Abstract and introduction

In the dialects of Danyang, Dantwu, and Jintarn counties of Jiangsu, we frequently find unusual distributions of Medieval Chinese tonal categories. These counties sit astride the north and western boundary between Mandarin and Wu dialect types. The transition between these two major dialect types is rather gradual in this boundary zone. Many of the areal characteristics of the Danyang and Jintarn type Wu dialects to the south and east are also found in the Mandarin dialects of Dantwu. Often sonorant or aspirated initials form the condition for somewhat exceptional resorting of syllables among tones. Syllables in the lower register tone categories also frequently realign in ways atypical of other Wu and Mandarin dialects. Sometimes these regroupings appear rather chaotic or unstable. A previous paper examined data for a single dialect in the region and observed that these tonal characteristics appear to be areal features shared by dialects in proximity in this part of China and are not diagnostic for dialect type. The present paper analyzes the question from a broader angle by looking collectively at a large number of dialects across the whole region. Using maps drawn on the basis of recent fieldwork in these counties in southern Jiangsu, we seek to chart isoglosses of characteristic tonal features or categories that cut across the dialects of the whole region. We further examine any isoglosses that can be identified to see where they fall in relation to the boundary between Mandarin and Wu.

The Mandarin-Wu boundary

In this region, the Mandarin-Wu boundary falls roughly along the isogloss running between the Mandarin plain negative peq and the Wu negative feq. This isogloss is plotted on Map 1, where we can see that it falls just slightly south of the Danyang-Dantwu border. Many significant isoglosses fall roughly in this area. Though we find that they do not always exactly trace the same line. This situation reveals the gradual nature of the transition between Mandarin and Wu dialects in this region.

Some features fall across the region in a less orderly way, spilling across the line in rather quirky ways. We see this frequently in messy, inconsistent redistributions of the tone categories of syllables with sonorant or aspirated initials. These are examples of features that are of greater areal and geographic significance, and of less taxonomic usefulness.

Map 1: The isogloss between Mandarin peq and Wu feq

**Points of emphasis – issues to examine**

- Are tones more regional in their behavior?
- Are their traits merely areal features – i.e. features that have a fairly narrow geographic range with isoglosses that usually do not neatly bundle with other features?
- Are tones more subject to areal pressure? If so, they would probably be less historically significant and less taxonomically significant.
- But where are the boundaries for typical local traits in tones – such as the low falling inpyng tone and the high inchiuh tone in Mandarin, or the tendency for unusual tonal splits conditioned by sonorant (or aspirated) initials in Wu?
- If tone related features such as these draw lines parallel to other isoglosses they are of more diagnostic usefulness and cannot be dismissed as simply areal features.
The mixed up tones of Shoetair dialect

The previous report examined one dialect – that of the Dantwu village of Shoetair – that rather strongly evidences Northwestern Wu trends in its tones though still unmistakably Mandarin in its most essential characteristics. Some of the tonal realignments we observed in that dialect are:

- **Tone 1** – [31]: Tsyhjwo Pyng = In Pyng – Sonorants in upper register
- **Tone 2** – [35]: Ching Shanq = Yang Pyng – Voiceless in lower register
- **Tone 5** – [45]: Tsyhjwo Chiuh = In Chiuh – Sonorants in upper register
- **Tone 6** – [33]: Tsyhcing Shanq = Yang Chiuh – Aspirates in lower register
- **Tone 7** – [55]: Tsyhjwo Ruh = In Ruh – Sonorants in upper register
- **Tone 8** – [22]: Tsyhcing Ruh = Yang Ruh – Aspirates in lower register

![Figure 1: Tones in Shoetair Village in Dantwu](image)

Measuring the regional spread of these kinds of tonal realignments

Tonal realignments similar to those of Shoetair are found in many other dialects in this region. For example:

- **Tsyhjwo Pyng = In Pyng** – Pyng tone sonorants are in the upper register.
This means that a word like *ren* 人 ‘person’, which has an initial in the sonorant class – usually [r], [z], or [z] in Mandarin and usually [n] or [ɲ] in Wu, but sometimes [zero] in the Danyang-Dantwu region – and is a *pyng* tone word, ends up in the same tone category as, say, the third-person pronoun *ta* 他 ‘he, she’ (common to both Wu and Mandarin dialects in this region).

We can use these two words to see where this merger is found in the Danyang-Dantwu region. Map 2 shows where the two words share the same tone. We see that sites that merge the tones of ‘person’ and ‘he/she’ are scattered throughout Danyang and well north into Dantwu. But the [n] initial in ‘person’ is limited to Danyang, stopping right at the border with Dantwu (except that it also goes well into southern Dantwu).

