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The Chinese Expansion and Language Coexistence in Modern China

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1. The Historical Expansion

The title of this chapter might make it seem as if there has been some unified and unchanging group that we can call “the Chinese” that simply expanded over time, but this is not the case. The concept of CHINESE is a socio-political construct, which, in terms of genetics, ethnicity, culture, and language, has constantly been in flux due to migrations and the mixing of peoples and cultures/languages.¹

The initial human migrations from Africa into Asia seem to have been from the southwest, over a period of 18–60 thousand years ago (Chu et al. 1998, Jin & Su 2000, Ke et al. 2001, HUGO Pan-Asian SNP Consortium 2009), but the origins of what we now call the Chinese (and the Sino-Tibetans generally; see LaPolla 2001 and references therein) are said to have been in the Yellow River valley of the central plains of what is now north China around 6000 years ago, as represented in the Neolithic Yang-shao culture (e.g. Chang 1986, Treistman 1972, Pulleyblank 1983, Fairbank, Reischauer, & Craig 1989, Xing 1996, Ran & Zhou 1983). At that time there were already other cultures to the east and south in what we now think of as China,² and even before the migrations east and south from the central plains there

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¹ Zhao & Lee (1989) argue that evidence from immunoglobulin Gm haplotype frequencies and genetic distances points to the conclusion that “the modern Chinese nation originated from two distinct populations, one originating in the Yellow River valley and the other originating in the Yangtze River valley during early Neolithic times (3,000–7,000 years ago)” (p. 101). Evidence from genetics, physical characteristics and fingerprints also supports that conclusion (e.g. Zhang Haiguo 1988, Zhang Zhenbiao 1988, Weng, Yuan, & Du 1989, Etlar 1992, Du et al. 1992). In fact, the mixing is even more complex than that. As argued by W.S.-Y. Wang (2017), there has been contact and hybridization over millennia, so there is no single Han (Chinese) people to speak of.

² For example, rice was domesticated near the eastern end of the Yangtze River more than 9000 years ago (Zuo et al. 2017), long before the people we think of as the Chinese migrated there.

may have been contact between the different areas. To the north of the central plains, in historic times, were peoples of the Altai mountains and northern steppes, who spoke languages ancestral to the Altaic languages (e.g. Uighur, Mongolian, and Manchu); to the south (starting around the Yangtze River) were speakers of the Hmong-Mien and Tai-Kadai (Zhuang-Dong, Kra-Dai) languages; and to the east and southeast were speakers of Austro-Asiatic languages and precursors of the Austronesian languages (Pulleyblank 1983, Li 1994, Bellwood 1992, Tong 1998, Blust 1984/5, 1994). Even within the central plains there were differences in identity and language, and there was contact between the different groups in the early period (see e.g. Wang Huiyin 1989), to the extent that the ancestors of some early Chinese rulers are said to have been from the western group associated with the modern Tibeto-Burman peoples (Ran & Zhou 1983, Ran, Li, & Zhou 1984, FitzGerald 1961).

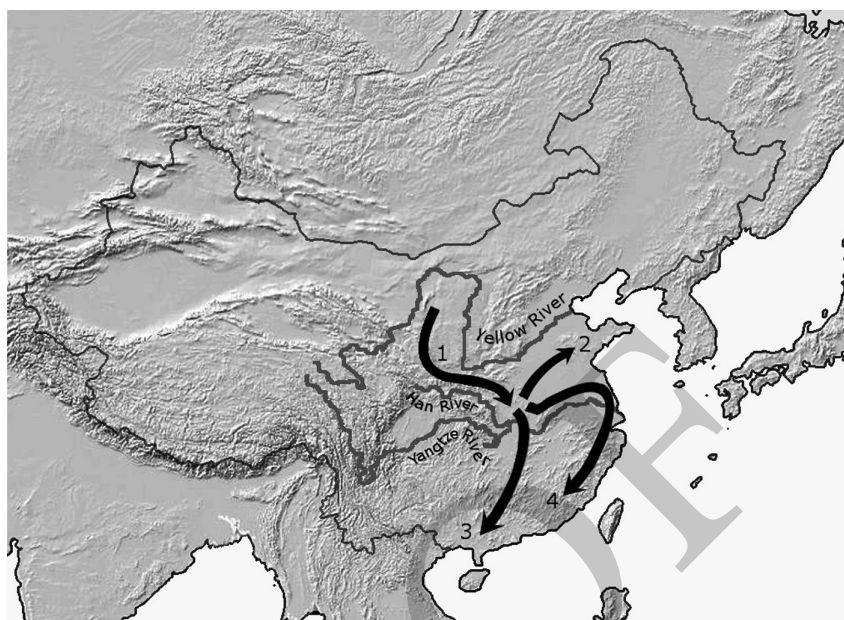
Migrations from the Yellow River watershed mainly followed three routes: east, south, and southeasterly (see Map 3.1); west and then south through the Tibetan plateau; and southwesterly, skirting the eastern and southern edges of the Tibetan plateau down the river valleys into Burma and beyond (LaPolla 2001 and references therein). The people who stayed in the central plains and those who moved east, south, and southeasterly we identify as the Chinese; those who moved west and then south through the Tibetan plateau and into Nepal and Bhutan we identify as the Bodish branch of Tibeto-Burman (Tibetan and closely related groups); and those who went southwesterly we identify as the rest of the Tibeto-Burman peoples.

The migrations occurred in waves of movement of different sizes, often into the same areas, for different reasons.³ As early as the Yin dynasty (roughly 1600–1027 BCE), there were government-encouraged (or forced) migrations, including shifts of national or regional capitals. All Chinese governments up to the present one have used this tactic to relieve

³ What Mufwene (2007: 79) says about the Indo-European expansion applies equally well to the Sino-Tibetan expansion:

The original populations need not have been politically and ethnolinguistically homogeneous, as well argued by Trubetzkoy (1939). They need not have departed from exactly the same geographical location either . . . Neither need they have left the homeland at the same time, not any more than they could have taken the same dispersal routes. Nor did they reach their destinations at the same time. The histories . . . all suggest also that the original colonization routes led them to new dispersal points from which they spread in all sorts of directions. This dispersal must have occurred in a way that is not matched at all by the traditional cladograms of genetic linguistics, with rectilinear and non-intersecting distribution branches . . .

Burling (2012: 57–8) misrepresents my discussion of migration in LaPolla (2001), presenting it as if a) I assumed there is a consistent language and group of people that migrates all at one time, when in fact I show that some migrations took hundreds of years and involved waves of different people, and b) that I do not recognize that language shift can happen without population replacement, when in fact I give the examples of language shift without major population movements that occurred in what is now southern Myanmar and the Chao Phraya River valley in what is now Thailand. The whole point of my paper is that the family has been influenced by the continual merging of different peoples, cultures, and languages, not replacement.

