The Inner Split in Genetics of Wu Colloquial Expression "[hÃɲ^{33} paʔ^3 lÃɲ^{33} tÃɲ^{31}]"

SONG Jia-fu

School of the Gifted Young, University of Science and Technology of China, Hefei 230026, China

"[ã^{44} kã^{44} paʔ^5 lã^{44} tã^{53}]" (Chinese characters transcription "昂更八冷打") is an colloquial expression in Tongxiang dialect of Suzhou-Jiaxing-Huzhou Sub-branch, Taihu Branch, Wu. It describes an awkward state with unfinished tasks. Its similar expressions can be found in other regions of Taihu Branch, including Yixing, Changzhou, Shaoxing and Ningbo, usually serving as "all", while the expression "[hÃɲ^{33} paʔ^3 lÃɲ^{33} tÃɲ^{31}]" ("亨八冷打") in Shanghai Sub-branch indicates "the remaining parts" when used alone. "[hÃɲ^{33} paʔ^3 lÃɲ^{33} tÃɲ^{31}]" stands for "all" only when followed by a word with meaning of "adding together". In this paper, it is concluded and deduced from other similar morphemes that the contradictory connotations are related to an "inner split" process of an original word. Considering similar morphemes in other Chinese dialects (including Cantonese, Hakka, Jianghuai and Min), the following analysis proposes three possible original expressions and correlating trajectories of this inner phonetic-semantic split process, and selects a most credible way based on the rhyming dictionary and previous reconstructive models of ancient Chinese phonology. This presumptive analysis indicates that a broader "split and derivate" process generating new morphemes exists widely in Sinitic dialects as a natural company of phonetic features in Chinese language flow.

Keywords: Wu, Middle-ancient Chinese phonology, Chinese dialect, inner split

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"[ã^{44} kã^{44} paʔ^5 lã^{44} tã^{53}]" (Chinese characters transcription "昂更八冷打") is an colloquial expression in Tongxiang dialect of Suzhou-Jiaxing-Huzhou Sub-branch, Taihu Branch, Wu. According to native speakers, it describes an awkward state of unfinished tasks leaving time fragments that cannot be exploited. A sample situation it can be applied to is as following: Someone ought to have lunch in another hour, but all the tasks they can do in the following hour will last longer than 1 hour. Either they cannot finish the task, or the fragment time is destined to be wasted.

More similar expressions can be found in other regions of the Taihu Branch, including Yixing, Changzhou, Shaoxing and Ningbo, as shown in Table 1. But on the contrary, these [ã^{44} kã^{44} paʔ^5 lã^{44} tã^{53}]-like expressions usually serve as "all" in the colloquial usage. The specific expression "[hÃɲ^{33} paʔ^3 lÃɲ^{33} tÃɲ^{31}]" ("亨八冷打") in Shanghai Sub-branch is slightly different from either [ã^{44} kã^{44} paʔ^5 lã^{44} tã^{53}] in Tongxiang or other similar

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SONG Jia-fu, undergraduate student, School of the Gifted Young, University of Science and Technology of China.

morphemes around the Taihu region. It indicates "the remaining parts" when used alone, but stands for "all" when followed by a word with meaning of "adding together".

