VNiVERSiDAD D SALAMANCA

한국 中國 にほん

melyca

Máster Oficial en Estudios Avanzados de Lenguas Literaturas y Culturas de Asia Oriental

MÁSTER OFICIAL EN ESTUDIOS AVANZADOS DE LENGUAS, LITERATURAS Y CULTURAS DE ASIA ORIENTAL

CURSO ACADÉMICO 2021-2022

TRABAJO DE FIN DE MÁSTER

Linguistic distance between the Wú dialects: is the current classification relevant?

Miguel Aníbal Bendito Hernández

9 de julio 2022

Vº Bº del Tutor/-a

Firmado por XU JINJING - ****5622* el día 07/07/2022 con un certificado emitido por AC FNMT

FACULTAD DE FILOLOGÍA

UNIVERSIDAD DE SALAMANCA

Declaración de autoría

Declaro que he redactado el trabajo "Linguistic distance between the Wú dialects: is the current classification relevant?" para la asignatura de Trabajo de Fin de Máster en el curso académico 2021-2022 de forma autónoma, con la ayuda de las fuentes y la literatura citadas en la bibliografía, y que he identificado como tales todas las partes tomadas de las fuentes y de la literatura indicada, textualmente o conforme a su sentido.

Firma

Miguel Aníbal Bendito Hernández

2 de julio 2022

Table of Contents

1. Introduction

Wú 吳語 is the second largest major dialect group in China with, according to Mikael Parkvall (2007), 80 million speakers. It is spoken by nearly 1.2% of the global population, which makes it the 13th most spoken language in the world. The number of studies on it is however not proportional to the great number of speakers it has, since the literature on the subject can be found but scholars tend to prefer other Sinitic languages like Mǐn or Cantonese.

The interest in this language grew in the author of this work's mind after researching for his degree thesis on the evolution of tones across the Sinitic languages. While trying to create a phylogenetic tree of the Sinitic languages, we discovered that many authors would not agree on how to classify the Chinese Languages and that the case of Wú was especially a topic of great debate in modern Chinese linguistics. One sentence from Sagart's conference on Sinitic languages classification (2011) was the inspiration for this work:

> Perhaps the Wu area is just a zone in East China where dialects that are very different in origin have failed to lose voiced stops, and the voicing isogloss around them is just the line beyond which devoicing has not spread (yet). It does seem that the southernmost dialects in the area are much closer to northern Mǐn than to northern Wú.

Not only the traditional way of classification of the Wú languages does not suit some of the dialects traditionally in this group, but furthermore, many native speakers also report that mutual intelligibility between speakers of northern and southern varieties is non-existent when using their local dialects to communicate.

Thus, after not finding much recent literature on the topic (very few publications can be found from the 90s onward), we thought it would be interesting to make a comparative study of the available data and literature to confirm or revoke the following question: Are there enough structural differences between the Wú dialects to affirm that they should be split into further languages?

This question raises however another one, what defines a dialect in contrast to a language. This is one of the central questions of dialectology and there is no clear manner to differentiate two dialects and two languages apart. However, there is a list of vague criteria that can sometimes contradict each other. Distinguishing between a dialect and a language is, therefore, most of the time a subjective task (Tomasz Kamusella: 2016, pp, 189-198). Most dialectologists accord to say that languages are clusters of dialects that are mutually intelligible,

as said by Bernard Comrie (2018): “two varieties are said to be dialects of the same language if being a speaker of one variety confers sufficient knowledge to understand and be understood by a speaker of the other; otherwise, they are said to be different languages”. The literature on mutual intelligibility between Chinese dialects is existent but scarce (see Tang Chaoju *et al.* 2008). However, due to the lack of resources and time for the reality of a master’s thesis, we will not be able to use this criterion to explore our initial hypothesis.

The second most used criterion to tell dialects apart is known as linguistic distance. Linguistic distance is the number of features (phonological, morphological, syntactical, etc) that differentiate dialects apart creating isoglosses. Therefore, two dialects with many linguistic distancing features are often considered to be separate languages (Tang Chaoju *et al.* 2008). That will be the methodology followed in this work.

It should also be mentioned, that in the following work Taiwan Standard Traditional characters will be employed and will be romanised in *pīnyī.* Even the words and proper names traditionally transcribed with Wade-Giles or other systems will in this document be converted into *pīyīn* for the sake of coherence. The International Phonetic Alphabet will be employed to transcribe the sounds of the different dialects but non-standard Karlgren phonetic symbols /ɿ, ʅ, ʮ, ʯ/ will be employed to transcribe apical vowels since they are commonly used by sinologist. Furthermore, tones will be transcribed using numbers from 1 to 5 according to pitch and underlined when especially brief when studied independently as the author considered that this system is more graphic but transcribed with Zhào tone letters when in combination with other phonetic symbols in order not to confuse the tones with footnotes.

We finally would like to acknowledge the help of Daniel García Miguel, a friend and software designer without whom the lexical comparison of Section 5.2. would not have been possible as he helped to design the comparison software employed in this work.

2. Defining the *Wú* Languages

To study the similarities and differences between the different dialects classified as Wú, we shall first consider what features distinguish the Wú dialects from other Chinese languages. This happens to be quite a difficult task since most of the speakers of these varieties of Sinitic languages do not call their way of speaking "Wú" in daily life, terms related to their local dialect like Shanghainese 上海話, Suzhounese 蘇州話 or "local speech" 土話 is preferred.

The first clear description of the Wú languages was in 1928 by Zhào Yuánrèn who based his theory on the evolution of phonetics features from Middle Chinese. He suggested that the most distinctive feature of this group of dialects was the tripartite division of stop consonants between voiced, voiceless unaspirated and voiceless aspirated. These criteria turned out to be rather simplistic and later, Zhū Xiǎonóng (1999) also denoted that the complex tone sandhi is a characteristic feature. Nevertheless, in contrast to many of the dialectological studies common in the West, it is quite rare to see morphological and syntactic studies just like for most of the Sinitic languages. Syntactic research on Shanghainese -by far the most well-studied variety of the Wú languages- only appeared in the late 80s with the publication of a descriptive work on Shanghainese syntax, lexicon, and phonology by Xǔ and Tāng (1988). Later, Yú Zhǐqíang (1999) and Richard VanNess Simmons (1999) criticized the approach of Zhào and instead they both proposed a new set of criteria to define the Wú languages.

After collecting dialect data from the literature review, Yú proposed eleven features common to all the Wú dialects from which five were lexical and six phonological (1999: p. 2):

- Typical Wú vocalism patterns.
- Simple negative word is [f-] o[v-] like [fəʔ] 勿 in the Sūzhōu dialect.
- Words for "son" are [ŋ̍-] like [ŋ̍i] 兒 in the Shànghaǐ dialect or related forms.
- Distinction between the *yīnrù*[1] and *yángrù* tones.
- Distinction between the *yīnqù* and *yángqù* tones.
- Retention of nasal initial for words *wěi* "tail" 尾.
- Retention of nasal initial for words rì "sun" 日.
- The words for "saliva" are related to chántùshuǐ 饞吐水.
- Three-wayThe three-way distinction between stops.

[1] See section 3.3 for further explanation on Chinese tones nomenclature.

- Words for “face” related to miàn 面.
- Words for “monkey” are related to húsūn 猢猻.