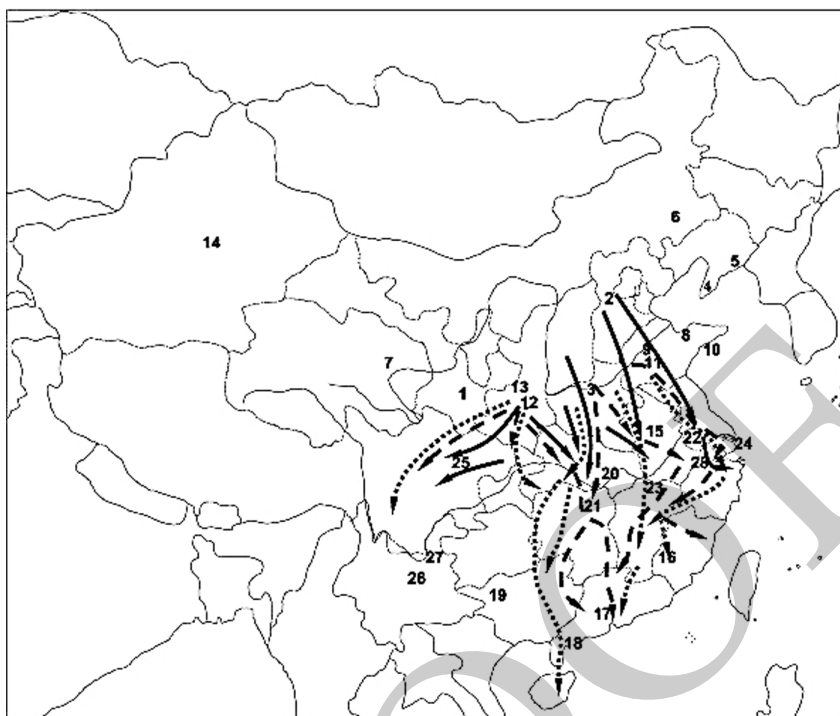


Map 3.1: Initial Chinese migrations.

population pressures, solidify borders, or address natural disasters. There have also been massive migrations due to natural disasters, war, and the pull of new economic opportunities (Lee 1978, 1982; Lee & Wong 1991; Zhou 1991; Ge, Wu, & Cao 1997).

Significant for our purposes in this chapter is the fact that the movements were almost never into an area where there were no people. That meant that migration did not only involve splitting a group of speakers into two or more subgroups, which can lead to differentiation of the speech varieties over time, it almost always also resulted in cultural/language contact and convergence, either with speakers of other Sinitic (Chinese) varieties or of non-Sinitic languages. In many government-sponsored migrations there was also purposeful mixing of people from different areas to avoid the development of power bases. This led to either the absorption of other peoples into what we now think of as the Han Chinese ethnic group (Wang Ming-ke 1992, Wiens 1967, J. Xu 1989) or, in some cases, the absorption by the local ethnic groups of the immigrants. For instance, soldiers and settlers sent to the southwest during the Yuan dynasty (1234–1368) were absorbed into the Yi culture and developed a new Yi language variety (Dai, Liu, & Fu 1987, He 1989, 1998).

There were also movements into the central plains from the north, which in some cases caused a domino effect, resulting in the migration of the original inhabitants out of the central plains. For example, between the second and third centuries roughly two million of the northern steppes people moved into the central plains, causing, between the second

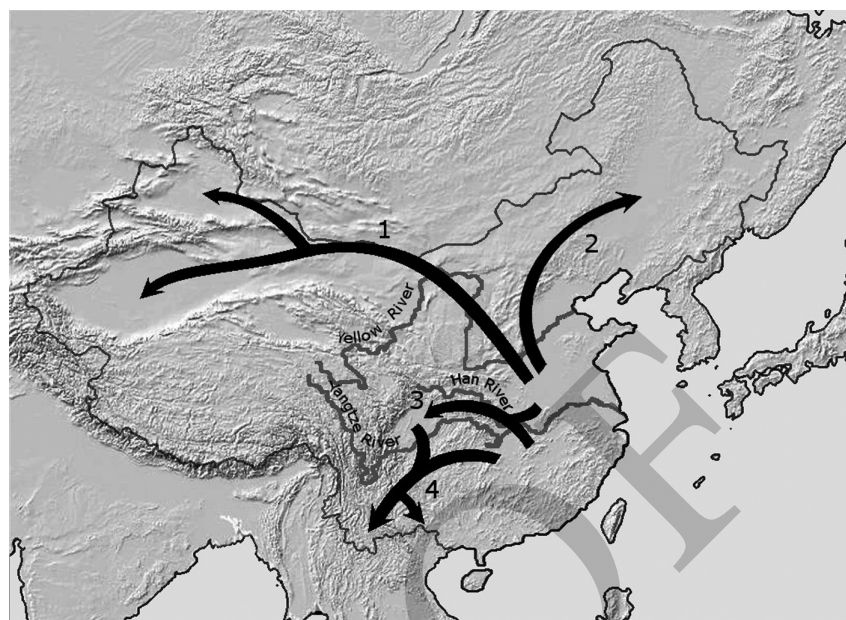


Map 3.2: Middle Period migrations (Figure 1 of Wen et al. 2004: 303). Shown are the three waves of north-to-south migrations according to historical record ... Populations 1–14 are northern Hans, and 15–28 are southern Hans. The solid, dashed, and dotted arrows refer to the first, second, and third waves of migrations, respectively. The first wave involving 0.9 million (approximately one-sixth of the southern population at that time) occurred during the Western Jin Dynasty (265–316 CE); the second migration, more extensive than the first, took place during the Tang Dynasty (618–907 CE); and the third wave, including ~5 million immigrants, occurred during the Southern Song Dynasty (1127–1279 CE).

and fourth centuries, three million of the original central plains inhabitants to flee to the southeast, into the Jiangxi, Zhejiang, Jiangsu area, resulting in a change in the linguistic situation in that area (see Wen et al. 2004 and Map 3.2).

Different groups of Altaic speakers controlled large parts of northern China, for hundreds of years each, over a millennium, so much so that Beijing was a political center of non-Han rulers for most of the 1000 years before the twentieth century, except for 300 years during the Ming dynasty (1368–1644 CE). These groups eventually assimilated into Han culture, but also had an influence on the development of Han culture⁴ and the northern variety of Chinese (Hashimoto 1976, 1980, 1986), while the southern dialects manifest features that are similar to those in the Tai-Kadai and

⁴ For example, what we now think of as traditional Chinese clothing is actually based on traditional Manchu clothing due to the fact that the last imperial rulers were Manchu.



Map 3.3: Major pre-modern migrations.

Hmong-Mien languages that they came into contact with (see Yue-Hashimoto 1967, You 1982, 1995; Zhou & You 1986; Wang Jun 1991).

One of the major changes in the demographic situation led to the relatively recent, rapid, and wide dispersal of the northern variety (what we think of as Mandarin now) to the northeast, west, and southwest of what is now China (see Map 3.3), making that the dominant variety in China, such that it was chosen to be the base of the national language in the early twentieth century. In the seventeenth century, only one-twentieth of the population of China lived in the northeast, southwest, and upper Yangtze areas, representing about ten percent of the population of northern variety speakers, but massive migrations west and southwest from the middle Yangtze area and northeast from the central plains led to these areas now being home to one-third of China's population and half of the total population of northern variety speakers (Lee & Wong 1991: 55).

