

Formation of the imperfectives in Archi: two-level micromorphology

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Archi (Nakh-Daghestanian, Lezgi) presents an elaborate example of a complex morphological formation. The verb in Archi has four aspectual stems: infinitive, potential, perfective and imperfective, and while the formation of the former two is either relatively simple or trivial, the realisation of the imperfective stem presents an instance of rather impressive morphological complexity.

The perfective stem is the least morphologically complex verbal form; the imperfective is produced from it. The verbs in Archi demonstrate great diversity in the imperfective formation. The imperfective marker seen in nearly all the verbs is the suffix *-r*, and some verbs form the imperfective just by adding this suffix to the perfective stem:

(1) formation of the imperfective by suffix only

perfective stem	imperfective stem	meaning
ak:u	ak:u-r	see
k'a	k'a-r	die
ars:u	ars:u-r	crumble
herq ^s u	herq ^s u-r	go

However, many Archi verbs derive imperfective stem by employing a circumfix *<r>-r*:

(2) formation of the imperfective by circumfix

perfective stem	imperfective stem	meaning
a:q' ^s u	a<r>q' ^s u-r	soften
a: ^s su	a<r> ^s su-r	deforest
a:tu	a<r>tu-r	crush
aχ:u	a<r>χ:u-r	soil

The infix *<r>* can never realise the imperfective by itself, it has to do it in combination with the suffix *-r*.

Some verbs form imperfective by employing the circumfix together with the vowel change:

(3) formation of the imperfectives by circumfix and vowel change:

perfective stem	imperfective stem	meaning
acu	a<r>ca-r	milk
ahu	a<r>ha-r	think
oq ^s a	o<r>q ^s i-r	go
oχ:a	o<r>χ:i-r	take away

For some verbs the formation of the imperfective involves, besides the circumfix, change of the consonant (4) or vowel change and reduplication (5):

(4) formation of the imperfectives by circumfix and consonant change:

perfective	imperfective	meaning
eχdi	e<r>χi-r	burn, rain
edi	e<r>q'i-r	deliver
odi	o<r>q'i-r	mount a horse

(5) formation of the imperfectives by circumfix, reduplication and vowel change:

perfective	imperfective	
χa	χe⟨r⟩χi-r	win
q'ʰak'a	q'ʰek'e⟨r⟩k'i-r	get lost
ša ^ʰ	še ^ʰ ⟨r⟩ši-r	rot

However, these rules do not exhaust the complexity of the imperfective formation. The second level of complexity is provided by the placement of agreement markers. Archi verbs agree in gender and number (GN) with their absolutes, and some verbs employ infixes as agreement realisation. These infixes themselves demonstrate typologically unusual behaviour (see Chumakina & Corbett 2015 for discussion). All the examples above were shown in the form of fourth gender singular which has zero marking, but the other three genders employ the overt GN infixes. When interacting with the imperfective realisation, these infixes win, compare:

(6) caχas 'drop', imperfective

	SG	PL
I	ca⟨w⟩χa-r	ca⟨b⟩χa-r
II	ca⟨r⟩χa-r	
III	ca⟨b⟩χa-r	ca⟨r⟩χa-r
IV	ca⟨r⟩χa-r	

The gender-number infixes ⟨w⟩ in gender I, ⟨r⟩ in gender II and ⟨b⟩ in gender III replace part of the circumfix and it seems that for these gender-number forms it would be wrong to postulate the imperfective circumfix.

Archi imperfective formation therefore conforms to both micromorphology hypotheses as formulated by Stump (2017):

- The realisation of the imperfective by the circumfix is an instance of affix-oriented formulation: In the most adequate description of a language's morphology, an affix may be morphologically complex, i.e., a combination of other affixes.

- The placement of the overt GN marker is an instance of rule-oriented formulation, as the inflected form is a result of a conflation of two rules of affixation, the placement and the choice of the aspectual marker and the placement of the gender-number marker.

Archi system is much more complex than most other morphological systems in the family. The paper will draw parallels with other Lezgian languages, and also with Avar and Lak, Archi immediate neighbours and main donors for lexical and grammatical borrowings.

References

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