The Development of Luvic Vowels in Lycian

The recent advances in the understanding the Anatolian cuneiform support the synchronic existence of the /o/ vowel in Hittite and provide additional evidence for the preservation of the Indo-Hittite five-vowel system in Proto-Anatolian. The purpose of this presentation is to argue for the simplification of this system in Proto-Luvic, defined for the present purposes as the ancestor dialect of Luvian and Lycian. The Luvian language had a system of three short vowels /i/, /a/, and /u/, and three long vowels /i:/, /a:/ and /u:/. It is generally assumed that the Anatolian non-high vowels merged into a in the history of Luvian. Lycian had four vowels /i/, /e/, /a/, and /u/, which apparently had no quantitative phonological distinctions.

Melchert (1992) came to the conclusion that the Lycian distribution between /e/ and /a/ cannot be explained based on the phonological oppositions of Luvian. He suggested that Lyc. /e/ continues Proto-Anatolian */e/ and */o/, while Lyc. /a/ continues Proto-Anatolian */a/ and */a:/. This hypothesis prompts one to assume that the Proto-Luvic language (if it existed) had the same five-vowel system as the one reconstructed for Proto-Anatolian. To my knowledge, the unconditional merger between */e/ and */o/, but not */a/, is not attested in any other descendant of Proto-Anatolian or Proto-Indo-European. Nevertheless, Melchert's theory has been endorsed in a number of publications of other scholars (notably in Hajnal 1995).

On the other hand, Starke (1997: 476, fn. 108) suggested in passing that Lyc. /e/may represent the regular reflex of Luv. /a/, presumably implying that Lyc. /a/ goes back to Luv. /a:/. This suggestion, as formulated by Starke, cannot account for a number of examples, the most obvious of which is the preterit first singular Luv. $-ha \sim \text{Lyc.}$ -xa/-ga (cf. Melchert 2003: 175, fn. 5). I believe, however, that Starke was essentially correct in his claim that the Proto-Luvic vowel set need not have been different from its Luvian counterpart. I suggest the following phonetic changes responsible for deriving the Lycian vocalism from the set of three short and three long vowels (the relative order of (2) and (3) is not essential):

- 1. a > e, except before or after the "laryngeal" $/\chi$ /
- 2. $/\chi/>\varnothing/_{\#}$, otherwise $/\chi/>/k/$
- 3. Vowel shortening (/a:/>/a/, /i:/>/i/, /u:/>/u/)
- 4. a/u-umlaut and e/i-umlaut

The blocking of the change /a/>/e/ next to the uvular fricative $*/\chi/$ reflects a cross-linguistic articulatory constraint and is typologically well grounded. In addition to the a-coloring effect postulated for the Indo-European h_2 , one can mention e.g. the formation of the "compound schwa" in Tiberian Hebrew (Proto-Semitic *i and *a merge into [ă] instead of [ə] in an unstressed open syllable, when preceded by $/\chi/$, McCarter 2004: 327, 330) or the lowering and/or backing of vowels adjacent to the uvular consonants in the Salish languages (Bessel 1998: 5-6). Besides the 1SgPret. form cited above, this effect helps to account for the last vowel of Lyc. $\chi ntawata < \chi antawata\chi \sim \text{Luv. } hantawatah-it$ - 'kingship', or for Lyc. χuga - < Anat. $\chi uu\chi$ - 'grandfather'. In order to falsify my hypothesis, one has to adduce examples of Luvic /a/ of "non-laryngeal" origin developing into /a/ in Lycian. Yet the only example of this kind known to me is not probative because the quality of a- in Lyc. ara 'properly' and Lyc. arawa- 'free' derived from IH. *ar- 'to fit' is conditioned through a-umlaut (Melchert 1992: 49).

The short /a/ remained an allophone of /e/ till the moment when the disappearance of contrastive vocalic length in Lycian brought about its identification with the reflexes of */a:/. The four-vowel system that had emerged as a result of these

changes subsequently developed the regressive vowel harmony (umlaut), whose targets were the high vowels /a/ and /e/ harmonizing for the feature [+/-back]. All four of the vowels of Lycian could trigger the backness vowel harmony, but /i/ was opaque while /u/ was transparent to its spread. This distribution makes me suspect that the Lycian phoneme /u/ had the fronted allophone [y], not reflected in the orthography.

By the time the Lycian umlaut came into being, the uvular fricative $/\chi/$ disappeared in word-final position and developed into /k/ (or something similar) in the other environments. Whatever was the precise difference between the graphemes < k>, $< \chi>$, and < q> in Lycian, the use of $< \chi>$ in the proper names borrowed from Greek, such as $me\chi e[d]une$ 'Macedon(ian)'(TL 29.10), $\chi elij\tilde{a}naxssa$ - 'Callianax' (TL 116.2), or $e\chi eteija$ - 'Hecataeus' (TL 123.1), leave no doubt that it corresponded to a velar stop. If so, it could not continue to block the fronting of the adjacent /a/. And indeed, the survey of the Lycian corpus yields more than thirty examples of the graphic sequences $< e\chi>$ and $< \chi e>$. All of them, without exception, reflect the effects of vowel harmony, occur on the morpheme boundary of new compounds, or appear in the recent loanwords.

The proposed solution reduces the number of Lycian archaisms that are not attested in Luvian and helps to define the common innovations of these two closely related languages. In addition, it increases the phonetic naturalness of Lycian historical phonology.

BIBLIOGRAPHY

Bessel, Nicola J. 1998. "Local and non-local consonant-vowel interaction in interior Salish". *Phonology* 15: 1-40.

Hajnal, Ivo. 1995. Der lykische Vokalismus. Graz.

Melchert, H. Craig. 1992. "Relative Chronology and Anatolian: The Vowel System". Rekonstruction und relative Chronologie: Akten der VIII. Fachtagung der Indogermanischen Gesellschaft. Ed. R. Beekes et al. Innsbruck. Pp. 41-53.

2003. "Language". The Luwians. Ed. C. Melchert. Leiden. Pp. 170-210.

McCarter, Kyle, Jr. 2004. "Hebrew". The Cambridge Encyclopedia of the World's Ancient Languages. Ed. R. Woodard. Cambridge. Pp. 319-64.

Starke, Frank. "Troia im Kontext des historisch-politischen und sprachlichen Umfeldes Kleinasien im 2. Yahrtausend". *Studia Troica* 7: 447-87.