
***The Historical Phonology of Tibetan, Burmese and Chinese.* By Nathan W. HILL. New York: Cambridge University Press, 2019. Pp. xiv+373.**

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Sino-Tibetan was first recognized as a language family more than one century ago, and great progress in the field has been made in the interim. The reconstruction of Proto-Sino-Tibetan, however, has only seen sporadic attempts—without much consensus—and the phylogenetic relations between different languages within the family remains controversial. Nathan W. Hill's new book, *The Historical Phonology of Tibetan, Burmese and Chinese* represents a new attempt at exploring early stages of Sino-Tibetan languages, or Trans-Himalayan languages, as it is named in the book, and here, for the sake of consistency.

The book addresses a key area hitherto inadequately researched in the historical phonology of Trans-Himalayan languages, which is the establishment of robust sound laws describing the phonological development of these languages. Establishing sound laws has been crucial to the study of Indo-European languages. The forms of a certain cognates in modern Indo-European languages as diverse as English, French, Persian, and Bengali can each be deduced through the application of a corresponding series of sound laws, applied to their common ancestor, Proto-Indo-European (with other factors such as analogical levelling taken into consideration, in some cases). Moreover, the chronological sequence of sound laws has important implications for establishing the Stammbaum of the language family. Grimm's Law, for example, which delineates Germanic languages from other Indo-European languages, precedes the High German consonant shift, which affected a subset of dialects observing Grimm's law, the High German dialects. The numerous exceptions to Grimm's Law are elegantly accounted for by Verner's Law, making the sound laws extremely regular.

In contrast, while much progress has been made in the study of Trans-

Himalayan languages using comparative linguistics,¹ this progress has long lacked systematic regularity. A purpose of the book, as Hill sets out in the introduction, is to establish Indo-European style sound laws for Trans-Himalayan and the subsequent sections of the books certainly fulfil this ultimate goal quite well.

Hill focuses on the three most prominent members of the family, namely Tibetan, Burmese and Chinese—also the languages with the longest writing tradition. It is a logical choice, as in such a pioneering study it is prudent to build the scaffold using languages with the most data available. Hill starts from the earliest attested stage of the languages and works back beyond the earliest written stage of each of the three languages, all the way to Trans-Himalayan, the hypothetical ancestor to all members of the family.

To combine evidence from progress made in each of the languages and reach a coherent system is no easy feat, considering that the historical phonology of any of the three languages contain numerous questions remaining to be answered. In addition, the traditional dichotomy between Sinitic and Tibeto-Burman languages and the consequential division between the field of Sinology and Tibeto-Burman studies has presented difficulties. From the perspective of gaining a holistic picture of Trans-Himalayan historical phonology, the opposition between Sinologists and Tibeto-Burmanists has not been conducive to research progress on the family as a whole, especially considering that the primacy of the Sinitic versus Non-Sinitic division within the Trans-Himalayan family is not undisputed.²

Taking Chinese historical phonology as an example, while it is certainly true that recent progress in is much indebted to comparison with Tibetan, many studies have resorted to using Written Tibetan as the Tibetan language beyond this remain quite elusive to them.

As Chinese and Tibetan diverged from their common ancestor thousands of years before the first appearance of any material written in the Tibetan language. The sound correspondences between the two languages had become murky. Cognates are often identified on an *ad hoc* basis, and therefore they are

1 Zhengzhang Shangfang 鄭張尚芳, *Shanggu Yinxi* 上古音系 (Shanghai: Shanghai jiaoyu chubanshe, 2013).

2 Laurent Sagart, Guillaume Jacques, Yunfan Lai, Robin J. Ryder, Valentin Thouzeau, Simon J. Greenhill, and Johann-Mattis List, “Dated language phylogenies shed light on the ancestry of Sino-Tibetan,” *Proceedings of the National Academy of Sciences of the United States of America* 116(21) (2019): 10317–322.

frequently less than rigorous and their selection criteria can be obscure, posing problems for reconstructing the proto-language.

The intrinsic logic of using Written Tibetan, rather than modern Lhasa dialect is that it is the oldest stage of the Tibetan language commonly accessible. Theoretically, it is also the closest to the ancestral form from which Tibetan and Chinese diverged. Using the same logic, an even earlier stage of Tibetan of course would be more helpful and the book's section on Tibetan historical phonology is much needed.