On the other hand, Simmon described Zhào classification according to the consonant tripartition as “disputable” and “misleading” (1999, p.34). After years of fieldwork, the author proposed a “common Wú system”. According to him: “the best way to characterize and identify Wú dialects is by measuring the correspondence of individual dialects against a common set of distinctive categories seen in the collective Wú phonological system […] what we can call *Common Wu*” (1999, p.38). Simmon thus came out with 16 features, to determine if a dialect could be classified as Wú or not (pp. 59-73):

- Vocalism before Common Chinese coda *-ng.
- Vocalism before Common Chinese coda *-n.
- Vocalism in nasal finals with medial -u-.
- The trend toward an increase in vowel contrast.
- Eight distinctive tone categories.
- Velar nasal and zero initials.
- Split of the ancient *wēi* 微母[2]class of initials and the ancient initials *n- *z- into reading and spoken forms.
- Raised vowels.
- Simplified diphthongs.
- Distinction of ancient *Qièyùn* 切韻 Division I and II.
- Loss of the *Qièyùn* distinction between -n and -ng after /i/ or / ə/.
- Loss of the nasal or a nasalization of the preceding vowel, with words in Mandarin -an.
- The number of tones is either seven or eight; and the actual pitch of upper, or in, series of tones is usually higher than that of the lower, or *yang*, series.
- More tone sandhi in Wú than in other dialects.
- The entering tone ends in a glottal stop before a pause but is simply short when in close juncture with a following syllable.

[2] 36 Middle Chinese characters representing inital sound also known as *sānshíliù zìmǔ* 三十六字母.This characters might guide the reader but will not be used as an example of the phonetic evolution in all the cases as the final of the syllable might not be the best to exemplify the phonetic shift.

- The possibility in Wú languages to use tone sandhi to distinguish between a compound word and phrase in purely phonological terms.
- According to these criteria, the Hángzhōu dialect must be considered Mandarin and not Wú.

Concerning the internal classification of the Wú dialects, the founder stone of the study of differences between the different dialects of the regions is *The Contrastive Aspect of the Wu Dialects* (Zhào: 1967). In his work, Zhào (pp. 92-101) distinguished between "the northern type group" (spoken in the northern areas of Jiāngsū province) and "the southern type group" (spoken in the province of Zhèiāng). However, this rather simplistic classification was a main topic of discussion during the Wu dialect conferences held during the first half of the 80s (Yán Yìmíng: 1994, p.21). The main conclusion of these conferences was the subdivision of the former two dialects into five smaller language clusters during the conference of Wúxí 無錫 in 1984. Finally, two years later (in 1986), one more subgroup of dialects spoken in the Ānhuī was added to the former five subgroups, the Xuāzhōu subgroup (Margaret Mian-yan: 2006, p.87). Thus, we arrived at the modern classification of Wú dialects adopted by the *Languages Atlas of China* (Wurm et al, 1988):

- Tàhú Subgroup 太湖片
  - Píling cluster 毗陵小片
  - Sūhùjiā cluster 蘇滬嘉小片
  - Tiáoxī cluster 苕溪小片
  - Hángzhōu cluster 杭州小片
  - Línshào cluster 臨紹小片
  - Yǒngjiāng cluster 甬江小片
- Táizhōu Subgroup 台州片
- Ōujiāng Subgroup 甌江片
- Wùzhōu Subgroup 婺州片
- Chǔqú Subgroup 處衢片
- Xuānzhōu Subgroup 宣州

Note that in later versions of the *Language Atlas of China*, Shanghainese was classified as its own cluster but for the sake of simplicity we will address it as part of the Sūhùjiā cluster in this work.

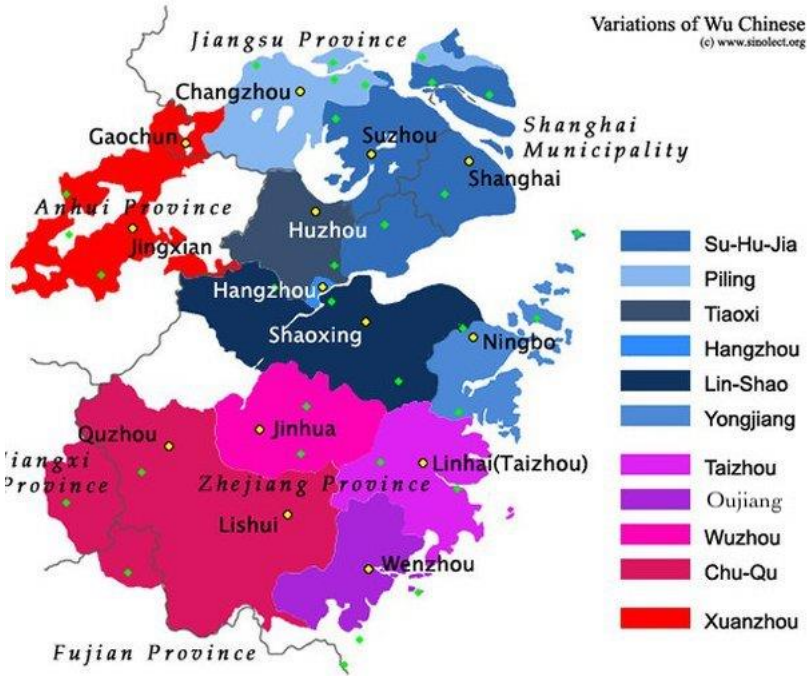

Figure 1. Map of the Wú dialects (Sinolect.org).

Another critical topic to be considered is the important diachronic differences between the varieties of the languages. In the last 30 years, due to the great migrations to the metropolitan areas and the imposition of Mandarin Chinese as the vehicular language of education, a significant change in the use of the languages by native speakers can be noticed. According to (Zhū Xiǎonóng: 2006, pp. 1-3), in 1930, 75% of the inhabitants of the *Tài* Lake surrounding area were Wú speakers. However, nowadays, due to the influence of Mandarin, most young speakers cannot tell the difference between palatal and dental consonants before high front vowels. Furthermore, there is a considerable difference in the number of finals when comparing older varieties with newer ones. A more complex tone sandhi system can also be noticed. It is, therefore, challenging to assess the differences between the different dialects of Wú, since most of the studies of their characteristics are already quite old and it is very likely that many changes have happened in the last 30 years.

3. Phonological comparison

Among all the dialects of the Wú language, the most studied and the ones that are considered "the standard" dialects because of their prestige are without a doubt the dialects of the Sūhùjiā cluster. To be more specific, the dialects of the municipalities of Sūzhōu and Shanghai. We

will therefore from now on refer to the particularities of such dialects to draw a comparative study of the Wú languages.

According to the *Dialect dictionary of Suzhou* (1993), the Suzhou area dialect has 28 initials (/p, pʰ, b, m, f,v, t, tʰ,d, n, l, ts tsʰ, s, z, tɕ, tɕʰ, ɕ, dʑ, ŋ, j, k, kʰ, g, ŋ, h, ɦ/), 49 finals (/ɪ, ɥ, i, u, y, ɒ, iɒ, uɒ, æ, iæ, ɐ, iɐ, o io, ø, iø, uø, ʏ, iʏ, əu, ən, in, uən, yn, ɒn, iɒŋ, uɒŋ, aŋ, iaŋ, uaŋ, oŋ, ioŋ, ɒʔ, iɒʔ, aʔ, iaʔ, uaʔ, yaʔ, ɤʔ, iɪʔ, uɤʔ, yɤʔ, oʔ, ioʔ/) and 7 tones (/44, 24, 533, 412, 31, 4, 23/). Of the finals, we count 3 medials (/i, u, y/), 10 vowels phonemes (/i, ɪ, u, y, ɛ, æ, a, ɑ, ø, o/), 2 nasal endings (-n, -ŋ), 1 tope ending (/ʔ/) and 4 syllabic sonorants (/l̩, m̩, n̩, ŋ̩/). These are the bases of our phonological comparison.

3.1. Initials Across the Wú Dialects

As above mentioned, it is now commonly accepted that the most characteristic features of the Wú dialects are the tripartition of obstruent consonants in unvoiced, unvoiced aspirated and voiced like in the traditional reconstructions of Middle Chinese and the retaining of Middle Chinese which have become unvoiced in most modern Chinese Dialects (/b, d, g, z, dz, …/).

