

Tonal Alternations of Particle “Gə” in the Wuxi Dialect

Language Background

The Wuxi dialect, or Wuxinese, is a dialect of Wu Chinese spoken in the city of Wuxi, Jiangsu, China. As a descendant language of the historical Wu state, it shares many similarities with the dialects of the neighboring cities of Suzhou and Shanghai. Even so, speakers of these dialects have a difficult time understanding each other. Although politically considered a dialect of Mandarin, Wuxinese is not mutually intelligible with Mandarin. However, it is related to Mandarin in that both languages are of the Sino-Tibetan language family. Both are also considered tonal languages.

There is no academic census on how many people speak Wuxinese, but speakers of Wu Chinese was estimated to be 85 million at the beginning of the 21st century (Britannica, 2017). The city of Wuxi itself had around 7.5 million inhabitants in 2020 (Ning, 2021), but it is most likely that most are not fluent in Wuxinese. Wuxinese, like many non-Mandarin languages of China, is not protected by the government or taught in educational curricula. Many native speakers of Wuxinese speak the language at home or in close communities only. It is unclear whether the language is endangered, but it could be estimated to be in decline. From my own personal experience of living in Wuxi during summers at my grandparents’ house, Wuxinese is often used at the outskirts of larger urban areas and among locals who run community-based small businesses.

Speaker Background

The speaker from whom I obtained my data is my father, Yiming Deng, who was born in Wuxi with parents both fluent in Wuxinese. He claims that he often code-switches between Wuxinese and Mandarin. He was unable to pass down the dialect to me due to having a different dialect with my mother, who speaks the Xuzhou dialect in northern China, and thus only communicating with us in the official national language of Mandarin. Nevertheless, I am able to more or less understand most everyday conversations, although I cannot speak it.

Methodology

For this project, I applied the Swadesh 207 list as a basis for collecting the Wuxinese data. I asked Yiming to translate each English word in the Swadesh list into Wuxinese, and I transcribed each word into its IPA version. I also asked Yiming to form sentences with a randomly chosen assortment of some of the words in the list to gain a better sense of words used in context. Each exchange was recorded so I could listen again at a later time and confirm my IPA transcriptions. Minimal pairs were compared against each other to gain an understanding of phonological differences.

Tonal Differences in “Gə”

“Gə” in Wuxinese is used to signal the modifying purpose of a word. It is a particle used with numbers, adjectives, and determiners. It is somewhat similar semantically to the Mandarin

modifier particles “的” (dó) and quantifier “个” (gè). However, unlike Mandarin, this Wuxinese modifier does not surface consistently with the same tone. “Gə” can be observed in high, low, rising, and falling tones for seemingly the same semantic interpretation. For instance, the word for “big” surfaces as *dɔv gá* while “thick” surfaces as *gəi gə*. This example also rules out the possibility of tonal polarity in causing the differences. I propose that there are different morphological types of “gə” based on their underlying tones; these tones consist of toneless and low tones.

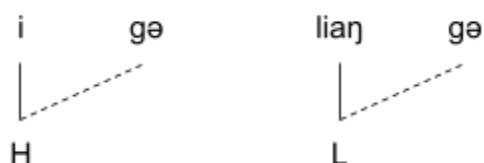
Underlyingly Toneless “Gə”

Toneless “gə” particles are used with numbers and adjectives. *Table (1)* shows the Wuxinese numbers one to five glossed with English. Here, it can be observed that the tone on “gə” is the same as the number word that it is attached to. The high tone on *í* and *sí* causes their *gə* to have high tones while the low tones on *liɑŋ* and *sè* causes their *gə* to have low tones. There are no other ways to predict the tone on “gə,” making it underspecified and most likely toneless. The tone on the root word spreads to the toneless particle “gə.” *Figure (1)* shows an autosegmental breakdown of this rule.

