

## The Diachronic Consequences of the RTR Analysis of Tungusic Vowel Harmony

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There is by now a well-established consensus that vowel harmony in Tungusic is based on a feature referencing tongue root (TR) position (Li 1996, Zhang 1996). The backdrop for this consensus is the increasingly accepted view that TR harmony is characteristic of the language families commonly grouped together as Altaic: Ko (to appear) for Mongolic; Kim (1993) and Ko (2010) for Korean; and Vaux (2009) for Altaic broadly. In spite of this consensus, the consequences of a TR analysis have yet to be drawn for historical reconstruction of the vowel systems in this group. Thus Tsintsius' (1949) and Benzing's (1955) reconstructions of the inventory of proto-Tungusic posit 4 pairs of vowels distinguished by the feature [back]:

### (1) Benzing's (1955) Proto-Tungusic Vowel Inventory

*i	*ɪ
*ü	*u
*ö	*o
*ä	*a

This paper proposes a reanalysis of the proto-Tungusic vowel system based on the assumption that TR, rather than palatal harmony should be reconstructed for the protolanguage. The following are highlights of our argument.

- [RTR] (or [-ATR] ) is the active feature.
- The protosystem involves seven, not eight vowels.
- High front \*i is uninvolved in a harmonic contrast.
- A number of characteristic mergers found in Tungusic support the [RTR] analysis on a Grounded Phonology approach.

We reconstruct the proto-inventory in (2), contrasted with Benzing's reconstructions in (1). We abstract away from vowel length here.

(2)	[-back]	[round]	
	*i (B: *i, *ɪ)	*u (B: *u)	[high]
		*ʊ (B: *ü)	[RTR]
	*ə (B: *ä)	*o (B: *ö)	
	*a (B: *a)	*ɔ (B: *o)	[RTR]

A number of properties specifically favor an [RTR] analysis of this system, in addition to the general arguments for a TR analysis made for the current systems of various Tungusic languages (Li 1996, Zhang 1996). For example, on a Grounded Phonology approach (Archangeli & Pulleyblank 1994), the contrast /a/ : /ə/ is predicted to be the most vulnerable in an [ATR] system, but the opposite is true in Tungusic (Li 1996: 318-322). Thus, for example, the [ATR] Edoid languages have mostly lost the /a/ : /ə/ contrast due to the strength of the antagonism between [ATR] and [low] (Archangeli & Pulleyblank 1994: 180-1). In contrast, all Tungusic languages retain an opposition between [-high, -round] vowels.

The protosystem in (2) reconstructs 7 short vowels, rather than the eight reconstructed by Tsintsius and Benzing. The vowel uninvolved in a TR contrast is \*i. This is consistent with a proposal originally due to Pritsak (1974), who observed that the contrast reconstructed as \*i :

\*i is widely marginal in families grouped as Altaic outside of Turkic.

In Benzing's proto-Tungusic, the contrast is based on examples where several languages such as Nanai, Evenki, Oroqen, and Even (Lamut) have a lower front vowel /i/ [ɪ] or /e/ corresponding to /i/ elsewhere. In Manchu, the corresponding vowel is /i/, but the contrast is reflected by selection of [RTR] suffix vowels when the stem is followed by harmonizing suffixes. The traditional view has been to reconstruct \*i and posit a merger of \*i with \*i in Manchu. But we argue that Manchu is conservative: first syllable /i/ in the other languages was lowered under the influence of an [RTR] later in the stem. This argument is supported by distributional facts: Benzing reconstructs no monosyllabic stems in \*Ci-.

A Grounded Phonology approach also suggests that a TR contrast for high front vowels is likely to be highly marked in an RTR (as opposed to an ATR) system. Specifically, [RTR] (= [-ATR]) in combination with *both* [high] *and* [-back] is predicted to be more marked than [-ATR] in combination with [high] alone (or in combination with [high] and [+back]). In other words, in an [RTR] system, an [RTR] contrast is easier to maintain in the [+back, +high] region than in the [-back, +high] region because the former does not involve the additional antagonistic relationship between frontness ([-back]) and tongue root retraction ([RTR] or [-ATR]).

### Conclusion

We thus argue that a TR analysis, specifically, an [RTR] analysis of proto-Tungusic not only fits the synchronic facts found across members of the family, it helps explain the distribution of harmonic contrasts in the proto-inventory and its diachronic development. Chief consequences of this analysis are the reconstruction of a single primary front vowel \*i, and an explanation for the robustness of the TR contrast with non-high unrounded vowels.

### Selected References

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