SOME KADAI LANGUAGES OF NORTHERN GUANGXI CHINA

Jerold A. Edmondson
Professor of Linguistics
University of Texas at Arlington
Box 19557 Arlington, TX 76019 USA

Northern Guangxi-Zhuang Autonomous Region (Guangxi) is an area where a large number of linguistic groups inhabit a relatively confined area.[1] For example, in Rongshui Miao Autonomous County and Luocheng Mulam Autonomous County there are: (1) Miao-Yao languages—four kinds of Miao, two kind of Yao, (2) Kadai languages—four distinct varieties of Kam, Zhuang, E, Sui, Mulam, Maonan, and also (3) Han Chinese—Putonghua (norm Mandarin), Gui-Liuhua (SW Mandarin, the former court language of Guilin and Liuzhou, now centered in nearby metropolitan areas, Ngai (a kind of Hakka spoken by a local peasant group), Tuguai (a kind of Cantonese associated with lumbering and rafting, the local street vernacular), Makai (language of the petty Hakka merchants who came from Guangdong Province to do business with the minority peoples), Yangsan (a very archaic kind of Cantonese with 10 tones), and Southern Min (recent immigrants from Fujian). Multilingualism is very common with each language having its own niche in the linguistic macrocosm of the area. Among the Kadai languages there is also quite a lot of similarity among the tonal systems of Kam, Zhuang, E, Mulam, and Maonan. At the same time this area represents the southern-most frontier for Kam and Sui as well as an area approaching the northern extreme of Zhuang settlement. Mulam, Maonan, and E are found nowhere

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I need also to add that by Kadai languages I will be using the term as in Benedict (1975:xix-xx) to include the branches: Tai, Kam-Sui, others. I do not use it as in Benedict (1942), in which Kadai referred only to "others". Zhuang and E belong to the Tai Branch of Kadai, whereas Kam is a Kam-Sui language.

else. Thus, it is not surprising that in this peripheral area special linguistic properties have developed.
In this paper I wish to report on some special tonal properties of Rongshui and Luocheng Counties. Data for this study were gathered during a fieldwork expedition in Jan-Jun 1990. In the analysis of the data gathered both comparative and instrumental methods were used. In particular I intend to describe: (1) ultracomplex tonal contours in the Kam of Luocheng County Nalun Township (Nalun Kam) and in the Zhuang of Rongshui Sanfang Township (Sanfang Zhuang) as well as the (2) dimorphism in the E of Rongshui County Yongle Township (Yongle E), cf. map. I will also try to put these development in historical perspective and discuss the implications of these phenomena for a formal theory of tones.

1. Ultracomplex tonal contours. The tradition of speaking about contours in tone languages is associated with Pike (1948:9-12). Pike claimed that pitch could be used in two different ways in natural languages: as register or a basic high or low associated with each syllable—these kinds of tones are generally found in languages of Africa and the New World—and contours in which pitch glides are basics of the system—these kinds are generally found in Asian languages. For register languages the norm is pitch level; for contour languages the norm is pitch glide. Thus, register vs. contour stressed the dichotomous typological nature of pitch prosodies and indeed these terms came to be used like blood-typing of a language in which mixing R or C types would lead to disastrous consequences. Yip (1989) suggested a prosodic universal-donor principle, arguing that register glides were like phonological tone clusters, whereas contours were similar to affricates, being branching with left and right edges but occupying only a single organizational slot. These edges can enter into phonological rules. The two differ by the presence of a tonal root tier indicated by ⊕, which unifies the sequence of levels or melody into a unit (contour) below the syllable level. The tonal root level organizes 'atomic' tone levels into a 'tone molecule', which is then attached to the Tone Bearing Unit (TBU), the syllable. The crucial point, however, is that both systems, in this view, are made up of levels. (σ = syllable, L = LOW, and H = HIGH):

Asian unit contours
branching tones

African level-spreading contours
tone clusters

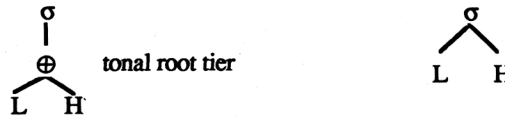

Figure 1: Branching tones vs. tone clusters.

