William A. Smalley, Chia Koua Vang, and Gnia Yee Yang (1990) Mother of Writing: The Origin and Development of a Hmong Messianic Script. Chicago: The University of Chicago Press. ISBN 0-226-76286-6 (hardcover), ISBN 0-226-76287-4 (paper) \$15.95. pp. 222+xii. Reviewed by William J. Poser.

In 1959 Shong Lue Yang, an illiterate Hmong farmer, invented a writing system for Hmong<sup>1</sup>, as well as a kindred writing system for Khmu?, his mother's language. During the twelve years preceding his assassination in 1971, he taught this writing, known as the *Pahawh Hmong* to many people. It is still in use among his followers in the United States and Thailand.

Shong Lue's remarkable achievement, hitherto known only from the brief description by Lemoine (1972), is the subject of this excellent book, written by a missionary linguist who helped to develop the dominant roman writing system for Hmong in the early 1950s, and two Hmong members of Shong Lue's religious movement. Members of this movement regard Shong Lue as a son of God, and believe that he received the Pahawh Hmong through divine inspiration.<sup>2</sup> In addition to the more technical chapters on the writing system *per se*, the book contains a discussion of its place in Hmong messianic belief. The authors are to be congratulated on the sensitivity with which they have handled this aspect, on which a Christian missionary and believers in Shong Lue's movement can hardly agree.

The book describes the origin of the system, gives a detailed exposition of its structure, and documents the four versions of the system and their evolution. Chapters on "The Alphabet in History" and "Other Hmong Writing Systems" put the Pahawh Hmong in context.

The Pahawh Hmong is basically phonological, although it provides morphograms<sup>3</sup> for the arithmetic operations, clan names, percent etc. There are four versions, of which the third is the one in general use.

Hmong words are mostly monosyllabic. Onsets may be fairly complex: they include affricates, prenasalized consonants, prenasalized affricates, and clusters of

<sup>&</sup>lt;sup>1</sup> Except where otherwise noted, the dialect discussed here is *Hmong Daw* "White Hmong".

<sup>&</sup>lt;sup>2</sup> The story of how Shong Lue received the Pahawh Hmong from divine messengers is recounted in Vang et al. (1990).

<sup>&</sup>lt;sup>3</sup> By morphogram I mean a sign that represents a morpheme. The terms ideogram and logogram are more common near equivalents, but in most cases these terms are inaccurate, since the signs do not represent ideas or entire polymorphemic words.

other consonants, including prenasalized consonants, with /l/. Aspiration is distinctive for stops; voicing/aspiration is contrastive for nasals. Rhymes consist of the simple vowels /i/, /e/, /a/, /ā/, /y/, /u/, /o/, and / $\tilde{o}$ /, and the dipthongs /ua/, /ai/, /ay/ and /au/. Coda consonants do not occur, with the exception of [ $\eta$ ], which is found only after the nasal vowels / $\tilde{a}$ / and / $\tilde{o}$ /. There are eight distinctive tones, of which one, the so-called d-tone, is largely intonational and plays a limited lexical role.

All four versions of the Pahawh Hmong split the syllable into two parts, represented by separate graphs. For reasons that will become clear, I will refer to these parts by the sinological terms "initial" and "final". The graph for the final invariably precedes the graph for the initial; a syllable like /ta/ is written <a><t>.

The authors regard this consistent ordering of the final before the initial as unique. While no other system is so consistent, this is merely a regularization of systems in the Indian tradition, such as Devanagari and Thai, in which different vowel symbols appear in different positions with respect to the preceding consonant, sometimes before it, as with short /i/ in Devanagari.

Another unusual feature is the existence of a default initial. If no initial is written, the syllable begins with /k/. There is, however, a graph for glottal stop and a graph for a null initial, used to write the small number of syllables, all sentence-final grammatical morphemes, that lack an onset. That is, the graph <a> alone represents /ka/, not /a/. To write /a/ it is necessary to use two graphs, the second of which represents a null initial, i.e. <a><Ø>. Whether there is some phonological basis for this, e.g. evidence that /k/ is the default consonant in Hmong, is not discussed.