Since 1949 there has also been government-encouraged migration into areas formerly inhabited mainly by non-Han peoples, such as Inner Mongolia, Xinjiang, and Tibet, as a way of solidifying control over those areas, making the original inhabitants minorities in their own officially named autonomous areas. For example, in the Inner Mongolia Autonomous Region, the Mongolian population is now less than 16 percent of the total population (Zhang & Huang 1996: 35), and in the southern areas, where the capital is, the Mongolians make up less than 2 percent of the population. This has of course led to the loss of the Mongolian language in all but the most northern areas of Inner Mongolia, and the same is happening in

Xinjiang, Qinghai, Tibet, and parts of Yunnan and Sichuan (see Ren & Yuan 2003 and other articles in Iredale, Bilik & Guo 2003; also Poa & LaPolla 2007). At the same time contact varieties of Chinese, which show features of Tibeto-Burman or Altaic languages, have also arisen, such as the Sinitic variety spoken by the Dungan people of Kyrgyzstan and Kazakhstan (Rimsky-Korsakoff 1967, Hai 2003), Wutun (N. Chen 1982), and the Linxia dialect of Chinese (Dwyer 1992).

The mixing of speakers of different languages that resulted from the many migrations is what has given us the branches (“dialects”) of Sinitic we now find (cf. Zhou & You 1986, Wang Jun 1991).

An early Jiangdong (Zhejiang/Jiangsu area) branch had formed from an Eastern Zhou dynasty (771–221 BCE) southeastern migration into what was most likely an Austroasiatic-speaking area; the three major migrations outlined in Map 3.2 then led to major changes in the language situation there.

The Chu branch (a precursor to the Xiang [Hunan] branch) formed from a very early southern migration into a Tai/Hmong-Mien area (Li 1994, Tian 1989).

The Gan and Hakka branches formed from migrations into central and northern Jiangxi (Sagart 2002, Coblin 2015). The first major northern migration to the central southern area began when the First Emperor sent 500,000 troops and settlers south of the Yangtze in the third century BCE. One branch of that army and settlers moved through the Poyang (鄱陽) Lake valley and into the Gan River watershed, an area where Wu and Chu overlapped. A part of that army and settlers moved further up the Gan River into the South Central Highlands that cover parts of southern Jiangxi, western Fujian, north-eastern Guangdong, and west into the southeastern corner of Hunan, and set up garrisons there. The garrison settlements continued through the Han period and there was a gradual increase in Sinitic speakers into the area, particularly of non-military settlers in both the lower and higher areas. Coblin (2015, 2019b) calls the variety of Chinese that formed from the northern varieties of Chinese brought into the Gan River area during that period “Early South Central Chinese.” He posits two subtypes of this Early South Central Chinese, one spoken in the northern lowlands, which became what we now think of as the Gan variety (see Coblin 2015), and one spoken in the southern highlands, which developed into what we think of as the Hakka varieties (see Coblin 2018, 2019, forthcoming).

There were already non-Sinitic people living in the Highlands, including as a major part what have been identified as “Ancestral Shē” (畲), which Coblin (2019: 383) distinguishes from the modern Shē ethnic group. We aren’t sure what their original language was (Sagart 2002 and Nakanishi 2010 argue it was a Hmong-Mien language), but it seems they switched to speaking an early version of South Central Highland Chinese, the language that gave rise to Paleo-Hakka (老客家), Neo-Hakka (新客家), and modern Shē.

This early South Central Highland variety was already the result of contact between earlier and later settlers, but then migration through the Poyang region and further south up the Gan River increased after the An Lushan Rebellion of the mid-eighth century and continued through the fall of the Tang dynasty and into the mid-tenth century (Ge, Wu, & Cao 1997: vol. 3). A second major wave of migration from the north into Jiangxi occurred after the fall of the Northern Song dynasty in the early twelfth century and the push by the Jurchens south (Ge, Wu & Cao 1997: vol. 4).

In the ensuing several hundred years there was a blending of the different cultural and linguistic strata (aboriginal, early Central Highland, post An Lushan, and post Northern Song collapse) into a single complex Sinitic language variety and culture, which Coblin (2019: 392) calls “New South Central Highlands Chinese.”

From the early sixteenth century until the mid-seventeenth century there was economic expansion in the lower areas that attracted migrants from the Highlands. As these Highlanders had their own language and culture, they were seen as strangers, and called Hakka (Kejia 客家人/客人/客民). Those who stayed in the Highlands were not called by this name until modern linguists started doing so.

But with later economic downturns and conflict between the lowland people and those they called Hakka, the latter continued to migrate farther afield, as far as Sichuan (see Leong 1997, Hashimoto 1992).

The Shē also at around this time, due to conflict with the Sinitic settlers in the Highlands and economic opportunities in the Lowlands, started migrating out of the Highlands, some together with what were called the Hakka, some on their own path south-eastward into Guangdong and Fujian, and in some cases up the coast into Zhejiang. While they often kept to themselves, they did interact with the Han Chinese and picked up linguistic influences as they did or in some cases fully assimilated.

The Yue (Cantonese) branch also had its beginnings in the Qin dynasty (221–207 BCE), when the first emperor sent the 500,000 troops south to settle in the Lingnan area (Jiangxi, Guangdong and southeastern Guangxi), followed by waves of migration, involving possibly as many as 1.4 million people (according to Lee 1978), who followed them as far south as northern Vietnam.⁵ While Chinese records of the time talk about the Sinicization of the Yue people (the original inhabitants, who were Tai-Kadai speakers), there was also structural and lexical influence from the Yue languages on the Chinese spoken there (Yue-Hashimoto 1967, 1991, Baron 1973, You 1982, 1995, Zhou & You 1986, Huang 1990, Cao 1997, Meng 1998).

Until the end of the Eastern Han dynasty (in 220 CE) there was no appreciable Sinitic population in what is now the Min speaking area.

⁵ The country known as Nanyue, which covered what we now know as Northern Vietnam, Guangdong, and Guangxi, was founded by a Qin general after the fall of the Qin Dynasty in 203 BCE. It remained a Chinese vassal until it became independent in 939 CE.

Currently the Min (Fujian) branch manifests many strata (Bielenstein 1959, Norman 1991), and in fact, as Coblin (2019) argues, based on ideas first put forward by Jerry Norman, it manifests the results of not fully completed convergence of three or more unnamable Pre-Min Sinitic varieties.

One stratum is the language of what were called the Min-Yue (one of the Bai Yue “Hundred Yue,” assumed to be Austro-Asiatic speakers – Norman & Mei 1976).

The Sinitic strata can be linked to migrations of different times and from different places: One is the language of the first Chinese settlers during the latter part of the Eastern Han Dynasty (AD 25–220), who entered the northwestern part of Fujian from southwestern and central Zhejiang (the Jiangdong area, which had been populated by migrants from the areas just north of that area, such as Henan, Shandong, Jiangsu, and Anhui) at the end of the second century CE.

Somewhat later there was migration from Jiangxi in the west into northern Fujian, and the two sets of migrants converged in that area. A separate migration from the north, which began at the end of the third century CE, was by sea down along the coast, possibly by Sinicized Yue and/or Ou people, who were known to be good sailors.

Coblin (2019: 112ff.) suggests the western and costal migrations developed into two different linguistic varieties (Pre-Min-b and Pre-Min-a, respectively), which later converged around 300 CE to give us Common Min, the initial ancestor of the modern Min varieties, but given the differences between Inland and Costal Min, and the inability to reconstruct a single Common Min form for many lexical items, he suggests the convergence is not fully complete.

