

Same Sound Changes, Different Results: Two Solutions for a Ranking Paradox

The present paper examines alternations between word final geminates and singletons in two Upper German (UG) dialects, Middle Bavarian and Obwaldian. The dialects underwent the same sequence of sound changes, yet they differ in their ways of dealing with a ranking paradox created by the changes: constraint split in Bavarian and morphologization in Obwaldian.

In Middle High German (MHG), final geminates have been shortened. Later, apocope of final schwa obscured the original contexts of degemination:

(1)	MHG (underlying form)	/fi:f/ ‘fish’	/fi:fə/ ‘fish(Pl.)’	/fi:fər/
	1. Degemination (MHG output)	fi:f	fi:fə	fi:fər
	2. Apocope (UG output)	[fi:]	[fi:]	[fi:fər]

Although it is technically possible to mirror the relative chronology of events in the synchronic grammar by means of counterfeeding rule ordering (starting from pseudo-MHG underlying forms), it is impossible for the learner to reconstruct underlying schwa which never appears at the surface. The problem is avoided in output-oriented OT where the distance between inputs and outputs is intrinsically constrained. However, without any further assumptions about the inputs or their evaluation a ranking paradox is created since both *fi:f* and *fi:f* are well-formed outputs.

Bavarian and Obwaldian have dealt with the obscured environment of degemination in different ways. Observations: (i) In Bavarian, a small and well-defined set of word forms displays final geminates at the surface. In Obwaldian, an immense and heterogeneous set of word forms displays final geminates at the surface. (ii) In Obwaldian, singleton in singular and geminate in plural of nouns has been interpreted as an inflectionally meaningful pattern that has been analogically extended to (few, though) originally non-alternating cases (*ros*, *ross* ‘horse(s)’). I am not aware of similar cases in Bavarian. (iii) On the other hand, all Obwaldian words other than nouns have levelled out the alternation in favor of the geminate (*gro:ss*, *gre:ssər* ‘big, bigger’, **gro:s*). Similar cases are not attested in Bavarian (*gro:s*, *gressa*, **gro:ss*).

My explanation for the different results in Bavarian and Obwaldian is as follows. Bavarian has retained degemination as a synchronically active process in its phonology, whereas degemination is removed from synchronic Obwaldian phonology. Bavarian represents a relatively immediate result of the development sketched in (1) above. Apocope created a specific set of forms which exceptionally escape the general pattern of final geminate shorting. After an overview of the problems raised by alternative solutions such as empty vowels (van Oostendorp) and stratal OT (Kiparsky 2002), I will argue in favor of a cophonological account (Inkelas 1998): in Bavarian the ranking paradox is solved by a co-phonology which is responsible for the restricted set of exceptionally non-degeminating words – an idea which can be implemented in OT as different ranking positions of a general and a lexically specific faithfulness constraint (Pater 2000). In Obwaldian, however, the phonology has been simplified in that the division of labor between a lexically specific and a general constraint has been given up: a general markedness constraint penalizing final geminates is dominated by a general faithfulness constraint. If this is right, we expect singleton-geminate alternations to disappear from the outputs – exactly what happened e.g. in adjectival paradigms. However, why is the alternation retained in noun inflection? Unlike adjectives, many nouns lack other means of morphological symbolization than the singleton-geminate alternation. I therefore assume that speakers interpreted the alternation as morphologically meaningful, which is confirmed by the fact that analogical extensions of the pattern can be observed. It is thus the morphology which determines the distribution of final singletons and geminates. Of course, this presupposes a specific view on morphology. Although it is technically possible to implant the generalization into phonology by means of a morphologically specific constraint, I will argue in favor of a morphology-internal account.