the Huangpu River to Pudong. The blighted spit of land they looked down on, he explained with the calm assurance of the certifiably insane, would become the world’s leading financial center. “It was just warehouses and shacks and rice paddies,” a Wall Street executive in attendance later recalled. “And there were people living there. So I asked Zhu,

‘What are you going to do about all of those people?’ And he just said, ‘We’ll move them.’” (Brook, 2013)

And move them they did: where those “warehouses and shacks and rice paddies” were razed, the Pudong skyline erupted with the skyscrapers of the brand-new business district. From the top floors of the Shanghai World Financial Center tower, which at the time of writing is still the tallest building in Lujiazui, a look out over the Pudong area from the hundredth floor shows streets and subdevelopments laid out on a relentless grid extending as far as the eye can see. The development of Pudong is only one example of this attitude: nearly all of the old-style neighborhoods were destroyed and replaced with high-rises (and the famous exception, Shanghai’s hip shopping district Xintiandi, which is set within renovated, modernized courtyard houses, is no longer residential).

In his examination of the changed pronunciation of “I/me” in Shanghainese (which is roughly representative of the loss of initial [ŋ]), Liu (2012) also gathered data on the living situation of his respondents, and his results suggest that housing redevelopment and the aggressive urbanization of older neighborhoods may play a role in changes in Shanghainese as well as in Shanghainese use. Of his respondents, 26 not only exclusively pronounced “I/me” as [u:] instead of [ŋu:], but could not pronounce [ŋu:] fluently. What is notable is that every single one of these reported living in new-style housing with “no contact with neighbors” (Liu G. , 2012, p. 7). In particular, this limits contact with older neighbors or older adults besides parents or other relatives, whereas older housing had more extensive shared spaces for inter-generational interaction. This limits linguistic input from older adults who might influence the acquisition of language features, and limits exposure to the older pronunciation [ŋu:], thereby reinforcing and hastening the adoption of the new pronunciation (Liu G. , 2012).

Whether isolated high-rise housing has had any impact on the other changes in process remains in question: it is easy to imagine that it might, but there is no other direct data like Liu’s to support that hypothesis. There is, however, information about change adoption rates in Gu (2004), which she lays out by districts and which can be used to draw further conclusions about both Shanghai’s

development and its linguistic situation. Qian (2003) connects the rapidity of sound change in Shanghainese to the percentage of immigrants from outside of Shanghai with the hypothesis that “sound change always starts at the edges of the Shanghai urban area. The further from the city center a place is, the faster the change is taking hold. The districts in the city center... are experiencing a slower rate of change” (Qian N. , *Shanghainese Historical Development*, 2003, p. 48). According to Qian (2003), the Yangpu, Zhabei, Xuhui, and Putuo districts are adopting new pronunciations faster than central districts like Huangpu, Nanshi, Luwan, and Jing’an. This, he claims, is because the outer districts are newer and have a higher percentage of immigrants, especially from nearby Jiangsu, where varieties of Mandarin are spoken. However, he does not break his data down in a way that would allow a reader to see this trend.

Gu (2004) includes an analysis of the occurrence of each new pronunciation by both the age and home district of speakers. For example, the following table shows the average occurrence of the loss of word-initial [ŋ], broken down by district and speaker age. In Gu’s data, the Nanshi district is considered to be part of the Huangpu district, since the two neighborhoods were administratively merged in 2000. Gu’s survey also covers two additional areas, Changning and Hongkou.

Table 1: Loss of word-initial engma by district and speaker age, calculated and adapted from (Gu, *Phonetics in New Shanghainese*, 2004, p. 19). Inner districts in red; greater than 50% adoption of change in bold to highlight the trend.

| | 10 to 15 | 16 to 20 | 21 -25 | 26-30 | 31-35 |
|-----------|--------------|--------------|--------------|--------------|-------------|
| Xuhui | 97.3% | 72.9% | 50.2% | 25.9% | 8.6% |
| Pudong | 96.0% | 60.6% | 40.9% | 20.7% | 14.1% |
| Changning | 88.0% | 56.0% | 33.3% | 10.9% | 6.0% |
| Putuo | 76.0% | 59.7% | 39.5% | 14.5% | 3.7% |
| Zhabei | 77.2% | 49.2% | 39.6% | 16.3% | 4.6% |
| Hongkou | 99.1% | 54.9% | 38.6% | 16.3% | 4.6% |
| Yangpu | 98.2% | 53.6% | 42.4% | 13.9% | 2.9% |
| Huangpu | 86.9% | 64.3% | 35.2% | 15.0% | 3.6% |
| Luwan | 67.8% | 41.1% | 33.9% | 14.1% | 7.1% |
| Jing'An | 59.6% | 57.1% | 33.9% | 12.5% | 0.0% |
| Average: | 84.6% | 56.9% | 38.8% | 16.0% | 5.5% |

In this example, we can see that Gu (2004)'s data bears out Qian (2003)'s hypothesis: the districts and the center of the city, such as Huangpu, Luwan, and Jing'an, show the lowest adoption of the new pronunciation. The change is progressing from the outer districts to the center areas.



Figure 4: Shanghai Area District Map (from shanghaifocus.com, a tourist website)

The map above shows the districts of Shanghai's municipal area, with the cluster of smaller numbered districts roughly corresponding to the districts of urban Shanghai. Modern urban Shanghai also includes the Pudong area across the river from the yellow section. Comparing the above chart to the visual of this map demonstrates that sound changes are adopted first in the outside districts, where development commenced most quickly, while the inner districts have changed more slowly. Chen (2003) also discusses this phenomenon, noting that among the changes he observed, they were adopted the least specifically within the Nanshi district where the old Chinese part of Shanghai used to be.

In addition to an explosion of development, the outer districts have also received the greatest number of newcomers and migrants as part of Shanghai's population explosion. Shanghai's population nearly doubled from 13 million in 1990 to 23 million in 2010. This growth, however, is nearly all due to migration given Shanghai's mandated low birth rate, which is well below replacement rate. Up until

1990, estimates suggest that at least 10 million of those 13 million spoke Shanghainese in some capacity (Qian N. , Shanghai Dialect, 2006). Within the last twenty years, as Shanghai's population has doubled, the proportion of Shanghainese speakers to total population has dropped from approximately over 80% to less than 50%¹. There are now nearly as many migrants in Shanghai as there are estimated Shanghainese speakers.

Shanghai receives two types of migrants: poor, uneducated rural migrants who perform largely manual or temporary labor, and highly educated, skilled newcomers to Shanghai's business world. Both types lead to an increase in Putonghua usage in Shanghai.

The first type of migrant is part of a nationwide phenomenon of rural workers coming to the city in attempt to seek decent wages. They are, in many ways, not so different from the workers who came to Shanghai in the 1920s to staff the foreign factories. Although these migrants, due to an average low educational background, may not speak standard Putonghua very well, they certainly do not speak each others' dialects, making Putonghua valuable as a lingua franca (Wang & al, 2002). Migrants are still subject to discrimination based on accent, but whereas pre-Communist-era newcomers to Shanghai could only counteract these prejudices by learning Shanghainese, modern-day migrants can achieve the same goal in more places through mastery of unaccented Putonghua (Xie, 2011). "I can't read or write; I can't even speak standard Mandarin well. We don't want our children to be like us," said a Shanghai migrant in a National Geographic interview (Larmer, 2010).

The second type of migrant is more specific to Shanghai. Shanghai also now welcomes a new kind of migrant, attracting educated businesspeople, talented professionals, and entrepreneurs from other urban centers. Since highly educated people are much more likely to speak good Putonghua, these "New Shanghai People" are importing not only their valuable economic contribution but also their excellent Putonghua into the Shanghai market (Xie, 2011). As a result, Putonghua is

¹ The Chinese census does not include any questions about language, nor have there been any other similar large-scale projects that would gather data which could contribute to a more accurate numbering of Shanghainese speakers.

now obligatory to gain access to Shanghai's business sector, which significantly weakens the value of Shanghainese in the business domain. Accordingly, Shanghainese has lost its power to open doors and has instead become a detractor: "Before, you had to speak Mandarin [Putonghua] to show respect for others," goes a popular saying. "Now, you have to speak Mandarin to be respected" (Wu P. , 2007). Liu (2012) describes the positive reception of these Putonghua-speaking New Shanghai People in detail:

"...Recent migrants who have gained residency status in Shanghai are almost exclusively skilled white-collar workers recruited by large companies, multi-national corporations and government departments, because only these people are eligible for residency in Shanghai where in-bound permanent migration is tightly controlled. New migrants to Shanghai are recent university graduates, young in age, highly educated and well paid. Their high socio-economic status commands respect. It appears that youth in Shanghai now readily give such respect. They look up to new migrants and identify themselves with new migrants, including adopting their non-native like pronunciation." (Liu G. , 2012, p. 212)

The rise in status of outsiders who do not speak Shanghainese and the increased rate of migration to Shanghai have also had a significant impact on how Shanghainese young people view Shanghainese and Putonghua.

Research on Language Attitudes in Shanghai

While research on language attitudes is well-developed in many other areas of the world, it is not so in China: most of the sociolinguistic work relating to Chinese from the last fifty years focuses on Hong Kong. Within the past twenty years, three studies in particular have focused on language attitudes and ideologies among speakers of Shanghainese: first, in 1994, Bai Jianhua's study of *Language Attitude and the spread of Chinese in China*; in 2001, Zhou Minglang's *The Spread of Putonghua and Language Attitude Changes in Shanghai and Guangzhou*; and Joseph Gilliland's 2006 master's thesis *Language Attitudes and Ideologies in Shanghai, China*. Due to the spacing of these works, it is possible to compare their results and

assess changes in attitudes towards Shanghainese and Putonghua over a fifteen-year span.

