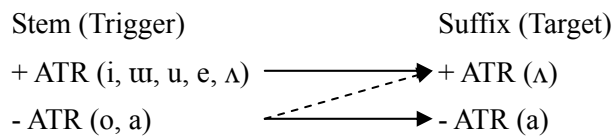


The historical change and motivation of Korean vowel harmony

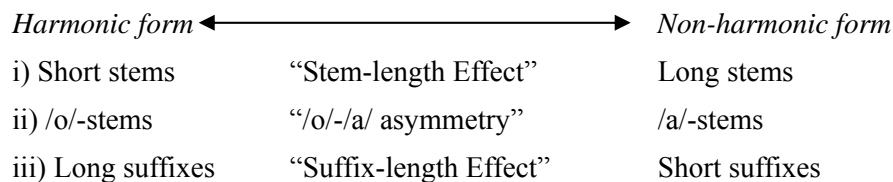
Vowel harmony (VH) in modern Korean applies in a very restrictive domain: in ideophones and verbal conjugations. The VH in ideophones is no longer productive, and the VH in verbal conjugations continues to evolve, possibly towards extinction. Some verbal suffixes have two types of allomorphs, one of which is selected in accordance with a stem-final vowel in terms of [ATR]. However, [+ATR] suffixes have begun to be used with [-ATR] stems, as shown below.

(1) Suffix unification



This change is neither lexically abrupt, nor random, which means that different stems and suffixes have different preferences for harmonic vs. non-harmonic forms with some tendencies. Therefore it can show how the grammar is changing and what plays a key role in historical change. In addition, it could clarify what the motivation of VH is. These are the different preferences. Notice that these are relative and gradient preferences.

(2) Different preferences in VH



(3) Examples

i) mak-a ≥ mak-ʌ to block-imperative	arumdap-a < arumdap-ʌ to be beautiful-declarative
ii) tol-a > * tol-ʌ to round-imperative	mak-a ≥ mak-ʌ to block-imperative
iii) tɕap-ayaman > ?? tɕap-ʌyaman to catch-only if	tɕap-a ≥ tɕap-ʌ to catch-imperative

By and large, (2i) and (2ii) seem to be relevant to the frequencies of stems, because the average

frequencies of short stems (one-syllable stems) and /o/-stems are higher than those of long stems and /a/-stems respectively. This is consistent with Bybee's (2001) Usage-based model (or Exemplar model), which says that more frequent words tend to resist morphosyntactic changes. However, this model has crucial problems; 1) The stem-length effect does not depend on the frequencies of individual stems. Rather, stems with the same length show similar behaviors irrespective of their individual frequencies. 2) /o/-/a/ asymmetry seems to have nothing to do with the individual frequencies, either. 3) The most frequent verbal stem *-ha* 'to do' is used only as non-harmonic forms, which is opposed to the expectation of the usage-based model. 4) Suffixes have their own tendencies in vowel harmony as in (2iii). Since the minimal storage unit in the usage-based model is a word, not a morpheme, this tendency would be hard to explain.

Kaun(1995: 73) argues that Harmony should be viewed as a means of enhancing the perceptibility of the triggering element. Following her, I argue that the VH is maintained when it still plays a role in enhancing the perceptibility of stems. In this analysis, the problems that the usage-base model has could be solved. 1) Short stems (in particular, one-syllable stems) have more competitors (or neighbors) than long stems, which makes their perceptions more difficult. So the VH still works for the enhancement of the perceptibility of short stems and this is why harmonic forms are more preferred with short stems. 2) The acoustic and perceptual distance between /o/ and /u/ is shorter than that between /a/ and /ʌ/. So /o/-stems need the VH more, in order to be distinguished from /u/-stems, while /a/-stems already have sufficient difference from /ʌ/-stems even without the VH. 3) The most frequent verbal stem, *-ha*, does not have any semantic contributions and only fulfills syntactic requirements. So there is no need to make it more contrastive. 4) When a suffix has one syllable, the target vowel is located at the end of sentences. (Korean is an SOV language.) The final position of a sentence is very informative in the sense that it bears the intention of the speaker (e.g. declarative, interrogative, imperative, etc.). That requires surface forms which are more faithful to the underlying form, /ʌ/.

In conclusion, this study implies that the motivation of VH is to enhance the perceptibility of the triggering element (here, stem). In the historical change, we could expect that more motivated forms will survive longer.

Bybee, Joan L.(2001), *Phonology and language use*. Cambridge University Press.

Kaun, Abigail Rhoades(1995), *The Typology of Rounding Harmony: The Optimality Theoretic Approach*, Doctoral dissertation, UCLA.