

Markedness of rhotics: palatalization of r in Polish

In this paper I propose an account of palatalization of r in Polish in the framework of Optimality Theory. I show that the behaviour of r in Polish with respect to palatalization is not surprising as far as a cross-linguistic perspective is concerned. I take into consideration seven most probable outputs of palatalization of r such as r , ɹ , $\text{ɹ}'$, r' , $r \Rightarrow$, $\text{ɹ} \Rightarrow$ and $\text{ɹ} \Rightarrow'$ and show that the interaction of some markedness constraints with faithfulness constraints leads to the selection of optimal candidates: if the input is not followed by a consonant r surfaces as the fricative ɹ . Other competing outputs are excluded due to high-ranking constraints such as *[-dist,-back] (*[ɹ], *[$\text{ɹ}'$], *[$\text{ɹ} \Rightarrow$]), *[+dist,+rhotic] (*[r'], *[$r \Rightarrow$]), and *[-dist, -ant] (*[$\text{ɹ} \Rightarrow'$]). The most faithful output r is also excluded by a high-ranking constraint MAX [PAL] that forces the palatalizing feature [PAL] (+high, -back), cf. Gussmann (1992), to change the featural content of the underlying r.

I also show that the account I propose avoids unnecessary generalizations and dispenses with abstract derivational steps. According to Coronal Palatalization r is turned to ɹ , cf. Rubach (1984). Since $\text{ɹ}'$ does not emerge on the surface, it requires additional two Spell-out rules: Liquid Spell-out rule that converts $\text{ɹ}'$ to [ɹ] and r-Spell-out rule that turns [ɹ] to [r] before consonants or to [] elsewhere, cf. Rubach (1984:199f). In other words, an intermediate stage ɹ is needed in order to distinguish between the underlying /r/ and /r': the underlying /r/ does not undergo depalatalization, e.g. $\text{podro} / +^{[\text{PAL}]}\text{ny} \rightarrow \text{podro} [\text{ny}$ 'traveller'nom.sg in contrast to the underlying r, e.g. $\text{pokor} +^{[\text{PAL}]}\text{ny} \rightarrow \text{poko}\text{ɹ}'\text{ny} \rightarrow \text{pokorny}$ 'humble'masc.nom.sg. If the underlying /r/ in $\text{poko}r/\text{ny}$ were converted into /r' directly, then the depalatalization rule would also affect the underlying /r/ in podro / ny . In Optimality Theory the abstract intermediate stage $\text{ɹ}'$ is entirely avoided with the help of faithfulness constraints, which due to their highly-ranked status in Polish prohibit the palatalization of retroflexes (Ident [+back, -anterior, -distributed]) and disallow the palatalization of r if it is followed by another consonant (Faith (rConsonant)).

In this paper I also consider the markedness of r and its possible palatalization outputs from a cross-linguistic perspective. It appears that the output ɹ is less marked than $\text{ɹ}'$ r' . Furthermore, the sound ɹ ($\text{ɹ}'$) is more marked than $r \Rightarrow$, r' , $\text{ɹ} \Rightarrow$. While there are at least 15-20 languages attested with $r \Rightarrow$ and r' , the fricative trill ɹ occurs only in Czech, cf. Hall (2000). Since ɹ is a sequential combination of a trill and a fricative (cf. Ladefoged and Maddieson (1996:229)) this sound is extremely marked cross-linguistically: languages have sounds that are either trills or fricatives but not both. Furthermore $r \Rightarrow$ and r' are more marked than ɹ because the former are palatalized trills and the latter is a palatalized fricative. Finally, $r'(\text{r} \Rightarrow)$ and $\text{ɹ} \Rightarrow'$ are more marked than ɹ . This discrepancy is to be ascribed to a general tendency for languages to avoid palatalized apical sounds which is also the case in Polish.

References:

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