Bai (1994) did not focus exclusively on Shanghai: he surveyed a range of scholars and students in the Pittsburgh area between the ages of 25 to 55, including speakers of a wide variety of dialects, and he compared their responses to a questionnaire in order to assess language attitudes towards Putonghua as well as each participant's native or hometown dialect. Based on the results, he separated respondents into three groups: people from the Beijing area, people from either the Shanghai or Guangzhou areas, and respondents from all other areas (mostly other urban areas from China's east coast). He found that respondents generally scored Putonghua higher with respect to prestige and social status while rating their hometown dialect higher for issues of group solidarity, with 82% of respondents expressing reluctance to speak Putonghua at home and 76% associating speaking their local dialect at home with loyalty to their ancestors, which demonstrates an extremely strong trend of identity and loyalty to local dialects. Of all participants, people in the Shanghai and Guangzhou group had the least positive attitudes towards Putonghua and maintained the most positive attitudes towards their local languages, noting especially that Shanghainese in particular was also afforded a higher social status rating among respondents from the Shanghai area in a way that many other dialects were not (Bai, 1994). Based on these results, he concluded that "[Putonghua] is most difficult to spread in Shanghainese and Cantonese dialect areas" (Bai, 1994, p. 133).

Zhou (2001) follows up on Bai (1994)'s results in more detail, focusing on the Shanghai and Guangzhou areas. Zhou (2001) uses both a direct questionnaire, like Bai (1994), and a matched-guise test to assess the language attitudes of 40 Cantonese and 42 Shanghainese college students. His questionnaire included a section in which participants rated personality traits of a stereotypical Beijing speaker, a section covering both personal and family data, and an evaluation of each participant's self-evaluation of his or her Putonghua and desire to learn Putonghua. In contrast to Bai (1994)'s findings, his results "do not conform well to the textbook-case dichotomy found in early studies between high and low varieties on the

dimensions of social status and solidarity” (Zhou, *The Spread of Putonghua and Language Attitude Changes in Shanghai and Guangzhou, China*, 2001, p. 1). Instead of the expected distribution of associating Shanghainese with group solidarity and Putonghua with social status, Zhou (2001) finds instead that, on the whole, Shanghainese participants did not show a clear preference for either Putonghua or Shanghainese. Female participants rated Putonghua higher with respect to both social status and group solidarity; males, meanwhile, preferred Shanghainese. Zhou attributes this unexpected pattern to the “low social distance” between Shanghainese and Putonghua speakers: since Shanghainese students increasingly interacted with Putonghua-speaking classmates or new neighbors who did not also speak Shanghainese, Putonghua, the high variety, was more likely to be spoken in what would traditionally be the domains of the low variety (Zhou, *The Spread of Putonghua and Language Attitude Changes in Shanghai and Guangzhou, China*, 2001). When compared to Bai (1994)’s results, Zhou (2001)’s findings show that Putonghua is gaining traction among young speakers, especially females, which is predictive that this trend will continue.

Gilliland (2006) confirms the trend towards acceptance and adoption of Putonghua. He uses a combination of a matched-guise test and a questionnaire to assess participants’ language attitudes toward Shanghainese and Putonghua, then conducts additional interviews to assess the strength of their Shanghainese identity and gather a more full picture of their language ideologies. His study includes 34 college students whose native language is Shanghainese or a dialect of Shanghainese. In the matched-guise test, respondents consistently preferred Putonghua over Shanghainese: there was no category corresponding to either group solidarity or to social status in which participants rated Shanghainese higher than Putonghua. Additionally, although he expected to find a correlation between strong Shanghai native identity and a positive attitude towards Shanghainese, the participants with a strong Shanghai identity actually demonstrated a preference for Putonghua in the matched-guise test. However, participants did, on the whole, report that they considered the ability to speak Shanghainese to be an important criterion of Shanghai native identity (Gilliland, 2006). Additionally, Gilliland’s

results support Zhou (2001)'s hypothesis that the absence of the expected diglossic pattern was the result of low social distance between Shanghainese and Putonghua speakers, as respondents self-reported that "many of them use Putonghua with their closest friends and classmates on a regular basis" (Gilliland, 2006, p. 100).

Taken together, the results of these three studies show a definitive and fairly rapid transition in attitudes towards Shanghainese and Putonghua. Although some consideration should be given to the fact that Bai (1994)'s respondents were not the same, demographically speaking, as Zhou's or Gilliland's – which may exaggerate the apparent sharpness of the transition between 1994 and 2001 results – the trend is still clear: Putonghua has gained ground not only as the language of social status, prestige, and advancement, but also as the language of conversations between friends.

Loss of Domains and Shanghainese "Revival" Efforts

In 2005, Shanghainese opera performer Ma Lili made headlines with the dramatic claim that because too few young recruits spoke Shanghainese, the art of Shanghainese Opera, or Huju, was in danger: "Shanghai dialect seems a foreign language to these young people working in our theatre now. Once the dialect is lost, the culture will surely follow" (Zhang, 2009). Since then, some Shanghainese speakers have attempted to launch China's first language revitalization project since 1956. However, although pro-Shanghainese efforts are unprecedented in this respect, they still are mostly at band-aid level.

For example, extracurricular classes in Shanghainese are gaining popularity at universities; some community organizations have formed to offer once- or twice-weekly classes of their own at public libraries (Qian Y., 2010). Even some private kindergartens have begun to incorporate Shanghainese into their curriculums; Modern Baby Kindergarten now devotes Fridays to the practice of Shanghainese. Other schools have included smaller-scale programs; Shanghai Luwan No. 1 Central Elementary School has an annual Shanghainese tongue-twister competition (Ni, 2011). Community-based classes are also springing up, attended both by outsiders and locals alike. In response to a report by linguistic advisors, in 2011 the Shanghai

Municipal Commission of Education announced that they would promote a formal, once-weekly hour-long Shanghai dialect course in kindergartens and elementary schools, an almost unprecedented move in China in support of a dialect still formally banned from schools (Ni, 2011).

However, curricula are often restricted to folk songs and Shanghai history, inadvertently reinforcing a tendency to freeze Shanghainese lessons in the domains of nostalgia. Under the strict control of Beijing's policy, the domains in which Shanghainese is allowed in public are severely restricted. Traditional art forms such as Shanghainese Opera are maintained in their original Shanghainese with Putonghua subtitles. Expansion into more modern domains that might appeal to younger Shanghainese, however, are limited. As recently as 1990, most TV shows and radio programs were in Shanghainese. Now, in all of Shanghai, there is only one TV show still allowed to be broadcast entirely in Shanghainese, a program called "Old Uncle" that has been on the air in 1999 (Hilgers, 2009). This show, like Shanghainese Opera, is popular mostly with an older generation: in fact, one writer notes that the show "is so crass that most educated parents won't let their children watch it" (Xu, 2012). A 2008 law specifically mandates that all children's broadcasts must be entirely in Putonghua.

Uses of Shanghainese in the media are increasingly limited to those of nostalgia and tradition. Chen Eheart, a popular musician, does sing in Shanghainese; however, his Shanghainese pieces are primarily about his nostalgia for Old Shanghai. For example, his most recent album is entitled "Once Upon a Time in Magic City," and it celebrates both the Shanghai he remembers growing up as well as the romanticized Shanghai of the 1930s he never saw (You, 2010). This sort of romanticized nostalgia, just like the inclusion of old folk songs in Shanghainese language classes, increases the likelihood that Shanghainese will become a language relegated to the realm of the past, whereas Putonghua is emphasized as governing the domains of the future. Even documentation efforts currently in progress have this quality: the Shanghai Language Work Committee made recordings of Shanghainese, which will eventually be analyzed and added to a forthcoming language and culture museum (Liang, 2010). Likewise, documentation efforts are

confined primarily to instances of “pure” Shanghainese, which is often understood to mean Traditional Shanghainese: Ma Lili’s remarks about Shanghainese opera are almost certainly confused on this point, since the lyrics of the operas all come from Traditional Shanghainese.

Public uses of Shanghainese that do not restrict themselves to nostalgia are criticized: comedian Zhou Libo performs in a traditional Shanghainese stand-up style using English, Putonghua, and Shanghainese. His most famous routine draws its humor from the drastic changes Shanghai has undergone in the past thirty years. Unlike purely nostalgic or romantic acts, Zhou’s performances have drawn fire from the government for “driving a wedge between Shanghai and China” (Hilgers, 2009). Shanghainese-language radio programs, such as one known as ‘Music Breakfast,’ often receive complaints from listeners who do not speak Shanghainese (Liang, 2010). Newcomers, known as “New Shanghainese” view native Shanghainese as snobby and exclusive, more interested in their own city’s development than China’s: “the way the Shanghai people use their language to set themselves apart still gets up my nose,” comments Liu Xiaopei, an accountant from Heilongjiang province in northern China (The Standard, 2005). Newcomers to Shanghai today resent any promotion of a language that is seen as a barrier to their inclusion; these attitudes may have an impact on younger speakers who, as described by Gilliland (2006), ultimately choose to speak Putonghua even with their local friends.

Evidence for reduced transmission

There is a great deal of anecdotal support for the claim that young Shanghainese are speaking Shanghainese either poorly or not at all. According to the Global Times, in 2005 professors at East China Normal University surveyed students about the language they spoke with their family, and the percentages who reported that they spoke Shanghainese at home varied dramatically by age group: 71% of college freshmen said they spoke Shanghainese with their families, whereas only 58% of 10th-graders, 45% of 7th-graders, and 38% of 5th-graders reported using Shanghainese with their families (Ni, 2011). This could be interpreted one of two ways: it could show a drop in transmission over the course of ten years, or it could

be the result of a changed demographic pool as the number of children with families from outside of the Shanghai area increase. Either way, it is telling that young children in Shanghai have a greatly reduced number of peers with whom they might speak Shanghainese: of course, the language of the playground is one that children are most likely to continue speaking (Thomason, 2001).

A number of smaller surveys suggest a growing number of young semi-speakers. In preparation for the 2010 World Expo, a TV program intending to celebrate Shanghai's cultural heritage interviewed a handful of elementary-age students, none of whom displayed fluency in Shanghainese. First- and second-graders were unable to introduce themselves in Shanghainese; their third- and fourth-grade counterparts could introduce themselves and use a few additional stock phrases, but were unable to speak freely (Jones, 2011). According to a Shanghai dialect organization survey, 28% of local students reported that they "speak the dialect poorly and therefore would rather not use it" (Qian Y., 2010). A 2010 survey by the Shanghai Language and Words Committee polled 8,600 Shanghainese-speaking students from kindergarten to university ages, finding that 9% of students polled felt uncomfortable with their competency in Shanghainese (Qian Y., 2010).

