A realizational approach to Khaling verbal morphology

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Khaling, a Sino-Tibetan language of Nepal, is reputed to have a very intricate inflectional morphology, with both extensive stem alternations and objective conjugation, whose structural complexity we will attempt to disentangle. Basing our work on Guillaume Jacques's collected data and his own analysis of Khaling inflectional classes, we will demonstrate an approach based on inferential and realizational morphology which will be applied to Khaling inflectional data. We use a framework developed by G. Stump (Stump 2001; Stewart et Stump. 2007; Bonami et Stump in press): Paradigm Function Morphology (PFM), a highly heuristic formalization of paradigm complexity.

Extensive stem alternation and syntactic complexity in languages are difficult to handle and have often been described through *ad hoc* phonological rules and diachronic considerations. Working from a synchronic approach, we believe that they can be modeled as sets of simplex rules using PFM, based primarily on morphology, with Rules of Stem Choice (RSC) and Rules of Exponence (RE), phonology being secondarily formalized in a block of Morphophonological Rules (MPR). Table 1 presents a paradigm of the present tense for the intransitive Khaling verb kʰot "to go," adapted from Jacques et al. (2012).

	1st person	2nd person	3rd person
Singular	kʰoˆɔj-ŋʌ	ʔi-kʰoðj	kʰoðj
Dual	kʰθts-i	ʔi-kʰθts-i	kʰθts-i
Dual (Exclusive)	kʰθts-u		
Plural	kʰoɔç-ki	ʔi-kʰoðn-ni	kʰðn-nu
Plural (Exclusive)	kʰoɔç-kʌ		

Table 1: Present tense forms for the verb khot, "to go"

Both the verb's vowel and second consonant (C2) show alternation, which make up a complex paradigm with a high number of different stems. A first look at the paradigm reveals that the consonant and tonal alternations are tightly linked to the endings, thus mainly resolved by morphophonological rules, and can be separated from the other alternation to reduce the number of morphologically relevant stems to just two, forming a simplex set of rules : kʰθC and kʰoɔC, which we will call X and Y. We describe these stems with Rules of Stem Choice (RCR), such as in (1), where stem X kʰθC is the default stem, i.e. a rule where the property set is left blank and applies to every cell not filled by another rule, and the other stem kʰoɔC is more specific.

(1) (a) RSC $_{IC1}$: X {} →< kʰθ(t)s, σ >
(b) RSC $_{IC1}$: Y {{ PERS : 1, NB : Pl }{ NB : Sg }{ PERS : 2/3, NB : Pl }} →<kʰoɔC, σ >

Personal affixes are formalized with Rules of Exponence (RE). Khaling inflects for both object and subject, with a specific prefix added to verb forms in an inverse setting, i.e. where the object is hierarchically higher in terms of salience than the subject. In PFM, each affix slot is formalized as a block of rules, so that no two rules in a single block can apply to the same form. For instance, this form of the verb lop "to catch" : ʔi-loɔm-ŋʌ-su (INV-catch-1SG-3DU "They (two) catch me") has three exponents, which can be analyzed in three blocks :

(2) (a) Block 1 (inverse prefix)
RE : X& { CON J : Inv } → *ʔi*X
(b) Block 2 (subject agreement)
RE : X& { CON J : Inv, PERS : 1, NB : Sg } → X*ηʌ*
(c) Block 3 (object agreement)
RE : X& { PERS : 3, NB : Du } → X*su*

This approach allows us to show that Khaling uses an analytic, simplex strategy in its affixal morphology, allowing to combine a limited number of affixes to make up a complex paradigm. We can in turn handle this paradigmatic complexity with simplex sets of rules using a realizational approach. Morphonological rules, which make up a subsequent block, have not been handled in this short sketch exclusively concerned with morphology, but they are also simplex, despite producing a high number of realizations.

References

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