The section on Tibetan first introduces the earliest written form of Tibetan, Old Tibetan, and its relatives such as the Bodish languages. Sound changes are then outlined one by one in a reverse chronological order, establishing any possible conditions for the change using both internal and external evidence, down to Proto-Bodish. Then a brief recount in chronological order from Proto-Bodish to Old Tibetan is given to validate the sound laws and their chronological order. The same process is then repeated to go yet further from Proto-Bodish to Trans-Himalayan, after which a final section reviews mysteries as-yet unsolved.

The same format is followed by sections on Burmese and Chinese. In general, this format makes for a logical, concise and highly readable account of what would otherwise seem to be the daunting task of explaining a complex and messy set of processes, in which different sound changes operated at different stages, amid a number of intervening factors. In addition, just as we are familiar with Grimm's law proposed by Jacob Grimm, Hill assembles previous discoveries on sound laws and names them after their discoverers.

A good example illustrating the methodology of the study can be found in the sections dealing with *Dempsey's Law: Merger of *e and *i before Velars*, and *Benedict's Law: *l^y > ž* (pp.12–15). Hill first uses Chinese evidence and the general lack of *e* before velars in Old Tibetan to illustrate Dempsey's law. And then to illustrate Benedict's Law, Hill uses the correspondence of Tibetan *ž* with laterals in Chinese and Burmese, together with the internal evidence from Tibetan that the insertion of a palatal infix *y* after a lateral *l* results in *ž* (e.g. Tibetan བཞེན་ *bžeñ* < *bl^yeñ 'rise': Tibetan ལང་ *lañ* 'rise'). The presence of words maintaining *l-* before the vowel *-i-* is attributed to the chronological order of the two laws, i.e. Benedict's law precedes Dempsey's law and those words still had the vowel *-e-* when Benedict's law was in operation.

The absence of Dempsey's law in Kurtöp, a less known Bodish language spoken in Bhutan, is used as evidence to reinforce the argument that Dempsey's law is a Tibetan innovation which post-dates the separation of Tibetan and Kurtöp. A similar phenomenon is actually found in Burmese as

well (pp.70–71) but the relative chronology demonstrates that the current state of affairs in Tibetan and Burmese is the result of parallel development rather than any indication of closer phylogenetic distance.

One thing to be noted is that the examples of Kurtöp on p.13 do not contain the vowel *-i-* before velars, the vowels do not show a clear pattern of correspondence with their counterparts among the Chinese cognates. More examples could be given here to better substantiate the argument.

The section on Tibetan covers a wide range of issues. Another example that deserves particular mention is Hill's exploration of the origin and dating of some of the morphological alternations in Tibetan and their implications for phonological history, shedding light as well on the morphology of other Trans-Himalayan languages. Overall, any student of Trans-Himalayan languages will find Hill's vast knowledge of Tibetan and less well-known Bodish languages valuable.

Burmese presents a unique problem. It has the youngest written tradition of the three major languages covered in the book. The Myazedi inscription, the oldest surviving Burmese inscription, dates to the early 12th century. By this time, the Burmese had migrated south into the territory originally inhabited by Austroasiatic and possibly other peoples, coming into contact with many different languages and in all probability undergoing a complex process of ethnogenesis and linguistic influences.

Luckily, Burmish languages like Atsi, Lashi, Achang and Xiandao are more conservative than Old Burmese in many aspects. These languages provide evidence that the phonological contrast between voiced and voiceless consonants was originally present in Proto-Burmish (p.55); Old Burmese had undergone various sound laws such as *Wolfenden's Law*: *-*ik > -ac*, **-iŋ > -aññ* (pp.59–60), *Maung Wun's Law*: **u > o₂ before Velars* etc. (pp.60–62). Nevertheless, Hill's decision of excluding Loloish on the ground that the data and reconstruction of Loloish are outdated does create at least one case where Loloish might be able to provide another perspective.

Hill claims that Old Burmese lacks medial *-w-*, and *-wa-* in Written Burmese comes from Old Burmese *-o-*. However, the word for 'hoof' is /k^ha³³/ in Liangshan Yi, a Northern Loloish language, sharing the same rime with /ŋa³³/ 'I', but not /k^hu³³/ 'mouth', the latter of which a cognate of Chinese 口 *kou* 'mouth', reconstructed as **k^h(r)oʔ* 'mouth' (Baxter-Sagart's 2014 reconstruction), containing the vowel *-o-*. It is possible that *-o-* and *-wa-* coexisted like Old Chinese, at least after velars, at an earlier stage of Burmish.