Anecdotal evidence also suggests that Shanghai's younger generation is speaking less and less in Shanghainese. "My son quit speaking Shanghainese to me after I sent him to kindergarten," laments one mother, adding that though she speaks to her son in Shanghainese at home, "sometimes my son barely understands and he always responds in Putonghua" (Jones, 2011). Pro-Shanghainese publications are filled with these stories of children who either don't speak Shanghainese at all or speak it with a high degree of Putonghua mixed in; however, no studies to date have examined code-switching between Shanghainese and Putonghua among young people in detail. However, testimony like the following is common in news articles: "I have seen parents ask questions in Shanghai dialect while their kids respond in Putonghua. In the end, both switched to speaking Putonghua for convenience... Many younger kids tend to mix Putonghua and English

when they talk. Apparently they are a more fashionable generation," one 25-year-old Shanghai native told Global Times reporters (Zhang, 2009).

A Shanghai parenting discussion forum solicited answers from parents about whether or not their children could speak in Shanghainese. Many netizens reported that their young children were at best passive speakers who could understand Shanghainese but not produce it; still others replied that their children had no Shanghainese competence at all. "My son can understand [Shanghainese] but he does not speak it well – he speaks with a Yangjing² accent³," writes one mother. "Even though our whole family is from Shanghai, my son cannot speak Shanghainese," laments another, following her post with an embarrassed emoticon.

Most of these parents have already come to the conclusion that their children will be better served in the long run by focusing on mastery of Putonghua or even English (Xie, 2011). "She is used to using Mandarin with her teachers and classmates and finds it difficult to switch," says another mother about her young daughter. "In the end, it is we as her parents who should accommodate her and speak Putonghua as well. I know many parents also do so" (Zhang, 2009).

² Yangjing is an area in the outskirts of urban Shanghai.

³ From the bulletin boards at <http://sh.iyaya.com/talk/30/73431-1-0>, accessed March 2013

Part II: Sound Change & Simplification

There is a great deal of evidence that younger speakers of Shanghainese today sound very different from their parents. First, I will give an overview of Modern Shanghainese for comparison; then, I enumerate and discuss reported changes in New Shanghainese. Taken together, the changes show significant “phonological leveling, with loss or confusion of earlier contrasts” as Austin (1986) predicts a contracting language would show (Austin, 1986, p. 203).

Overall, Shanghainese phonology shows an overwhelming trend of convergence with Putonghua pronunciation. Features specific to Shanghainese are giving way to those of Putonghua. In particular, Gu (2004, 2007) demonstrates evidence that Shanghainese is losing its voicing distinction; this in turn leads to tone change, which implies the possibility of loss of morphological inflection, although that cannot be confirmed.

Although Gu and Qian do not explicitly say so, the picture presented by their data shows that Shanghainese is losing a great deal of structure due to influence from Putonghua.

Modern Shanghainese Phonology

In Chinese linguistics, it is common to approach phonology from the perspective of syllable structure rather than phonemic inventory; Zhu (2006) acknowledges other tactics but concludes that this is ultimately the “simplest and most effective way to do Chinese phonology” (Zhu, *A Grammar of Shanghai Wu*, 2006, p. 5). This makes sense in light of the limited number of possible syllables in Chinese languages and the restricted appearance of each segment.

Broadly, a Shanghainese syllable looks like this: (C1) (V1) V2 (C2) where V2 is obligatory but all other positions are optional. Generally, the syllable can be divided into three parts: the onset, medial, and rhyme, where (C1) is the onset, (V1) is the “medial,” and V2 and (C2) together are the “rhyme” (Norman, 1988) (Zhu, *A Grammar of Shanghai Wu*, 2006).

Onsets

Shanghainese distinguishes between voiced and unvoiced stops and fricatives, which Putonghua does not. This is a classic characteristic of Wu languages; Wu languages have largely preserved this distinction from Middle Chinese, while it has been lost in most other Chinese languages (Norman, 1988). Voiced sounds are some of Shanghainese’s most distinctive features⁴.

Shanghainese has the following possible onsets:

Table 2: Possible Shanghainese Onset Consonants (Zhu, A Grammar of Shanghai Wu, 2006) (Qian N. , A Grammar of Shanghainese, 1997)

| | Labial | | Dental | | Alveo-palatal | | Velar | | Glottal | |
|-----------|------------------|--------|--------------------|----|--------------------|----|------------------|----|---------|-----|
| | Voiceless | Voiced | -V | +V | -V | +V | -V | +V | -V | +V |
| Stop | p p ^h | b | t t ^h | d | | | k k ^h | g | ʔ | |
| Affricate | | | ts ts ^h | | tɕ tɕ ^h | dz | | | | |
| Fricative | f | v | s | z | ɕ | ʒ | | | h | “ɦ” |
| Nasal | | m | | n | | ɲ | | ŋ | | |
| Approx. | | | | l | | | | | | |

Shanghainese voiced stops, affricates and fricatives are only truly voiced inter-vocally: when they occur at the very beginning of a word, they are voiceless but pronounced with a murmured phonation (Chen & Wang, Role of F0 and Closure in Differentiating Voiced Stops). The “murmur” in Shanghainese has been described in a number of ways: Chao (1928) calls it “voiced [sound] with voiced aspiration,” and it also occurs at the beginning of all words whose first syllable has a low tone even in the absence of a would-be voiced segment (Zhu, A Grammar of Shanghai Wu, 2006). In syllables without initial consonants, it is usually described as if it were a segment and represented by ɦ; however, Zhu (2006) argues that this is not a segment, but suprasegmental, occurring together with tone to form the register of the syllable.

⁴ When I first went to Shanghai, I was told to listen for the “v” sound in order to pick out Shanghainese speech on the train. While this is not useful in distinguishing between Shanghainese and other nearby Wu languages, this anecdote highlights the way voiced sounds are seen as the hallmark of Shanghainese.

Medials and Rhymes

Shanghainese, like Putonghua, can have /i/, /u/, or /y/ ([j], [w], or [ɥ]) as medials; it can also have a null medial, since medials are optional. Medial [ɥ] as well as vowel /y/ are both more common in Putonghua than in Shanghainese.

Vowels

Shanghainese has no diphthongs and many pure vowels. There is significant variation in transcription choices for some of these vowels: this makes it difficult to compare different works on Shanghainese. The Chinese literature in particular uses a combination of IPA and pinyin-based⁵ transcriptions. For the most part, this outline of Shanghainese phonology is drawn from Zhu's 2006 grammar combined with Qian's 1997 grammar, as these are the most thorough; however, Zhu's analysis of syllable structure is more thoughtful, with superior attention to issues of hierarchy.

Shanghainese has long and short vowels, demonstrated in the charts below:

Table 3: Long vowels in Shanghainese, from (Zhu, *A Grammar of Shanghai Wu*, 2006, p. 13)

| Long Vowels | | | | |
|-------------|-----------|---------|-----------|---------|
| | Front | | Central | Back |
| | Unrounded | Rounded | Unrounded | Rounded |
| High | i | y | | u |
| Mid | e | ø | ɤ | o |
| | ɛ | | | ɔ |
| Low | | | ɑ | |

Long vowels occur in open syllables with no final consonant. Short vowels, on the other hand, can be followed by possible final consonants /n/, /ŋ/ (sometimes [ɲ]), or /ʔ/. Rhymes ending with a glottal stop have a particularly short nucleus, and

⁵ *Pinyin* is a standardized Romanization system for Putonghua; it is not, however, well-suited to use for Shanghainese. There are Romanization systems for Shanghainese, but none have been widely adopted.

these are referred to as “checked finals.” Checked finals have their own tone class, which is mostly defined by that short nucleus.

Table 4: Short vowels in Shanghainese, from (Zhu, *A Grammar of Shanghai Wu*, 2006, p. 15)

| Short Vowels | | | | |
|--------------|-----------|---------|-----------|---------|
| | Front | | Central | Back |
| | Unrounded | Rounded | Unrounded | Rounded |
| High | i [ɪ] | y [ʏ] | | u [ʊ] |
| Mid | | | [ə] | |
| Low | a | | | ɑ |

Shanghainese also has a number of syllabified consonants, /z/ /z̥/ /m̩/ /ŋ/ /ŋ/ and /ə̃/⁶.

Tone

A full analysis of Shanghainese tones would be a book in itself. Shanghainese has five citation tones, which appear in isolation, as well as complex tone sandhi. Shanghainese has both word-level and phrasal-level sandhi as well as two subtypes of word-level tone sandhi; complex tone sandhi are a hallmark of Wu languages, but Shanghainese’s are particularly complicated even for that family (Norman, 1988). The sandhi patterns combine to reduce the five individual tones to a high and low contrast.

For a gross oversimplification, the tone sandhi of Shanghainese combine so that each word gets a pattern of high and low contrast determined solely by the tone first syllable of each word (Zhu, *A Grammar of Shanghai Wu*, 2006) (Chen, *Studies on Dialects in the Shanghai Area*, 2003) (Chao, 1928). There are different high and low contrast patterns for multisyllabic words from two to five syllables, each depending on the first syllable of the word or phrase.

Tone, voicing and phonation type are closely linked in Shanghainese. Zhu’s analysis of Shanghainese syllable structure links these formally, placing tone and phonation type together at the Register level in a Shanghainese syllable, which he

⁶ There are arguments in particular about how to transcribe and discuss z̥ z̥ and ə̃, but as these are minimally involved in the topic of this paper, I will leave that debate to others.

considers a separate tier directly associated with the syllable root. Therefore, the distinction between high and low tones depends on whether a syllable has a high or low register, which in turn determines the tone pattern of the word.

In addition to affixation, reduplication, and compounding, Shanghainese inflection is determined largely by the interaction of the tone sandhi patterns (Zhu, *A Grammar of Shanghai Wu*, 2006).

Table 5: Overview of Shanghainese Tones, from Gilliland (2006)

| Tone Number | Tonal Value on 5-point scale | High/Low Tone Register (+/- U) |
|-------------|------------------------------|--------------------------------|
| T1 | 52 | +U |
| T2 | 34 | +U |
| T3 | 14 | -U |
| T4 | 44 (short) | +U |
| T5 | 24 (short) | -U |

Influence from Putonghua

Although not all of the recent changes in the speech of young Shanghainese can be directly tied to influence from Putonghua, many recent developments have a clear causal link to influence from Putonghua than can be demonstrated by comparisons between the Modern Shanghainese pronunciation and the corresponding Putonghua and New Shanghainese pronunciations.