We can, however, denote that in the Wú dialects of the *Jiāngsū* province, the lenis onset is followed by a murmured voiced [b̤ɦ, d̤ɦ, g̤ɦ, etc.] when they occur at the beginning of the phrase and are retained fully voiced when they occur after another syllable in a phrase, thus indicating that the voiced obstruents are in the process of becoming devoiced (Margaret Mianyan: 2006, p.91). In contrast, the Dānyáng dialect has not retained the Middle Chinese voiced initials and therefore should not be considered as Wú according to traditional classifications. On the other side, voiced initials of the dialects of the Xuānzhōu Subgroup (Yán Yìmíng: 1994, p.23) have undergone a process of frication while retaining their sonorization (see Table 1).

Finally, we can see a difference in pronunciation of the Middle Chinese *ɱ- between literary reading 文讀 and vernacular reading 白讀. Vernacular reading has probably retained the Old Chinese pronunciation *m- and never adopted the Middle Chinese version, while the literary reading is nowadays /v-/ which is a clear denasalization of the Middle Chinese labiodental nasal initial *ɱ-. This is an indicator of a process of labiodentalization between Old and Middle Chinese (Margaret Mianyan: 2006, p.91-92).

Table 1: modern Wú dialects' initials (bilabial to alveolar).

Middle Chinese phonetic character[1] and sound	**幫 *p-**	**滂 *pʰ-**	**並 *b-**	**名 *m-**	**非 *f-**	**微 *ɱ-**	**端 *t-**	**透 *tʰ-**	**定 *d-**	**泥 *n-**	**來 *l-**
Example	**幫**	**胖**	**盤**	**明**	**飛**	**味**	**打**	**梯**	**大**	**腦**	**老**
Sūzhōu 蘇州 (Sūhùjiā cluster)	p	pʰ	b	m	f	v(L)[3] m(V)[4]	t	tʰ	d	n	l
Shànghǎi 上海 (Sūhùjiā cluster)	p	pʰ	b	m	f	ɦ(L) m(V)	t	tʰ	d	n	l
Chóngmíng 崇明 (Sūhùjiā cluster)	p	pʰ	b	m	f	ɦm	t	tʰ	d	ʔn	ʔl
Dānyáng 丹陽 (Pílíng cluster)	p	pʰ	pʰ(L) p(V)	m	f	m, v	t	tʰ	d	n	l
Níngbō 寧波 (Yǒngjiāng cluster)	p	pʰ	b	m	f	v (L) m(V)	t	tʰ	d	n	l
Hángzhōu 杭州 (Hángzhōu cluster)	p	pʰ	b	m	f	v (L) m(V)	t	tʰ	d	n	l

[3] Litterary Reading

[4] Vernacular reading

Middle Chinese phonetic character and sound	**幫 *p-**	**滂 *pʰ-**	**並 *b-**	**名 *m-**	**非 *f-**	**微 *ɱ-**	**端 *t-**	**透 *tʰ-**	**定 *d-**	**泥 *n-**	**來 *l-**
Jínhuá 金花 (Táizhōu Subgroup)	p	pʰ	b	m	f	v (L) m(V)	t	tʰ	d	n	l
Wēnzhōu 溫州 (Ōujiāng Subgroup)	p	pʰ	b	m	f	m	t	tʰ	d	n	L
Jīngxiàn 涇縣 (Xuānzhōu Subgroup)	p	pʰ	hv	m	f	m	t	tʰ	hl	n	L
Fánchāng 繁昌 (Xuānzhōu Subgroup)	p	pʰ	hβ	m	f	m	t	tʰ	hl	n	L

Most of the initals have undergone a process of palatalization in the Wú dialects just like most of Mandarin dialects. However, the *jīng* 精 (*ts-) series has not, and therefore 精 and 經 are not homophones in most of the dialects but Suzhounese, neither are 酒 and 九 (see table 2). Furthermore, in Sūzhōu dialect the *z- (邪 series) initial has been further palatized to /ɕ-/ , and *g- (群 series) has become aspirated before a closed vowel. In Shanghainese, older speakers medial vowel has nor influenced further palatalization for Middle Chinese *k- (見 series) and therefore 經 and 九 are not pronounced with the same initial. Finally, in Níngbō dialect, the influence of the glide before a back vowel has been rendered as a palatalized / tɕ-/ instead of /ts-/ (Yán Yìmíng: 1994, p.23-27).

Table 2: Modern Wú dialects' initial fricatives and affricates

Middle Chinese phonetic character and sound	**精 *ts-**		**清 *tsʰ-**		**心 *s-**	**邪 *z-**	**曉 *x-**	**見 *k-**		**溪 *kʰ-**	**群 *g-**	
Example	精	酒	醋	清	思	謝	休	經	九	輕	棋	具
Sūzhōu 蘇州 (Sūhùjiā cluster)	tɕ	tɕ	tsʰ	tɕʰ	s	ɕ	ɕ	tɕ	tɕ	tɕʰ	tɕʰ	tɕ
Shànghǎi 上海 (Sūhùjiā cluster)	ts	ts(O) tɕ(N)	tsʰ	tsʰ	s	z	ɕ	ts(O)[5] tɕ(N)[6]	tɕ	tɕʰ	dʑ	dʑ
Chóngmíng 崇明 (Sūhùjiā cluster)	ts	ts	tsʰ	tsʰ	s	ʑ	ɕ	tɕ	tɕ	tɕʰ	dʑ	dʑ
Dānyáng 丹陽 (Pílíng cluster)	ts	ts	tsʰ	tsʰ	s	z	ɕ	tɕ	tɕ	tɕʰ	tsʰ(L) ts(V)	tsʰ(L) ts(V)
Níngbō 寧波 (Yǒngjiāng cluster)	ts	tɕ	tsʰ	tsʰ	s	ʑ	ɕ	tɕ	tɕ	tɕʰ	dʑ	dʑ
Hángzhōu 杭州 (Hángzhōu cluster)	ts	ts	tsʰ	tsʰ	s	z	ɕ	tɕ	tɕ	tɕʰ	dʑ	dʑ

[5] Older generation's articulation
[6] Newer generatio's articulation

Middle Chinese phonetic character and sound	精 ***ts-**		清 ***tsʰ-**		心 ***s-**	邪 ***z-**	曉 ***x-**	見 ***k-**		溪 ***kʰ-**	群 ***g-**	
Example	精	酒	醋	清	思	謝	休	經	九	輕	棋	具
Jínhuá 金花 (Táizhōu Subgroup)	ts	ts	tsʰ	tsʰ	s	z	ɕ	tɕ	tɕ	tɕʰ	dʑ	dʑ
Wēnzhōu 溫州 (Ōujiāng Subgroup)	ts	tɕ	tsʰ	tsʰ	s	z	ɕ	tɕ	tɕ	tɕʰ	dz	dʑ

Another characteristic of the Wú dialects in contrast to Mandarin is the absence of retroflex initials. Middle Chinese retroflex initial series have merged into alveolar consonants. Therefore, *ʈ-, *ʈʰ- and *ɖ- and *tɕ-, *tɕʰ-, *ɕ- have all merged into ts-, tsʰ -z in most dialects (see Table 3). Furthermore, Wú dialects lack a distinction between the Middle Chinese dentals and superdentals just as in Old Chinese, a feature which is also only found in the Mǐn languages. This feature has made scholars believe that Wú dialects have a Mǐn substratum (Dīng Bāngxīn: 1995, p.18).

Table 3: evolution of retroflex initials and merging with apical alveolar in the Wú dialects.

