The Naturalness of Palatalization

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1. Section heading

Palatalization is commonly attested in the languages of the world, and has received considerable attention in the literature over the years.

However, it is by no means clear which processes count as palatalization phonologically or if the term refers to one or several phenomena. Palatalization processes exhibit great variation within and across languages, regarding the triggers of the process, the targets, and the output of the process. Most studies focus on a certain palatalization process in a specific language. Nevertheless, typological surveys have revealed some intriguing tendencies. Among these are apparently universal implicational relations that have been shown to hold among palatalization triggers and targets. For instance, survey results indicate that if labials undergo palatalization, so do coronals and dorsals (Bhat 1978, Chen 1973, Bateman 2007). If lower front vocoids trigger palatalization, so do higher front vocoids, and if non-front high vocoids act as triggers, so do front high vocoids (Bateman 2007, Kochetov 2011). In addition, coronals tend to be palatalized by high vocoids, while dorsals tend to be palatalized by front vocoids (Bhat 1978, Kochetov 2011).

Outputs of palatalization show a range of variation. The targeted segment either acquires a secondary palatal place of articulation or shifts the primary place of articulation closer to the palatal region. Interestingly, changes in the primary place of articulation are often accompanied by spirantization. In addition, the change of manner without the change of place is also attested (Bhat 1978, Bateman 2007).

Theoretical approaches to palatalization face a considerable challenge of characterizing language-specific patterns in addition to capturing cross-linguistic tendencies and variability. Palatalization processes have been crucial in developing and testing representational and computational phonological models (Clements 1991, Rubach 2003, Padgett 1995, Baker 2004, Bateman 2007, Youssef 2013).

On this background we invited researchers to present their work at CASTL in 2014. This special issue contains a selection of papers from this workshop that deal with the naturalness of palatalization. More papers can be found in a special issue of *Glossa*, which is to appear in 2016.

The papers in this issue of Nordlyd address naturalness in various ways. Zaleska & Guzmán subscribe to Czaplicki's (2013) conclusion that phonetic naturalness is irrelevant in (Polish) palatalization as a phonological process and provide evidence from an artificial language learning experiment that, for speakers of Hungarian, which doesn't have any of the palatalization processes attested in Polish, palatalization is easier to learn than depalatalization. Thus, palatalization patterns that are not entirely natural have a computational advantage over processes that are attested less frequently, if at all, cross-linguistically.

The shifting of consonants to the palatal area or their secondary articulation as palatal in the vicinity of palatal vowels can easily be interpreted as coarticulation. Youssef shows in his paper that coronal palatalization in an educated variety of Cairene Arabic is indeed of this type, while it is phonologised in another variety of Cairene Arabic.

Finally Bennet & Braver report the results of a nonce-word production study with speakers of Xhosa. In Xhosa, typologically unusual palatalization of labials is triggered by a labial glide which doesn't have to be strictly adjacent to the target segment. In their study they show that this process is highly productive for 50% of their subjects and can only be considered unproductive for two of them.

They conclude that this process, which can also be explained historically, has to be accounted for in synchronic grammar.

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