Changes In Initials

There is a strong trend of lenition in Shanghainese initials as those sounds that do not appear in Putonghua either lose their voicing or disappear altogether, especially as observed in the youngest speakers. These may be the most dramatic of the changes from Modern Shanghainese to the newest variety of New Shanghainese spoken by young people, especially because of the possible implications for Shanghainese tone sandhi.

Table 6: Changes in Shanghainese Initials due to Putonghua Influence

| Change | Environment | Status | Source |
|---|---|--|--|
| Major Changes | | | |
| [ŋ], [ɲ] > ∅ | Word-initial | Common in speakers 30-35 and younger | Liu (2012); Gu (2004& 2007); Qian (2003) |
| z > dz, ɕ | ɕ if PTH fricative, dz if PTH affricate | Common in speakers 30 and younger | Chen (2003); Qian (2003); Gu (2004 & 2007) |
| v > f, ∅ | v > f before medial u (w); v > ∅ in all other cases | Only in young speakers 10-15 | Qian (2003); Gu (2004, 2007) |
| “ɦ > ∅,” or loss of murmured phonation | Word-initial | Only in young speakers: found in 25 and under, common in 10-15 | Qian (2003); Gu (2004, 2007) |
| Loss of voicing in stops and fricatives | | Only in young speakers: found in 25 and under, common in 10-15 | Gu (2004, 2007) |
| Minor Changes | | | |
| Loss of syllabic [m] and [n] | Syllabic [n] retained in 3 common words; all other have vowel rhyme added | Only in young speakers 10-15 | Gu (2004, 2007) |
| ɲ > l, ɲ > z | PTH has z _ɕ initial | Only in young speakers 10-15 | Gu (2004, 2007) |

Example: Loss of Initial [ŋ]

In Modern Shanghainese, the word for “I/me” is pronounced [ŋu:]. According to Liu (2012), when he was learning to speak Shanghainese between 1955 and 1985, the variation [u:] for “I” existed,

“but only as a non-native alternative used by non-locals from other parts of China. During the time when I lived in Shanghai, this pronunciation was considered a marker of non-native speech used by

migrants to Shanghai. Local people associated this pronunciation with low social status and regarded it socially undesirable.” (Liu G. , 2012, pp. 203-204)

However, after spending two decades away from Shanghai he found that [u:] had become the standard pronunciation of young speakers when he returned in 2003. Although his study was confined specifically to the pronunciation of “I/me,” Qian (2003) and Gu (2004 & 2007) both observe that word-initial [ŋ] has been lost in young speakers generally.

Liu (2012) posits that the lost sound is the result of interference from bilingual speakers of other varieties of Chinese, particularly Mandarin, because [ŋ] does not occur in the initial position in Mandarin or other varieties of Chinese, and is a difficult sound for nonnative speakers to master, which made it a clear candidate for a marker of non-local speech. His data was collected between 2003 and 2006. Of his study participants, who were limited to second- and third-generation Shanghai residents, 100% of informants 20 years old and younger used [u:], as did 98% of those aged 21-25, 86% of those aged 26-30, 76% of those aged 31-35, 32% of those aged 36-40, 14% of those aged 41-45, and only 2% of informants over the age of 46.

The percentage of females using the new pronunciation was equal for those aged 30 and under, but above 30 years old, more females than males use the new pronunciation, suggesting that the females began to use it first. (Liu G. , 2012). These are not surprising results, as it is common for females to adopt a sound change or new pronunciation before males do (Labov, 2001).

Table 7: Male and Female Percentages in [ŋ] loss

| Age | <20 | 21-25 | 26-30 | 31-35 | 36-40 | 41-45 | 46+ |
|-----------|-----|-------|-------|-------|-------|-------|-----|
| % Females | 50 | 49 | 51 | 61 | 75 | 85 | 0 |
| % Males | 50 | 51 | 49 | 39 | 25 | 15 | 0 |

Gu (2004) assesses the pronunciation of syllable-initial [ŋ] in 14 different tokens across five different age brackets in urban Shanghai’s ten central districts. On average, according to her data, 84.6% of speakers aged 10-15 have lost syllable-initial [ŋ], as have 56.9% of speakers aged 16-20, 38.8% of speakers aged 21-25,

16% of speakers aged 26-30, and 5.5% of speakers aged 31-35, as demonstrated by district in the table below:

Table 8: Average age and [ŋ] loss, adapted and averaged from (Gu, Phonetics in New Shanghainese, 2004, p. 19)

| Age | 10 to 15 | 16 to 20 | 21 -25 | 26-30 | 31-35 |
|---------|----------|----------|--------|-------|-------|
| Average | 84.6% | 56.9% | 38.8% | 16.0% | 5.5% |

Using these averages, and by converting the age range brackets from Liu (2012) and Gu (2004) to birth year according to the year each data set was collected, we can compare the percentage of speakers each found to have lost initial [ŋ]:

Table 9: Birth year and loss of initial [ŋ]

| Birth Year | Liu (2012): "I/me" only | Gu (2004): All Initial [ŋ] |
|------------|-------------------------|----------------------------|
| 1985-1990 | 100% | 84.60% |
| 1984-1980 | 98% | 56.90% |
| 1979-1975 | 86% | 38.80% |
| 1974-1970 | 76% | 16% |
| 1969-1965 | 32% | 5.50% |
| 1964-1960 | 14% | no data |
| 1959 | 2% | no data |

This gives a sense of when this change started and its rate of adoption.

Structural simplification: Loss of voicing distinction

Gu (2007) argues that some of her participants demonstrate not just occasional but systematic loss of the voicing distinction, which is a controversial claim. I will first discuss the specifics of some individual changes or variations, [ʒ] > [dz] or [c], [v] > [f] or \emptyset , and [h] > \emptyset , which she considers to be part of this process, then discuss them together and assess the possibility of systematic devoicing according to her evidence and other literature. Ultimately, the examples she gives provide not only strong support for this argument, but also demand an even stronger interpretation of the possible consequence of the loss of voicing distinction.

Example: [z-] > [dz-] , [ç-]

Chen (2003) first describes the emerging alternation between [z-] and [dz-]. It is clear that at the time of Chen’s data gathering, between 1984 and 1993, this alternation is still quite new and has not yet progressed to include the alternation with devoiced ç-. He mentions that at the time of his data collection, “younger” Shanghainese speakers use the initial [dz-] whereas “older” speakers do not. Chen (2003) provides a detailed comparison of the situations in which this occurs. Of three groups with otherwise identical phonetic settings, one group maintains the fricative [z-] initial, one group has already nearly completed the shift to the affricate [dz-] initial, and one group shows the active variation. The shift or presence of variation in each group corresponds to the pronunciation of those syllables in Putonghua; where Putonghua has a fricative, the fricative in Shanghainese is preserved; where Putonghua has an affricate initial, Shanghainese is slowly adopting an affricate initial as well.

Table 10: Comparison of early SHH z/dz variation (Chen, Studies on Dialects in the Shanghai Area, 2003, p. 180)

| Comparison of SHH z/dz- variation with PTH c. 1985-1990 | | | |
|---|---------|------------------------|------------------------|
| | Group 1 | Group 2 | Group 3 |
| SHH | z- | z- / dz - | dz - |
| PTH | ç- | tç-, tç ^h - | tç-, tç ^h - |

Qian (2003) demonstrates that by 1985, this alternation was common in younger speakers aged 13-18. Qian (2003) also reports that during his 2002 survey of Shanghai university students aged 18-20, in addition to the shift from [z-] to [dz-] where Putonghua had an affricate, in words where Putonghua has a fricative, these college students were starting to show variation between the voiced and unvoiced [z-] and [ç-]. Of the tokens tested in Gu (2004)’s survey, there were only two instances where [z] is still used consistently: on average, participants from the ages of 10 and 25 used the [ç-] pronunciation over 90% of the time for the other 11 words she tested. Gu (2007) also notes that when the voiceless pronunciation is used, the tone of the words changes to high, regardless of its tone before.

Gu (2007) observes anecdotally that this may extend, although not yet very frequently, to an analogous variation between [dz-] and [tɕ-], [tɕ^h-]. As with instances where [z-] has changed to [ɕ-], the tone of the word changes with its newly voiceless initial to a tone with an upper register.

The following chart shows the influence of different Putonghua pronunciations on several homophonous Modern Shanghainese words and the resultant, no-longer-homophonous New Shanghainese words:

Table 11: Tone Change with Voicing Loss, adapted from Gu (2007): includes both pitch on 5-note scale as well as register

| PTH | Modern SHH | New SHH | Examples |
|---------|------------|-----------|----------|
| tɕ- 214 | dz- 14 -U | tɕ- 34 +U | 2 |
| tɕ- 51 | dz- 14 -U | tɕ- 52 +U | 4 |

While there are only a few instances of this reported in Gu (2007), it does suggest that the pattern is continuing and that words which started with [z-] in Modern Shanghainese are continuing to move even closer to the corresponding Putonghua pronunciations.

Table 12: Summary of all z- changes

| Modern SHH | PTH | New SHH |
|------------|------------------------|---|
| z- | tɕ-, tɕ ^h - | dz- / tɕ-, tɕ ^h - (Gu, 2007) |
| z- | ɕ- | z-/ɕ- (Qian, 2003) |

Example: “[f̥]” > ∅ or loss of murmur

What is usually transcribed as [f̥] is not really a segment; it is a murmured phonation (Zhu, 2006). Gu (2004) describes it as “more like a null initial that nevertheless has voiced characteristics” (Gu, *Phonetics in New Shanghainese*, 2004, p. 22), but even this misses the important fact that the murmured voice has a close relationship with the voicing distinction and tone contrasts in Shanghainese. If [f̥] is considered a segment, as Gu (2004 & 2007) and Qian (2003) clearly approach it, its loss is much less significant; when understood as a separate phonation level, as it should be, the disappearance of the murmur becomes much more significant. I will discuss these implications in a later section.