Middle Chinese phonetic character and sound	精 *ts-	清 *tsʰ-	心 *s-	知 *ʈ-	徹 *ʈʰ-	澄 *ɖ-		照 *tɕ-	穿 *tɕʰ-	審 *ɕ-	禪 *ʑ-
Example	資	猜	思	知	拆	直	茶	紙	齒	師	熟
Sūzhōu 蘇州 (Sūhùjiā cluster)	ts	tsʰ	s	ts	tsʰ	z	z	ts	tsʰ	s	z
Shànghǎi 上海 (Sūhùjiā cluster)	ts	tsʰ	s	ts	tsʰ	z	z	ts	tsʰ	s	z
Chóngmíng 崇明 (Sūhùjiā cluster)	ts	tsʰ	s	ts	tsʰ	z	z	ts	tsʰ	s	z
Dānyáng 丹陽 (Pílíng cluster)	ts	tsʰ	s	ts	tsʰ	z	z	ts	tsʰ	s	z
Níngbō 寧波 (Yǒngjiāng cluster)	ts	tsʰ	s	ts	tsʰ	z	z	ts	tsʰ	s	z
Hángzhōu 杭州 (Hángzhōu cluster)	ts	tsʰ	s	ts	tsʰ	z	z	ts	tsʰ	s	z
Jínhuá 金花 (Táizhōu Subgroup)	ts	tsʰ	s	ts	tsʰ	z	dz	ts	tsʰ	s	ʑ

Middle Chinese phonetic character and sound	精 ***ts-**	清 ***tsʰ-**	心 ***s-**	知 ***ʈ-**	徹 ***ʈʰ-**	澄 ***ɖ-**		照 ***tɕ-**	穿 ***tɕʰ-**	審 ***ɕ-**	禪 ***ʑ-**
Example	資	猜	思	知	拆	直	茶	紙	齒	師	熟
Wēnzhōu 溫州 (Ōujiāng Subgroup)	ts	tsʰ	s	ts	dʑ	dʑ	dz	ts	tsʰ	s	j
Jīngxiàn 涇縣 (Xuānzhōu Subgroup)	ts	tsʰ	s	ts	dʑ	hz	hz	ts	tsʰ	s	z
Fánchāng 繁昌 (Xuānzhōu Subgroup)	ts	tsʰ	s	ts	dʑ	hʑ	hʑ	ts	tsʰ	s	z

The Wú dialects also differentiate each other from other Chinese languages because of the realization of the Middle Chinese *x- and *ɣ- as labiodentals in closed syllables is detachable from the Wēnzhōu dialect. In the other sample dialects, in most cases these sounds of Middle Chinese have further glottalised with the exception of the xǐ 喜 series which has undergone a process of palatalization (see Table 4).

Table 4: Evolution of Middle Chinese Velar Fricatives.

Middle Chinese phonetic character and sound	**曉**			**匣**	
Examples	***x- 喜**	***x- 好**	***x- 虎**	*** ɣ- 回**	*** ɣ- 紅**
Sūzhōu 蘇州 (Sūhùjiā cluster)	ɕ	h	h	ɦ	ɦ
Shànghǎi 上海 (Sūhùjiā cluster)	ɕ	h	h	ɦ	ɦ

Middle Chinese phonetic character and sound	**曉**			**匣**	
Examples	***x- 喜**	***x- 好**	***x- 虎**	***ɣ- 回**	***ɣ- 紅**
Chóngmíng 崇明 (Sūhùjiā cluster)	ɕ	h	h	ɦ	hɦ
Dānyáng 丹陽 (Pílíng cluster)	ɕ	h	h	ɦ	ɦ
Níngbō 寧波 (Yǒngjiāng cluster)	ɕ	h	h	ɦ	ɦ
Hángzhōu 杭州 (Hángzhōu cluster)	ɕ	h	h	ɦ	ɦ
Jínhuá 金花 (Táizhōu Subgroup)	ɕ	h	h	Ø	ɦ
Wēnzhōu 溫州 (Ōujiāng Subgroup)	ɕ	h	f	v	ɦ

Concerning Middle Chinese velar nasal initial *ŋ-, it is rendered as either /ŋ̟-/ in front of /i, y/, /Ø-/ elsewhere when read in literary reading or /ŋ-/ when encountered in colloquial reading (see Table 5). Middle Chinese *ŋ̟- has evolved to /z-/ (/ʑ-/ in Jínhuá Dialect) when before a palatalized vowel or changed to / ŋ-/ when in front of /u/, in other cases, /ŋ̟-/ is retained (see Table 5).

Table 5: Evolution of middle Chinese velar and palatal nasal initials.

Middle Chinese phonetic character and sound	**疑 *ŋ-**		**日 *ɲ-**	**娘 *ȵ-**		
Examples	**嚴**	**五**	**日**	**人**	**軟**	**絨**
Sūzhōu 蘇州 (Sūhùjiā cluster)	ȵ	Ø (L) ŋ (V)	z (L) ȵ (V)	z (L) ȵ (V)	ŋ	z (L) ȵ (V)
Shànghǎi 上海 (Sūhùjiā cluster)	ȵ	ɦŋ	ȵ	z (O) l (N)	ȵ	ȵ
Chóngmíng 崇明 (Sūhùjiā cluster)	ȵ	ɦȵ	ʔȵ	ʔȵ	ɦȵ	ʔȵ
Dānyáng 丹陽 (Pílíng cluster)	ȵ	ŋ	Ø	Ø	n	ȵ
Níngbō 寧波 (Yǒngjiāng cluster)	ȵ	ŋ	ȵ	ȵ	ȵ	ȵ
Hángzhōu 杭州 (Hángzhōu cluster)	ʔ	ʔ	z	z	ȵ	ȵ
Jínhuá 金花 (Táizhōu Subgroup)	ȵ	ŋ	ȵ	ȵ	ȵ	ʑ
Wēnzhōu 溫州 (Ōujiāng Subgroup)	ȵ	ŋ	z (L) ȵ (V)	z (L) ȵ (V)	ȵ	ȵ

3.2. Finals Across the Wú Dialects

Wú finales are one of the most noticeable changes from Middle Chinese to Wú is the drop of nasal finals ending therefore in open syllables or a halfway process rendering in nasal vowels (see Table 6). We can also appreciate a lack of diphthongs before a nasal ending in most of the Wú dialects but Jínhuá and Hángzhōu 杭州 in the case of Middle Chinese *-uɑn. We can thus interpret that for most dialects Middle Chinese *ɑ might have changed to an intermediary *E before rounding to modern /ø/.

Table 6: drop of Middle Chinese Nasal Endings.

Middle Chinese	***ʃæn** 山	***sɑm** 三	***suɑn** 酸	***puɘn** 本	***ɑn** 安	***nuɑn** 暖	***luɑn** 亂
Sūzhōu 蘇州 (Sūhùjiā cluster)	sɛ	sɛ	sø	pən	ø	nø	lø
Shànghǎi 上海 (Sūhùjiā cluster)	sɛ	sɛ	sø	pəŋ	ø	nø	lø
Chóngmíng 崇明 (Sūhùjiā cluster)	sæ	sæ	sø	pən	ʔø	ɦn	ɦlo
Shàoxīng 紹興 (Línshào cluster)	sæ̃	sæ̃	sø̃	pẽ	æ̃	nø	lø
Dānyáng 丹陽 (Pílíng cluster)	sæ	sæ	soŋ	pəŋ	ŋ	noŋ	loŋ
Níngbō 寧波 (Yǒngjiāng cluster)	sɛ	sɛ	sʏ	pəŋ	ø	nø	lø
Hángzhōu 杭州 (Hángzhōu cluster)	sɛ̃	sɛ̃	sɥo	pen	ʔɛ̃	nuõ	luõ

Middle Chinese	***ʃæn** 山	***sɑm** 三	***suɑn** 酸	***puɜn** 本	***ɑn** 安	***nuɑn** 暖	***luɑn** 亂
Jínhuá 金花 (Táizhōu Subgroup)	sã	sã	suã	pəŋ	ã	nuã	luã
Wēnzhōu 溫州 (Ōujiāng Subgroup)	sa	sa	sø	paŋ	y	nø (L) naŋ (V)	lø (L) laŋ (V)

However, some nasal finals have not dropped but merged, therefore, *-m and *-ŋ have merged into *-n or later evolved back into /-ŋ/. Thus in most Wú languages *jīn* 金 and *jīng* 京 are nowadays allophones (see Table 7).

