

On the nongemination of /r/ in West Germanic twenty years later

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The data in (1) (from Simmler 1974) illustrate that in West Germanic (henceforth WG; represented here by Old English (OE), Old High German (OHG), Old Saxon (OS)) there is a pattern of gemination not attested in East Germanic (=Gothic (Got.)) or North Germanic (=Old Norse (ON)). The generalization is that a post-short vowel consonant is a geminate in WG before the palatal glide /j/ – represented orthographically in the WG languages below as *i*.

(1) East/North Germanic	West Germanic	Gloss	Geminate
Go. <i>skapjan</i>	OS <i>skeppian</i> , OE <i>sciëppan</i>	‘to create’	[pp]
Go. <i>haffjan</i>	OHG <i>heffan</i> , OE <i>hebban</i>	‘to lift’	[ff]
ON <i>framja</i>	OHG <i>fremmen</i> , OE <i>fremman</i>	‘to carry out’	[mm]
Go. <i>halja</i>	OS <i>hella</i> , OHG <i>hella</i>	‘hell’	[ll]

The contrast between the nongeminate forms in the first column and the corresponding ones with geminates in the second column is explained historically by positing that in Early WG all of these words were originally VCjV and that a historical process of the form VCjV > VCCjV – referred to below as WG Gemination – occurred before the WG daughter languages broke off.

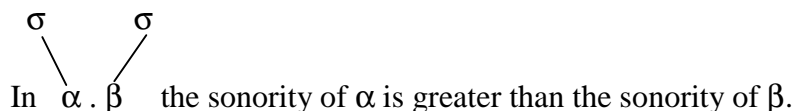
The only consonant which did not geminate before /j/ is the trill /r/, as illustrated in (2):

(2) East/North Germanic	West Germanic	Gloss
ON <i>sverja</i>	OE <i>swerian</i> , OHG <i>swerien</i>	‘to swear’
Go. <i>farjan</i>	OE <i>ferian</i> , OS <i>ferian</i>	‘to go by boat’

In the present study I propose a new explanation for the nongemination of /r/ in (2) and show that my explanation is superior to earlier ones, in particular the one offered by Murray & Vennemann (1983) (assumed also by Murray 2000) in the Preference Law framework.

I assume an OT-account of WG Gemination, in which the change from Early WG VCjV to Late WG VCCjV in (1) is analyzed as a strategy repairing bad syllable contacts (see also Murray & Vennemann 1983). My analysis of WG Gemination requires the constraints in (3), some version of which are also assumed in Murray & Vennemann (1983) and Ham (1998).

- (3) a. STRESSED SYLLABLE LAW (SSL): Stressed syllables are bimoraic
 b. NOGEM: No multiple link from a root node to a higher tier
 c. SYLLABLE CONTACT LAW (SCL):



Given the ranking SSL, SCL » NOGEM for Late WG, gemination in the examples in (1) is correctly predicted to be optimal, e.g. the Late WG form [skap.pjan] wins out over [ska.pjan] and [skap.jan] because the latter two forms violate SSL and SCL respectively. By contrast, [skap.pjan] satisfies both constraints.

The proposed ranking for Late WG also accounts for the nongemination of (nonrhotic) consonants after a long vowel, e.g. Gothic *fōdjan*, Old Saxon *fōdian* ‘to feed’, Late WG [fo:djan]. Thus, the correct form [fo:djan] wins out over [fo:d.djan] because the former

candidate satisfies the three constraints SSL, SCL and NOGEM, but the latter form violates NOGEM.

I argue that the nongemination of /r/ in (2) is accounted for with a surface-true context-sensitive markedness constraint (called $*_{\sigma}[\text{rj}]$), which rules out /rj/ onsets. Given the ranking $*_{\sigma}[\text{rj}] \gg \text{SCL}$ for Late WG, a form like [swer.rjan] therefore loses out to the correct Proto WG form [swer.jan].

The markedness constraint $*_{\sigma}[\text{rj}]$ is grounded in articulatory phonetics. Coronal rhotics in the languages of the world (in particular trills, as in WG) are articulated with the tongue tip (see Ladefoged & Maddieson 1996: 218), whereas palatal sounds like /j/ require that the tongue blade and dorsum be raised and fronted. The tongue tip articulation for coronal /r/ sounds also requires that the part of the tongue behind the tip be in a concave shape, as opposed to the convey tongue posture for the articulation of /j/. Thus, the articulation of /r/ and /j/ in syllable-initial position would require that the tongue tip plus concave tongue posture be altered to a blade plus convex posture in rapid succession (see Gussenhoven 2000, who posits a constraint with the same phonetic motivation to account for the lengthening of /i/ to [i:] before /r/ in Modern Dutch; see also Hall's 2000 explanation for the markedness of palatalized rhotics in the languages of the world).

The markedness constraint $*_{\sigma}[\text{rj}]$ is also motivated from independent data. Examples of other languages which allow /Cj/ onsets under the condition that the C not be a rhotic include Modern English, Marathi (Pandharipande 1997), and certain varieties of French (Denton 1998).

In the present study I also demonstrate that the proposed explanation for the nongemination of /r/ in (2) is superior to earlier approaches, in particular that of Murray & Vennemann (1983) in the Preference Law framework. Assuming a gradient interpretation of the SCL, Murray & Vennemann argue that WG Gemination only repairs the *worst* contacts (i.e. onstruent, nasal or lateral + j) but leaves the *best* contacts (i.e. r+j) alone. This analysis will be rejected because it makes the incorrect prediction that /r.j/ contacts should be more stable (synchronically and diachronically) than nonrhotic /C.j/ contacts.

References

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