Qian (2003) mentions the “weakening” of [h] and some possible alternations with Ø, but he does not explore this any further. However, Gu (2004) explores this variation in more detail, and observes that the loss of [h] may be more widespread; this observation has to do, in part, with the fact that Qian’s investigation is confined more to central Shanghai whereas Gu’s covered more ground in the outer districts in addition. Additionally, according to Gu (2004), the age group where this phenomenon is most noticeable is slightly younger than the college students Qian surveyed in 2001, although their data collection is nearly contemporaneous. Loss of this phonation, Gu found, seems to be an all-or-nothing phenomenon: Gu reports that respondents either used the murmur in all target words surveyed or in no words surveyed whatsoever.

Table 13 demonstrates, using averages of Gu (2004)’s report, that this is a trend only prevalent among much younger speakers, especially those born after 1985, and that it is also more common in outer districts and least common in inner districts such as Huangpu, Luwan, and Jing’an, although younger speakers in this area seem to be adopting it somewhat as well.

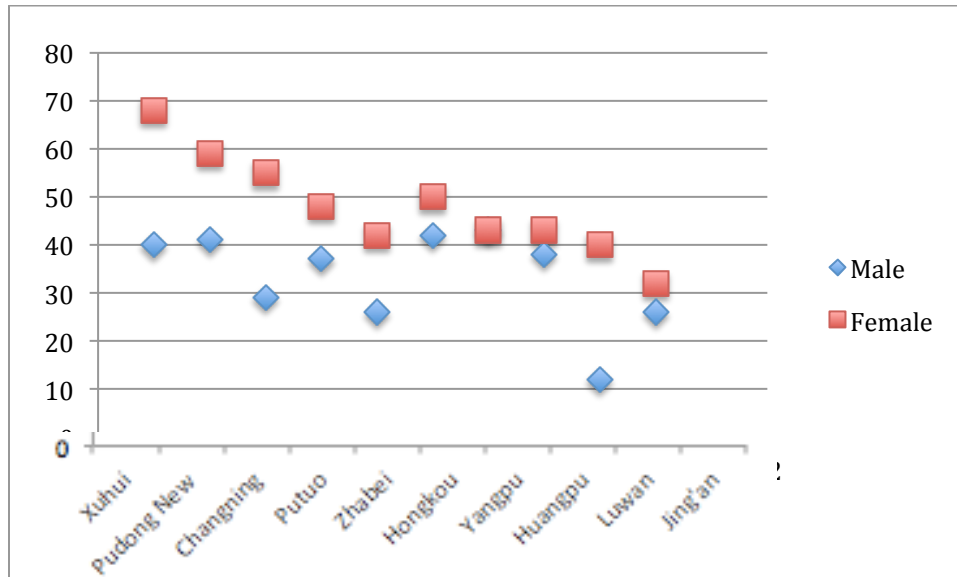
Table 13: Loss of murmur with null initial, averaged from Gu (2004)

| | 10 to 15 | 16 to 20 | 21 -25 | 26-30 | 31-35 |
|-----------|-----------------|-----------------|---------------|--------------|--------------|
| Xuhui | 94.7% | 72.2% | 50.7% | 23.2% | 7.3% |
| Pudong | 96.9% | 65.0% | 38.0% | 20.6% | 14.0% |
| Changning | 79.7% | 57.4% | 29.6% | 15.0% | 9.3% |
| Putuo | 79.7% | 55.9% | 37.7% | 15.4% | 5.8% |
| Zhabei | 75.8% | 48.7% | 35.0% | 16.8% | 7.1% |
| Hongkou | 98.7% | 48.3% | 36.4% | 16.8% | 7.1% |
| Yangpu | 89.8% | 51.0% | 39.0% | 14.1% | 2.7% |
| Huangpu | 86.2% | 55.6% | 30.7% | 15.6% | 1.9% |
| Luwan | 38.9% | 33% | 30.6% | 11.0% | 8.3% |
| Jing'an | 44.4% | 47.2% | 27.8% | 13.9% | 0.0% |
| Average: | 78.5% | 53.5% | 35.5% | 16.2% | 6.4% |

This is also significantly more prevalent in females than males. Unfortunately, Gu does not provide actual numbers for male and female speaker ratios, but I have visually recreated the chart she uses to illustrate the gender disparity, showing the

percent of occurrence of usage of the new pronunciation among male and female respondents:

Table 14: Loss of murmur in males and females, recreated approximately from Gu (2004)



This pattern would suggest that this trend may continue to expand, since women are commonly at the forefront of a sound change (Labov, 2001).

Example: [v] > [f], ø

This is a particularly recent example, which Gu (2007) only observes among some of her younger speakers, who demonstrate variation in their pronunciation only in uncommonly used words or more formal language. As she observes, although this variation has started to appear in predictable distribution, it has not yet developed into a systematic change. When it occurs, the [v] either disappears completely when Putonghua has a medial [w], or turns to [f] where Putonghua has no medial.

Table 15: Pattern of variation from SHH v, adapted from Gu (2007)

| SHH | PTH | New SHH |
|-----|--------------|---------|
| v | has medial w | ø |
| v | no medial | f |

Where [v] turns to [f], the syllable also loses its low-register tone, as seen in the examples with [z]. Since this is a newly observed variation, there are few examples to go on. Gu (2004) tests only 7 words for this pattern in her survey; however, speakers aged 10-15 used the voiceless pronunciation between 80% and 100% of the time for these seven tokens. Speakers over the age of 20, on the other hand, showed this variation less than 50% of the time (Gu, *Phonetics in New Shanghainese*, 2004).

Table 16: Some v > f examples, including change from low to high tone register, transcribed from Gu (2007)

| Modern SHH | PTH | New SHH | Gloss |
|-------------|-----|--------------|----------|
| vu (T3/low) | fu | fu (T2/high) | "Rotten" |
| vu (T3/low) | fu | fu (T1/high) | "Father" |

This variation is noteworthy for appearing at all, as all previous documentation of Shanghainese has observed no such variation, and this appearance of a variation is consistent with Gu's hypothesis that New Shanghainese's voiced consonants are losing their voice. Likewise, the correspondence with Putonghua pronunciation suggests this is due to influence from Putonghua as well.

Conclusions regarding loss of voicing & predictions for tone change

The claim that Shanghainese is heading towards a systematic loss of voicing distinction as a result of influence from Putonghua is controversial. This is one of the most striking claims in Gu's work: to date, Gu is the only linguist studying Shanghainese who believes this is happening on a large or systemic scale. While Qian (2003) acknowledges that some voiced sounds are either falling out of use or in variation with voiceless pronunciation, he argues that this is primarily true only in situations where a word is borrowed directly from Putonghua or in academic or obscure words. Gu (2007), however, disagrees with this on the basis of her study results, which suggest that among younger speakers devoicing of voiced consonants is both common and widespread.

Unfortunately, Gu's data collection methods weaken her conclusions. Since Shanghainese voiced stops are only truly voiced in word-medial position, and murmured in word-initial position, a true assessment of variation or change in the status of voiced stops would demand study materials that controlled for this, and I have no reason to believe, given the description of materials Gu provided, that her study has done so systematically; her methods largely involved asking participants to read words in isolation, and the materials she provides for this section are mostly made up of words where the target sound is in a word-initial position. This major flaw limits the conclusions I am willing to draw from her report with regard to this hypothesis. Qian's survey methods appear to share the same deficiency.

However, given that all of Gu's subjects were interviewed using the same methods and she observes a difference between her older and younger informants' speech, it seems that poor methods alone cannot write off the internal comparison. To clear this up, we can look to Gu's reports of the loss of murmured voice in the presence of a null initial. Qian (2003) and Gu (2004, 2007) both report a trend and an emerging change, respectively, that they both analyze as $[h] > \emptyset$, where $[h]$ represents murmured voice in the absence of a consonant onset (Zhu, *A Grammar of Shanghai Wu*, 2006). In addition to the possibility of murmured voice with a null initial, voiced consonants in word-initial position are realized as unvoiced with murmured phonation; for example, word-initial /b/ appears as $[p^-]$, voiceless with a murmur. Viewed together with claims of $[h] > \emptyset$, therefore, reports suggesting a change in word-initial pronunciation of voiced initials that is apparent when compared to results from older speakers gathered using the same admittedly flawed methodology could represent a disappearance of the murmured voice in younger speakers.

The tone of affected syllables provides additional evidence. Murmured voiced is the only audible distinction between, for example, word-initial /p/ and word-initial /b/. However, all syllables with murmured voice also have a low-register tone, as do all syllables with voiced initials (Zhu, *A Grammar of Shanghai Wu*, 2006). Zhu's analysis of Shanghainese syllable structure places both tone and phonation type together at the Register level in order to further account for this relationship,

although the pattern is demonstrable regardless of syllable hierarchy (Qian N. , A Grammar of Shanghainese, 1997). Chen and Wang further support the function of tone as a key factor in differentiation between voiced and unvoiced stops word-initially (Chen & Wang, Role of F0 and Closure in Differentiating Voiced Stops). As these facts would predict, in all of Gu (2007)'s examples of "devoicing," the tone of the affected syllable changes to a high tone register.

It is certainly clear from close analysis that there is a complicated relationship between murmur, tone, and voicing in Shanghainese. It is clear, from Gu and Qian's reports of the loss of "f" that murmured voice in Shanghainese is disappearing at least in part if not in full. It is also suggested, based on Gu (2004, 2007)'s results that this corresponds to a loss of the low-register tone in affected syllables. Given that all syllables with voiced initials also have a low-register tone, it would appear that not only is this evidence of the beginning of a possible loss of voicing distinction in affected young speakers, but also the possible loss of murmur, low-register tone, and voicing distinction in these speakers.

Such a change would not only be enormous and unprecedented in Shanghainese, but it would also have a further impact on tone in Shanghainese: the live contrast in Shanghainese, as a result of tone sandhi processes, is only between high and low registers; the citation tones only appear in isolation. The disappearance of the low register would, most likely, cause upheaval within Shanghainese tone sandhi as well.

Tone Change

Gu (2004, 2007) documents three kinds of change to Shanghainese tones: first, as discussed above with regard to the loss of the voicing distinction, there seems to be an ongoing loss of low-register tones, especially, but not only, when the loss of voicing or murmur is also involved. Secondly, the short tone class of checked finals is lengthening and disappearing. Thirdly, tone sandhi patterns for longer words are being lost, with five-syllable patterns getting split instead into sets of two- and three-syllable sandhi patterns.