Table 7: merging of Middle Chinese *-m and *-ŋ into /-n/.

Middle Chinese	***kiĕm** 金	***kĭɐŋ** 京	***ŋĭwɐn** 元	***pĭuŋ** 風	***kɔŋ** 講	***ɳ̊ĭuŋ** 絨
Sūzhōu 蘇州 (Sūhùjiā cluster)	tɕin	tɕin	ɳ̊iø jiø	foŋ	tɕiaŋ kɔŋ	ɳ̊ioŋ
Shànghǎi 上海 (Sūhùjiā cluster)	tɕiŋ	tɕiŋ	ɳ̊yø	ɸoŋ	kɔ̃	ɳ̊yoŋ
Chóngmíng 崇明 (Sūhùjiā cluster)	tɕin	tɕin	ɦɳ̊yø	foŋ	tɕiɑ̃	ʔɳ̊oŋ
Dānyáng 丹陽 (Pílíng cluster)	tɕiŋ	tɕiŋ	ʏ	fɔŋ	kãŋ	ɳ̊ioŋ
Níngbō 寧波 (Yǒngjiāng cluster)	tɕiŋ	tɕiŋ	ɦy	foŋ	kɔ̃	ɳ̊iɔŋ

Middle Chinese	***kiĕm** 金	***kĭɐŋ** 京	***ŋĭwɐn** 元	***pĭuŋ** 風	***kɔŋ** 講	***ɳĭuŋ** 絨
Hángzhōu 杭州 (Hángzhōu cluster)	tɕin	tɕin	ŋ̩yõ	foŋ	ʈɕiaŋ	ɳ̩ioŋ
Jínhuá 金花 (Táizhōu Subgroup)	tɕiŋ	tɕiŋ	yɣ	foŋ	tɕiaŋ	ɳ̩ioŋ
Wēnzhōu 溫州 (Ōujiāng Subgroup)	tɕiaŋ	tɕiaŋ	ŋ̩y jy	hoŋ	kuɔ	zoŋ

As for most of the modern Chinese dialects, Middle Chinese stop endings *p-, *t, *k have been dropped in the modern Wú dialects in favour of a glottal stop. However, the Wēnzhōu dialect has later dropped the glottal stop too in most cases but for Middle Chinese bilabial plosive (see Table 8).

Table 8: Evolution of Middle Chinese Final Stops.

Middle Chinese	***nɒp** 納	***ɣɒp** 合	***mĭwət** 物	***ŋwɐt** 月	***kuɜk** 國	***lĭɜk** 力
Sūzhōu 蘇州 (Sūhùjiā cluster)	nɤʔ naʔ (MI)[7]	ɦɤʔ	vɤʔ mɤʔ	jyɤʔ ŋɤʔ	kuɤʔ	luʔ
Shànghǎi 上海 (Sūhùjiā cluster)	naʔ	ɦaʔ	βəʔ məʔ	ɳ̩yøʔ	koʔ	lieʔ
Chóngmíng 崇明 (Sūhùjiā cluster)	ɦnəʔ	ɦəʔ	vəʔ	ɦyøʔ	kuəʔ	liəʔ
Dānyáng 丹陽 (Pílíng cluster)	nɑʔ	xæʔ	væʔ	ɳ̩yæʔ	kuæʔ	liʔ
Níngbō 寧波 (Yǒngjiāng cluster)	nɐʔ	ɦɐʔ	vɐʔ	ɦyəʔ (V)	kuɐʔ	liɪʔ

[7] Modern Reading influenced by Mandarin

Middle Chinese	***nɒp** 納	***ɣɒp** 合	***mĭwət** 物	***ŋwɐt** 月	***kuɜk** 國	***lĭɜk** 力
Hángzhōu 杭州 (Hángzhōu cluster)	nɐʔ	ɦɐʔ	vəʔ	ɦyəʔ	kuoʔ	liəʔ
Jínhuá 金花 (Táizhōu Subgroup)	nɐʔ	ɦəʔ	vəʔ	ŋ̩yəʔ	kuəʔ	liəʔ
Wēnzhōu 溫州 (Ōujiāng Subgroup)	nøʔ na	ɦøʔ ky	vai (L) mai (V)	ŋ̩y	kai	lei

3.3. Tones Across the Wú Dialects

The tones of the Wú dialects have retained all the categories of Middle Chinese (level 平, rising 上, departing 去 and entering 入); however, the entering tones are always ended in a glottal stop since (as seen in Table 8) final stops have dropped in all cases. The rest of the tones have for the most split into two according to the voicing quality of the initial of the syllable (commonly called *yīn* 陰 and *yáng* 陽 tones in Chinese) although some of them have merged over time, in many cases, the rising yīn tone has merged with the departing yīn in syllables with voiced obstruent initials. In the case of the Yǒngkāng dialect, the entering tone has disappeared and merged with other tones.

Table 9: Evolution of the Middle Chinese Tones in the Wú Dialects.

Middle Chinese Initial	**voiceless**	**voiced**	**voiceless**	**voiced**	**Voiced sonorant**	**Voiceless**	**voiceless**	**voiceless**	**Voiced sonorant**	**Voiced**
Middle Chinese Tone	T1 平		T2 上			T3 去		T4 入		
Sūzhōu 蘇州 (Sūhùjiā cluster)	44	24	52			412	32	4	<u>23</u>	
Shànghǎi 上海 (Sūhùjiā cluster)	53	13	55			35		<u>55</u>	<u>13</u>	

Middle Chinese Initial	voiceless	voiced	voiceless	voiced	Voiced sonorant	Voiceless	voiceless	voiceless	Voiced sonorant	Voiced
Chóngmíng 崇明 (Sūhùjiā)	55	24	424	242		33	323	5	2	
Dānyáng 丹陽 (Pílíng cluster)	33	24	55			11			3	5
Níngbō 寧波 (Yǒngjiāng cluster)	53	24	35			44	213	55	13	
Hángzhōu 杭州 (Hángzhōu cluster)	33	213	53			55	13	5	2	
Jínhuá 金花 (Táizhōu Subgroup)	33	313	535			55	24	4	12	
Wēnzhōu 溫州 (Ōujiāng Subgroup)	33	11	35	24		42	31	313	212	
Yǒngkāng 永康 (Wùzhōu Subgroup)	44	22	35	13		52	241/24			

3.4. Conclusions

Throughout this section, we have analysed and compared the phonetic differences and similarities between the Wú dialects. We can therefore denote that there are indeed many differences between all of them, however, there is not a clear distinction between a north and south dialects (except for a cohesive *Tài* subgroup in comparison to the rest of dialect clusters)

to confirm our hypothesis of a necessary distinction between northern Wú dialects and southern Wú dialects as different languages. We, however, have yet to study the distinctions between these dialects at a morpho-syntactical level and at a lexical one to confirm or dismiss our theory.

4. Distinguishing the Wú languages, a morpho-syntactical approach.

Concerning grammar, more specifically, the syntax and morphology of Wú dialects have not been the subject of comprehensive studies. Almost all the studies done outside China focused on phonetics and phonology. Of those conducted in China, most of them were concerned with phonetics and phonology only (Zhu Xiaonong: 2006, p.3) and Qián Nǎiróng (1997, 2003) published two books on Shanghai synchronic and diachronic syntax and Xu and Shao (1998, 1999) studied specific topics in Shanghai syntax but it is very complicated to find comparative studies of all Wú dialects. This section will therefore be mostly based on Ann Yue-Hashimoto's work (1993).

The focus of this section is to compare different grammatical features across all the studied Wú dialects in a systematic manner to discern a possible pattern and confirm or dismiss our thesis. It should be however noticed that the lack of a feature in a particular dialect might be due to the lack of literature[8] instead of that being a particularity in the dialect.

