The problem of the Russian labial fricatives: an OT analysis

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The Russian labial fricative *v* is notorious for its ambiguous sonorant/obstruent behaviour displayed with respect to Voice Assimilation. On the one hand, the phonetic obstruent *v* patterns with sonorants as it fails to trigger Voice Assimilation (e.g. *svinja* [sv] 'pig'). On the other hand, *v* behaves like an obstruent in that it undergoes Voice Assimilation (e.g. *sliv* + *a* [v] 'plum' – *sliv* + *k* + *a* [f+k], dim.) and Final Devoicing (e.g. *sliv* [f], gen. pl.). In other words, the labial fricative [v] is a target but not a trigger of Voice Assimilation.

Though this dual status of the Russian *v* has received much attention in the literature, the matter is far from being resolved. Various analyses that attempt to solve this problem have been suggested within the derivational theory (e.g. Lightner 1965, 1972, Andersen 1969, Coats and Harshenin 1971, Hayes 1984, Kiparsky 1985, among others). Lightner (1965, 1972) suggests that [v] is represented as the back glide //w// in the underlying representation, which is shifted to [v] by means of two strengthening rules. The first rule takes effect before an obstruent or a word boundary, while the second one is context-free. The processes of Final Devoicing and Voice Assimilation apply in between. Under this assumption, presonorant *v* does not trigger Voice Assimilation because it is still a sonorant at the time of the application of the voicing rule. This is a classic case of phonological opacity.

It is well known that parallel Optimality Theory (Prince and Smolensky 1993), which evaluates output forms using one set of ranked constraints, cannot analyse opaque generalisations. OT analyses of the Russian *v* advanced so far have proved unsatisfactory (Petrova 1997, Plapp 1999). Both analyses are based on Halle's (1959) phonotactic constraint: "{v*} functions as a sonorant if followed by a sonorant and as an obstruent if followed by an obstruent". Although these OT accounts handle the data, they fail to account for the fact that, on the surface, /v/ is always an obstruent, no matter whether it is followed by a sonorant or not. However, this paper argues that an analysis of the facts relating to the indeterminate status of *v* available in the framework of standard OT. The new OT analysis proposed in this paper relies on Lightner's (1965, 1972) assumption that *v* is represented as a sonorant /w/ in the underlying representation. Like other sonorants, the glide /w/ is laryngeally unspecified in the underlying representation. Sonorants, which are not defined for [±voice] in the lexicon, receive the feature [+voice] by Sonorant Default. However, /w/ strengthens to the obstruent [v] and, therefore, does not receive the [±voice] specification by Sonorant Default. So, unlike 'regular' obstruents, the output [v] lacks the laryngeal specification and so cannot affect the adjacent obstruent. The assumption that the output [v] remains laryngeally unspecified makes it possible to explain the fact that *v* can undergo but not trigger Voice Assimilation.

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