Table 1
Some of the Similar Morphemes in Wu

Sampling Point	Value
Yixing	$[xAŋ^{55} bɘʔ^{5} lAŋ^{55} tAŋ^{55}]$
Tongjiaqiao	$[haŋ^{55} mɘʔ^{3} laŋ^{3} taŋ^{31}]$
Jiangyin	$[hAŋ^{55} poʔ^{3} lAŋ^{33} ta^{31}]$
Changzhou	$[xAŋ^{55} paʔ^{5} lAŋ^{55} tAŋ^{31}]$
Wuxi	$[x\tilde{a}^{5} paʔ^{55} l\tilde{a}^{5} t\tilde{a}^{5}]$
Changshu	$[x\tilde{A}^{55} bAʔ^{55} l\tilde{A}^{55} t\tilde{A}^{55}]$
Kunshan	$[h\tilde{a}^{33} bɘʔ^{44} l\tilde{a}^{33} t\tilde{a}^{31}]$
Shanghai	$[h\tilde{A}ŋ^{33} paʔ^{3} l\tilde{A}ŋ^{33} t\tilde{A}ŋ^{31}]$
Hangzhou	$[hAŋ^{34} pɐʔ^{5} lAŋ^{33} tAŋ^{31}]$
Shaoxing	$[haŋ^{43} bɘʔ^{3} laŋ^{33} taŋ^{51}]$
Ningbo	$[h\tilde{a}^{53} baʔ^{233} l\tilde{a}^{12}]$ $[h\tilde{a}^{3} baʔ^{2} l\tilde{a}^{12}]$ $[h\tilde{a}^{3} mɐʔ^{12} l\tilde{a}^{13} t\tilde{a}^{5}]$ $[h\tilde{a}^{3} b\tilde{a}ʔ^{12} l\tilde{a}^{13} t\tilde{a}^{5}]$ $[h\tilde{a}^{3} mɐʔ^{12} l\tilde{a}^{13}]$
Chongming	$[h\tilde{a}^{55} bɘʔ^{2} l\tilde{a}^{5}]$

Note: Sample of Ningbo and Chongming are from the internet. The other data is from 当代吴语研究 (Qian, 1992).

Given the intimate internal genetic relationship of sub-branches of Wu, the $[\tilde{a}^{44} k\tilde{a}^{44} paʔ^{5} l\tilde{a}^{44} t\tilde{a}^{53}]$-like expressions (KP words for short, here in after) can be classified as a group with similar phonetic traits. But the contradictory semantic property that some KP words stand for "all, full" while others indicate "parts, fragments" makes the differentiation of KP words in sub-branches of Taihu Branch non-negligible. Moreover, this inconsistency appeared on $[h\tilde{A}ŋ^{33} paʔ^{3} l\tilde{A}ŋ^{33} t\tilde{A}ŋ^{31}]$ itself. It can be concluded that the self-contradictory version of KP words acts as a hybrid or transition of two categories with different semantic features.

In Structuralism, a cognitive paradigm that can be traced back to Ferdinand de Saussure's linguistic methodologies, signifier and signified are conjugated with each other and thus inseparable (de Saussure & Baskin, 2011). Signifier is the sound-image of a sign, and signified is the concept that conveyed by the sound-image. Due to the correlation between sound-image and concept, the semantic split of signified can stem from a split of signifier which serves as a "trunk" in the pedigree tree, or the signifier initially bounded with contradictory concepts can split itself. The contradiction of KP words indicates a split process of the signifier, but the trajectory still remains unknown.

Based on the assumption that the KP words share a common original signifier, the following analysis will work on this thesis and figure out a possible trunk morpheme.

Concept Definition and Data Source

Definition of Concept

The distribution of Wu is based on the data and the figure of *Language Atlas of China, 2nd edition*. Branch is defined as the first-layer structure under a Sinitic regional dialect, and sub-branch is the second-layer structure.

It should be noted that the domains of definition of some concepts in Sinitic historical and regional linguistics are not one-to-one correspondence to the same expressions in traditional historical comparative linguistics, including the range of dialect. In the previous linguistics, it is something more close to accent spoken by "a group of people" (and the scale can be very microscopic), but in Chinese languages it is a more geographical concept (literally, the Chinese word *fāngyán* that is used to translate "dialect" means "the language in a specific region"). The description range of language, dialect and accent is a continuous spectrum, but in this article we use the name of a specific language in its geological region (for example, Wu), and the upper structures are beyond discussion. So the item "branch" is essentially a sub-concept relative to the specific language but not the whole "Sinitic Branch".

A rhyming dictionary is a reference book about rhymes. Because of the "onset-rhyme" structure of Chinese syllables, the rhyming dictionary act as a major approach to describe the phonology pattern during the certain period around its publication. Countertomy (*fǎnqiè*) is the method of phonetic notation, using an upper speller for the initial and a lower speller for the rhyme. Initials and rhymes are classified into different "initial genus" and "rhyme genus", and the syllables are classified into 4 grades based on the properties of medial and other traits that existed in the phonology in the publication period. Some famous rhyming dictionaries are *qiēyùn* (7th century AD), *guǎngyùn* (11th century AD) and *píngshuǐyùn* (13th century AD).