The first particularity of Wú dialects grammar (in opposition to Mandarin grammar), is the head + modifier word order (commonly modifier + head in Mandarin) (see Table 10). This feature is often used as a proof of as Kra-Dai substratum for many southern Chinese Languages (X. Liu: 1989).

Table 10: Presence of a head + modifier Structure in the Wú dialects

Dialect group/cluster	**Dialect**	**Present feature**	**Not found in the literature**
Ōujiāng Subgroup	Wēnzhōu 溫州	+	-

[8] The grammatical information of the different dialects is from the following studies: Cáo Yún 曹耘 (1988); Fù Guòtōng 傅國通 (1961); Hashimoto Mantaro J. 橋本万太郎 (1979); Méi Zûlín 梅祖麟 (1982); Nakajima Miki Okoshi 中島幹起 (1983); Pan, Wuyun (1991); Qián Nǎiróng 錢乃榮 (1989); Simmons Richard VanNess (1992); Yue-Hashimoto, Anne (1993); Zhào Yuánrèn 趙元任 (1928) and Zhū Xiǎonóng 朱曉農 (2006).

Dialect group/cluster	**Dialect**	**Present feature**	**Not found in the literature**
Ōujiāng Subgroup	Píngyáng 平陽	+	-
Wùzhōu Subgroup	Yìwū 義烏	+	-
	Jīnhuá 金華	+	-
Chǔqú Subgroup	Qúzhōu 衢州	+	-
	Yánzōu 嚴州	+	-
	Yúnhé 雲和	+	-
	Chǔzhōu 處州	+	-
	Líshuǐ 麗水	+	-
Táizhōu Subgroup	Tāizhōu 台州	+	-
	Sānmén 三門	+	-
	Wēnlǐng 溫嶺	+	-
Yǒngjiāng cluster	Níngbō 寧波	+	-
	Fènghuà 奉化	+	-
	Zhōushān 舟山	+	-
Línshào cluster	Shòuchāng 壽昌	+	-
	Fēnshuǐ 分水	-	-
	Shàoxīng 紹興	+	-
Hángzhōu cluster	Hángzhōu 杭州	+	-
Sūhùjiā cluster	Shànghaǐ 上海	+	-
	Sūzhōu 蘇州	+	-
Xuānzhōu Subgroup	Jīngxiàn 涇縣	N/s	+
	Fánchāng 繁昌	N/s	+

When talking of compound words, the head + modifier word order can appear in either a root followed by a gender suffix, or a root followed by an attributive. The root + attributive has been studied in some of the northern dialects but not detected in many southern varieties (see Table 11).

Table 11a: Presence of root + attributive Structure in the Wú Dialects.

Dialect subgroup/cluster	**Dialect**	**Present feature**	**Found in the literature**
Ōujiāng Subgroup	Wēnzhōu 溫州	+	+
	Píngyáng 平陽	+	+
Wùzhōu Subgroup	Yìwū 義烏	-	+
	Jīnhuá 金華	-	+
Chǔqú Subgroup	Qúzhōu 衢州	-	+
	Yánzhōu 嚴州	-	+
	Yúnhé 雲和	-	+
	Chǔzhōu 處州	-	+
	Líshuǐ 麗水	N/s	-
Táizhōu Subgroup	Tāizhōu 台州	N/s	-
	Sānmén 三門	N/s	-
	Wēnlǐng 溫嶺	+	+
Yǒngjiāng cluster	Níngbō 寧波	N/s	-
	Fènghuà 奉化	N/s	-
Yǒngjiāng cluster	Zhōushān 舟山	N/s	-
Línshào cluster	Shòuchāng 壽昌	-	+
	Fēnshuǐ 分水	-	+
Hángzhōu cluster	Hángzhōu 杭州	N/s	-
Sūhùjiā cluster	Shànghaǐ 上海	N/s	+
	Chángzhōu 常州	+	+
	Sūzhōu 蘇州	-	+
Línshào cluster	Shàoxīng 紹興	+	+
Xuānzhōu Subgroup	Jīngxiàn 涇縣	+	+
	Fánchāng 繁昌	+	+

The second grammatical feature used to distinguish Chinese languages apart is the election of the copulative verb and its use. Some dialects employ a cognate of the Mandarin copulative verb *shì* 是 (notably northern languages) and others use its cognate *xì* 係. In Wú languages, variants of the form *shì* are more commonly seen. However, the dialect of Jīnhuá is notorious for its lack of use of the copulative verb. Even though it has the copulative verb [dz˩ɻ] 是, it is only used in questions and emphatic sentences (Cáo Yún: 1988, pp. 284-5).

Another distinctive aspect that can be used to distinguish the different Wú dialects is the locative verb used. In some dialects, some variants of Suzhounese [lɤʔɻ] are used, in others, cognates of Shanghainese [laʔɻ] or a version of Mandarin *zài* 在. This feature clearly divides the *Tàihú* Subgroup from the rest of the dialects (see Table 12).

Table 12: locative verb preference across the Wú Dialects

Dialect subgroup/cluster	**Dialect**	**Variants of [lɤʔɻ]**	**Variants of [laʔɻ]**	**Variants of 在**
Sūhùjiā cluster	Sūzhōu 蘇州	+	-	-
	Chóngmíng 崇明	+	-	-
	Hǎimén 海門	+	-	-
	Shànghaǐ 上海	-	+	-
Sūhùjiā cluster	Chángzhōu 常州	+	-	-
	Wūxí 無錫	+	-	-
	Sōngjiāng 松江	-	+	-
Yǒngjiāng cluster	Níngbō 寧波	+	-	-
Pílíng cluster	Lìyáng 溧陽	+	-	-

Dialect subgroup/cluster	Dialect	Variants of [lɤʔɻ]	Variants of [laʔɻ]	Variants of 在
Pílíng cluster	Jiāngyīn 江陰	+	-	-
Taīzhōu Subgroup	Tiāntāi 天台	-	-	+
	Línhǎi 臨海	-	-	+
Ōujiāng Subgroup	Línhǎi 臨海 Wēnzhōu 溫州	-	-	+
Wùzhōu Subgroup	Yùshān 玉山	-	-	+
Xuānzhōu Subgroup	Jīngxiàn 涇縣	N/s	N/s	N/s
	Fánchāng 繁昌	N/s	N/s	N/s

The interrogative phrase in the different Chinese languages should also be mentioned when assessing distinctive features of this family, more specifically the neutral question, also known as the V-not-V question. This type of question can be represented by two different grammatical realizations: V-not-V and VP-neg. Depending on the dialect, some form is preferred to the other or both coexist (see Table 13).

Table 13: Preferred Neutral Question Form.

Dialect subgroup/cluster	Dialect	V-not-V	V-neg
Sūhùjiā cluster	Sūzhōu 蘇州	+	+
Sūhùjiā cluster	Chóngmíng 崇明	-	+
	Hǎimén 海門	+	+

Dialect subgroup/cluster	**Dialect**	**V-not-V**	**V-neg**
Sūhùjiā cluster	Shànghaǐ 上海	+	+
	Chángzhōu 常州	+	+
	Wūxí 無錫	+	+
	Sōngjiāng 松江	+	+
Yǒngjiāng cluster	Níngbō 寧波	+	+
Línshào cluster	Shàoxīng 紹興	+	+
Pílíng cluster	Lìyáng 溧陽	-	+
	Dānyáng 丹陽	+	+
Hángzhōu cluster	Hángzhōu 杭州	+	
Ōujiāng Subgroup	Wēnzhōu 溫州	+	+
Tiānzhōu Subgroup	Tiāntāi 天台	+	+
	Línhǎi 臨海	+	
Wùzhōu Subgroup	Yùshān 玉山	+	-
	Jīnhuá 金華	-	+
Wùzhōu Subgroup	Yìwū 義烏	+	-
Xuānzhōu Subgroup	Jīngxiàn 涇縣	N/s	N/s
	Fánchāng 繁昌	N/s	N/s

The verb “to give” can also be used to create isoglosses between the different Wú dialects. There are five forms to express “to give” depending on the dialect in question: 撥, 賄, 邀, 拜 y 分 (see Table 14).