There were also large migrations due to the An Lushan Rebellion in the Tang dynasty (post-eighth century) and a literary form of the Tang koine that affected the language. Fujian was also affected by the migrations after the fall of the Song dynasty in the early twelfth century. And now there is the influence of Modern Mandarin (Norman 1983, 1988, 1991, Ting 1988, Mei 2015).⁶

Throughout Chinese history, national and provincial prestige dialects have also had an effect on other dialects. As centers of population concentration developed, languages in those centers came to be quite distinct from each other,⁷ with each having prestige within its own area, and then

⁶ As the Min branch is not reflected in the 601 CE rhyme book *Qieyun*, it is often assumed that that branch is an earlier split from the rest of Chinese, but it may actually be that the branch had not yet fully formed as a distinct entity and/or simply was not something the writers of the *Qieyun* were aware of at the time, as the area was not fully integrated into the intellectual life of China at the time. This may be why when speaking Min people call themselves Tang people (唐依) instead of Han people (汉人), and China Tangshan (唐山).

⁷ For example, Nanjing was the capital of two Chinese dynasties from the fourth to sixth centuries, and attracted over 200,000 northern migrants into an area where the original inhabitants spoke a Wu variety. The resulting variety now spoken in the larger area, though influenced by the Wu substratum, is considered a Mandarin variety. The Hangzhou variety, also originally a typical Wu variety, came to be lexically and grammatically more similar to the northern dialects due to the influx of northerners when the capital of the Song dynasty shifted to Hangzhou in 1127 (Zhou & You 1986: 19).

spreading out from those centers. The result is that the languages form something like prototype categories rather than areas with sharp boundaries.⁸ These major centers have also influenced each other in various ways, such as in the spread of certain patterns of interrogative syntax and other constructions among the Yue, Min and Beijing dialects (Yue-Hashimoto 1993), and in the creation of “syntactic hybrids” in the Southern dialects due to the influence of Mandarin (Chappell 2001).

Since at least the Song dynasty (960–1279 CE) the Chinese have also been going abroad into Southeast Asia. More recently there was considerable migration from the coastal provinces of Fujian and Guangdong into the area and further to the US, Australia, and Europe. In most cases they have remained a minority, and assimilate to different degrees while contributing to the mainstream culture and language of the areas they migrated to. However, in Singapore they became the majority, and this has greatly affected the language situation there (see, e.g., Lim 2015).

2. Language Coexistence in Modern China

In the early twentieth century, influenced by what they saw as the benefits of having a national language in Japan and the sense of the new nation-state needing a unified language (Benjamin 2015), a committee of linguists in China created a Mandarin variety that has its phonology based on that of the Beijing dialect, but its lexicon and grammar based on a more generalized leveling of northern dialects. In the Republican era (1911–49), and still in Taiwan, this language is referred to as the National Language (*Guóyǔ* – the Chinese pronunciation of the Chinese characters used to write the Japanese-created term, 國語 *Kokugo*). In the 1950s the government of the People’s Republic of China further developed and recast this variety as the Common Language (*Pǔtōnghuà* 普通话), and has made great efforts to spread the language to all parts of China, and most education is in this variety. The non-Mandarin Sinitic varieties were also actively suppressed; for example, they were not allowed to be used in broadcast media. As a result there has been quite a bit of influence on almost all of the languages of China from the Common Language.⁹

⁸ See, e.g., Pulleyblank 1991, Iwata 1995. Pulleyblank (1991: 442) argues that the traditional family tree model is not appropriate for the Chinese varieties, as they require “some kind of network model, with provincial and regional centers of influence as well as successive national centers of influence in the form of standard languages based on imperial capitals.”

⁹ To date, Hong Kong is an exception. Being a British colony for more than a hundred years up to 1997 allowed the local variety, based largely on Guangzhou city Cantonese, to flourish: 96 percent of the population speak it, and it is the only Chinese variety other than Mandarin that is regularly used in newspapers and magazines. Since the return to Chinese control in 1997, the teaching of Mandarin has been introduced in schools. Also, because of the flood of Chinese tourists and immigrants to Hong Kong, one is more likely to hear the Common Language being spoken there. This gives the locals an economic incentive to learn the language.

As early as the 1980s children in Shanghai were using the Common Language to speak among themselves, as they learned it and were required to use it in school, even if they spoke Shanghainese with their parents. This has caused some changes within Shanghainese, such as the leveling of vocabulary and phonology in terms of becoming more like Mandarin (see, for example, Qian 1991, 1997). The opening up of internal migration has also helped the spread of the Common Language, as it becomes the lingua franca of the areas where there are a lot of migrants, basically all major cities. The effect is not just limited to language. Whereas in the past each area of China had its own unique language and cultural conventions, including architectural style, ways of thinking, and ways of celebrating traditional holidays, today there is a (purposeful) homogenization of the language and cultural conventions, and ways of thinking, across China.

At the same time, the version of the Common Language spoken in each area shows substratum influence from the original dominant variety; so regional varieties of Mandarin are forming. Taiwan Mandarin (Kubler 1985, Hansell 1989) is the most extreme example of such a regional variety, as is Singapore Mandarin, due to the relative lack of native northern speakers, which allowed more substratum influence as non-natives spoke to each other in the language and so maintained their old habits.

In terms of government policy, 56 ethnic groups are given official recognition, which includes the right to use their own language, though only one language is officially recognized per ethnic group. (See Poa & LaPolla 2007 on the identification of the ethnic groups and its influence on language maintenance.) As the Han people (roughly 92 percent of the population) are considered one ethnic group, only the Common Language is considered as the language of that group, and the non-Mandarin varieties of Sinitic cannot be considered independent languages, and must be considered “dialects,” even if they are mutually unintelligible. And as only 55 minority ethnic groups are recognized, only 55 minority languages are officially recognized and given support, even though many of the government-created minority ethnic groups are large amalgamations of speakers of several different mutually unintelligible languages, like the Han.¹⁰ While some Chinese linguists recognize more than the 56 official languages (e.g. Sun Hongkai (2001), who recognizes 125 minority languages), the number of mutually unintelligible languages is much higher (Ethnologue counts 280 indigenous languages, but this is also an underestimation). For example, from fieldwork in 41 villages inhabited by Phula people near the China–Vietnam border in Yunnan, Pelkey (2011) found 24 mutually

¹⁰ For example, the *Zāng* minority (often translated as ‘Tibetan’, but a Chinese construct and not the same as the Tibetan concept of *Bod-pa* ‘Tibet-person’) is an amalgamation of all the Tibetic speakers but also at least 13 other languages. The flip side of this is that some communities were split into two ethnolinguistic groups, and their language given two different names, because they happen to live in two different administrative areas, e.g. Zhuang (Guangxi) and Buyi (Guizhou), Pumi (Yunnan) and Pumi-speaking Tibetan (Sichuan), and Qiang-speaking Tibetan (Heishui county, Aba Prefecture, Sichuan) and Qiang (other counties in Aba Prefecture) (Poa & LaPolla 2007).

unintelligible languages, even though the speakers were all considered members of the Yi minority, and so would only have the Yi language (which itself has many sub-varieties and is mutually unintelligible with all the varieties described by Pelkey) recognized as their official language.

Although some minorities still live in rather isolated places and can maintain their languages relatively well, most live in mixed communities, in small clusters alongside the Han and other ethnic groups, even in the five large autonomous regions (Tibet [Tibetan], Xinjiang [Uyghur], Guangxi [Zhuang], Ningxia [Hui], Inner Mongolia [Mongolian]) and the many autonomous prefectures and counties in Guizhou, Sichuan, Yunnan, and Qinghai, as well as other areas. In many cases the minorities coexist with larger populations even within their own supposedly autonomous area. Because of this, bilingualism or multilingualism is the norm in these communities.