Obviously, the most important of these changes is the change away from low-register tones, which has the most far-reaching implications for Shanghainese tone sandhi. In particular, Gu (2007) discusses a trend away from Shanghainese T5, a low-register short tone, to T4, the high-register short tone. Gu (2007) shows that an average of 14% of commonly-used words and 33% of uncommonly-used words surveyed showed this trend; although it is not as common as some of the other changes discussed, it is vastly more common in the 10-15 year-olds surveyed (Gu, 2004). It is also, as expected, more common in outer rather than inner districts (Gu, 2007). This shift from T5 to T4 in younger speakers is occurring regardless of what tone a syllable has in Putonghua. As discussed above, this may be prompted by the loss of voicing or murmur in the affected syllables; however, it also necessarily results in the simplification of tone sandhi patterns associated with T5.

Words beginning with T5 have a unique rightward shifting sandhi pattern (Zhu 2006) where, unlike Shanghainese's other sandhi patterns, the tone of the first syllable determines the tone pattern of the word, but the pitch of that tone shifts to the last syllable (of 2, 3, and 4-syllable words) while the first syllables get a low neutral tone. T4, however, does not trigger the rightward shifting pattern; words beginning with T4 have their own rightward spreading pattern. Therefore, there is a significant possibility that the rightward shifting sandhi will disappear with T5, although Gu (2007) does not investigate this any further.

Although Gu (2004, 2007)'s report suggests that the low-register tones will disappear with the Shanghainese voicing contrast, none of her survey materials were well-suited to eliciting longer utterances in order to determine what, precisely, the tone sandhi used by younger speakers might sound like. However, since the main live contrast involved in lexical sandhi patterns is simply low and high register, it seems extremely likely that patterns other than the rightward shifting of T5 will be destabilized if not lost. Accordingly, it seems equally likely that this will ultimately result in the possible loss or reduction of Shanghainese morphological inflection, which is dependent on the tone sandhi.

In addition to changes to tone register, Gu (2007) also suggests that the short tone class of Shanghainese checked finals, which includes T4 and T5, may also be

lengthening or disappearing. According to Zhu (2006), the standard average length of short syllables T4 and T5 is around 0.070- 0.080 seconds; however, both Gu's (2007) and Jiang's (2007) results suggest that this is significantly lengthened in younger speakers. Jiang (2007) compares the lengths of T4 and T5 of teenaged speakers to speakers above the age of 40, finding that on average, the younger speakers' short tones are about 0.31 seconds to 0.36 seconds long, whereas the older speakers' short tones are on average 0.16 seconds long. Gu (2007) also reports that T4 and T5, if they have not changed to other tones, are longer in younger speakers; however, she also reports that T4 may also become T1 or T2, with no apparent consistency to the result. Although there is insufficient data to predict the outcome, it does appear that the short tone class is significantly destabilized.

Lastly, Gu (2007) observes that instead of using the 5-syllable tone sandhi pattern to pronounce 5-syllable stimuli, younger speakers break 5-syllable words down into combinations of the two- and three-syllable sandhi patterns, suggesting the loss of 5-syllable sandhi patterns.

Changes in Rhymes

There are three major kinds of changes to Shanghainese rhymes that can be traced directly to influence from Putonghua: first, changes to Shanghainese checked finals, which Putonghua does not have. Second, there is considerable influence on Shanghainese from Putonghua medial /y/; Shanghainese is expanding its adoption of the y sound, which had been unusual in Shanghainese before. Lastly, Shanghainese monophthongs are breaking into diphthongs as a result of Putonghua influence. Although there are other changes too, these three categories have the strongest effects.

Table 17: Contact-Induced Changes in Rhymes

| Change | Environment | Status | Source |
|-----------------------------|---|---|-------------------------------------|
| [oʔ] <-> [eʔ] | [oʔ] > [eʔ] if PTH has [ɤ]; [eʔ] > [oʔ] if PTH has [ɔ] or [-wɔ] | Speakers 25 and under; variation over 30 | Qian (2003); Gu (2004, 2007) |
| [-jAʔ] > [-jiʔ], -/yiʔ/ | [jAʔ] > [yiʔ] when PTH has medial /y/ | Speakers 25 and under; variation over 30 | Qian (2003); Gu (2004, 2007) |
| [-joʔ] > [-yiʔ] | Where PTH has medial /y/ | Younger speakers (10-15); variation age 15-25 | Gu (2004, 2007); Qian (2003) |
| All checked finals > [-yiʔ] | Where PTH has /y/ or /-yø/ | Younger speakers (10-15); variation age 15-25 | Gu (2004, 2007) |
| [-i] > [-yø] | Where PTH has medial /y/ | Speakers 40 and under | Chen (2003); Qian (2003) |
| [-iŋ], [-joŋ] > [yŋ] | Where PTH has medial /y/ | Speakers 25 and under; variation over 30 | Chen (2003); Qian (2003) |
| [-Ä] > [-eŋ] | Where PTH has [-əŋ] | Younger speakers (10-15); variation age 15-25 | Gu (2004, 2007) |
| [ɛ] > [e] | Where PTH has [-ei] | Speakers 25 and under; variation over 30 | Gu (2004, 2007); Yao & Chang (2011) |
| [ɛ] > [ei], [wei] | Where PTH has [-ei] or [-wei] | Younger speakers (10-15); variation age 15-25 | Gu (2004, 2007); Yao & Chang (2011) |
| /-ɤ/ > /-ɤu/ | All | Younger speakers (10-15); variation age 15-25 | Gu (2004, 2007); Qian (2003) |

Simplification of Checked Finals

Several of the changes to rhymes affect the checked finals. The earliest of these, the merger of [Aʔ] and [-əʔ] to [-eʔ], does not seem to be a direct influence from Putonghua, but the other, more recent changes show a clear influence. Together, these changes represent an overall destabilization of the pronunciation of checked finals.

Chen (2003) discusses the [-Aʔ], [-əʔ] > [-eʔ] merger in younger speakers of the late 1980s, but does not document any other variation or changes. Qian (2003) discusses wide variation and “destabilization” as a “major change” in recent Shanghainese, but he does not separate this into discrete changes, largely because none of these changes are complete in older or even late-twenties age speakers at the time of his research. Accordingly, Gu (2004) uses her data from much younger speakers to break that general “destabilization” down into several distinct changes. Of those, Gu (2007) looks at the likelihood of these changes arising from contact with Putonghua.

Like Qian (2003), Gu also notes that “some oʔ have become eʔ and some eʔ have become oʔ, and there is not yet a clear rule to regulate this” (Gu, *Phonetics in New Shanghainese*, 2004, p. 47). There is no obvious influence from Putonghua that would cause a change from [oʔ] to [eʔ]. However, in the opposite direction, when comparing the affected words to the standard Putonghua pronunciations, there is a clear pattern (Gu, *The Influence of Language Contact on Sound Changes in Shanghainese*, 2007). There seems to be a trend of influence from Putonghua words ending in [o] or [e]; where the Putonghua pronunciation ends in [o], New Shanghainese pronunciation is shifting to [-oʔ], and where the Putonghua pronunciation ends in [-e], New Shanghainese pronunciation is shifting towards [əʔ], regardless of the Modern Shanghainese pronunciation. Gu (2007) reports that these changes have affected 49% of frequently used words surveyed and 65% of

infrequently used words surveyed in speakers aged 10-25, with even higher rates of adoption in speakers aged 10-15 (Gu, Phonetics in New Shanghainese, 2004).

Table 18: Evidence for Influence in Change to -oʔ and -əʔ, adapted from Gu (2007)

| Modern SHH | PTH | New SHH |
|------------|--------|---------|
| aʔ | o | oʔ |
| aʔ | e | əʔ |
| eʔ | o or u | oʔ |
| oʔ | e | əʔ |

Likewise, changes toward [-yɪʔ] from either [-jAʔ] or [-jɪʔ] are clearly influenced by the presence of /y/ in Putonghua: words involved in this change shift to a [-yɪʔ] final when the Putonghua pronunciation of the word has a medial /y/ (there are no examples given in which the /y/ is not medial but final only).

Table 19: Influence of PTH -y on changes in checked finals, adapted from Gu (2007)

| Modern SHH | PTH | New SHH |
|--------------|------------------------|---------|
| -jAʔ | No -y | -jɪʔ |
| -jAʔ | Has medial or final -y | -yɪʔ |
| -jɪʔ or -joʔ | Has medial or final -y | -yɪʔ |

Table 20: Some examples of influence of PTH -y on checked finals, all transcribed from Gu (2007)

| Modern SHH | PTH | New SHH | Gloss |
|---------------------|--------------------|---------------------|-----------|
| tɕ ^h jAʔ | tɕ ^h ɥœ | tɕ ^h ɥɪʔ | "Certain" |
| jAʔ | ɥœ | ɥɪʔ | "Leap" |
| ɕjɪʔ | ɕɥœ | ɕɥɪʔ | "Snow" |

Putonghua medial /y/

In addition to these changes among checked finals, Putonghua medial and final /y/ has had considerable influence on other Shanghainese rhymes. Final /y/ came to Wu languages through Mandarin influence during the Ming dynasty; but from then until around 1950, medial /y/ remained unusual in Shanghainese (Chen, Studies on Dialects in the Shanghai Area, 2003, p. 182).

Since around 1950, medial /y/ has expanded within Shanghainese as a result of increasing Putonghua influence. Chen (2003) attributes early variation between

[-i] and [-yø] to a period of increased immigration from Subei in the 1940s and 1950s, which brought an influx of speakers of Jianghuai Mandarin, which is similar to although not identical to Putonghua.

Table 21: Early variation between -i and -yø, from (Chen, Studies on Dialects in the Shanghai Area, 2003, p. 183)

| Comparison of early -i/-yø alternation in SHH with influences from PTH and Jianghuai MN | | | | |
|---|------------------|---------------------|---------------------|---------------------|
| | | 钱 | 全 | 拳 |
| SHH | 1950's SHH | zi | zi | dzyø |
| | JH-accent SHH | zi | dzyø | dzyø |
| JH MN | Yancheng Dialect | tɕ ^h iĩ | tɕ ^h yõ | tɕ ^h yõ |
| PTH | Standard | tɕ ^h iɛn | tɕ ^h yɛn | tɕ ^h yɛn |

This was the first of many such changes, which include [-jŋ], [-joŋ] > [-yŋ] as well as the convergence of several checked finals to -[yɪʔ] where Putonghua has a corresponding medial /y/. The following table from Chen (2003) neatly demonstrates that this variation only occurred when the corresponding Putonghua words contain a medial /y/.