Table 14: Preferred Version of the Verb “to give”.

Dialect subgroup/cluster	**Dialect**	**撥**	**賄**	**邀**	**拜**	**分**
Sūhùjiā cluster	Sūzhōu 蘇州	+	-	-	-	-
	Chóngmíng 崇明	+	-	-	-	-
	Hǎimén 海門	+	-	-	-	-
	Shànghaǐ 上海	+	-	-	-	-
	Chángzhōu 常州	+	-	-	-	-
	Wūxí 無錫	+	-	-	-	-
Sūhùjiā cluster	Sōngjiāng 松江	+	-	-	-	-
Yǒngjiāng cluster	Níngbō 寧波	N/s	N/s	N/s	N/s	N/s
Línshào cluster	Shàoxīng 紹興	+	-	-	-	-
Píling cluster	Lìyáng 溧陽	+	-	-	-	-
	Dānyáng 丹陽	N/s	N/s	N/s	N/s	N/s
Hángzhōu cluster	Hángzhōu 杭州	N/s	N/s	N/s	N/s	N/s
Ōujiāng Subgroup	Wēnzhōu 溫州	-	+	-	-	-

Dialect subgroup/cluster	Dialect	撥	賄	邀	拜	分
Tiānzhōu Subgroup	Tiāntāi 天台	+	-	-	-	-
	Línhǎi 臨海	+	-	-	-	-
Wùzhōu Subgroup	Yùshān 玉山	N/s	N/s	N/s	N/s	N/s
	Jīnhuá 金華	-	-	-	-	+
	Yìwū 義烏	-	-	+	-	-
Xuānzhōu Subgroup	Jīngxiàn 涇縣	-	-	-	+	-
	Fánchāng 繁昌	N/s	N/s	N/s	N/s	N/s

In conclusion and according to the above-mentioned data, we cannot say that there is a clear and consistent division between all the studied Wú dialects. The root + attributive form showed a difference between northern and southern dialects although not perfectly. The locative verb preference did show a clear distinction between dialects of the *Tàihú* Subgroup and the rest of the dialect groups. Therefore, we cannot say that at a grammatical level, two languages should be distinguished between Wú dialects although some patterns can be observed. It should however be noted that there is very little literature on this topic, and more data needs to be researched before a new study on the subject.

5. Distinguishing Wú languages, a lexical approach

5.1. State of the question

Very little literature can be found on lexical comparison across the Wú dialects. As we mentioned before, the focus of Chinese dialectology tends to be phonological comparison, morphological, syntactical, and lexical studies being very far behind in terms of quantity. To be more specific, we have only been able to find one true lexical comparison, the one of Margaret Mian Yan (2006, pp. 102-103) in the chapter on the Wú languages and it is only a couple of pages long.

In his study, the author compares a few words rendered as characters across the *Dialect Dictionaries* of Lǐróng[1], thereby highlighting the distinctive vocabulary of the Wú dialects when compared with Standard Mandarin and the often-used reversed word order where in some cases the modifier of the compound word goes second as opposed of Standard Mandarin (Mandarin 公牛 vs Suzhounese 牛牯 "bull"). Very few conclusion can, however, be obtained from the author's work apart from a possible distinction between the *Tài* Subgroup which favours the use of 日頭 "sun" instead of 太陽 and the singularity of Wēnzhōu vocabulary when compared to the other studied dialects. More research is needed.

5.2. A computerised lexical comparison

As previously mentioned, there is a lack of studies and data on lexical studies of the Wú languages. Not only is the literature scarce, but there are very few dictionaries of these dialects, most of them being of course of the *Tàihú* Subgroup.

Because of the lack of data, we designed a data analysis of the dialects with the lexical information available, to see if any conclusions could be rendered. We designed a C++ program which would find the percentage of common words between two lists of dictionary entries (each of a different dialect) with the purpose to study the percentage of similarities in cognates between the Wú dialects. This program enabled us to see the number of entries in each dictionary, the number of unique entries and the percentage of similar entries. The method followed was simple: with the help of an artificial intelligence software, we first rendered the dictionary entries as a list of words in TXT. format, then we compared each of the available lists of entries of the dialect dictionaries[1] to the entries of the Suzhounese and Shanghainese dictionaries (both considered "the standard" of the Wú dialects). It should however be mentioned, that just like Mian Yan's (2006, pp. 102-103) work, this study is purely based on Chinese characters and its validity lies in the hypothesis that the election of such characters for such words in the *Dialect Dictionaries* of Lǐróng means that the words written with the same characters are indeed cognates. In such a manner, we are following the method of lexical comparison used by *Ethnologue* in its studies. It should also be noted that a small percentage of the entries used in the comparison might be wrong as the artificial intelligence in charge of converting the dictionaries into TXT might have had some issues with some characters, especially with some non-standard ones. However, all the TXT archives produced by the

software have been revised and corrected by the author of this work and the lists of entries of each dictionary are as faithful to the *Dictionaries of Dialects* as humanly possible.

From the above-mentioned procedure, we collected the data seen in figure 1. The graph can be hard to comprehend without a context, but they show the percentage of similar words when comparing the entries of all the sampled dialects with Souzhounese and Shanghainese (represented by bars), and the total number of words collected by each dictionary. These numbers are difficult to interpret without a context, but when compared to the similarities in lexicon between romance languages (see figure 2), a more conclusive thought can be obtained from these charts.

It can be noticed in figure 2 that the percentage of lexical similarity between French and Italian is 89%. Nobody would consider Italian and French to be the same language let alone dialects of the same languages and the speakers of both languages affirm that they are not mutually intelligible. In contrast, the Jīnhuá dialect only shares 78% of its vocabulary in common with Suzhounese, and the vocabulary of the Wēnzhōu dialect shares only a 69% of its similarities with the Sūzhōu dialect. This data brings therefore the question of why the Wú dialects should be grouped as one language and reinforces our departure thesis: a division between the northern Wú group and Southern Wú group should be considered and be treated as a larger ensemble of languages like it is common to do for the Mǐn languages.

Figure 1: Lexical Comparison between the Wú Languages in Relation to the Number of Entries per Dictionary

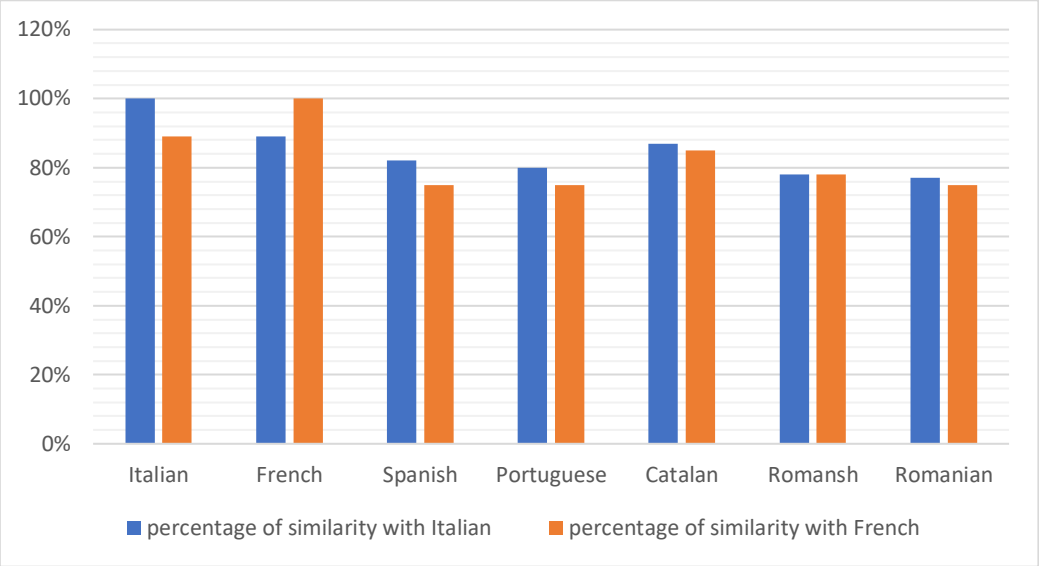

Figure 2: Lexical Comparison of the Romance Languages According to Ethnologue.