Table (1)

English numbers	one	two	three	four	five
Wuxi numbers	í	liɑŋ	sè	sí	əm
Wuxi numbers with gə	í gá	liɑŋ gə	sè gə	sí gá	əm gə

Figure (1)



Wuxinese numbers only have a single tone attached. When it comes to words such as adjectives with rising (LH) and falling (HL) tones, a toneless “gə” still seems to be the case. *Table (2)* is a compiled list of Wuxinese adjectives glossed with English along with tonal changes when “gə” is used along with the adjectives. The Wuxi word for “big” is *dɔv* with a LH rising tone; when “gə” is paired with *dɔv*, “gə” obtains the high tone and *dɔv* goes from rising tone to just low tone. This means that the root word with falling or rising tones delinks from the last tone on their melodic tier and the toneless “gə” takes on this delinked tone instead. Similar to numbers,

adjectives with single tones have “gə” that maintains that tone, showing a spreading from the root. *Figure (2)* demonstrates the autosegmental analysis of these changes.

Table (2)

English Adj.	big	long	thick	wide
Wuxi Adj.	dɔʊ	tsǎŋ	gəi	kuó
Wuxi Adj with gə	dɔʊ gə	tsǎŋ gé	gəi gə	kuó gə

Figure (2)



Despite the wide usage of toneless “gə” as a particle for numbers and adjectives, not all “gə” are toneless. Contrastive distribution shows that “gə” is underlyingly low toned when used as a particle to mark the modifying quality of determiners. The most notable example is that of “this,” *í gê*, and “one,” *í gé*. Despite being in the same environment, those two “gə’s” have different tones and different meanings. This shows that these are two different types of “gə.”

Underlyingly Low Tone “Gə”

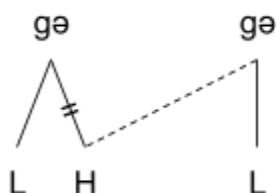
Contrastive distribution with the toneless “gə” provides one evidence that there is another “gə” with a different underlying structure. Another evidence lies in how the environments of “gə” used with determiners cannot explain how this other “gə” always ends in a low tone on the melodic tier. *Table (3)* shows some Wuxi determiners used with “gə.” These determiners all have a final high tone on the melodic tier; if “gə” was toneless, the high tones of the root words should have spread, resulting in combinations such as *gǎ gə for the word that means “this.” However, the tone on “gə” is HL, showing the remnant of a low tone. Despite the falling tone that surfaces on this “gə,” it is most likely underlyingly low toned. This is because the Obligatory Contour Principle states that identical elements are not allowed to be adjacent to each other on the melodic tier. What most likely has occurred is the spreading of the root word’s high tone to gə, resulting in the surface form *gê*. *Figure (3)* shows this autosegmental process.

Table (3)

English Determiner	this	that	all	many
Wuxi Determiner	N/A, never used alone	gǎ	só kó	má dó

Wuxi Determiner with gə	í gə̂	gə̌ gə̂	só ʎó gə̂	má dó gə̂
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Figure (3)



Discussion

Wuxinese has a system of modifier particles similar to Mandarin's modifier particle “的” (dó) and quantifier particles like “个” (gə̂). This Wuxinese modifier particle mainly consists of “gə̂,” with an underlyingly toneless version and an underlying low toned version. Although these two different “gə̂” sometimes surface as each other, contrastive distribution and autosegmental evidence proves that they are two different phonemes. Underlyingly toneless “gə̂” gains the root word's final tone on the melodic tier due to spreading. Toneless “gə̂” is used as the modifier particle for numbers and adjectives. Underlyingly low toned “gə̂” surfaces with falling tones (HL), but OCP dictates that it most likely gained its high tone due to spreading from its root word. Low toned “gə̂” are used as the modifier particle for determiners. This shows a significant difference from Mandarin's tonal system despite sharing a system of modifier particles, where every unit of word has a tone, and toneless syllables do not exist.

Works Cited

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