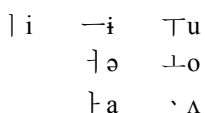


A contrastivist view of the evolution of the Korean vowel system

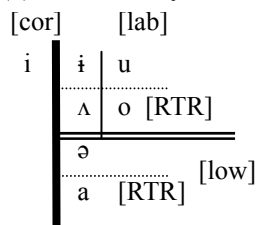
INTRODUCTION This talk aims to provide a contrastivist account (Dresher 2003) of the historical development of the vowel system in Korean from Middle Korean (MK) through Early Modern Korean (EModK) to Modern Korean (ModK) dialects. It focuses on (i) the *discrepancy* between the vowel system and the pattern of vowel harmony in MK (Lee 1972), (ii) the two-step loss of /Λ/ in MK through EModK and its ongoing merger with /o/ in Jeju Korean (Jeong 1994), (iii) and the two conspicuous directions in the bifurcation of the vowel systems into modern dialects. I show that the major changes in the Korean vowel system are best accounted for in terms of changes in the *contrastive hierarchy* of distinctive features. This approach also provides a typologically plausible treatment of the Korean vowel system within the areal context of Northeast Asia, particularly in relation to Tungusic.

MIDDLE KOREAN I show that there was in fact no *discrepancy* between the vowel system (1) and the vowel harmony pattern (specifically, the harmonic pairing of /u/~o/, /i/~Λ/, /ə/~a/) in MK, and thus, there was no *Great Vowel Shift*, contra Lee 1972. Given the contrastive hierarchy in (3), MK is analyzed phonologically as a two-height vowel system with RTR vowel harmony (2). The three-height distinction in (1) is attributed to the phonetic effect of *sympathetic/antagonistic feature combination* between tongue root and height features (4) (Kim 2000, Archangeli & Pulleyblank 1994). The redundancy of [RTR] feature for /i/ explains its behavior as a neutral vowel in RTR harmony (cf. Dresher & Zhang's 2005 analysis of Manchu).

(1) Lee 1972

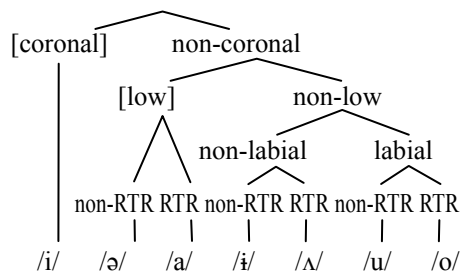


(2) MK vowel system



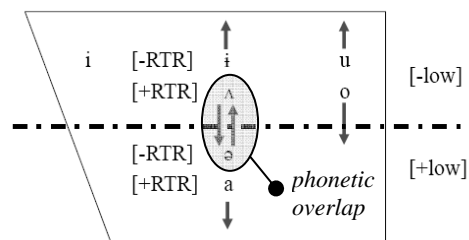
(3) Contrastive hierarchy in MK:

[cor] > [low] > [lab] > [RTR]



(4) The interdependency between [RTR]

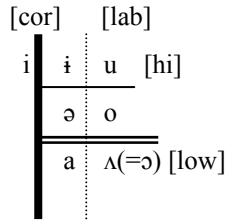
and [low] results in a three-height phonetic vowel system with the phonetic overlap between /Λ/ and /ə/. (Kim 2000 with slight modifications)



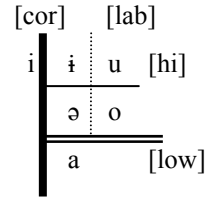
EARLY MODERN KOREAN The change in the vowel system from MK to EModK can be characterized as a change from a RTR contrast-based two-height vowel system to a labial contrast-based three-height system, which in turn can be viewed as a change in the structure of the contrastive hierarchy. It is initiated by the loss (two-step merger) of /Λ/ from the inventory. I propose that the first merger of /Λ/ with /i/ in non-initial syllables (hanΛ > hanil 'sky') is positional RTR neutralization under the contrastive hierarchy Cor > Low > Labial > RTR of MK (3). This analysis gives an account as to why the merger of /Λ/ was with /i/, not with /ə/ despite the 'phonetic overlap' of /Λ/ and /ə/ (4): it is obvious that given the contrastive hierarchy in (3), the RTR counterpart /i/ is the only phoneme that /Λ/ contrasts with. The first merger has the effect of unstablizing the contrastive status of [RTR] in the whole system and finally leads to the loss of vowel harmony. With the loss of [RTR] as a contrastive feature, language learners exploit a new feature [high] from the universal feature set in order to distinguish /o/ from /u/ and /ə/ from /a/. With /o/ and /ə/ being phonological mid, the phonetic three-height distinction becomes

phonological (5). Note that I assume /Λ/ is reinterpreted as a rounded low back vowel /ɔ/ in EModK (5a) as in Jeju Korean (Hyun 1992); this may be the only actual change in the phonetic value of vowel descendants from MK.

