RELATIVISTIC RANK ANALYSIS OF KERNEL CONSISTENT CORRESPONDING WORDS BETWEEN CHINESE AND KAM-TAI

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ABSTRACT

In this study, we will first identify kernel consistent corresponding words (CW) between Chinese and Kam-Tai, then put forward a method of relativistic rank analysis to see if these corresponding words are the result of genetic relationship or of contact relationship.

Kernel consistent corresponding words between Chinese and Kam-Sui are those words which not only correspond between Chinese and Kam-Sui, but also belong to the class of kernel words both in Chinese dialects and in the Kam-Sui languages.

To determine what words in this category are more basic, we use the criterion of breadth of attestation, i.e., the wider a corresponding word distributes among different cognate languages, the more basic it is. We find that the rate of kernel consistent corresponding words between Chinese and Tai is lower for the most widely distributed items. In contrast, the rate of kernel consistent corresponding words among Tai, Kam, Sui and Li is higher for the most widely distributed items. Considering that there are numerous kernel consistent corresponding words between Chinese and Tai in early times, even more than those between Tai and Li, we conclude that the kernel consistent corresponding words between Chinese and Kam-Tai are the result of a deep contact, while the kernel consistent corresponding words among Tai, Kam and Li can be explained by genetic relationship. We have also discussed the theoretical foundation, the methodology and the operation of relativistic rank analysis.

1. OVERALL CORRESPONDENCE

Overall correspondence means a word must correspond in all of its constituents before we call it a corresponding word. If we fail to stick to this principle, we may put accidentally corresponding words in our sample, because different languages always share some words that accidentally correspond in initials, finals or rhymes. For example, we can find 6 initial-
corresponding words between English and Dai among the 1000 most basic words selected from our database:

Dai       English
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马 (ma⁴)   horse
有 (mi²)   have
手 (mi²)   hand
半 (ma₃)   half
他 (man²)  he
热 (mai³)  hot

*Accidental correspondence.*

Here the “m” of Dai corresponds to “h” in English. Clearly, we cannot say that these 6 words are genuine corresponding words between English and Dai, neither can we say by this kind of evidence that English and Dai have a genetic relationship.

In recent years, many scholars have been trying hard to find cognates between Chinese and Kam-Sui, although some of the cases they have found correspond only in initials, finals or rhymes. One might say that these words correspond imperfectly in this way because they are the oldest cognates, so that their correspondence is obscured. However, as we have just seen, apparent correspondences can also be due to accident. Therefore partial correspondence is not always sufficient evidence to establish genuine relationship. We shouldn't put in our samples words that correspond only in initials, finals or rhymes unless we can explain why these words fail to correspond overall.

2. **KERNEL CONSISTENT CORRESPONDENCE**

We have said that corresponding words were a necessary condition for determining genetic relationship, not a sufficient condition. This does not mean that we cannot use patterns of correspondence to get rid of loans at any time. Compare the following cases:

<table>
<thead>
<tr>
<th>ZW¹</th>
<th>ZL</th>
<th>BY</th>
<th>DX</th>
<th>DD</th>
<th>DR</th>
<th>ML</th>
<th>SS</th>
<th>MN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
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<td>1</td>
<td>1</td>
<td>1</td>
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<td>1</td>
</tr>
</tbody>
</table>

‘rain’ fun¹ phun¹ vun¹ fun¹ fon¹ pjœn¹ kwœn¹ fœn¹ fin¹
‘dog’ ma¹ ma¹ ma¹ ma¹ ma¹ ñwa¹ hñwa¹ hma¹ ma¹

*A tonal correspondence of words within Kam-Tai.*

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¹ For the abbreviated names of languages, please see the “Explanation of Symbols and Abbreviations” at the end of this article.
A tonal correspondence between ancient Chinese and Kam-Sui.

A tonal correspondence of loans from Southwest Mandarin to Kam-Tai.

All four Chinese characters above belong to tone 1. We can see that the correspondence between Tai and Old Chinese lexical items is different from that between Tai and Southwest Mandarin, because the former correspondence is the same as for words within Kam-Tai:

The most important thing is that in group 1, the corresponding type is the same both with respect to the kernel words of Kam-Sui and Tai, as well as to the way in which words of Chinese dialects correspond to each other. We call the corresponding words in group 1 the kernel consistent corresponding words. These are very early corresponding words between Chinese and Kam-Sui. Our relativistic rank analyses are based on these words.

As we have seen, corresponding words in different times at different places have different rules of correspondence. If we stick to kernel consistent words, we can restrict our comparisons between Chinese and Kam-Sui to a certain time and place. These words represent quite a deep relationship between Chinese and Kam-Tai. Of course we are still not sure if these kernel corresponding words are cognates, because they might also be loans produced by contact between Proto-Chinese and Proto-Tai. Therefore, kernel consistent
corresponding words are a necessary condition for determining genetic relationship, not a sufficient condition.

If we limit ourselves to overall consistent correspondences, we shouldn't merely list random examples here and there and say they show sound correspondences. This method would lead us to quarrel endlessly and uselessly. Sound correspondences are systematic sound matches between two phonologies; a corresponding word needs the support of many parallel examples. We must list our words in an orderly fashion according to initials, finals and tones respectively. By this method, we can definitely determine whether a word really meets the criteria of overall and consistent correspondence. This method is followed in our Table of Sino-Tai Corresponding Words, Arranged by Tone-class.

1. GENERAL CORRESPONDENCE AND RANKS OF BASIC WORDS

In our earlier research (Chen 1995, 1996), we have found that both language division and language contact have ranks, and the two kinds of ranks are opposite. In language division, the correspondence rate between more nuclear or basic words is higher than that between less nuclear ones. In language contact, on the other hand, the correspondence rate between more nuclear words is lower than that of less nuclear ones. We divided Swadesh's 200 kernel words into two ranks, the first 100 and the second 100. We compared many important languages whose original relationship has been determined by historical evidence, finding that in genetic relationship the rate of correspondence in the first 100 words was higher than that in the second 100 words, while in contact relationship, the rate of correspondence words in the first 100 words was lower than that in the second 100 words. According to this criterion, we analyzed the ancient corresponding words between Old Chinese and Kam-Tai, the result being that the rate of correspondence in the first 100 words was lower than that in the second 100 words. We concluded that the strictly corresponding words between Old Chinese and Kam-Tai in early times were the result of deep contact. The key to this method is the idea that all languages in principle share a similar set of first 100 words and second 100 words. We call this method the universal rank analysis.

As many more words among different languages are compared, we face a key problem: how can we tell a basic word from an unbasic word? Generally speaking, basic words imply that there are certain recurrent things and situations, or kinds of things and situations, for which every community of human beings, regardless of differences of culture or environment, has words. However, this is not exactly true. For example, the word "sea" is basic for people living along the sea, but unbasic for people living inland. Therefore, the