While in some communities there may be multilingualism in different minority languages, most often it is bilingualism in the native language and some variety of Chinese. The latter may itself be a contact variety, as there is bidirectional influence between the languages, as in the case of the Tai-Chinese variety described by Chen Baoya (1996). The bilingualism is of an unequal sort: native speakers of the more dominant languages rarely become bilingual in the smaller languages (Wang Yuanxin 2000), and Chinese is often the main lingua franca among different ethnic groups. In addition, there are economic advantages to learning Chinese well, including the lure of jobs in the cities, tourism, and the fact that all administration and almost all education is in Chinese. Thus the political and economic ecology drive the minorities to shift to Chinese exclusively. (See Xu Shixuan 2001, 2003, Yuan 2001, and Poa & LaPolla 2007 for specific examples and their causes.) In fact, most of the minority languages have relatively small populations and could be considered endangered (Sun 2001, Shearer & Sun 2002, Bradley 2007).

Because of improvements in the economy, more remote villages are getting roads and electricity and television, and there is now tourism in the areas, so the dominant language has become part of the local context in a way it was not before (cf. Grenoble & Whaley 1998: 39), and so Chinese is now heard regularly in places it would not have been earlier. The children also now often go away to Chinese-only boarding schools. Thus even if there isn't a total shift in language use, due to developing the habits of Chinese language use, including cognitive habits and categories, Chinese is influencing the local language use and cognition of the speakers.

What we have been describing is often talked about as "language contact," and the results of this can be language shift, with speakers favoring the dominant language over their heritage language. In the process, the dominant language will often be influenced by the speakers' habits of the heritage language (so-called substratum influence; see for example Bradley 1980 on Burmese). If there isn't a total shift, the speakers of both languages may retain the sense of speaking independent languages, but structures of

their languages can converge, in some cases becoming typologically very different from other members of their family, such as in the case of Vietnamese and southern Chinese. If a group of converging languages come to share a significant global typological profile, they form a *Sprachbund* (“linguistic area”), as in the case of the Balkans (Friedman 1997), India (Emeneau 1956, Masica 1976), Central America (Campbell, Kaufman, & Smith-Stark 1986), the Amazon (Aikhenvald 2002, this volume), Australia (Dixon 2001), Europe (Haspelmath 2002, Heine 2005, Drinka 2017), and Southeast Asia (Matisoff 1991, 2001, Enfield 2001).

The influence is often said to be due to imperfect learning of the target language (e.g. Thomason & Kaufman 1988: 38). But language isn’t a thing, it is human behavior that manifests the physical, perceptual, and cognitive habits and conventions of the speakers (Whorf 1956, LaPolla 2015). Different languages reflect the different construals of states of affairs in the world of the speakers, which depend on cultural norms (conventions) and experiences. Learning our first language we acquired a set of physical, perceptual, and cognitive habits associated with that language and culture.¹¹ If we want to learn another language we must learn to suppress the physical, perceptual, and cognitive habits of our first language and acquire a new set.¹² This is difficult though, as we are habituated to making certain categorial distinctions and not others, and to constraining the interpretation in particular ways (LaPolla 2015). We then end up going along with our habits unless there is some strong motivation not to, and this leads to errors relative to the way native speakers speak, but these different ways of speaking can become entrenched in the community. Good examples are Taiwanese Mandarin (discussed above) and the many World Englishes, which reflect the use of English words and some structures but are heavily influenced by the native habits of the local speakers not only in terms of pronunciation and grammar, but also in terms of conceptual categorization. For example, Singapore English lexical items do not always reflect the conceptual categories of British, Australian, or American English (each of which differs from each other as well); they often reflect Chinese conceptual categories. This is why “Mother Tongue” teaching in Singapore is not about what people in the West would think of as a mother tongue, but is about the Chinese conception of emblematic or ethnic language, expressed in Chinese as *mǔyǔ* 母语 “mother-language.” Although not often recognized, the key part of learning another language well is not the learning of the forms, but the internalization of the categories that the forms represent.

¹¹ Language is actually culture, like any other aspect of our culture, governed by the same principles and supported by the same cognitive abilities (LaPolla 2015).

¹² It is this effort to suppress the set of habits related to one language in order to speak another that is said to contribute to the development of greater executive control, one of the features of the bilingual advantage (see, for example, Prior & MacWhinney 2010).

Although we often distinguish among superstratum, substratum, and adstratum influences, it is the influence of these habits of behavior and conceptualization that is involved in all cases (see LaPolla 2009 for examples and further discussion): in substratum influence, the habits of L1 influence the production of L2; in superstratum influence the habits acquired in the learning of L2 influence the production of L1 (LaPolla 2005); in adstratum influence you have two or more sets of habits in a more balanced bilingual situation influencing each other to create a common set of habits. In the case of the latter, the speakers of different languages share a single set of cognitive categories, even though these categories are represented by different words (Bhattacharya 1974, Ross 2001). What this means is that they come to share the same habits of conceptualization and expression, and in many cases come to share the same behavioral habits as well, such as having the same phonemic inventories.

What we find in Modern China is that the original diversity of ways of construing the world is being lost, leading to homogenization of the behavior and cognitive categories of the speakers of not just Sinitic languages, but non-Sinitic languages as well.

References

- Aikhenvald, Alexandra Y. 2002. *Language contact in Amazonia*. Oxford: Oxford University Press.
- Baron, Stephen P. 1973. The classifier-alone-plus-noun construction: A study in areal diffusion. Paper presented at the 6th International Conference on Sino-Tibetan Languages and Linguistics, San Diego, CA.
- Bellwood, Peter. 1992. Southeast Asia before history. In *The Cambridge history of Southeast Asia*, ed. by N. Tarling, 55–136. Cambridge: Cambridge University Press.
- Benjamin, Geoffrey. 2015. The unseen presence: A theory of the nation-state and its mystifications. *Inter-Asia Cultural Studies* 16.4:548–85.
- Bhattacharya, Sudhibhushan. 1974. Linguistic convergence in the Dravidio-Munda culture area. *International Journal of Dravidian Linguistics* 4:199–213.
- Bielenstein, Hans. 1959. The Chinese colonization of Fukien until the end of T'ang. In *Studia serica Bernhard Karlgren dedicata: Sinological studies dedicated to Bernhard Karlgren on his seventieth birthday*, ed. by Søren Egerod, 98–122. Copenhagen: Ejnar Munksgaard.
- Blust, Robert. 1984/5. The Austronesian homeland: A linguistic perspective. *Asian Perspectives* 26:45–67.
- Blust, Robert. 1994. Beyond the Austronesian homeland: The Austric hypothesis and its implications for archaeology. Paper presented at the Institute of History and Philology, Academia Sinica, Feb. 28, 1994.
- Bradley, David. 1980. Phonological convergence between languages in contact: Mon-Khmer structural borrowing in Burmese. *Berkeley Linguistic*

