

Tone sandhi in diachronic perspective

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This paper considers the historical origins of *tone sandhi*, in which lexical tones exhibit contextually determined alternations. For example, in White Hmong, the tones 52, 22, 21? > 4̣; 24 > 33; and 33 > 22 when following a tone 55 or 52 (Ratliff 1987). While such patterns are often synchronically opaque, they can make more sense when considered from a diachronic perspective (Downer 1967; Ratliff 1987). To see this, we must first arrange and label tones according to their historical sources. The columns indicate the shape of the pre-tonal syllable rime (abbreviated A B C D), and the rows show the historical onset voicing category (1 or 2):

| | A (*-open) | B (*-ʔ) | C (*-h) | D (*-p, -t, -k) |
|----------------|------------|---------|---------|-----------------|
| 1 (*voiceless) | 55 | 24 | 33 | 22 |
| 2 (*voiced) | 52 | 22 | 4̣ | 21? |

This makes it clear that it is the historical source of a tone, rather than its synchronic phonetic value, that predicts its sandhi behaviour: A2, D1, and D2 > C2; B1 > C1; and C1 > D1.

While the historical origins of the many complex tone sandhis found in Chinese languages have also been remarked upon (Mei 1977; Chen 2000), to date there has been no cross-linguistic survey of tone sandhi patterns. In this paper, I compare tone sandhis found in several Sinitic, Hmongic, and Daic languages, as a first step towards developing a more robust diachronic typology of tone sandhi. I first examine the tone sandhi of three Zhuang (Daic) lects, which have not previously been considered from a diachronic perspective. Despite having extremely diverse tone systems, the sandhi patterns of all three lects are identical when viewed in terms of their historical tone categories: A1, C1 > B1. Next, by comparing these Daic cases with several Hmongic varieties, I show that although the sandhi tones are *B tones in Daic and *C tones in Hmongic, in all cases the sandhi tones belong to the same historical onset voicing class as the corresponding base tones. Finally, I compare these systems with several examples from Sinitic. In some cases, such as in the Min dialects of Jieyang and Pinghua, tones which undergo sandhi all had historically voiced onsets, so it is the *2 tones which form a “natural class” (Chen, 2000). Conversely, the well-known “third-tone sandhi” of Beijing Mandarin (/213/ > [35] / __ /213/) can be traced to a historical pattern B > A1 / __ B (Mei 1977), also manifested in several other Northern Mandarin dialects.

Based on this preliminary survey, I argue that while not all tone sandhi patterns can be explained by reference to a single historical process, a historical perspective is a crucial component of any satisfactory account (Ratliff 1987). The diachronic sensitivity of sandhi to historical tone features means that sandhi patterns may be a potentially useful tool for historical-comparative reconstruction, and may even help shed light on the historical phonetic properties of the proto-tones themselves.

Chen, Matthew Y. 2000. *Tone sandhi patterns across Chinese dialects*. Cambridge: Cambridge University Press.

Downer, G. B. 1967. Tone-Change and Tone-Shift in White Miao. *Bulletin of the School of Oriental and African Studies* 30(3). 589–599.

Mei, Tsu-lin. 1977. Tones and tone sandhi in 16th century Mandarin. *Journal of Chinese Linguistics* 5(2). 237–260.

Ratliff, Martha. 1987. Tone sandhi compounding in White Hmong. *Linguistics of the Tibeto-Burman Area* 10(2). 71–105.