

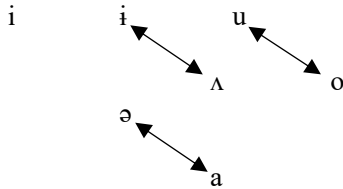
The representation of neutral vowels in Korean and Turkish: A dependency-based perspective

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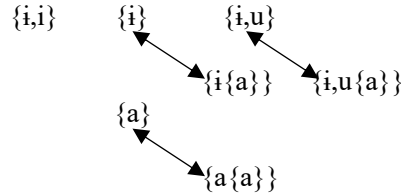
Neutral vowels of both the transparent and opaque kinds have been discussed extensively in the literature on vowel harmony (see Gafos & Dye 2011, Krämer 2024). In this talk, it is shown how both types of neutral vowels can be accounted for in a dependency-based approach (Anderson & Ewen 1987, Anderson 2011) without making use of the variable specification proposed by van der Hulst (2018).

We will start with a discussion of transparent vowels in Middle Korean, which has been convincingly shown to have had an RTR-based system (J. Kim 1993, Ko 2012), in which the non-RTR vowels /i ə u/ contrast with the RTR vowels /ɰ a o/, and /i/ is a transparent neutral vowel, as in (1).

(1) Middle Korean vowel system

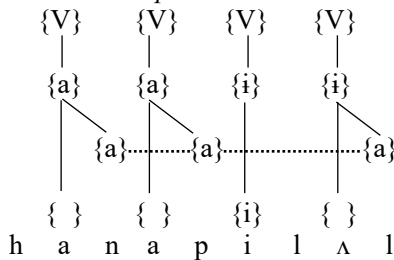


(2) Dependency-based analysis

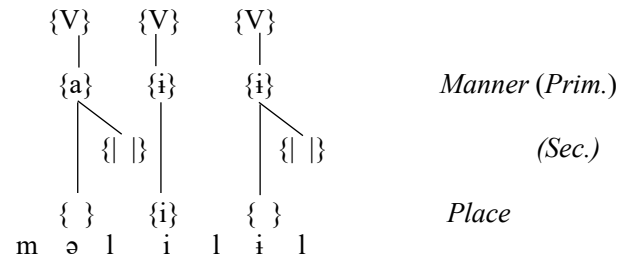


Poppe & van de Weijer (2023) analyze the Middle Korean vowel system in terms of the four elements **A V I U** (cf. van der Hulst 2018), which are here replaced by **a i i u**. Using these four elements or ‘components’, their analysis can be represented in terms as in (2), where $\{a\}$ can be phonetically interpreted as [low], $\{i\}$ as [non-high], $\{i\}$ as [palatal], and $\{u\}$ as [labial]. As can be seen in (2), RTR is analyzed as dependent or ‘secondary’ $\{a\}$, i.e. $\{.. \{a\}\}$. The double use of $\{a\}$ makes the prediction that $\{i\}$ has a special status, which is correct, as it is redundant. It is analyzed as being part of the vowels in question, however, based on the idea that any vowel must have a manner element (van der Hulst 2018). The neutral vowel /i/ can be explained in terms of the absence of an RTR counterpart, but the constraint proposed by Poppe & van de Weijer (2023) that forbids $\{i\}$ to combine with secondary $\{a\}$ is not sufficient to explain how /i/ can be transparent in forms like *hanapi-lal* ‘grandfather-ACC’ and *mali-lil* ‘head-ACC’. To account for these forms, we propose instead that /i/ lacks a secondary node, the consequence of which is that it is ignored by the spreading secondary $\{a\}$ feature, as in (3a). The vowels /i ə u/ cannot be combined with $\{a\}$, a fact which is captured by the inclusion of the ‘verticals’ in the empty dependent nodes in (3b).

(3) a. RTR form: *hanapi-lal*



b. Non-RTR form: *mali-lil*



In the original DP model, the verticals indicate that for the gesture in question, “the segment is characterised phonologically [...] by the presence of that component alone” (Anderson & Ewen

1987: 29). We propose that this characterization can be interpreted in terms of ‘saturation’: nodes that contain the verticals are ‘saturated’, and therefore cannot absorb any more elements. Unsaturated nodes, however, may absorb any spreading component, provided that the resulting phonological structure is allowed in the language. In the case of Middle Korean, the secondary manner node is saturated because it is contrastively empty.

Next, we will show how the notion of ‘saturation’ can also be used to account for idiosyncratic non-harmonizing vowels in Turkish. This language is well-known for suffixes may show different behavior in terms of the vowel harmony: some suffixes show both palatal and rounding harmony (e.g. the 1st person singular marker *-Im*: *-im, -im, -um, -üm*), some suffixes show only palatal harmony (e.g. the plural marker *-lAr*: *-lar, ler*), and yet others show no harmony at all (e.g. the copulative gerund *-ken*) (see Kabak 2011, Pöchtrager 2010). Moreover, in loanwords, vowel harmony is often blocked by non-harmonic vowels, which start a new vowel domain, as in the loanword *printir* ‘printer’, the plural of which is *printir-lar*. To deal with these cases, we propose the analysis in (4).

(4) a. <i>-Im</i>	b. <i>-lAr</i>	c. <i>-(y)ken</i>	d. <i>printir</i>	
{V}m	l{V}r	k{V}n	pr{V}t{V}r	
{ i}	{ a}	{ a}	{ i} { i}	<i>Manner</i>
{ }	{ }	{ i}	{ i} { }	<i>Place</i>

In suffixes which undergo harmony, the place node of the ‘locational gesture’ is unsaturated, which means both {i} and {u} in principle may spread. Both types of spreading occur in suffixes of the type in (4a). As the spreading of {u} is dependent on the presence of {i}, however, it fails to spread to suffixes of the type in (4b) with a manner node specified with saturated {a}, i.e. {|a}. In non-harmonizing suffixes like *-(y)ken*, both nodes are saturated, so no element can be added (4c). The same holds for non-harmonizing vowels in loanwords (4d).

We will also show how the distinction between saturated and non-saturated nodes is useful in accounting for other phenomena, such as the characterization of natural classes and the formulation of rules referring to such classes.

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