- Society 6.259–67. (Republished in *Sino-Tibetan linguistics: Critical concepts in linguistics*, vol. 2, ed. by Randy J. LaPolla, 228–36. London & New York: Routledge, 2018.)
- Bradley, David. 2007. East and Southeast Asian languages. In *Encyclopedia of endangered languages*, ed. by C. Moseley, 349–424. London: Routledge.
- Burling, Robbins. 2012. Where did the question “Where did my tribe come from?” come from? In *Origins and migrations in the extended eastern Himalayas*, ed. by Toni Huber & Stuart Blackburn, 49–62. Leiden: Brill.
- Campbell, Lyle, Terrance Kaufman, & Thomas C. Smith-Stark. 1986. Meso-America as a linguistic area. *Language* 62.530–70.
- Cao Guangqu. 1997. Zhuang-Dongyu he Hanyu Min, Yue fangyan de gongtong dian (Commonalities among Zhuang-Dong languages and the Min and Yue dialects of Chinese). *Minzu Yuwen* 2.54–60.
- Chang, K.C. 1986. *The archeology of ancient China*, 4th ed. New Haven, CT: Yale University Press.
- Chappell, Hillary. 2001. Language contact and areal diffusion in Sinitic languages: Problems for typology and genetic affiliation. In Dixon & Aikhenvald 2001: 328–57.
- Chen Baoya. 1996. *Yuyan jiechu yu yuyan lianmeng (Language contact and language coalescence)*. Beijing: Yuwen Chubanshe.
- Chen Naixiong. 1982. Wutunhua chu tan (A preliminary discussion of Wutun). *Minzu Yuwen* 1.10–18.
- Chu, J.Y., W. Huang, S.Q. Kuang, J.M. Wang, J.J. Xu, Z.T. Chu, Z.Q. Yang, K.Q. Lin, P. Li, M. Wu, Z.C. Geng, C.C. Tan, R.F. Du, & L. Jin. 1998. Genetic relationship of populations in China. *Proceedings of the National Academy of Sciences* 95.11763–8.
- Coblin, W. South. 2015. *A study of comparative Gàn (Language and Linguistics Monograph Series 58)*. Taipei: Institute of Linguistics, Academia Sinica.
- Coblin, W. South. 2018. Neo-Hakka, Paleo-Hakka, and Early Southern Highlands Chinese. *Yǔyán Yánjiù Jíkān* 21.175–238.
- Coblin, W. South. 2019. *Common Neo-Hakka: A comparative reconstruction (Language and Linguistics Monograph Series 63)*. Taipei: Institute of Linguistics, Academia Sinica.
- Coblin, W. South, forthcoming. *A problem in the application of the comparative method to the reconstruction of earlier forms of Chinese*.
- Dai Qingxia, Liu Juhuang & Fu Ailan. 1987. Yunnan Mengguzu Gazhuoyu yanjiu (On the Gazhuo language of the Mongolian people of Yunnan). *Yuyan Yanjiu* 1.151–75.
- Dixon, R.M.W. 2001. The Australian linguistic area. In Dixon & Aikhenvald 2001: 64–104.
- Dixon, R.M.W. & Alexandra Y. Aikhenvald (eds.). 2001. *Areal diffusion and genetic inheritance: Case studies in language change*. Oxford: Oxford University Press.
- Drinka, Bridget. 2017. *Language contact in Europe: The periphrastic perfect through history*. Cambridge: Cambridge University Press.

- Du Ruofu, Yuan Yida, J. Huang, J. Mountain, & L.L. Cavalli-Sforza. 1992. *Chinese surnames and the genetic differences between north and south China* (Journal of Chinese Linguistics Monograph Series No. 5). Berkeley, CA: Project on Linguistic Analysis.
- Dwyer, Arienne M. 1992. Altaic elements in the Linxia dialect: Contact-induced change on the Yellow River Plateau. *Journal of Chinese Linguistics* 20.160–78.
- Emeneau, Murray B. 1956. India as a linguistic area. *Language* 32.3–16.
- Enfield, Nick. 2001. On genetic and areal linguistics in mainland Southeast Asia: Parallel grammaticalizations of “acquire.” *Dixon & Aikhenvald 2001*: 255–90.
- Etlar, Dennis A. 1992. Recent developments in the study of human biology in China: A review. *Human Biology* 64.4.567–85.
- Fairbank, John K., Reischauer, Edwin O. & Craig, Albert M. 1989. *East Asia: Tradition and transformation*, rev. ed. Boston, MA: Houghton Mifflin Co.
- FitzGerald, Charles Patrick. 1961. *China: A short cultural history*. London: The Cresset Press Ltd.
- Friedman, Victor A. 1997. One grammar, three lexicons: ideological overtones and underpinnings in the Balkan Sprachbund. In *Proceedings of the 33rd Regional Meeting of the Chicago Linguistic Society*, 23–44.
- Ge Jianxiong, Wu Songdi, & Cao Shuji. 1997. *Zhongguo yi min shi (History of migrations in China)*. Fuzhou: Fujian Renmin Chubanshe.
- Grenoble, L.A. & L.J. Whaley. 1998. *Endangered languages: Language loss and community response*. Cambridge & New York: Cambridge University Press.
- Hai Feng. 2003. *Zhongya Donggan yuyan yanjiu (A Study of the Dungan language of Central Asia)*. Urumchi: Xinjiang University Publishing House.
- Hansell, Mark D. 1989. Lexical borrowing in Taiwan. PhD dissertation, University of California, Berkeley.
- Hashimoto, Mantaro J. 1976. Language diffusion on the Asian continent. *Computational Analyses of Asian and African Languages* 3.49–63.
- Hashimoto, Mantaro J. 1980. Typography of phonotactics and suprasegmentals in languages of the East Asian continent. *Computational Analysis of Asian and African Languages* 13.153–64.
- Hashimoto, Mantaro J. 1986. The Altaicization of Northern Chinese. In *Contributions to Sino-Tibetan studies*, ed. by J. McCoy & Timothy Light, 76–97. Leiden: E. J. Brill.
- Hashimoto, Mantaro J. 1992. Hakka in Wellentheorie perspective. *Journal of Chinese Linguistics* 20.1–48.
- Haspelmath, Martin. 2002. The European linguistic area: Standard Average European. In *Language typology and language universals: An international handbook*, ed. by M. Haspelmath, E. König, W. Oesterreicher, & W. Raible, 1492–510. Berlin: Mouton de Gruyter.
- He Jiren. 1989. Yunnan Mengguzu yuyan ji qi xishu wenti (The language of the Mongols of Yunnan Province and the problem of its geneological classification). *Minzu Yuwen* 1989.5.25–36.

