

Is there a right-to-left bias in vowel harmony?

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What is vowel harmony (VH)? Where does it come from? How is it the same as or different from other things?

Despite continued and varied research on VH over the past several decades, the above questions have only partially been answered. First, there is some lack of clarity concerning what is vs. is not VH, and considerable disagreement over how it should be implemented (spreading, copying, licensing, government, alignment, agreement, etc.). Second, little is known about the historical origins of vowel harmony, e.g. whether to attribute unbounded VH to local assimilation (VCV coarticulation/perception), reduction, restructuring or various combinations of these or other factors. Finally, we have yet to see a fully systematic siting of VH and a comparison of its parameters with analogous “harmonies,” e.g. tone (where the term “harmony” is typically not even used).

In this paper I focus on one aspect of the problem: directionality. I begin with a brief outline of points of agreement which (I believe) are shared by most or all scholars working on VH. I then illustrate the directionality problem by comparing VH with some well-known asymmetries concerning tonal assimilations, where: 1) individual feature assimilations show sensitivity to content: L-H may assimilate to M-H or L-M, while H-L may not assimilate to M-L or H-M (except in Ga, due to loss of a final glottal stop); i.e. the interval in L-H may become compressed, vs. H-L, where H may actually be raised to increase the interval; 2) full tone assimilation shows directionality asymmetries: L-H and H-L quite frequently become L-LH and H-HL by rightward (perseverative) spreading, but less readily LH-H and HL-L by leftward (anticipatory) spreading (unless being “dragged” to a prominent, e.g. penultimate, position).

By comparison—and unlike tone—VH may operate both left-to-right and right-to-left in the same language. However, since so many cases of VH are triggered by a stem vowel, affecting affixes, it is not clear how much of the observed directionality is predictable on the basis of whether the language in question has prefixes and/or suffixes. Bakovic (2000), for instance, attempts to account for all directionality in VH as either “stem-controlled” or “dominant-recessive”.

If we could isolate the stem-control factor, the question is whether there is an intrinsic bias in directionality in vowel harmony in general? I present several arguments to suggest that there is a right-to-left (anticipatory) bias which is camouflaged by the sampling of VH systems that dominates theoretical and typological work: 1) Uralic and Altaic languages which are almost exclusively suffixing (which, in turn, is more common than prefixing in general); 2) Bantu and other African languages whose suffixes are more tightly bound to the root (to form a stem) than the (word-level) prefixes: [P [[R] S]]. Citing initial impressions which I think are widely shared (e.g. lax vowels will be more readily tensed/raised before a high or ATR vowel, the claim is that VH is either prominence-driven (by a stem-vowel, stressed-vowel etc.) or applies right-to-left. This explains a number of observations: 1) the apparent rarity of prefixes serving as triggers of VH (either affecting a stem or a prefix to their right—vs. to their left); 2) asymmetries in the application of (stem-controlled) left-to-right and right-to-left VH in languages which have both; 3) asymmetries in directionality concerning optional (e.g. fast speech) “domain jumping”; 4) co-articulation studies. With respect to this last argument, it is significant that there is a greater anticipatory than perseverative effect in VCV co-articulation in Turkish (Beddor & Yavuz (1995), Inkelas et al (2000), despite its left-to-right (perseverative) VH system!

I conclude from all of the above that the right-to-left effect is, other things being equal, stronger than the left-to-right. If correct, this bears on the second question above, namely, where does VH come from?