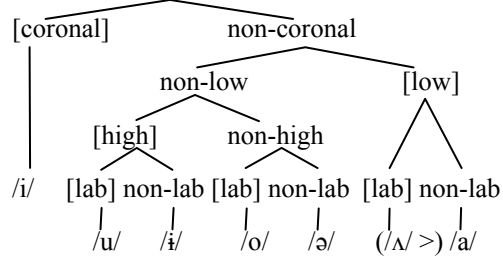
(5) EModK vowel system
a. initial position



b. non-initial position



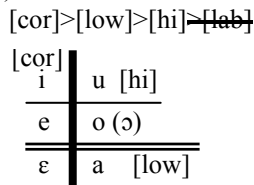
(6) Contrastive hierarchy in EModK:
[coronal] > [low] > [high] > [labial]



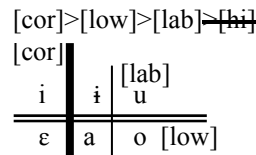
The second merger of /Λ/ with /a/ in initial syllables (e.g., t_Λ > tal ‘moon’), is analyzed as labial neutralization under the contrastive hierarchy Cor>Low>Hi>Labial in EModK (6). This merger marks the completion of the development of this labial contrast-based three-height system. The contrast is made between /i/ and /u/, /ə/ and /o/, /a/ and /Λ(=ɔ/) in terms of [lab], which is also substantiated by labialization (m_il > m_ul ‘water’) and antilabialization (Lee 1970, m_ɔncjə > m_ɔncə ‘ahead’). Another piece of supportive evidence for the three-height contrast in EModK is the creation of new front mid and low vowels, /e/ and /ɛ/.

EXTENSION TO MODERN DIALECTS The contrastivist approach also explains the main developments from EModK to ModK. First, the two directional tendencies in the development of vowel system in modern dialects (Kwak 2003), i.e., (i) the loss of labial contrast in North Korean dialects (7a) and (ii) the decrease of the number of height distinction in South Korean dialects (7b), are ascribed to the flux in the relative hierarchy between [hi] and [lab] in EModK. The evidence for [lab]>[hi] is mid (long) vowel raising (to_n>tu_n ‘money’) in varieties such as Central dialect in late 19c. Finally, we propose that Jeju Korean, the only dialect that retains /Λ(=ɔ/), has a contrastive hierarchy of Cor>Hi>Labial>Low (7c) with the ongoing merger of /e/~ɛ/ and /o/~ɔ/ (Jeong 1994).

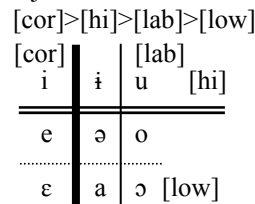
(7) a. Northwest dialect:



b. Southeast dialect:



c. Jeju dialect:



THEORETICAL IMPLICATION The paper shows how the contrastive hierarchy approach is superior to theories of phonetic contrast such as Dispersion Theory (L&L 1972) in explaining the persistence of asymmetrical vowel systems commonly found in North, East, and Central Asia. It also expands our understanding of how contrastive hierarchy may work in phonological change.

REFERENCES Archangeli, D. and D. Pulleyblank. 1994. *Grounded Phonology*. Dresner, B. E. 2003. The Contrastive Hierarchy in Phonology. *TWPL* 20. Dresner, B. E. and X. Zhang. 2005. Contrast and Phonological Activity in Manchu Vowel Systems. *CJL* 50. Jeong, S.-C. 1994. *A Diachronic Approach to the Phonological Processes of Cheju Dialect*. PhD diss., SNU. Kim, J. K. 2000. *Quantity Sensitivity and Feature Sensitivity of Vowels*, PhD diss., Indiana U. Kwak, C.-G. 2003. Hyendaykwukeuy Moumcheykyeywa ku Pyenhwaury Panghyang. *Kwukehak* 41. Lee, K.-M. 1972 *Kwukesa Kaysel*. Lee, P.-G. 1970. Kyengki Ciyekyeywa Moum Chyeykyeywa Piwenswunmoumhwa. *Tong-A Mwuinhwa*. Liljencrants, J. & B. Lindblom. 1972. Numerical Simulation of Vowel Quality Systems: The Role of Perceptual Contrast. *Language* 48. Hyun, W.-J. 1992. *An Experimental Phonetic Study of the vowels of Cheju Dialect*. PhD diss., Konkuk U.