Table 22: Variation from PTH medial y (Chen, Studies on Dialects in the Shanghai Area, 2003, p. 182)

| | Group 1 | | | Group 2 | |
|-------------|------------|---------|-----------|--------------------|------|
| SHH | tɕjoŋ | ziŋ | ŋjoʔ | ziŋ | ŋjoʔ |
| PTH | tɕyn | ɕyn | yɛ | tɕ ^h in | zou |
| SHH c. 1990 | tɕyŋ/tɕjoŋ | zyŋ/ziŋ | ŋyɪʔ/ŋjoʔ | -- | -- |

By the early 2000s, when Qian (2003) and Gu (2004, 2007) collected data, the Putonghua-influenced variants had become the rule among younger speakers, with variation remaining in older speakers.

The reversal of the [e] and [ɛ] merger

Sounds [e] and [ɛ] were in the process of merging throughout the Modern Shanghainese period (Chen, 2003). However, that merger has now reversed due to

influence from Putonghua. The following table from Yao & Chang (2011) presents the history of this merger clearly:

Table 23: History of [e] and [ɛ] in SHH, (Yao & Chang, 2011, p. 8), lightly adapted

| PTH rhyme | Example | SHH 1850s-1920s | SHH 1920s-1960s | SHH 1970s-1980s | SHH >2000s |
|-----------|----------------------|-----------------|-----------------|-----------------|-----------------|
| /aj/ | PTH Láí "to come" | e | ɛ | ɛ | ɛ |
| /æɲ/ | PTH Lán "orchid" | ɛ | ɛ | ɛ | ɛ |
| /ej/ | PTH Léi "thunder" | e | e | ɛ | e (e/ej) |

Chen (2003) considers the [e] to [ɛ] merger nearly complete by the time he conducts his data collection in the late 1980s; so, too, does Qian (2003) though he notes the possibility of a renewed variation in analyzing his 1992 data. Gu (2007) finds that among younger speakers, the two vowels are once again distinct. Yao & Chang (2011, 2012) investigate this in greater detail, providing controlled stimuli and statistical analysis that Gu's data lacks overall. They compare speech within 9 parent-and-child pairs, with the "parent" group aged 55-65 and the "child" group aged 24-36, and demonstrate not only that there is less merging of [e] or [ɛ] in the younger speakers, but that there is also less merging during a translation exercise where participants translate from Putonghua to Shanghainese, supporting the hypothesis that the reversal of this merger is due to influence from Putonghua.

Diphthongization

Wu languages generally have more monophthong vowels, having lost diphthongs and triphthongs from Middle Chinese (Norman, 1988). Modern Shanghainese had no diphthongs, but several have emerged recently due to influence from Putonghua.

Qian (2003) and Gu (2004, 2007) both note that [ɣu] has emerged as a diphthong variant of previously monophthong [ɣ], and Gu (2007) demonstrates this with more detailed sound analysis, with the assertion that speakers surveyed pronounce 96% of common words in her stimulus with the diphthong and 95% of uncommon words surveyed (Gu, *The Influence of Language Contact on Sound*

Changes in Shanghainese, 2007). Modern Shanghainese -ʁ corresponds to Putonghua diphthong -ou, so the New Shanghainese diphthong seems to arise from that influence.

Likewise, the appearance of [ej] occurs in the same group of words Yao and Chang (2011) investigate with respect to the renewed divide between [e] and [ɛ]; those influenced by Putonghua [ej] are “more likely to be diphthongized and are diphthongized to a greater degree” than the other groups tested. Their analysis shows that in a self-paced reading exercise, diphthongization was more likely to occur in words where the Putonghua pronunciation is –[ej] with a p-value between 0.001 and 0.005, and even more so in a translation exercise, where the p-value was less than 0.001. This diphthongization was present in the speech of participants aged 55-65 as well as those aged 24-36, but it was “more evident in younger speakers” (Yao & Chang, 2011).

Other simplification without clear Putonghua correspondence

Many of Shanghainese’s recent changes have a less direct causal relationship to corresponding Putonghua pronunciation but have appeared contemporaneously with the above changes. Gu (2007) concludes that, in the absence of any clear linguistic evidence, there is no to consider these changes the result of language contact with Putonghua. Although even “dying languages will undergo ordinary internally motivated changes as well as contact-induced changes [and] these changes cannot be assumed to have any direct connection with language shift” (Thomason, 2001, p. 229), the prevalence of these changes in the same age groups and districts of speakers who are adopting changes with a clear connection to Putonghua seems too pronounced to be purely coincidence.

Most of these changes without a direct correspondence to Putonghua involve the simplification of available Shanghainese finals, especially with regards to vowels.

Table 24: Changes with Less Obvious Putonghua Influence

| Change | Environment | Stability | Source |
|----------------------|-------------------------------------|--|---|
| [ã], [-ã] > [-Ã] | All instances of either nasal vowel | Mostly complete; very well attested | Chen (2003); Gu (2004, 2007); Qian (2003) |
| [-ø] > [-ε] | After a null medial | Younger speakers (10-15); variation age 15-25 | Gu (2004, 2007); Qian (2003) |
| [-wø] > [ø] | Any | Younger speakers (10-15); variation age 15-25 | Gu (2004, 2007) |
| [-yø] > [-ø] | After a non-null intial | Younger speakers (10-15); variation age 15-25 | Gu (2004, 2007) |
| [o] > [u] | All | Present in age groups 10-40, more common in younger speakers | Gu (2004, 2007); Qian (2003) |
| [-Aʔ], [-əʔ] > [-eʔ] | All, including after medial w | | Gu (2004, 2007); Qian (2003) |
| [-woʔ] > [-oʔ] | All | | Gu (2004, 2007); Qian (2003) |

Several things are apparent from this set of changes: first, the two mergers – [Aʔ], [-əʔ] > [-eʔ] and [-oʔ], [-woʔ] > [-oʔ] are clearly connected to the simplification of checked finals that can be clearly traced to influence from the corresponding Putonghua pronunciation.

Second, there seems to be an overall loss of close-mid rounded vowels. Gu (2004, 2007) does not say whether or not this is already occurring, but there is a clear opportunity for interaction between reported [-ø] > [-ε], [-wø] > [ø], and [-yø] > [-ø] that would result in the loss of [ø]. Putonghua vowels do not include [ø].

[o] > [u] is first mentioned in (Svantesson, 1989), who observes that a younger speaker’s pronunciation of both [u] and [o] were pronounced as [o]. Qian (2003) describes it first as free variation between the two, which ultimately became a trend where nearly all [o] have become [u] in the speech of 18-20-year-old college students in 2002; likewise, Gu (2004, 2007) reports that [u] is the dominant

pronunciation of speakers aged 10-20 now, and fairly common in speakers up to the age of 30.

All together, these changes contribute to a fairly significantly reduced set of possible Shanghainese rhymes. It is fairly telling that these are occurring with roughly the same frequency, and in the same age groups, as those that can be traced directly to Putonghua. Therefore, I believe these should be understood as further simplification of Shanghainese phonology as a result of interference from Putonghua.

Conclusions

Clearly, the sound system of Shanghainese is changing among young speakers to sound much more like that of Putonghua; what is not converging with Putonghua is simply being simplified. Qian (2003) suggests that as a result of vowel mergers, an increased number of homophones may lead to further destabilization, although there is no evidence at present to determine the extent or rate of that impact. With the exception of a few observed diphthongs, there is no evidence in the current literature of the introduction of any compensatory distinctions or other innovations to replace those lost in the present mergers.

These changes seem to have occurred in two “waves:” first, there was a smaller set of changes occurring in the generation of speakers born around 1975. These include, among others, the loss of initial *ɲ* or changes relating to Putonghua medial /y/. This first wave of changes occurred in the first generation of Shanghainese speakers to be fully bilingual in Shanghainese and Putonghua, and may be due to interference from bilingualism in Putonghua. The second “wave” of changes is a much larger group, and includes many of the more major changes, such as devoicing, that have more far-reaching structural implications. These are most prevalent in Gu’s 10-15-year-old speaker group, or speakers born around 1990. These are the Shanghainese who have grown up with post-reform Shanghai in all its booming glory; the young people’s speech reflects the beginning of the impact of changes in Shanghai: it is this generation whose speech is radically different from

their parents'. Although the data is not clear, there is some suggestion that this group also has a much greater number of semi-speakers who will never speak Shanghainese fluently if at all.

For comparison, although Shanghainese has seen extensive and increasing changes within the last thirty years, the dialect of neighboring Suzhou, where development and social change has arrived more slowly, has not. Jiang (2007) compares several of the changes in Shanghainese described above, including the loss of initial engma, simplification of checked finals and reduction of T4 and T5, as well as the loss of murmured voice, to speech in Suzhou, and finds that these changes are specific to Shanghai and not seen in the Suzhou dialect, which is very similar to (and mutually intelligible with) Shanghainese (Jiang, 2007).

Moreover, news out of Shanghai in the last ten years since Gu collected her data tells us that Shanghai's rate of social and environmental change has only accelerated: in preparation for the 2010 World Expo, the inner districts of the city were also largely torn down and rebuilt in a \$42 billion makeover for downtown Shanghai. Continued, even accelerated, development and migration will likely only increase the rate of decline of Shanghainese. Given this situation, it's likely that the effects on Shanghainese documented here, as dramatic as they are, are still only the beginning.

There are of course many ways the changes discussed could be studied in more depth through fieldwork. Although the currently available data can be used to speculate with regards to the probable effects of tone change on Shanghainese morphology, a study designed to examine this more closely would be much more illuminating as to the actual effects. Likewise, a more controlled look at the status of loss of voicing, murmured voice, and low tone could confirm my interpretation of Gu's reports. Although I am aware of no work in Shanghai currently looking at morphological or syntactic change in younger speakers, that information would help form a clearer picture of the amount and degree of structure loss. Information about urban development provides another angle to examine further: when the 2010 census data is released in full, I should be able to use migration information to predict in which districts the shift to Putonghua will happen faster.