Another point worthy of note is the identification of all words containing Written Burmese rimes *uiñ/uik* as loans, and hence the elimination of the

relevant rimes from the phonology of Old Burmese. While the vast majority of them are indeed loanwords, mostly from the Mon language, the presence of a very important basic word ၵၢၢ *buik* ‘abdomen’, which phonologically looks very similar to Chinese 腹 *fu* < *p(r)uk ‘abdomen’ with near perfect semantic correspondence as well, probably means that it is too premature to do away with *uik* and its implication for the reconstruction needs to be further investigated.

Hill devotes the longest section of the book to Old Chinese. Out of the three languages, Chinese is probably the one that is the hardest to tackle for quite a number of reasons and deservedly require the greatest length to discuss. The book’s section on Chinese essentially follows Baxter-Sagart’s 2014 reconstruction of Old Chinese with Hill’s thoughts on the merits or inadequacies of it and some possible remedies sprinkled in between. Relative to Old Chinese, Old Tibetan and Old Burmese are relatively fixed points of departure from which to arrive at Trans-Himalayan, because the two are directly attested and their phonetic details are more accurately spelled out through the use of phonetic writing systems than is the case in Old Chinese. The less than certain nature of the reconstruction of Old Chinese inevitably introduces great difficulties

To complicate the situation further, in contrast to Tibetan and Burmese, Chinese lacks close sister languages that can aid the reconstruction. Perhaps only Proto-Min comes marginally close to assuming this function. Despite the fact that Old Tibetan, Old Burmese and Old Chinese all share the epithet ‘Old’, Old Tibetan and Old Burmese can be viewed as tools to solve the puzzle whereas Old Chinese itself is a greater part of the puzzle.

The reconstruction of Old Chinese requires quite innovative approaches due to the immense time depth of Old Chinese and the relatively vague phonetic representation of the Chinese writing system. Hill summarizes methods to reconstruct Old Chinese in a succinct manner, including using Middle Chinese as a reference point to do internal analysis; analysing phonetic radicals of Chinese characters; sorting out rhyming patterns of ancient poetry; and using evidence from Proto-Min, Vietic and Kra-Dai languages.

Admittedly, the section on Chinese looks much more complicated than the previous two sections. The sound laws are neither as complete or mature. Law implies regularity, but as many problems in the reconstruction of Old Chinese have not yet been solved, regularity remains a luxury. Baxter-Sagart’s reconstruction sometimes resort to dialectal admixture to explain some seemingly less regular changes such as the reconstructed coda *-r becoming

*-n in some words but *-j in others.³ Likewise it is difficult to account for the distinction between tight and loose pre-initials from Trans-Himalayan to Old Chinese, perhaps with what morphological function these pre-initials had in Old Chinese adding more complexity to the mix.

While it is true that the possibility that Old Chinese had dialects and dialectal admixture is not to be discarded, to accurately synthesize laws, Old Chinese dialects, as well as the nature and consequence of such dialectal admixture must be further explored. In addition, using Chinese loans in other languages may require further, as the loans entered recipient languages over a huge span of time and geographic area.

Hill proposes interesting ideas such as the presence of the code *-rl (p.206), and the partial origin of Old Chinese *-k being *-kə (p.201). Perhaps with new evidence such as excavated ancient scripts (often reflecting ancient dialects) and better understanding of the mechanism of loanwords, we will eventually be able to reconstruct Trans-Himalayan from Old Chinese using regular sound laws.

There are also a few proposals that are probably spurious. On p.204 there is a comparison made between Chinese 虎 *hu* < *q^hraʔ ‘tiger’ and Tibetan ལྟག *stag* ‘tiger’, with reference to Beckwith and Kiyose’s reconstruction of Old Chinese 虎 *stay. It is not convincing, especially in light of evidence from Austro-asiatic languages pointing to the possible foreign origin of the Chinese word, cf. 𑜀𑜢𑜤𑜰𑜫 Khmer/k^hla:/ ‘tiger’, and it is possible that Burmese word for tiger 𑜀𑜢𑜤𑜰𑜫 *kyā*—but not the Tibetan word—shares the same origin.