- He Jiren. 1998. Guanyu Yunnan Mengguzu Gazhuoyu de xingcheng (On the formation of the Gazhuo language of the Mongolians of Yunnan). *Minzu Yuwen* 1998.4.51–4.
- Heine, Bernd. 2005. *Language contact and grammatical change*. Cambridge: Cambridge University Press.
- Huang Yuanwei. 1990. Zhuangyu yu Yueyu, Wuming Guanhua de xianghu yingxiang (The mutual influence of Zhuang, Cantonese, and Wuming Guanhua). In *Hanyu yu shaoshu minzuyu guanxi yanjiu (Studies on the relationships between Chinese and the minority languages)*, ed. by Zhongyang Minzu Xueyuan Xuebao Bianjibu, 173–8. Beijing: Zhongyang Minzu Xueyuan.
- HUGO Pan-Asian SNP Consortium. 2009. Mapping human genetic diversity in Asia. *Science* 326.1541–5.
- Iredale, Robyn, Bilik, Naran, & Guo Fei. 2003. *China's minorities on the move: Selected case studies*. Armonk, NY & London: M. E. Sharpe.
- Iwata, Ray. 1995. Linguistic geography of Chinese dialects: Project on Han Dialects (PHD). *Cahiers de Linguistique Asie Orientale* 24.195–227.
- Jin Li & Bing Su. 2000. Natives or immigrants: Modern human origin in East Asia. *Nature Reviews Genetics* 1.126–33.
- Ke, Yuehai, Bing Su, Xiufeng Song, Daru Lu, Lifeng Chen, Hongyu Li, Chunjian Qi, Sangkot Marzuki, Ranjan Deka, Peter Underhill, Chunjie Xiao, Mark Shriver, Jeff Leil, Douglas Wallace, R. Spencer Wells, Mark Seielstad, Peter Oefner, Dingliang Zhu, Jianzhong Jin, Wei Huang, Ranajit Chakraborty, Zhu Chen, & Li Jin. 2001. African origin of modern Humans in East Asia: A tale of 12,000 Y chromosomes. *Science* 292.1151–3.
- Kubler, C.C. 1985. *The development of Mandarin in Taiwan: A case study of language contact*. Taipei: Student Book Co., Ltd.
- LaPolla, Randy J. 2001. The role of migration and language contact in the development of the Sino-Tibetan language family. In *Dixon & Aikhenvald 2001*: 225–54.
- LaPolla, Randy J. 2005. Di'er yuyan xide dui diyi yuyan de yingxiang (The influence of second language learning on one's first language). In *Papers from the 4th International Conference on Bilingual Studies*, ed. by Dai Qingxia & Jia Yimin, 50–7. Guangzhou: Jinan University Press.
- LaPolla, Randy J. 2009. Causes and effects of substratum, superstratum and adstratum influence, with reference to Tibeto-Burman languages. In *Issues in Tibeto-Burman historical linguistics (Senri Ethnological Studies 75)*, ed. by Yasuhiko Nagano, 227–37. Osaka: National Museum of Ethnology.
- LaPolla, Randy J. 2015. On the logical necessity of a cultural connection for all aspects of linguistic structure. In *Language structure and environment: Social, cultural, and natural factors*, ed. by Rik De Busser & Randy J. LaPolla, 33–44. Amsterdam & Philadelphia, PA: John Benjamins.
- Lee, James. 1978. Migration and expansion in Chinese history. In *Human migration: Patterns and policies*, ed. by William H. McNeill & Ruth S. Adams, 20–47. Bloomington, IN & London: Indiana University Press.

- Lee, James. 1982. The legacy of immigration in Southwest China, 1250–1850. *Annales de Démographie Historique* 1982.279–304.
- Lee, James & Wong Bin. 1991. Population movements in Qing China and their linguistic legacy. W.S.-Y. Wang 1991: 52–77.
- Leong, Sow-Theng. 1997. *Migration and ethnicity in Chinese history: Hakkas, Pengmin, and their neighbors*. Stanford, CA: Stanford University Press.
- Li Jingzhong. 1994. *Yuyan yanbian lun (On language change)*. Guangzhou: Guangzhou Chubanshe.
- Lim, Lisa. 2015. Singapore: Language situation. In *Encyclopedia of Chinese language and linguistics*, ed. by Rint Sybesma. Leiden & New York: Brill. (Available at http://dx.doi.org.ezlibproxy1.ntu.edu.sg/10.1163/2210-7363_ecll_COM_00000384, accessed June 14, 2017.)
- Masica, Colin P. 1976. *Defining a linguistic area: South Asia*. Chicago, IL: University of Chicago Press.
- Matisoff, James A. 1991. Areal and universal dimensions of grammaticalization in Lahu. In *Approaches to grammaticalization*, vol. 2, ed. by E. C. Traugott and B. Heine, 383–453. Amsterdam: John Benjamins.
- Matisoff, James A. 2001. Genetic versus contact relationship: Prosodic diffusibility in South-East Asian languages. In Dixon & Aikhenvald 2001: 291–327.
- Mei, Tsu-lin. 2015. The “Wu dialect” of Southern Dynasties and the origin of Modern Min; Plus an exegesis of Yan Zhitui’s dictum, “The South is tainted by Wu and Yue features, and the North is intermixed with barbaric tongues of Yi and Lu.” *Language and Linguistics* 16.2.119–38.
- Meng Simu. 1998. Hanyu he Zhuangdongyu de miqie guanxi ji lishi wenhua beijing (The close relationship between Chinese and Zhuang-Dong languages and its historical and cultural background). *Minzu Yuwen* 4.43–50.
- Mufwene, Salikoko S. 2007. Population movements and contacts in language evolution. *Journal of Language Contact – THEMA* 1.63–92.
- Nakanishi Hiroki. 2010. On the genetic affiliation of Shehua. In *Diachronic change and language contact* (Journal of Chinese Linguistics Monograph Series 24), ed. by William S.-Y. Wang, 247–67. Hong Kong: The Chinese University Press on behalf of the Project on Linguistics Analysis.
- Norman, Jerry. 1983. Some ancient Chinese dialect words in the Min dialects. *Fangyan* 1983.3.202–11.
- Norman, Jerry. 1988. *Chinese*. Cambridge: Cambridge University Press.
- Norman, Jerry. 1991. The Min dialects in historical perspective. In W.S.-Y. Wang 1991: 325–60.
- Norman, Jerry, & Mei Tsu-lin. 1976. The Austroasiatics in ancient South China: Some lexical evidence. *Monumenta Serica* 32.274–301.
- Pelkey, Jamin R. 2011. *Dialectology as dialectic: Interpreting Phula variation*. Berlin: De Gruyter.
- Poa, Dory & Randy J. LaPolla. 2007. Minority languages of China. In *The vanishing languages of the Pacific*, ed. by Osahito Miyaoka & Michael E. Krauss, 337–54. Oxford: Oxford University Press.

- Prior, Anat & Brian MacWhinney. 2010. A bilingual advantage in task switching. *Bilingualism: Language and Cognition* 13.2.253–62.
- Pulleyblank, Edwin G. 1983. The Chinese and their neighbors in prehistoric and early historic times. In *The origins of Chinese civilization*, ed. by David N. Keightley, 411–66. Berkeley & Los Angeles, CA: University of California Press.
- Pulleyblank, Edwin G. 1991. Chinese dialect studies. In W.S.-Y. Wang 1991: 431–55.
- Qian Nairong. 1991. The changes in the Shanghai dialect. In W.S.-Y. Wang 1991: 377–428.
- Qian Nairong. 1997. *Shanghaihua yufa (Grammar of the Shanghai dialect)*. Shanghai: Renmin Chubanshe.
- Ran Guangrong & Zhou Xiyin. 1983. Lun Gan-Qing gu wenhua yu Qiangzu de guanxi (On the relationship between ancient Gan-Qing culture and the Qiang ethnic group). In *Xinan minzu yanjiu (Studies on the southwest nationalities)*, ed. by Zhongguo Xinan Minzu Yanjiu Xuehui, 215–34. Chengdu: Sichuan Minzu Chubanshe.
- Ran Guangrong, Li Shaoming, & Zhou Xiyin. 1984. *Qiangzu shi (History of the Qiang nationality)*. Chengdu: Sichuan Minzu Chubanshe.
- Ren Qiang & Yuan Xin. 2003. Impacts of migration to Xinjiang since the 1950s. In Iredale, Bilik, & Guo 2003: 89–105.
- Rimsky-Korsakoff, Svetlana. 1967. Soviet Dungan: The Chinese language of Central Asia: alphabet, phonology, morphology. *Monumenta Serica* 26.352–421.
- Ross, Malcolm. 2001. Contact-induced change in Oceanic languages in North-West Melanesia. In Dixon & Aikhenvald 2001: 134–66.
- Sagart, Laurent. 2002. Gan, Hakka and the formation of Chinese dialects. In *Dialect variations in Chinese*, ed. by Dah-an Ho, 129–54. Taipei: Academia Sinica.
- Shearer, Walter & Sun Hongkai. 2002. *Speakers of the non-Han languages and dialects of China*. Lewiston, NY & Lampeter: The Edwin Mellen Press.
- Sun Hongkai. 2001. Guanyu binwei yuyan (On endangered languages). *Yuyan jiaoxue yu yanjiu* 2001.1.1–17.
- Thomason, Sandra G. & Terrance Kaufman. 1988. *Language contact, creolization, and genetic linguistics*. Berkeley, CA: University of California Press.
- Tian Jizhou. 1989. Chuguo ji qi minzu (The country of Chu and its nationalities). *Zhongguo Minzushi Yanjiu* 2.1–17.
- Ting, Pang-Hsin. 1988. Wuyu zhong de Minyu chengfen (A Min substratum in the Wu dialects). *Bulletin of the Institute of History and Philology Academia Sinica* 59.1.13–22.
- Tong Enzheng. 1998. *Gudai de Ba Shu (Ancient Ba and Shu)*. Chongqing: Chongqing Chubanshe.
- Treistman, Judith M. 1972. *The prehistory of China*. New York: Natural History Press.