In the end, language vitality is not a matter of numbers: speakers of Shanghainese surely still number in the millions. Nevertheless, it is clearly well on its way to extinction. Twenty years ago, Shanghainese were resistant to the spread of Putonghua; today, college students speak it with their friends in informal settings. Twenty years ago, Shanghainese could be found on menus, radios, and televisions; today, shopkeepers may be fined for greeting strange customers in Shanghainese rather than Putonghua. Twenty years ago, young speakers of Shanghainese spoke a Shanghainese that had a great deal more phonological features than the Shanghainese spoken by young speakers today. When all of the current evidence, sociolinguistic and phonological, is taken together, it is clear that Shanghainese is actively losing “speakers, domains and structure,” as Thomason predicts, as it gives way to Putonghua.

Acknowledgements

But for the help of many people, I would probably have never completed this project.

In particular, I owe thanks to:

- Professor Anderson, for his patience, his input, and the extended loan of his Chinese Morphology book;
- Professor Errington, for introducing me to the existence of dialect studies, for putting the idea to study Shanghainese in my head in the first place, and for helping me continue to work on it in more depth for this project;
- The Richard U. Light Foundation, for sending me to China to learn, among other things, to read in Chinese;
- My classmates in the Yale Linguistics class of 2013, for brainstorming, commiserations, and “doing linguistics to things;” and
- Last but not least, Randy Telfer, who first explained to me that there was such a thing as Shanghainese, a fact he probably never imagined would turn out to be so important.

Bibliography

- Liu, M. (2004). *A Brief History of Shanghainese Phonetics* / 上海□□音□史. Shanghai: Xuelin Chubanshe.
- Zhu, X. (2006). *A Grammar of Shanghai Wu*. LINCOM: LINCOM Studies in Asian Linguistics.
- Zhu, X. (2006). *A Grammar of Shanghai Wu*. LINCOM: LINCOM Studies in Asian Linguistics.
- Zhang, Y. (2009, June 3). *Shanghainese's Last Gasp*. Retrieved 2013, from The Global Times: <http://www.globaltimes.cn/special/2009-06/434296.html>
- Zhou, M. (2004). *Language Policy in the People's Republic of China: Theory and Practice Since 1949*. New York: Kluwer.
- Zhou, M. (2001). The Spread of Putonghua and Language Attitude Changes in Shanghai and Guangzhou, China. *Journal of Asian Pacific Communication* , 231-253.
- Wu, F. (2000). The Global and Local Dimensions of Place-Making: Remaking Shanghai as a World City. *Urban Studies* , 37 (8), 1359-1377.
- Wu, P. (2007, November 19). *Shanghai Dialect*. Retrieved April 6, 2013, from Xing: <http://www.xing.com/net/shanghai/life-story-%E4%BA%BA%E7%94%9F%E6%95%85%E4%BA%8B-20661/shanghai-dialect-6495090/>
- Wang, F., & al, e. (2002). Rural Migrants in Shanghai: Living under the Shadow of Socialism. *International Migration Review* , 36 (2), 520-545.
- Wright, A. (1908). *Twentieth Century Impressions of Hong Kong, Shanghai, and other Treaty Ports*. London: Lloyd's Greater Britain Publishing.
- Xu, J. (2012). Shanghai Culture Lost. *China Heritage Quarterly* (22).
- Xian, G. S. (1992). Urban Migration in Shanghai, 1950-1988: Trends and Characteristics. *Population and Development Review* , 18 (3), 533-548.
- Xie, Y. (2011). Language and Development of City: The Linguistic Triangle of English, Mandarin, and the Shanghai Dialect. *The Trinity Papers* .
- Yao, Y., & Chang, C. (2011). Reversal of a Merger via Cross-Language Influence: The Case of Mandarin and Shanghai. *University of Maryland Center for Advanced Study of Language*. University of Maryland.
- You, T. (2010, July 26). *Eheart Chen: Shanghai's Modern Rocker With A Nostalgic Soul*. Retrieved Feb 2013, from CNN: <http://www.cnn.com/shanghai/play/eheart-chen-singer-humming-shanghai-memories-247353>
- Austin, P. (1986). Structural Change in Language Obsolescence: Some Eastern Australian Examples. *Australian Journal of Linguistics* , 6 (2), 201-230.
- Bai, J. (1994). Language Attitude and the Spread of Chinese in China.
- Bourgeots, S. (1920). *Lecons sue la Dialecte de Changhai*. Shanghai, China: Unknown.
- Brook, D. (2013, 2 18). *The Head of the Dragon: The Rise of New Shanghai*. Retrieved 2 23, 2013, from The Design Observer Group: <http://places.designobserver.com/feature/the-rise-of-new-shanghai/37674/>
- Campanella, T. (2008). *Concrete Dragon: China's Urban Revolution and what it means for the World*. New York: Princeton University Press.

- Chu, X. (2001). Linguistic Diversity in Shanghai. *Journal of Asian Pacific Communication* , 11 (1), 17-24.
- Chao, Y. R. (1928). *Studies in the Modern Wu Dialects*. Beijing, China: Tsinghua College Research Institute.
- Chen, Z. (2003). *Studies on Dialects in the Shanghai Area*. LINCOM: LINCOM Studies in Asian Linguistics.
- Chen, Z., & Wang, Y. (n.d.). Role of F0 and Closure in Differentiating Voiced Stops. China, P. R. (2010). *2010 Census*. Beijing: People's Republic of China.
- Clarke, M. *Xinjiang and China's Rise in Central Asia -- A History*. New York: Routledge.
- Crowley, T., & Bower, C. (2010). *An Introduction to Historical Linguistics*. New York: Oxford University Press.
- Edkins, J. (1853). *A Grammar of Colloquial Chinese, as Exhibited in the Shanghai Dialect*. Shanghai, China: Presbyterian Mission Press.
- Dugan, B. (2005, Sept 16). *Nong hao? Ni hao*. Retrieved February 2013, from The Shanghaiist: <http://shanghaiist.com/culture/2005/09/>
- Dwyer, A. (2009, October). Tools and Techniques for Endangered-Language Assessment and Revitalization. *Vitality and Viability of Minority Languages* .
- Gu, Q. (2004). *Phonetics in New Shanghainese*. Shanghai: Shanghai Normal University.
- Gu, Q. (2007). *The Influence of Language Contact on Sound Changes in Shanghainese*. Shanghai: Shanghai Normal University.
- Guo, L. (2004). The Relationship Between Putonghua and Chinese Dialects. In M. Zhou, *Language Policy in the People's Republic of China: Theory and Practice since 1949* (pp. 45-54). Kluwer.
- Gilliland, J. (2006). *Language Attitudes and Ideologies in Shanghai, China*. Columbus : Ohio State University .
- Hilgers, L. (2009, Nov 25). *Zhou Libo's Distinctly Shanghai Shtick*. Retrieved Feb 2013, from The Los Angeles Time: <http://articles.latimes.com/2009/nov/25/world/la-fg-shanghai-comedy25-2009nov25>
- Jiang, M. (2007). Observing Putonghua's Influence on Dialects through Changes in Shanghainese. *Changgu Campus Report* (4), 94-97.
- Jones, L. (2011, Oct 31). *Endangered Dialect*. Retrieved 2012, from That's Shanghai: <http://www.thatsmags.com/shanghai/article/1180/endangered-dialect>
- Karlgren, B. (1915-1926). *Etudes Sur La Phonologie Chinoise*. Shanghai: Leyde, Stockholm and Gotembourg .
- Labov, W. (2001). *Principles of Linguistic Change: Social Factors*. Oxford: Blackwell.
- Larmer, B. (2010, March). Shanghai. *National Geographic* .
- Levin, D. (2010, April 30). In Shanghai, Preserving Buildings Takes Work. *New York Times* , p. A22.
- Lee, L. O.-F. (1999). *Shanghai Modern: The Flowering of a New Urban Culture in Shanghai 1930-1945*. New York: Harvard University Press.
- Liu, G. (2012). Social Identity and Sound Change: The Case of Wo in Shanghainese. *Australia Review of Applied Linguistics* , 35 (2), 203-214.

Liang, Y. (2010, August 11). *In Search of Pure Shanghai Dialect*. Retrieved February 2013, from Shanghai Daily:
<http://www.shanghaidaily.com/article/print.asp?id=445929>

Ni, D. (2011, May 16). *Dialect Faces Death Threat*. Retrieved February 2013, from Global Times: <http://china.globaltimes.cn/society/2011-05/655349.html>

Norman, J. (1988). *Chinese*. Cambridge: Cambridge University Press.

MacGowan, R. J. (1862). *Collection of Phrases in the Shanghai Dialect*. Shanghai, China: Presbyterian Mission Press.

MacPherson, K. (2002). Shanghai: Back to the Future. *Harvard Asia Pacific Review* , 36-40.

Qian, Y. (2010, 12 31). *Mind your Shanghainese, please*. Retrieved 2013, from China Daily: http://europe.chinadaily.com.cn/china/2010-12/31/content_11782442.htm

Qian, N. (1997). *A Grammar of Shanghainese*. Shanghai: Shanghai People's Press.

Qian, N. (2003). *A History of Shanghainese*. (L. Wellman, Trans.) Shanghai: Shanghai People's Press.

Qian, N. (2006). *Shanghai Dialect*. Shanghai: Shanghai People's Press.

Svantesson, J.-O. (1989). Shanghai Vowels. *Lund University Working Papers* (35), 191-202.

Savadove, B. (2012, February 22). Shanghai dialect fights to survive in modern China. *AFP* .

shanghaifocus.com. Shanghai District Map. *Shanghai Maps*. shanghaifocus.com.

The Standard. (2005, Nov). *Mind Your Language*. Retrieved Feb 2013, from The Standard:
http://www.thestandard.com.hk/weekend_news_detail.asp?pp_cat=30&art_id=5935&con_type=1&d_str=20051119

Thomason, S. (2001). *Language Contact*. Edinburgh: Edinburgh University Press.

ⁱ I cannot take credit for this joke: my source for its retelling is John at Sinosplice, a fellow student of China and Chinese, standard or otherwise.
<http://www.sinosplice.com/life/archives/2006/06/01/pu-what-hua>