![Map 2: Correspondence of tones in ‘person’ and ‘he/she’](image)

Key to Map 2

- “n initial” – 人 ‘person’ has a nasal initial
- “z initial” – 人 ‘person’ has a sibilant initial
- “0 initial” – 人 ‘person’ has zero initial

Map 2: Correspondence of tones in ‘person’ and ‘he/she’

Hence, while isogloss showing the northern boundary of the merger of the word ‘person’ – in the *pyng* tone and with sonorant initial – into the upper register cuts into Mandarin territory, the isogloss defined by whether ‘person’ has a nasal initial or the Mandarin [z] or [zero], falls further south closer to to the isogloss between the Mandarin plain negative *peq* and the Wu negative *feq*.

Looked at another way, this merger of *tsyhwjwo pyng* and *in pyng* that brings sonorants into upper register, means that that a word like *yu* 魚 ‘fish’, which has an initial in the sonorant class – usually [zero] in Mandarin and usually [n] or [ɲ] in Wu – and is a *pyng* tone word, ends up in a
different tone category than, say, char 茶 ‘tea’, which has an obstruent initial – usually voiceless aspirated in Mandarin and unaspirated (but either voiceless or murmured) in Wu – and is usually always in the lower, yangpyng, tone category. In other words:

- **Tsyhjwo Pyng ≠ Yang Pyng**

We see on Map 3 that 'fish' and 'tea' are in a different category in most of the dialects of the Danyang-Dantwu region. Dialects where they have the same tone are only found scattered on the periphery. The northern edge of this difference between 'fish' and 'tea' closely parallels the northern edge of the correspondence between 'person' and 'he/she'. However, Map 3 also reveals that the isogloss where 'fish' transitions from a nasal initial to zero initial crosses well inside Dantwu, further north of that transition in 'person'.

Words with sonorant initials in the shanq tone usually end up in the upper register inshanq in Mandarin dialects, while in Wu dialects they usually merge with the lower register yangchiuh.
But in the Danyang-Dantwu region, these regular correspondences fall apart. Here we find that such words often end up in the tone category abandoned by the pyng tone sonorants: yangpyng. This means that that a word like *roan* 软 'soft', which has an initial in the sonorant class – [zero] or [z] in Mandarin and usually [n] or [ɲ] in Wu – and is a *shanq* tone word, ends up in the same tone category as *char* 茶 'tea', which we noted above is usually always in the lower, yangpyng, tone category. In other words:

- **Tsyhjwo Shanq = Yang Pyng**

Map 4 shows us that this merger dominates central Danyang and has also made incursions into Dantwu (where it is thus seen in Shoetair as well). Adding up the sites where 'soft' and 'tea' share the same tone (or was recorded as closely parallel and probably actually the same), we find a total of 101, slightly over half of the 194 sites surveyed in the region. We also see that the nasal initial in 'soft' crosses well inside Dantwu, closely paralleling the isogloss for the sonorant initial in
'fish'. Maps 3 and 4 also plot the sites where 'tea' has a voiced or murmured initial. This is a typical Wu trait that in Danyang is restricted to the eastern side of the county and is very rare in Dantwu.

A striking feature of the Danyang county seat is the merger of the inchiuh category into the inpyng tone. This means that a word such as the surname ‘Tsay’ 蔡 will have the same tone as 'tea' 茶 – [ts'ɑ′]24 and [ts036], respectively, in the county seat. We plot the results of our search for this merger in the larger region on Map 5. It turns out to be a rather scattered phenomenon that is not very widespread.

If we look back at Figure 1 we will see that the boundary between shusheng 舒声 (non-ruh, i.e. pyng, shanq, and chiuh) tones in the lower register is unstable in the Shoeitair dialect. This is also a situation found in many of the region's other dialects. To plot this, we compared the tones of one word from each category: inpyng 'tea' 茶, inshanq 'Jaw' 趙, and inchiuh 'big' 大. The results are drawn on Map 6. In Wu dialects it is not uncommon for all three categories (inpyng, inshanq, and inchiuh) to be distinct. In Chinese dialects in general, it is most common for lower shanq and chiuh to be merged, thus inshanq 'Jaw' 趙 and inchiuh 'big' 大 would be in the same tone. Map 6 reveals that these two choices dominate the central territory of both Danyang and Dantwu, with the most typical "[xoo]" pattern having a majority of 89 sites. Unusual mergers are more common on the periphery. Sites where inpyng 'tea' 茶 and inshanq 'Jaw' 趙 are merged
are prominent in the east and south of Danyang. This merger stands out especially in the southern tip of Danyang close to Jintarn county (where this merger pattern is widespread as well). Western and southern Dantwu also sees a scattering of the merger, together with a merger of the tones of *inpyng 'tea' 茶* and *inchiuh 'big' 大* (but not of *inshanq 'Jaw' 赵*). In the southern reaches of Dantwu and scattered in some sites in Danyang, all three words share the same tone. Overall, no conspicuous isogloss lines emerge here that parallel any of the other isoglosses we have examined. But enough (a total of 72) sites show unusual mergers in these tones to demonstrate that the blurred boundaries in lower register tones is a significant phenomenon in the region.