Proto-Sinitic period of Chinese lasts till 500 BC. Archaic Chinese means the Chinese in Pre-Qin period (from the 8th to the 3rd century BC), and some of the Archaic definitions also include Han Dynasties (3rd century BC to 3rd century AD). Middle-ancient Chinese mainly refers to the Chinese from 7th century to the 10th century AD (some consider the late 3rd century to 6th century AD as a part of Middle-ancient period), and the time range of Modern Chinese is from late 10th century to the beginning of 20th century AD. The reconstruction of phonological antithesis in Middle-ancient Chinese is partly clear based on the rhyming dictionaries passed down, and the actual sound values are determined based on the explanatory notes of rhyming dictionaries and Sanskrit-Chinese pronunciation transcript materials.

xiéshēng is the phenomenon that the homophones share a same radical (phonetic component) in Chinese characters, whose literal translation is "phonetic harmony". Different clusters of share-radical syllables are defined as different series. *xiéshēng* analysis is the main approach to reconstruct Archaic Chinese, by making antiquarian examination about the harmony and mutation statistics to classify "initial series" in the phonology.

Data Source

The expression sample in Tongxiang dialect and the surrounding usages are from one of my classmates, who is a native speaker of Wu in Tongxiang, Jiaxing, Zhejiang Province.

Some of the samples of Wu and other dialects are from internet, in the Chinese online Q&A platform *Zhīhū*. https://www.zhihu.com/question/28545909/answer/41248872

The analysis about syllabic grades is based on *guǎngyùn* (released in 1008 AD, Earlier Song Dynasty, literally means "widely inclusive rhyming dictionary"), and the possible pattern of grade II syllables' evolutionary marks is based on the comparative inspection among Archaic Chinese reconstructions of Wuyun Pan, Zheng-Zhang Shangfang and H. Baxter-L. Sagart.

Possible Developmental Trajectories

Other Dialects

The sample points of KP words in Cantonese, Min, Hakka, Southwest and Jianghuai are as shown in Table 2 and Table 3.

Table 2
The Similar Morphemes in Cantonese

Sampling Point	Value
Guangzhou	$[hɐm^{22}\ pa{:}ŋ^{22}\ la{:}ŋ^{22}]$
	$[hɐm^{22}\ pa^{22}\ la{:}ŋ^{22}]$
Macau	$[hɐm^{22}\ paŋ^{22}\ laŋ^{22}]$
Shunde	$[hɐm^{21}\ paŋ^{21}\ laŋ^{21}]$
Sanshui	$[hɐm^{21}\ pa^{21}\ laŋ^{21}]$
Gaoming	$[hɐm^{21}\ pa^{21}\ laŋ^{21}]$
Zhuhai	$[hɐm^{33}\ paŋ^{33}\ laŋ^{33}]$
Doumen	$[ham^{21}\ pa^{21}\ laŋ^{22}]$
	$[ham^{31}\ pa^{31}\ laŋ^{31}]$
Jiangmen	$[ham^{31}\ pa^{31}\ laŋ^{31}]$
Xinhui	$[ham^{31}\ pa^{31}\ laŋ^{31}]$
Taishan	$[ham^{31}\ pa^{31}\ laŋ^{31}\ ɬaŋ^{31}]$
Kaiping	$[ham^{31}\ pa^{31}\ laŋ^{31}]$
Enping	$[ham^{31}\ pa^{31}\ laŋ^{31}]$
Zhongshan	$[hɐm^{31}\ p'aŋ^{11}\ laŋ^{31}]$
Zengcheng	$[hɐm^{22}\ paŋ^{22}\ laŋ^{22}]$
	$[hɐm^{22}\ paŋ^{22}]$
	$[hɐm^{22}\ ha^{13}]$
Liuzhou	$[haŋ^{31}\ paŋ^{31}\ laŋ^{31}]$
Beihai	$[hɐm^{21}\ pɐŋ^{21}\ lɐŋ^{21}]$
Hepu	$[hɐm^{21}\ pɐŋ^{21}\ lɐŋ^{21}]$
Pubei	$[hɐm^{21}\ pɐŋ^{21}\ lɐŋ^{21}]$
Qinzhou	$[hɐm^{21}\ pɐŋ^{21}\ lɐŋ^{21}]$
Fangcheng	$[hɐm^{21}\ pɐŋ^{21}\ lɐŋ^{21}]$
Lingshan	$[hɐm^{21}\ pɐŋ^{21}\ lɐŋ^{21}]$
Nanning	$[hɐm^{21}\ pɐŋ^{21}\ lɐŋ^{21}]$
Hong Kong	$[hɐm^{22}\ paŋ^{22}\ laŋ^{22}]$
Panyu	$[hɐm^{22}\ paŋ^{22}\ laŋ^{22}]$
Huadu	$[ham^{2}\ pa^{21}\ laŋ^{21}]$
Conghua	$[hɐm^{22}\ paŋ^{22}\ laŋ^{21}]$
Foshan	$[hɐm^{22}\ paŋ^{22}\ laŋ^{22}]$
Nanhai	$[hɐm^{22}\ paŋ^{22}\ laŋ^{22}]$
Heshan	$[ham^{33}\ pa^{33}\ laŋ^{33}]$
Dongguan	$[hɐm^{32}\ pɛŋ^{32}\ lɛŋ^{32}]$
Shenzhen	$[hɐm^{32}\ p'aŋ^{32}\ laŋ^{32}]$

