Rule insertion revisited

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Derivational phonology predicts that phonological change should be expressible as change in a system of ordered rules. One of the possible kinds of change is rule insertion, where a rule is added to the series at some point before the final rule producing the surface output, as opposed to rule *addition*, where the rule is added after the last rule in the series. However, there are two problems with the concept of rule insertion, one empirical and one theoretical.

The empirical difficulty is that no unambiguous cases of rule insertion have been discovered. As noted in King 1973, all such cases are either also analyzable as cases of rule addition and subsequent reordering, or as insertion of a phonological rule before the phonetic component of the grammar, or else the analyses are faulty in some way, e.g. the inserted rule turns out to be morphologically, rather than phonologically, conditioned. What we need is a well-attested example of rule insertion in progress, where we can see how the new rule feeds or bleeds an older rule as soon as it arises, i.e. where we have indisputable evidence that the newer rule was not simply added at the end of the series and subsequently reordered.

I attempted to find such an example in the alleged insertion of final schwa deletion (apocope) before final obstruent devoicing in Early Modern (14^{th}-16^{th} centuries) German (ENHG). Because final devoicing is attested in both Middle German (MHG) and Modern German (NHG), it could be argued that the apocope rule had simply been inserted in the series before devoicing, so that the outputs of apocope automatically fed the devoicing rule. Thus, dative singular [taːgə] 'day' would have become [taːk], rather than [taːg].

Since both apocope and loss of devoicing are reflected in spelling changes during the ENHG period, I determined that it should be possible to claim apocope was inserted *if* the decreasing frequency of written devoicing could not be correlated with apocope. An example of such a correlation would be where nominative/accusative singular [taːk] continued to be written *tac/tak*, alongside post-apocope dative singular *tag*, reflecting the pronunciation [taːg], without devoicing. If no such correlation were apparent, that would support the commonly held view that the loss of devoicing in ENHG only reflects the adoption of a morphemic spelling system (Reichmann & Wegera 1993) and not an actual phonological change, and hence that apocope had been inserted before devoicing. On the other hand, if a correlation could be shown, this would support the idea that the loss of written devoicing represented a true phonological change, which in turn would show that rule insertion had not occurred.

I was able to find a significant correlation between apocope and loss of devoicing for the southern dialects of ENHG (Upper German, or UG), as well as for part of West Central German (WCG), using the Bonn Corpus of Early Modern German[1]. For East Central German (ECG), the main source dialect for Modern Standard German, I was not able to find a strong correlation. However, it so happens that apocope did not proceed in the same way in ECG as it did in UG and WCG. In other words, wherever apocope was unconditioned, as it was in UG and WCG, we find

[1] http://www.korpora.org/Fnhd

that it was added after devoicing; where apocope appears to have been heavily conditioned, as in ECG, we cannot tell whether it has been added or inserted.

Although this means that it is still possible apocope was inserted in the phonology of ECG, I will argue that it is better explained by the hypothesis that final devoicing remained productive in areas where apocope was conditioned. In UG, unconditioned apocope resulted in a large number of morphological paradigms where the devoicing rule was no longer phonologically predictable, e.g. nominative singular [taːk] besides plural [taːg]. This resulted in the complete loss of productive devoicing. In ECG, on the other hand, devoicing remained transparent in most paradigms, e.g. the plural of 'day' retained final schwa, cf. NHG *Tage*. The small number of exceptional final voiced obstruents would not have been enough to hinder the productivity of the devoicing rule, with the result that they were eventually eliminated.

A potential objection is that, if we expect a small number of exceptions to devoicing to be eliminated, we should then expect such exceptions to be eliminated already at the early stages of apocope, when it only affected a minority of forms. The answer is that final devoicing would have remained exceptionless as long as there was evidence for a synchronic apocope rule. While apocope was still in progress, the variation between forms with and without final schwa would have justified the presence of a synchronic apocope rule in the grammar. Surface exceptions to devoicing would then have been attributed to the opaque, counterfeeding ordering of final devoicing and apocope. As apocope neared completion, on the other hand, evidence for a synchronic apocope rule would have diminished, as underlying representations would have lost final schwa in the absence of alternating forms, with the result that learners would no longer have been able to attribute exceptional voicing to opacity. The devoicing rule itself would then acquire exceptions, and the number of exceptions would determine whether or not it remained productive.

Such a learner-based approach to explaining change brings us to the theoretical difficulty with rule insertion, which is that insertion is hard to reconcile with the notion that phonological innovation, i.e. addition or insertion of a new rule, is actuated during the process of acquiring the grammar, through the phonologization of phonetic effects (Bermúdez-Otero 2007). Thus, if we suppose that apocope entered the grammar when outputs like [taːgə] were misconstrued as [taːg], owing to a phonetically shortened schwa, we see that the same evidence which led learners to posit an apocope rule would at the same time have *prevented* them from acquiring a transparent devoicing rule. Forms like [taːk] would presumably have continued to motivate the acquisition of final devoicing, but forms like [taːg] would have indicated to the learner that the devoicing rule was opaquely ordered with respect to schwa apocope.

References

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