Map 6: Correspondence of tones in 'tea', 'Jaw', and 'big'

**Key to Map 6**

<table>
<thead>
<tr>
<th>Combination</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ooo]</td>
<td>'tea', 'Jaw' 赵, and 'big' 大 all have the same tone – <em>inpyng, inshanq, inchiuh</em> all merged</td>
</tr>
<tr>
<td>[oox]</td>
<td>'tea' and 'Jaw' 赵 have the same tone –<em>inpyng and inshanq</em> merged</td>
</tr>
<tr>
<td>[oxo]</td>
<td>'tea' and 'big' 大 have the same tone –<em>inpyng and inchiuh</em> merged</td>
</tr>
<tr>
<td>[oxy]</td>
<td>'Jaw' 赵 and 'big' 大 have different tones –<em>inpyng, inshanq, inchiuh</em> all distinct</td>
</tr>
<tr>
<td>[oxxt]</td>
<td>'tea', 'Jaw' 赵, and 'big' 大 all have different tones but 'he/she' 他和 'big' 大 share tone</td>
</tr>
<tr>
<td>(#)</td>
<td>number of sites with this combination of features</td>
</tr>
</tbody>
</table>
Seeking shared tonal contours

A striking and widespread feature of Southern Jiang-Huai Mandarin is a low falling phonetic value for the *inpyng* tone. This is easily observed, for example, by travelers to Nanjing, Yangjou, and Nantong who keep their ears open to the local vernacular. We also found it to be fairly widespread in Dantwu. But, as illustrated in Map 7, the falling contour levels out at the Danyang border, where it forms a very clear line parallel to where 'person' transitions between zero (in the north) and nasal (in the south) initials (seen on Map 2).

![Map 7: Distribution of the low falling contour in the inpyng tone](image)

A high level *inchiuh*, characteristic of the Nanjing dialect, is also quite common in the Southern Jiang-Huai region in general. Yet when plotted it out, as on Map 8, we find it to be less dominant in Dantwu than the low falling *inpyng*, and also scattered into Danyang, especially in the east. But the high level *inchiuh* does dominate Dantwu's northwest, further demonstrating the strength of the Southern Mandarin type there.
Overview of the isoglosses

Map 9 plots most of the isoglosses we have discussed thus far in the present study:

1. The tsyhjwo pyng = inpyng isogloss (Map 2)
2. The zero/n initial in ‘fish’ isogloss (Map 3)
3. The tsyhjwo shanq = yangpyng isogloss (Map 4)
4. The zero/n initial in ‘soft’ isogloss (Map 4)
5. The zero/n initial in ‘person’ isogloss (Map 2)
6. The low falling inpyng isogloss (Map 7)
7. The plain negative isogloss (Map 1)
8. The murmured initials isogloss (Maps 3 & 4)
9. The inshanq = inpyng Jintarn-type isogloss (Map 6)
10. The inpyng = inshanq = inchiuh isogloss (Map 6)

The first seven of these isoglosses outline a broad area of mixing that is transitional between Wu and Mandarin types. Numbers 1 through 4 are tightly bundled and show the northern range of southern – Wu – dialect influence. Number 7, the plain negative isogloss that we saw in Map 1 was clear and solid, shows the southern extent of northern – Mandarin – dialect influence. Numbers 4 and 5 are both based on words with the rihmuu, and show that there is a wide band of variation in this initial category between Wu (nasal) and Mandarin (non nasal) types. The same may be true for the loss of the nasal in yimuu, but we only have one representative here – in Number 2.
Conclusion

- Three of the tone feature boundaries parallel other isoglosses—more diagnostically significant.
- Two of the tone feature boundaries follow their own course and reflect areal influence.

Acknowledgements

- All data utilized in this study was collected in the field during the years 1999 to 2002 by Richard VanNess Simmons, Shi Rujie, Gu Qian, and their associates under the Project for the Investigation of the Boundary between Wu and Jiang-Huai Dialects, funded by the Henry Luce Foundation U.S. China Cooperative Research Program.
- Linguistics maps were drawn with the SEAL system (System of Exhibition and Analysis of Linguistic Data), software developed by Chitsuko and Yusuke Fukushima.
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