Indo-Iranian Loanwords and the Central Asian Substrate Hypothesis

It is generally assumed that early Indo-Iranian was spoken in the Sintashta and Andronovo cultures (Kuz'mina, 2007). According to the *Central Asian Substrate Hypothesis*, speakers of Proto-Indo-Iranian migrated to Central Asia around 2000 BCE and came into contact with the agricultural BMAC civilization, which resulted in a body of loanwords into Proto-Indo-Iranian, borrowed from the language of the BMAC people (Lubotsky, 2001; Witzel, 2003). The hypothesis is supported by the archaeological evidence of contact between the Sintashta-Andronovo and BMAC cultures, as well as the semantic connection between some loanwords and BMAC material culture (**išt(i)-* 'brick', **iaųījā-* 'canal') or Central Asian domesticates (**kHara-* 'donkey', **Hustra-* 'camel'). However, since the set of words recognized as loanwords into early Indo-Iranian varies depending on the author, a reexamination of all proposed evidence, following a uniform methodology, is necessary. Moreover, sufficient evidence for the hypothesis that these loanwords originate in a single Central Asian substrate language has not been provided.

Following a methodology for identifying non-Indo-European vocabulary in Indo-European languages (Schrijver, 1997), I argue that ~ 75 % of about 100 previously suggested loanwords into early Indo-Iranian can plausibly be analyzed as loanwords. For the great majority of the loanwords, no known source language exists. The remaining words are either ambiguous or have plausible Indo-European etymologies. The aim of this presentation is to discuss 1) when, in terms of relative (linguistic) chronology, the loanwords entered Indo-Iranian, and 2) whether most words came from the same source language or not.

Initially, I divide the corpus of loanwords into a Proto-Indo-Iranian and a Post-Proto-Indo-Iranian layer. By applying a modified version of Lubotsky's (2018) relative chronology of Proto-Indo-Iranian sound changes, I subsequently identify a group of loanwords that must have been borrowed in late Proto-Indo-Iranian, after certain sound changes had already occurred. Conversely, a single word shows positive evidence of a Pre-Proto-Indo-Iranian time of borrowing. The fact that most loanwords were borrowed in late Proto-Indo-Iranian or Post-Proto-Indo-Iranian is consistent with the timeline of the Central Asian Substrate Hypothesis.

By analyzing the phonological structure of loanwords into Proto-Indo-Iranian, I propose two new recurring phonological characteristics of this group of words, in addition to those proposed by Kuiper (1991) and Lubotsky (2001). These new phonological characteristics provide additional evidence that an underlying non-Indo-European linguistic system lies fossilized in

the loanwords, revealing phonological features of the source language. This result suggests that many loanwords were borrowed from the same language, which further corroborates the Central Asian Substrate Hypothesis.

References

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