This example is instructive with regard to writing systems like Devanagari and Ethiopic in which /a/ or schwa is implicit, which some have argued, in the face of much contrary evidence, to show that such systems are syllabaries. The use of /k/ as the default, where no syllabic interpretation is possible, adds to the evidence that such defaults, whether vocalic or consonantal, merely reflect efficient utilization of the fact that to distinguish n categories on a single dimension, only n-1 symbols are needed.

Another unusual property is the existence of a graph marking certain types of intonation contours. This cannot be construed as a morphogram like the question-mark in English as it marks a traditional form of chanting, a distinct singing style of recitation, and a type of exclamation.

The principal structural change as the system evolved is in the indication of tone. In the first stage, there was no abstraction of tone. Finals differing only in tone were differentiated by different graphs. The third stage shows a partial abstraction of tone. Two sets of final graphs each represent four tones, which are differentiated by diacritics. In the final stage, full abstraction is attained, with all eight tones represented by diacritics.

This evolution may appear to reflect developing phonological consciousness. However, as the authors point out, from the outset Shong Lue presented the system in a chart in which finals of the same tone are in the same column. This shows that he had already discriminated tone from the other features even though the writing system only gradually came to reflect this.

Final-(initial) sequences are separated by spaces, suggesting that the system delimits syllables. However, on the evidence given it is not possible to distinguish syllable delimitation from word delimitation, since most words are monosyllabic. According to Ratliff (1992;13), Hmong has a few bisyllabic words, such as *pojniam* "wife" and *menyuam* "child".<sup>4</sup> Whether such words are written with a space between the two syllables would settle the question.

Although the authors sometimes refer to this system as "demisyllabic", they generally treat the initials as single consonants and the finals as single vowels, following the phonemicization in Smalley (1976) in which there are complex segments but no onset clusters, diphthongs, or coda consonants. On this analysis, the system is segmental. If Shong Lue was truly unfamiliar with alphabetic writing, then the development of the Pahawh Hmong has no historical parallel. There is no other example of spontaneous creation of a segmental writing system. In similar cases, where an illiterate individual has created a writing system, it typically starts off as morphographic, passes through a brief syllabic stage, and ends up moraic. This is the case, for example, in the Alaskan Eskimo cases documented by Schmitt (1951).<sup>5</sup>

The question of Shong Lue's knowledge of other writing systems is not fully resolved. He received no schooling and lived most of his life in a milieu in which few people were literate. He appears not to have been literate in any language. Nonetheless, we cannot entirely exclude the possibility that he had some knowledge of writing. Even so, the differences between the Pahawh Hmong and the other writing systems to which he might have been exposed, as well as the documented evolution of the system, leave no doubt that it was a substantially independent creation, whatever inspiration he may have received from other forms of writing.

<sup>&</sup>lt;sup>4</sup> The syllable-final j,m and n in these examples do not violate the above description of Hmong phonotactics. In the standard romanization used by Ratliff, they represent tone.

<sup>&</sup>lt;sup>5</sup> These and other writing systems are usually described as syllabic, but clearly cannot be, since they provide separate graphs for coda consonants.

However, it is not clear that the creation of the Pahawh Hmong was quite as unique as the authors suggest, for there is reason to doubt that it is actually a segmental writing system. Both the Pahawh Hmong and the missionary Pollard system provide graphs for initials and finals. These may be analyzed as potentially complex consonants and vowels, as in Smalley (1976) and this book, or as onsets and rhymes.

Some of the complex onsets, namely the affricates, prenasalized consonants, and prenasalized affricates, are plausibly analyzed as complex segments given the frequency with which such sequences appear to be monosegmental cross-linguistically, but the complex onsets include also the sequences /pl/,/plh/,/npl/,/nplh/,/ml/, and /hml/, which seem unlikely candidates for single segments. Indeed, they violate the widely held though admittedly not universal claim that the components of complex segments are always homorganic. Nor does Smalley provide any clear evidence that these sequences should be regarded as monoconsonantal in Hmong.

