

Preface

For many people, the term *Chinese language* calls to mind – first and foremost – Standard Mandarin. Dialectologists broaden their linguistic definition of *Chinese* so that it includes any Han variety. Some historical-comparativists have stretched *Chinese* to encompass all of Sino-Tibetan. Thusly have the areas of interest expanded in recent decades, investigations into syllabicity included.

Past studies into Chinese phonology leaned heavily towards tonological research. Even prosodic issues were often woven around tones so that stress and prominence were inferred from possibilities of tone neutralization. Despite its being the ostensible host for tones, the Chinese syllable has received relatively less attention, presumably because across Chinese languages, it tends to be no more than three to five segments.

While tone may be a prosodic feature, it is the syllable that is a prosodic unit. Any serious understanding of Chinese phonology cannot afford to neglect the syllable and its prosody in Chinese. Indeed, the inventory of syllables for many Chinese languages have been described by much valuable fieldwork, and the phonotactics well-studied by phonologists. Nevertheless, a breakthrough is needed to learn about the Chinese syllable beyond well-known phonotactic constraints and different speculations on syllable structure. Without such a breakthrough, one will have to remain in the dark about how Chinese prosody is mediated through what is perhaps its most fundamental prosodic unit and how that has any connection to the dazzling tonal patterns that have captured so much attention. In 2017, linguists at the Education University of Hong Kong, Peking University, and the Hong Kong Baptist University felt that the time has come to call upon the world for help to find this breakthrough. The *International Symposium on Frontiers in Chinese Linguistics* (SFCL-1) thus came to being, and the first conference was held on 8–9 June 2018. Supported by generous funding from the three universities, the conference was free to the public and brought together many exciting papers. Five of these, having undergone rigorous selection and review, are presented in this volume. Through them, one sees new inroads into the study of the syllable in Chinese, coming from obtuse angles such as cognitive limits, tone alignment, isochrony, and segmental features, and even phonation. We believe this rather eclectic collection of papers may yet prove to be seminal and catalytic to Chinese phonetic and phonological research.

As it turns out, Chinese offers evidence of cognitive limits on syllable inventories. Through an extensive coverage of data from across twenty Han Chinese languages, six Tibetan dialects, five Miao dialects, Mian, Zhuang, Thai, Li, Dai, Yi, Burmese, Zaiwa, and Achang, Jiangping Kong's statistical analysis showed that on average, a language's phonemic system may distinguish between 1,000 syllables. The paper further explores the characteristics and differences between the actual syllabic space and the theoretical syllabic space (obtained by a three-dimensional product of syllable onset, rhyme, and tone). While the average limit is fairly consistent at 1,000 syllables across the forty studied languages, the shortfall between the actual syllable space and the larger theoretical possibilities appears to increase with greater language contact. To the phonologists, Kong's discovery suggests that there may be deep cognitive reasons for gaps in the inventory of syllables. These gaps do not appear to violate any known phonotactic constraints, and have fallen beyond the scope of phonological theorizing. The insight that Kong offers is one that has implications beyond the languages studied. The same methodology applied to the reconstructed syllable inventories of ancient languages would inform us of their cognitive limits as well. Kong's paper is therefore also a kind of prolegomena to for a framework towards interpreting language evolution and contact.

While Kong's paper breaks new ground in research on language cognition, Ling Zhang's paper would break the myth of isochrony, at least for Hong Kong Cantonese which had been believed to be an exemplary case of a syllable-time language. The stability of Cantonese syllables is founded on the fact that they are not known to become reduced (through lenition, or elision) by morphosyntactic operations. Tone sandhi is also rare (if any at all) in Cantonese. Yet it turns out that isochrony is a myth. Zhang's measurements suggest that even for CVC syllables, when the coda is a plosive, the syllables would be shorter. There are however two complications. In some instances, the plosive coda is lengthened, giving more acoustic blank. This entails that the syllable is shortened in the nucleus only to be compensated by the coda, a sort of Duke-of-York derivation. A second complication is where compensatory lengthening applies to the onset of the syllable following the shortened closed syllable. It is hard to conjecture what is at work here, except again to underline that a study of Chinese syllables can yield unexpected findings.

Instead of looking at the duration of syllables, Aijun Li and Zhiqiang Li looked at their capacity to host tones. The setup uses a string of toneless syllables in Mandarin. These are then subject to the influence of a fully toned syllable, and to the influence of intonational melodies such as the declarative and the interrogative. One therefore sees a competition between the demands of lexical influence and prosodic intonation. As it turns out, the fully-toned syllable has a more robust influence on the toneless syllables that are nearer to it. The intonational markers at the end of the utterance would condition the pitch values of the toneless syllables at the end. Thus, toneless syllables are capable of hosting the tones from a

lexical source and from an intonational source. We find this to be very interesting because the syllable, being host to tones from both sources, provides a demonstration that lexical tone and intonation may be unified as just “tone”, perhaps one coming from prosody the other from morphosyntax.

The relationship between tone and prosody would require phonological architecture that captures such an interface. Liang and Wee’s paper advocates what might be a germ model for such interleaving. They envisage a segment in the dimension of prosody joint to a set of distinctive features in a different dimension of constituency. From this two-dimensional complex atom, christened the segment-melody complex, segments may project moras that are organized into feet, while distinctive feature melodies organize themselves into onsets, rimes and syllables. This is a rather unorthodox view. However, it is also one that offers a handle on the apparently intractable problems of the medial glide in many Chinese languages, and the typological difficulties in difference types of tonelessness.

The final paper in the volume is Li and Wang’s study of Bai. The Bai language is a rather ancient sister of Chinese, and offers data which expands the horizon of intra-syllabic interaction. Li and Wang discover that – whether tense or lax – the nasalization of vowels impacts on tonal properties via their impact on phonation. In articulatory terms, nasalization relaxes the velum so that air may pass through to the nose, implying that there would be greater distribution of pressure in the supralaryngeal regions. How and why that would interact with phonation at the laryngeal region is unclear, and the relationship with the tenseness of vowels would be even more elusive. Is this pattern unique to Bai or are there physiological explanations? By placing Li and Wang’s paper as the final piece in the volume, we invite our readers to join in the fun of discovering topics that have hitherto not received attention in the study of the Chinese syllable and its prosody.

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