The final section of the book deals with Trans-Himalayan from conclusions assembled throughout the previous sections. The phonological system of Trans-Himalayan is reconstructed using the best available evidence. It is still preliminary work, or as Hill describes it, ‘bedrock for future progress’ but we can already see the power of more rigorous sound laws. One argument in favour of the dichotomy between Sinitic and non-Sinitic languages is the preservation of the distinction between *-a- and *-ə- in Old Chinese and the merger of the two vowels in non-Sinitic languages. Careful examination of exceptions reveals that Old Burmese preserves the distinction under certain phonological conditions, and consideration of regular correspondences also stimulates a few interesting questions, regarding, for example: 1) the origin of the ‘type A’ distinction in Chinese; 2) the source of pre-glottalization in Proto-Burmish; and 3) the non-correspondence of palatalization among the three

3 William H. Baxter and Laurent Sagart, *Old Chinese: A New Reconstruction* (Oxford: Oxford University Press, 2014), 268.

languages (p.258).

This book solves some problems, but also opens another chapter of Trans-Himalayan study in which further problems—not limited to those noted above—await discussion. One key avenue for further study of Chinese historical phonology emerges: Hill's demonstration that the aspirate plosives in Tibetan and Burmese are of secondary origin demands an explanation congruous with the presence of aspirate plosives in Old Chinese, which seem to have been around since the origin of time. What was the actual status of aspirate plosives in Trans-Himalayan?

Just as one cannot reconstruct Proto-Indo-European based on Sanskrit, Greek and Latin alone, the big three of the Trans-Himalayan family discussed in the book, Tibetan, Burmese and Chinese, are probably insufficient to reflect the whole picture of Trans-Himalayan. The three languages are by most accounts the most important languages of the family, but from the perspective of historical linguistics, the current importance of a language should not confer on it supremacy over the others. Advancement in the study of other Trans-Himalayan languages such as Qiangic languages (including Rgyalrong, Tangut, and other evidence), will likely better our understanding of the language family's early history. Just as every major branch of Indo-Europeans languages contributed to the reconstruction of Proto-Indo-European, it is simply not feasible to reconstruct Proto-Trans-Himalayan based solely on three languages, no matter how representative they may be.

Overall, the book is quite well written and will edify students of Trans-Himalayan languages. It is not only 'bedrock for future progress,' but also a great reference work for the present. Oftentimes, scholars of historical Chinese phonology rely on evidence provided by Written Tibetan and Written Burmese only, and it is not unheard of that scholars unfamiliar with recent advances in historical Chinese phonology should use Karlgren's reconstruction to check evidence from Old Chinese. Karlgren's reconstruction, however, was proposed nearly 100 years ago! Hill's new book will thus undoubtedly stimulate research interest in the field and provide new food for thought.

It should be noted that Hill decided to employ a few phonetic transcription systems, rather than the International Phonetic Alphabet in the book, probably for the sake of consistency with the source material. This may present some obstacles for those unfamiliar with the respective transcription systems, and there are certain discrepancies between the several systems used in the book, i.e. the same symbol represents different sounds and vice versa. Readers of the book should try to familiarize themselves with the transcription systems to avoid possible confusion. This review has used the transcriptions Hill uses

where possible.

Overall, considering the width of scope, the depth of content and the manifold scripts required, the editorial work is in general of excellent quality and deserves much praise. Nonetheless, some errata are noted for future editions. On p.330 the Chinese word 夜 *ye* ‘night’ is erroneously typed as its Standard Mandarin homophone 業 *ye* ‘karma’ and one footnote on p.165 contains the character 蕨 *jue* ‘fern’ where the character 猴 *hou* ‘monkey’ is intended. A bonus point to be noted: students of Trans-Himalayan languages will undoubtedly find the appendix, which contains lists of cognates and further examples of the topics discussed in the previous chapters, to be extremely helpful.

Hill has done an excellent job making the book highly comprehensible. It is easy to follow, enjoyable and quite accessible; the traditional terms used in Chinese historical phonology are explained within the relevant section. Readers need not possess a huge amount of prerequisite knowledge in the field, and it is a suitable read for amateurs and experts alike.

In spite of the few shortcomings, this book is a pioneering work—one of the first attempts at reconstructing Trans-Himalayan using rigorous sound laws. The field of Trans-Himalayan historical phonology will benefit greatly from this book, which will unquestionably inspire further study.