But if Asian contours can be regarded as melodies or sequences, then the complexity of the glide become of interest. Simple pitch glides would be of the types: upward glides (L-H trajectory) or downward glides (H-L trajectory). Complex glides would involve glides with reversing direction, e.g. rising-falling (L-H-L trajectory) or falling-rising (H-L-H trajectory). Pike mentions (9) the possibility of ultracomplex pitch glides, i.e. falling-rising-falling (H-L-H-L trajectories) or rising-falling-rising (L-H-L-H trajectories), but doesn't provide any data. Indeed, Yip (1989) states that she knows of no accounts of such contouring.

In the following we report on two languages for which we believe there is good evidence of such ultracomplex tonal contours and discuss the significance of ultracomplex contours in a formal theory of tones. That some Kadai language—especially Kam—evidence ultracomplex contouring is not completely unexpected, since Kam is perhaps the most tonally complex language of East Asia or perhaps anywhere.

Kam tones have arisen in a two-step process. In the first step the proto-tone categories A, B, and C (Li 1977), divided via The Great Tone Split (Brown 1975) to yield six categories.[2] The process also occurred in the other languages under discussion here as well, Sanfang Zhuang and (Kjang) E. The Great Tone Split produced two sets of tones categories conveniently labeled HIGH and LOW, the HIGH from original voiceless initials and the LOW from original voiced initials. There are several accounts of how to represent the Great Tone Split in terms of feature geometry; these are reviewed in Duanmu (1990:98-155). Following Kingston and Solnit (1991), I will regard tonogenesis to be a process of spreading of

[2]I will ignore the categories DS and DL.

features of the onset onto the vowel. Actually this conception is contained in Halle and Stevens (1971), who posited laryngeal features, stiff and slack vocal cords, with distribution over both vowels and consonants. Duanmu (1990) reformulated this process in geometrical terms as in Figure 2. Lar = Laryngeal node; V/R = Voicing/Register; [+st] = stiff vocal cords

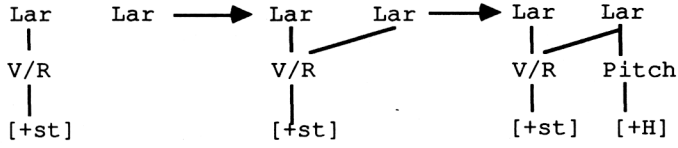

Figure 2: The Great Tone Split

At a later date in Kam the spreading process was repeated. This Second Tone Split occurred in syllables with a depressor consonant initial (preserved as breathy or aspirated onset) resulting today in a third RISING set of tones for most locations within Kam territory, cf. Dongyu Diaocha Baogao (1957). We know of this change because some locations such as Liping Pingtu, Congjiang Guandong, and Liping Shuikou failed to undergo it. We also know that the Second Tone Split transpired much more recently than the Great Tone Split because the depressor feature of the onset has not yet disappeared; the changes it wrought in the contours of affected syllables have not yet been obscured by subsequent changes and may be described as an adjoining of a low tone to the left edge of the tonal root tier, i.e. LOW + HIGH = RISING. Using Chao's Scale-of-Five system each member of the HIGH set split into a HIGH in the environment of voiceless onset and RISING in the environment of aspirated onset, i.e. for aspirated initials 1 -> 1' (55 -> 35); 5 -> 5' (53 -> 453), and 3 -> 3' (323 -> 13).[3] These changes in most places have not as yet involved detachment of the depressor feature, i.e. in RISING tones initials are still aspirated or breathy.

[3]In this paper I use the tone numbers employed in the Chinese Jianzhi series of descriptions, i.e. A1=1; A2=2; B1=5; B2=6; C1=3; C2=4; DS1=7; DS2=8; DL1=9; and DL2=10. Prime marks 1', 3', 5', 7', and 9' suggest the conditioning aspiration of the initial, cf. Li (1977) and Wang (1984).