Note: The data is mainly from 粤方言"冚唪呤"再探 (Zhan et al.,1988), and the extension parts are from internet.

Table 3

The KP Words in Other Chinese Dialects

Sampling Point	Value
Min	
Fuzhou	[haŋ²¹ ma²¹ laŋ]
Amoy	[ham³⁵ pa⁵⁵ laŋ³⁵]
Leizhou	[ham¹¹ pa³³ laŋ¹¹]
Chaozhou	[ham³⁵ loŋ⁵³ tsoŋ⁵³]
Haikou	[hã⁵⁵ ʔba²¹ laŋ²¹]
Hakka	
Nanxiong	[haŋ²¹ p'aŋ²¹ laŋ²¹]
Huizhou	[ham³¹ p'an³¹ lan³¹]
Dongguan	[ham⁴² paŋ⁴² laŋ⁴²]
Southwest	
Liuzhou	[haŋ³¹ paŋ³¹ laŋ³¹]
Guiyang	[xaŋ³¹ pa³¹ laŋ³¹]
Kunming	[xÃ³¹ pA³¹ lÃ³¹]
Anning	[xÃ³¹ pA³¹ lÃ³¹]
Jiangchuan	[xãŋ³¹ pa³¹ lãŋ³¹]
Zhaotong	[xÃŋ³¹ pA ³¹nÃŋ³¹]
Qiaojia	[xãŋ³¹ pA³¹ nãŋ³¹]
Wenshan	[xãŋ⁴² pA⁴² lãŋ⁴²]
Yanshan	[xÃŋ⁴² pa⁴² lÃŋ⁴²]
Xichou	[xÃŋ⁴² pA⁴² lÃŋ⁴²]
Maguan	[xãŋ³¹ pa³¹ lãŋ³¹]
Malipo	[xÃŋ³¹ pa³¹ lÃŋ³¹]
Jianghuai	
Xinghua	[xa²¹³ pa⁰ laŋ³²⁴]
Nantong	[xaŋ⁴⁴ mɤ⁴ laŋ⁴ taŋ⁴] [xaŋ⁵² mɤ² laŋ¹ taŋ¹] [xaŋ⁴⁴ mɤ⁴ laŋ⁴]
Nanjing	[xaŋ³¹ puʔ⁰ laŋ³¹ taŋ³¹]

Note: The data is from the Internet.

The wide distribution of KP words in Table 2 and Table 3 shows that the KP words are not unique products in Wu. The Cantonese version "Hamplang" has a dual function similar to its Shanghai version. In semantics, it can indicate the absence of exceptions to the referred object, equivalent to "all" or "all", or it can indicate the total amount of the referred object, equivalent to "total" (Chen, 2005). The indication of "total" actually implies a certain incomplete property of each single item, since only all items constitute the whole amount.

The wide distribution of KP words reflects a universality. If it is assumed that the KP words in different dialects undergo separate random sound shifts, considering the non-directional nature of random sound shift, the possibility that local variants to a same direction have accidentally occurred in different regions can be extremely low. It is better to explain the wide-ranging KP words with an inner mechanism, hence the assumption that the KP words share a common origin can be supported by the evidence of cross-language/dialect comparison.