The preference many Hmong exhibit for the Pahawh Hmong and their distaste for writing onsets as clusters in romanization need not, as the authors suggest, be taken as evidence that onset clusters are single segments. It may equally well reflect a preference for a higher-level analysis of the syllable into onset and rhyme and/or an unwillingness or inability to carry out explicit segmental analysis. It may also reflect an unwillingness to write what are arguably features as if they were distinct segments, an issue conflated with that of the status of "suspect sequences" by the fact that the romanization uses a separate graph <h>, for voiceless sonorants, which may well be best analyzed as a feature of aspiration, not a separate segment.

Similarly, it is questionable whether rhymes are properly analyzed as consisting of single vowels. In the absence of arguments for treating the four diphthongs as single segments (and they are not even written phonemically as such by Smalley) these would appear to be polysegmental rhymes.

Closed syllables all end in the velar nasal  $[\eta]$ , which appears only after nasalized vowels. There are two conceivable analyses. One is to regard the velar nasal as introduced by rule after the underlyingly nasal vowels, as Smalley does, in which case, insofar as the writing system represents a non-superficial level of representation, surface closed syllables nonetheless have monosegmental rhymes. The alternative is to posit underlying final  $/\eta$ / with nasalization of the preceding vowel, in which case Hmong has polysegmental rhymes. The choice between the two analyses is not very clear, but there is some reason to favor the analysis with final  $/\eta$ /.

<sup>6</sup> Hmong Njua has also /tl/,/tlh/, and /ntl/.

On the analysis with underlying nasalization, there will be a nasalization contrast only for /a/ and /o/, not for /i/, /e/, /u/, or /y/, and a rule introducing  $[\eta]$  after a nasal vowel will be necessary. To my my knowledge such rules are not widely attested.

On the analysis with underlying  $/\eta/$ ,  $/\eta/$  would appear only after the vowels /a/ and /o/, not /i/, /e/, /u/, or /y/. A rule nasalizing vowels before  $/\eta/$  would be necessary. Rules nasalizing vowels before tautosyllabic nasals are very common.

The restriction of the nasalization contrast to the non-high back vowels, and the restriction of  $/\eta$ / to following these vowels seem equally natural, but the nasalization rule required on the analysis with underlying  $\eta$  is typologically more to be expected.<sup>7</sup>

In the absence of evidence in favor of the complex segment analysis, the Pahawh Hmong and the Pollard system appear to be best analyzed not as segmental but as based on onsets and rhymes. Although the literature on the typology of writing systems does not recognize the existence of such systems, if writing reflects phonological representation, we should expect them to occur, and indeed there are a few examples. The traditional method of indicating the pronounciation of Chinese characters is to use two more common characters, the first with the same onset, the second with the same rhyme and tone. Two phonological writing systems for Chinese created by reformers provide graphs for onsets and rhymes. One is the Wang Zhao system (Ní 1988a), no longer in use, the other is the zhùyīn zìmǔ (Ní 1988b) which is used to teach reading in Taiwan. Cantonese Braille (hɔŋ¹ fʊŋ⁶ tʃiŋ¹ 1982) is similar: each syllable is represented by three graphs, one for the onset, one for the rhyme, and one for the tone. The mediaeval Greek shorthand described by Chionides & Lilla (1981) analyzes onsets into segments but uses generally unanalyzable graphs for rhymes.

There are, thus, typological parallels for the onset/rhyme analysis of the Pahawh Hmong. If the Pahawh Hmong, albeit unequivocally subsyllabic, is in fact not segmental, it is not a unique exception to the general pattern of the invention of writing.

Although this book leaves certain questions unanswered, the detailed exposition of the structure and evolution of the Pahawh Hmong as well as the unusual social context should shame the authors of most descriptions of writing systems, which with some honorable exceptions leave much to be desired. This book should serve

<sup>&</sup>lt;sup>7</sup> Two additional nasal vowels  $/\tilde{y}/$  and  $/\tilde{b}/$ , are marginally attested, known to Smalley (1976) only from a single entry each in Heimbach (1969),  $h\tilde{y}$  and  $h\tilde{b}$ , both final particles.  $h\tilde{b}$  is unusual in that it lacks a following [ŋ]. Smalley records (p. 96) that he has heard them himself but regards them as extrasystematic.

as a model for the description of writing systems, as well as as a stimulus to the study of the typology of writing systems and their relationship to spoken language.

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