- Trubetzkoy, Nikolai S. 1939. Gedanken über das Indogermanenproblem. *Acta Linguistica* 1.81–9.
- Wang Huiyin. 1989. Chunqiu Zhanguo shiqi de minzu yuyan gaikuang he yuyan guanxi shuolue (A brief discussion of the [nationality](#) languages and their relationships in the Spring and Autumn and Warring States periods). *Zhongyang Minzu Xueyuan Xuebao* 6.72–5, 79.
- Wang Jun. 1991. Language interaction in China. In W.S.-Y. Wang 1991: 161–86.
- Wang Ming-ke. 1992. The Ch'iang of ancient China through the Han dynasty: Ecological frontiers and ethnic boundaries. PhD dissertation, Harvard University.
- Wang Yuanxin. 2000. Lun woguo minzu zajuqu de yuyan shiyong tedian (On the characteristics of the language use in the districts of China with mixed ethnic groups). *Minzu Yuwen* 2002.2.1–7.
- Wang, William S.-Y. (ed.). 1991. *Languages and dialects of China* (Journal of Chinese Linguistics Monograph Series, No. 3). Berkeley, CA: Project on Linguistic Analysis.
- Wang, William S.-Y. 2017. Theoretical issues in the study of ancestry. International Conference on the Ancestry of the Languages and Peoples of China, Jinan University, Guangzhou, May 30–1, 2017.
- Wen, Bo, Hui Li, Daru Lu, Xiufeng Song, Feng Zhang, Yungang He, Feng Li, Yang Gao, Xianyun Mao, Liang Zhang, Ji Qian, Jingze Tan, Jianzhong Jin, Wei Huang, Ranjan Deka, Bing Su, Ranajit Chakraborty, & Li Jin. 2004. Genetic evidence supports demic diffusion of Han culture. *Nature* 431.302–5.
- Weng, Zili, Yuan Yida, & Du Rufu. 1989. Analysis on genetic structure of human populations in China. *Acta Anthropologica Sinica* 8.3.261–8.
- Whorf, Benjamin Lee. 1956. Linguistics as an exact science. In *Language, thought, and reality: Selected writings of Benjamin Lee Whorf*, ed. by John B. Carroll, 220–32. Cambridge, MA: MIT Press. (Paper originally published in 1940.)
- Wiens, Herold J. 1967. *Han Chinese expansion in South China*. Hamden, CT: Shoe String Press.
- Xing Gongwan. 1996. Han-Zangyu yanjiu he Zhongguo kaoguxue (Sino-Tibetan studies and Chinese archeology). *Minzu Yuwen* 4.18–28.
- Xu Jieshun. 1989. Zhongguo gudai nanbei minzu guanxi shi bijiao yanjiu duanxiang (A comparative study of the histories of the northern and southern nationalities in Ancient China). *Sixiang Zhanxian* 1.55–61.
- Xu Shixuan. 2001. *Binwei yuyan yanjiu (Study on language endangerment)*. Beijing: Central University of Nationalities Press.
- Xu Shixuan. 2003. Lun yuyan de jiechuxing shuaibian (On the decline of language resulting from language contact). *Yuyan Kexue* 2003.5.97–110.
- You Rujie. 1982. Lun Taiyu liangci zai Hanyu nanfang fangyan zhong de diceng de yicun (On the substrata and remnants of Tai classifiers in Chinese southern dialects). *Minzu Yuwen* 3.33–48.

- You Rujie. 1995. Zhongguo nanfang yuyan li de niao chong lei mingci citou ji xiangguan wenti (The prefixes of bird and insect names in the languages of southern China and other questions). In *The ancestry of the Chinese language* (Journal of Chinese Linguistics Monograph Series, No. 8), ed. by W.S.-Y. Wang, 253–68. Berkeley, CA: Project on Linguistic Analysis.
- Yuan Yan. 2001. *Yuyan jiechu yu yuyan yanbian* (Language contact and language change). Beijing: Minzu Chubanshe.
- Yue-Hashimoto, Anne O.-K. 1967. Southern Chinese dialects: The Tai connection. *Computational Analysis of Asian and African Languages* 6.1–9.
- Yue-Hashimoto, Anne O.-K. 1991. The Yue dialect. In W.S.-Y. Wang 1991: 294–324.
- Yue-Hashimoto, Anne O.-K. 1993. The lexicon in syntactic change: Lexical diffusion in Chinese syntax. *Journal of Chinese Linguistics* 21.213–53.
- Zhang Haiguo. 1988. The distribution of dermatoglyphics parameters in fifty two Chinese populations. *Acta Anthropologica Sinica* 7.1.39–45.
- Zhang Tianlu & Huang Rongqing. 1996. *Zhongguo shaoshu minzu renkou diaocha yanjiu* (Studies on the minority population census of China). Beijing: Gaodeng Jiaoyu Chubanshe.
- Zhang Zhenbiao. 1988. An analysis of the physical characteristics of Modern Chinese. *Acta Anthropologica Sinica* 7.4.314–23.
- Zhao Tongmao & Lee Tsung Dao. 1989. Gm and Km allotypes in 74 Chinese populations: A hypothesis of the origin of the Chinese nation. *Human Genetics* 83.101–10.
- Zhou Zhenhe & You Rujie. 1986. *Fangyan yu Zhongguo wenhua* (Dialects and Chinese culture). Shanghai: Shanghai Renmin Chubanshe.
- Zhou Zhenhe. 1991. Migrations in Chinese history and their legacy on Chinese dialects. In W. S.-Y. Wang 1991: 29–51.
- Zuo, Xinxin, Houyuan Lu, Leping Jiang, Jianping Zhang, Xiaoyan Yang, Xiujia Huan, Keyang He, Can Wang, & Naiqin Wu. 2017. Dating rice remains through phytolith carbon-14 study reveals domestication at the beginning of the Holocene. PNAS. Published online at www.pnas.org/cgi/doi/10.1073/pnas.1704304114 before print, May 30, 2017.