Three Trajectories

The [h]~[x] initial is more frequent in the first syllable of KP words, indicating that the irregular [ã⁴⁴ kã⁴⁴] in Tongxiang Dialect might be a subsequent adhesion. The following paragraph provides one of the possible shift patterns:

The simple [ã⁴⁴] can act as a function syllable to start the expression without actual meaning, serving as a prefix, and the nasalized attribute of [ã] causes soft palate to lower, then return to the default posture. In the following fricative [h]~[x], the soft palate slightly upwards. In the whole process, the movements of velar can be described as a "down-return-slightly up" model. The realization of the velar rising can be more intense in order to make the contrast clearer. As a result, the actual sound value of velar or glottal fricative merges to its plosive version, causing the change of [h]~[x] to [k]~[g].

Based on the possible path of prefix adding and velar shift, the original expression is restricted within a certain range: syllables with velar and glottal fricative (corresponding to initial kernels of h (匣母) and x (曉母) in Middle-ancient Chinese). Since the articulation point of [h] is more backwards than [x] and far from central point, it can be considered that [h] is at a higher energy level than [x]. Thus, [h] is more unstable than [x], so a shift from [h] to [x] is more common than the reverse process. But the [h] initial still exists in some of the KP words, including Min, Hakka, Cantonese and some sample points in Wu and Southwest, indicating that the origin is more likely to have an h (匣母) as initial kernel.

Considering both the phonetic restriction of initial kernel h and the semantic property of "all, total", three possible original expressions are selected and their corresponding trajectories can be deduced:

(1). "渾 (*hún*)". The initial kernel, rhyme kernel, openness and grade of the syllable that the 渾 character represents in *guǎngyùn* is noted as "*h-, hún (ANIMA), closed, Grade I syllable" (匣魂合一). It splits into *h- and *l-, and a *p- infix is added.

(2). "咸 (*xián*)". The character 咸 is noted in *qiēyùn* as "*h-, xián (HARMONIA), open, Grade II syllable" (匣咸合二). This trajectory is similar to the trajectory 1: The syllable split and *p- infix adhesion have occurred.

(3). "咸班 (*xiánbān*)" or "咸憑 (*xiánpíng*)". The notation of character 咸 is described in trajectory 2, and the character 班 is "*p-, shān (DELEO), open, Grade II syllable" (幫刪开二). The character 憑 is "*b-, zhēng (SARMEN), open, Grade III syllable" (並蒸开三). The posterior syllable 班 or 憑 splits into *p- and *l-, and is connected to the syllable of 咸 before and after the split process.

The Evaluation of Three Models

Marks of Grade II and Ⅲ syllables

The 4 grades of syllables is to describe overall characteristics of a syllable, including the articulation point of initial kernel, the openness of rhyme kernel and the existence of medial. In *qiēyùn*, Grade III and non-Grade III syllables are with different marks, and among those non-Grade III syllables, Grade II are marked differently from Grade I and IV. A previous theory suggests that Grade III rhymes are with /i/ medial, but as the phenomenon of redundant initials has gradually been emphasis, the demand for a more comprehensive medial marking system is becoming increasingly prominent. There is no absolute consensus on the mark of Grade II syllables. Mainstream opinion suggests that there is another category of medial in Grade II syllables, while others attributing the difference to the contrast among main vowels.

In current reconstructed Archaic Chinese models, the predecessor of Grade II syllable is considered to have some retroflex features. But the specific realizations differ from each other. Both Zheng-Zhang Shangfang (2013) and H. Baxter-L. Sagart (2022) applied retroflex medial in their reconstructive models, and Wuyun Pan (2023)'s model used only retroflex marks for initials. According to Chao (1934), the phonemic solutions of phonetic system are non-unique, which means that the analysis model can be various. And in historical comparative linguistics, it is the contrast rather than the actual value determines the structure and trend of phonology. Regardless of the specific realization, the Grade I syllable 渾 (*hún*) tends to have fewer markers than Grade II and III syllables 咸 (*xián*), 班 (*bān*) and 憑 (*píng*).