6. Conclusions

Throughout this final thesis, we have studied the linguistic distance between Wú dialects by comparing their phonology, grammar, and lexicon. We have seen that many features differentiate the different dialect groups, and some conclusions can be withdrawn from this study.

To begin with, we have noticed that, at a phonological level, even if many differences could be appreciated between Wú varieties (which is logical since the primary division between the dialects considered by the *Language Atlas of China* was made according to phonological features), no clear north-south differentiation pattern could be noticed. At a grammatical level, however, the root + attributive form showed a difference between northern and southern dialects although not perfectly. The locative verb preference did show a clear distinction between dialects of the *Tàihú* Subgroup and the rest of the dialect groups. Finally, at a lexical level, the lexical comparison showed a great distance between northern and southern dialect groups.

In conclusion, there are some proofs to differentiate northern and southern groups of dialects as different languages according to linguistic distance. These results should however be reinforced by mutual intelligibility studies. Further research is needed.

Bibliography

Cáo Yún 曹耘. (1988) *Jīnhuá Fāngyán de Jùfǎ Tèdiǎn* 金華方言的句法特點. In Zhōngguó yǔ wén 中國語文. Vol. 4, pp.181-185.

Comrie, Bernard (2018). Introduction, In Bernard Comrie (ed.). *The World's Major Languages*. Routledge. pp. 2–3

Ethnologue, Languages of the World. (2005). 15th edition. SIL International

Fù Guòtōng 傅國通 (1961). *Wǔyìhuà de Yī Xiē Yǔyīn Yǔfǎ Xiànxiàng* 武義話的一些語音語法現象. En Zhōngguó Yǔyán 中國語言. Vol.9, pp. 30-31.

Hashimoto Mantarō J. 橋本万太郎. (1979). *Xiàndài Wúyǔ Lèixíng Xué* 現代吳語類型學. En Fāngyán 方言. Vol3, pp. 196-200.

Kamusella, Tomasz. (2016). *The History of the Normative Opposition of 'Language versus Dialect:' From Its Graeco-Latin Origin to Central Europe's Ethnolinguistic Nation-States*. Colloquia Humanistica. Vol 5, pp 189-198.

Lǐróng 李榮. (1993). *Sūzhōu Fāngyán Cídiǎn* 蘇州方言詞典. Nánjīng: Jiāngsū jiàoyù chūbǎnshè.

Lǐróng 李榮. (1996). *Dānyáng Fāngyán Cídiǎn* 丹陽方言詞典. Nánjīng: Jiāngsū jiàoyù chūbǎnshè.

Lǐróng 李榮. (1997a). *Shànghaǐ Fāngyán Cídiǎn* 上海方言詞典. Nánjīng: Jiāngsū jiàoyù chūbǎnshè.

Lǐróng 李榮. (1997b). *Níngbō Fāngyán Cídiǎn* 寧波方言詞典. Nánjīng: Jiāngsū jiàoyù chūbǎnshè.

Lǐróng 李榮. (1998a). *Chóngmíng Fāngyán Cídiǎn* 崇明方言詞典. Nánjīng: Jiāngsū jiàoyù chūbǎnshè.

Lǐróng 李榮. (1998b). *Hángzhōu Fāngyán Cídiǎn* 杭州方言詞典. Nánjīng: Jiāngsū jiàoyù chūbǎnshè.

Lǐróng 李榮. (1998c). *Jīnhuá Fāngyán Cídiǎn* 金華方言詞典. Nánjīng: Jiāngsū jiàoyù chūbǎnshè.

Lǐróng 李榮. (1998c). *Wēnzhōu Fāngyán Cídiǎn* 溫州方言詞典. Nánjīng: Jiāngsū jiàoyù chūbǎnshè.

Margaret Mian Yan. (2006). *Introduction to Chinese Dialectology*. Berlin: Lincom Europa.

Méi Zǔlín 梅祖麟. (1982). *Grammar of the Suzhou dialect*. En Essays Commemorating the 20th Anniversary of the Far Eastern Institute. pp.152-148.

Nakajima Miki Okoshi 中島幹起. (1983). *Mu Osore Kiso Goishū* 浙南無虞基礎語彙集. Tokio: Tōkyōgai kunigo gen dai Manabu.

Pan, Wuyun. (1991). *An introduction to the Wu dialects*. En Languages and dialects of China pp. 237-93.

Parkvall, Mikael. (2010). *Världens 100 största språk* 2007 "The World's 100 Largest Languages in 2007", in *Nationalencyklopedin*

Qián Nǎiróng 錢乃榮 (1989) Xiàndài Wúyǔzhōng de Fēiwèn Jùhé Fǎnfù Wènjù 現代吳語中的非問句和反復問句. En Wényǔ Wénhuà Cóngshū Èr 文與文化叢書二. Vol. 1, pp. 92-122.

Qián Nǎiróng 錢乃榮. (1997). *Shànghǎihuà Yǔfǎ* 上海語法. Shànghǎi: Shànghǎi rénmín chūbǎnshè.

Qián Nǎiróng 錢乃榮. (2003). *Shànghǎi Yǔyán Fāzhǎn Shǐ* 上海語言發展史. Shànghǎi: Shànghǎi rénmín chūbǎnshè.

Sagart, Laurent (28th of March, 2011). Classifying Chinese dialects/Sinitic languages on shared innovations. *Séminaire Sino-Tibétain du CRLAO*, Paris.

Simmons Richard VanNess. (1992). Northern and southern forms in Hangzhou grammar. En CLL Vol.1, pp. 539-562.

Simmons, Richard VanNess. 1999. *Chinese Dialect Classification -A Comparative Approach to Hangjou, Old Jintarn, and Common Northern Wu*. *Current Issues in Linguistic Theory,* E. F. K. Koerner, Series Editor, Vol. 188. Amsterdam and Philadelphia: John Benjamins Publishing Co.

Tang Chaoju, Vincent J. van Heuven. (2008). Mutual intelligibility of Chinese dialects experimentally tested. Leiden: Elsevier.

Wurm et al. (1988). *Language Atlas of China.* Beijing: The Commercial Press.

Xǔ Bǎohuá 許寶華 and Tāng Zhēnzhū 湯珍珠. (1988). *Shànghǎi Shìqū Fāngyánzhì* 上海市區方言志. Shanghai: Shanghai Jiaoyu Chubanshe.

Yán Yìmíng 顏逸明.（1994). *Wúyǔ Gàishuō*（吳語概說）. Shanghai: Shanghai Jiaoyu Chubanshe.

Yue-Hashimoto, Ann. (1993). Comparative Chinese Dialectal Grammar. Paris: EHESS.

Yú Zhǐqiáng 俞志強. (1999). Issues in Selecting Features for Genetics Classification of the Wu Dialect Group. In *Issues in Chinese Dialect Description and Classification. JCL, Monograph Series No. 15, pp. 235-263.*

Zhào Yuánrèn 趙元任. (1928). *Xiàndài wúyǔ yánjiū* 現代吳語研究. Beijing: Qinghua University.

Zhào Yuánrèn 趙元任. (1967). Contrastive aspects of the Wu dialects, *Language,* vol. 43, pp. 92-101.

Zhū Xiǎonóng 朱曉農. (1999). *Shanghai Tonetics*. Munich: Lincom Europa.

Zhū Xiǎonóng 朱曉農. (2006). *A grammar of Shanghai Wu*. Munich: Lincom Europa.