

Morphology and Phonology in Karimojong Verbal Affixation: Multiple Interfaces within an Amphichronic Model

In Karimojong, an Eastern Nilotic language, morphologized Advanced Tongue Root (ATR) harmony domains provide evidence for an amphichronic model (Kiparsky 2004, 2006) that accounts for synchronic data, diachronic evolution and morpheme genesis, in which morphology and phonology interact at multiple levels.

The morphosyntactic and prosodic structures of the lexical entry are proposed to be created simultaneously, with both available for the application of phonological rules. The M-structure includes the morpheme/phoneme string, a meaning, the marking of a phonological head, and the encoding of morphophonological level for each affix. The P-structure consists of the linkage within the morpheme of the phonological head to the alternating vowels and the connection of this linked structure to a recursive Prosodic Word (PW) structure. A harmony process occurs when an ATR feature percolates from the head vowel in a privileged position to the PW node, and is then subsequently applied to the phonological head and to the vowels to which it is linked. Non-alternating vowels from the harmony set which are contained within active morphemes are thus explained, as shown in examples (1).

As shown in example (2), within the word three morphophonological levels are identified by the distinct ATR harmony processes and are proposed to reflect separate periods in the history of the language. On the first level occur bidirectional root-controlled [\pm ATR] spreading and a localized domain of suffix-controlled [-ATR] spreading, the latter of which is attributed to the phonologization of tongue retraction in conjunction with rhotic pronunciation. The second level is restricted to a dominant suffix-initiated [+ATR] process. The third level has no ATR harmony alternations but includes two affix types: those that are proposed to be in process of incorporation and those in the initial stages of attrition and loss. The incorporation of a given affix is tied to its behavior under ATR harmony rules, which assigns its level of affixation.

Affixes in transitional phases of the incorporation provide evidence for the model. Pronominal prefixes, descended historically from proclitics and free-standing pronouns, are largely neutral to processes of harmony as shown in examples (3-a,b). Those found in some high-frequency narrative forms that alternate under Level 1 and Level 2 processes are seen in contrasting examples in (3-c,d). Spreading under the affixation of continuous aspect marker [-ere] shows differences between passive and active voice, and sensitivity to the presence of other affixes, as seen in examples (4-a-d).

This evidence is part of a larger process of diachronic evolution of agreement morphology in the language. In its suffixal and prefixal morphology, Karimojong follows the universal path, in that earlier full pronouns have undergone successive transformations to weak pronouns, clitics, agglutinated then fused agreement markers, and finally reduction to zero. Yet within this, there are subsidiary processes of templatic grammaticalization, in which reduplication, splitting and reanalysis lead to the genesis of infixes never previously described, of which there are successive generations. Examples of this are shown in examples (5) through (9).

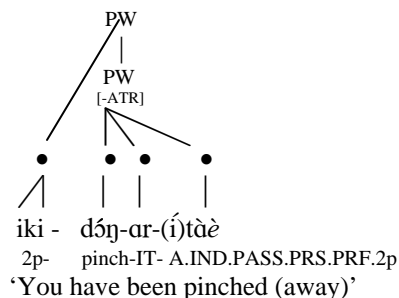
Employing this model allows the determination of multiple patterns of person and number differentiation, tendencies toward paradigmatic leveling, loss, and subsequent loss, which indicate that verbal paradigms in Karimojong are undergoing dynamic change historically.

(1) /iki-/ + /-dɔŋ-/ + /-Ar-/ + /-tAe/ →

(2) Level 1 dɔŋ-Akin → dɔŋakin

Level 2 dɔŋakin-jo → dɔŋqkinjo

Level 3 è- dɔŋqkinjo → èdɔŋqkinjo



- (3) a. **εκε-ακι-τὰε** ἄεῶνη 1s-send PASS.IND.PRS PRF 1s 'I have been sent'
 b. **εκε-ακι-τετῆι** ἄεῶνη 1s -send-PASS.NAR.PRS PRF 1s '...and I have been sent'
 c. **ὀκο-ρυτς-ι-τῆι** ἄεῶνη 1s-tie repeatedly, NAR.PST 1s '...and I was repeatedly tied'
 d. **ὀκο-ρυτς-ι-τετῆι** ἄεῶνη 1s-tie-PASS.NAR.PRS PRF 1s '...and I have been tied'
- (4) a. **ε-δῶη-έενέν-έ-έρέ** 3s-pinch-FREQ-B.ACT.IND. FUT 'He will frequently pinch'
 b. **ε-δῶη-έενέν-έ-έρῆ** 3s-pinch-FREQ-B.PASS.IND. FUT 'He will be frequently pinched'
- (5) *Non-Alternating Perfect Aspect TAM marker*
 a. **ἂ-δῶη-ίτ** 1s-pinch-ACT. A. PRS.PERF.1s 'I have pinched'
 b. **ἔ-δῶη-ίτο** 3p-pinch-ACT. A. PRS.PERF.3p 'They have pinched.'
- (6) *Affix Reduplication*
 a. **ἰ-δῶη-ίτίτ ἰῶη** 2s-pinch-ACT.A.FREQ.PST.PERF. 2s 'You (s) had freq.pinned.'
 b. **ἰ-δῶη-ίτιτο ἰῆζ** 2p-pinch-ACT.A.FREQ.PST.PERF. 2p 'You (p.) had freq. pinned.'
 c. **ἔ-ἰῶη-ίτίτ** 1s-do-FREQ-PST.PERF '..I used to do'
- (7) *The Frequentive Becomes a Derivational Affix*
 a. **ἰ-δῶη-έενέν-ἔτ ἰῶη** 2-pinch-FREQ-PRS.PERF. 2s 'You (s) have frequently pinched'
 b. **ἰ-δῶη-έενέν-έτο ἰῆζ** 2-pinch-FREQ-PRS.PERF. 2p 'You (p) have frequently pinched.'
- (8) *Incorporation of Reduplicated Affix into Harmony Processes*
 a. **ἂβύ-ῶν-ῶν -ῶν** INF-return-FREQ-VEN 'to frequently return this way'
 b. **ἂβύ-ἄν-ἄν-ἄρ** INF-return-FREQ-IT 'to frequently return that way'
- (9) *Loss of Reduplicant*
 a. **ἂβύ-ῶν -ῶν** INF-restrain-FREQ-VEN 'to frequently return this way'
 b. **ἂβύ-ἄν-ἄρ** INF-restrain-FREQ-IT 'to frequently return that way'

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