Since a syllable with more marks tends to split , the syllables with retroflex traits are more likely to be the candidates for the inner split process generating an approximant *l-, indicating that 渾 (*hún*) lacks enough motivation to split naturally. And the chance of accidentally adding both *p- and *l- is extremely low due to the randomness of irregular voice shift. The adding of *p- can be considered as a similar route as some expressions remains in Modern Standard Chinese, such as "乡巴佬 (Chinese Pinyin: *xiāngbālǎo*; IPA: [ɕjɑŋ⁵⁵ pa⁵⁵ lɑu²¹⁴]; English translation: people from the countryside)" or "稀巴烂 (Chinese Pinyin: *xībālàn*; IPA: [ɕi⁵⁵pa⁵⁵lan⁵¹]; English translation: completely damaged)", but in these colloquial expressions, the syllables with [l-] initial do convey actual meaning, hence have no reason to be subsequent components. If this kind of shift is considered as another systemic rule, it also lacks evidence at present, which is self-contradictory.

Accordingly, the 1st assumption of the original expression is 渾 (*hún*) cannot match well with the historical phonology of Chinese.

Etymological and Phonetic Evidence

According to the explanation of *guǎngyùn*, character 班 is generated by other semantic signs. The semantic component of character 班 is "珏 (*jué*; two pieces of jade put together)" and "刀 (*dāo*; knife)". It is redirected to another dictionary *shuōwén* ("to explain the texts"), a dictionary published in early 2nd century AD. In *shuōwén*, the interpretation of 班 is "分瑞玉 (to split the credential jade)". The symmetrical and smooth attribute of jade conveys a sense of completeness in Chinese philosophical symbols. Thus the action of "splitting the complete object" itself includes the two concepts about entirety and fragments, corresponding to the theory of conjugated pair of signifier and signified in Structuralism.

Extra etymological evidence can support the hypothesis of splitting the syllable of 班 (*bān*). But phonetic property of the syllables 班 and 憑 leads to a sub-hypothesis of splitting 憑 (*píng*). The initial kernel of 憑 is perturpid (voiced) and the initial kernel of 班 is perlimpid (unvoiced, without aspiration), and in the evolution from Middle-ancient to Modern Chinese, the voiced consonants in official Standard languages gradually merged into voiceless consonants. While the voiced version of *p- appears in several sample points of Wu (Yixing, Changshu, Kunshan, Shaoxing and Ningbo), and based on the fact that producing a voiced consonant will consume more energy since the vocal cord is vibrated (so it is more unstable than the voiceless version), the original latter syllable could be with a voiced consonant. We cannot determine exactly what the latter syllable is, but have revealed a route of splitting complex signifier-signified conjugates in the derivation of generating new morphemes.

In this case, the complex signified itself can include different and even contradictory components and naturally tends to split into simple parts in daily conversations, and the marked signifier has more inner properties of singularity that can be split than unmarked ones.

Conclusion and Discussion

Conclusion

This paper investigates the usage and the genetic mechanism of [hÃŋ^{33} paʔ^3 lÃŋ^{33} tÃŋ^{31}]-like expressions (KP words), figuring out the possible original syllables and trajectory.

The main conclusions are as follows: (1) Hypothesis of "咸班" or "咸凭" splitting into KP words is more likely to establish than the other two hypotheses. It correlates with the marked property of Grade Ⅱ and Ⅲ syllables. (2) The conjugation between signifier and signified can mediate the split process, causing a synchronization of inner phonetic-semantic split.

Discussion

It proves that the colloquial expressions can undergo a combination of phonetic and semantic split process. But the assertion of specific split object still requires more advanced evidence from the reconstruction of Archaic Chinese, especially the actual realization of Grade Ⅱ and Ⅲ marks, which deserves further quantitative investigation.

So far, the existing inner phonetic-semantic split phenomena have not only appeared in specific words or specific dialects, considering the categories of qiejiaoci (cutting words) in Min and fenyinci (sound-divided words) in Jin (a Chinese dialect distributed in loess plateau and around regions) and their various genetic sources (Li, 2002). This can be one of the shared inner common traits of Sinitic dialects, generated by the syllabus structure and voice flow characteristics of Chinese, and has been deeply influenced by the writing system of characters.

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