Phonological contact zones and historical gender morphology in East Caucasian

Phonological features are frequently adduced to define large, macro-linguistic areas, but many sound patterns and non genealogical changes are limited to small contact zones. In geographically compact genealogical units like East Caucasian (EC), phonological convergence across subgroups often obscures genetic classification. In this family, word- initial segments show areal restrictions, crosscutting established lineages. Given that the category of gender has been marked since proto-EC by prefixal agreement on verbs and 'auto- gender' (J. Nichols) on nouns, similar to African class systems, areal onset sound changes interfere in the reconstruction of gender morphology. The system is reconstructed as human masculine w-, human feminine r-, other (countable) animates (plus some body parts) b-, and inanimates d-. It is preserved intact only in the Dargic branch.

Initial r is not disallowed in reconstructed proto-EC, but only the South-Easternmost branches retain it, as shown by the cognates for 'girl' in Dargwa ($\underline{r}ursi$), Lezgian ($\underline{r}u\check{s}$) and Khinalug ($\underline{r}i\check{s}i$), with auto-gender prefix r-, whereas Western branches underwent 'iotacism' (Chechen $\underline{i}os$, Avar $\underline{i}as$, Andi $\underline{i}e\check{s}i$ 'girl'), a trivial sound change not indicative of subgrouping. In the peripheral Alazani valley of Northern Azerbaijan, Tsakhur has been in contact with dialects of Avar for a long time, and, contrary to all other Lezgic languages, shows the typically western initial r-iotacism: $\underline{i}asq$ 'road', $\underline{i}i\check{s}$ 'daughter' and $\underline{i}i\check{s}ij$ 'sister' vs $\underline{r}asq$, $\underline{r}i\check{s}$ and $\underline{r}i\check{s}ij$ in the sister language Rutul.

Within the 'iotacizing' western area, the Avar-Andic-Tsezic branch is also characterized by word-initial rhotacism d > r, cf. Avar $\underline{r}ak$ ', Akhwakh $\underline{r}ak$ 'wa, Tsez $\underline{r}ok$ 'u 'heart' vs Chechen $\underline{d}og$, Lak $\underline{d}ak$ ' (fourth, 'inanimate' gender d-), which logically must have occurred after iotacism took place, and as a parallel evolution in the sub-branches, not as an inherited feature. In all Lezgic languages except one, initial d- underwent rhotacism and further iotacism, cf. Lezgian $\underline{r}ik$ ', Kryz $\underline{i}ik$ ' 'heart'.

In the center of Daghestan, Lak (a one language-branch) and Dargwa (a shallow group of languages and dialects), both, like the Nakh branch, preserve word-initial d-: Lak dik', Dargwa di? 'meat', cf. Batsbi ditx, vs Lezgian etc jak, Andic $ri\lambda'i$. But Lak also stands out as innovative, showing a cross-linguistically rare sound change r > d word-initially: \underline{du} s' 'girl'. On the many Lak synthetic verbs taking two discontinuous agreement prefixes, the feminine agreement marker is realized after the historical preverb under the inherited form r-, while word-initially the phonologically innovative allomorph d- is used: d-u-r-k'- F-PV-F-arrive.PF' vs u-v-k' PV-M-arrive.PF. As a result from close contact with Lak, two one-village languages, Archi (Lezgic) and Mehweb (Dargic), exhibit the same word-initial 'deltacism':

- the Dargic dialect of Mehweb (Daniel et al. 2019) has been in close contact with Lak for centuries has nouns and pronouns referring to girls or unmarried women triggering the agreement marker d-, not r- as the general human feminine in other Dargic lects. The latter archaic form has been re-semanticized as an honorific, while the default form d- is a morphological loan from Lak. The original marker is retained, with no honorific value, on other targets, like essive locative forms: qa-d-i-e hese-r down-F1-sit.PF-IMPER here-F(ESS) 'Sit down here!'. Mehweb also replaced r- by d- at the onset of the noun for 'daughter' (dursi influenced by Lak dus, vs rursi in standard Dargwa) but retains initial r on ruzi 'sister', probably because the Lak cognate ssu has no gender prefix.
- Further South, also in close contact with Lak but not with Mehweb, Archi is unique among Lezgic languages in preserving word-initial *d*, for instance in <u>deq</u> 'ς 'road', <u>diq</u> 'ς 'ashes', <u>da</u>λ' 'door', cf. Lezgian *req*, *rüq*, *rak* respectively). But Archi also copied from Lak the feminine agreement allomorphy: as an infix (after historical preverbs) the inherited form -*r* is used, while word-initially the phonologically innovative allomorph *d* is used: <u>d</u>-imme-<u>r</u>-χ:u 'F-PV-F-remain.PF' 'She remained' (Chumakina, pc). Archi also displays this human feminine autogender prefix *d* copied from Lak on both <u>d</u>išdur 'daughter', and <u>d</u>ošdur 'sister'.