

How does aspiration dissimilation come about? The case of Mongolian

Míša Hejná & Adèle Jatteau

Aarhus University & Université de Lille

misa.hejna@cc.au.dk & a.jatteau@gmail.com

This study investigates the phonetic and phonological properties of a gradient dissimilation pattern (Jatteau & Hejná 2016) in Halh Mongolian in order to 1. establish whether it takes place in the language, 2. investigate its phonetic properties, and 3. shed light on the hypothesis that the gradient pattern may be the precursor of the complete long-distance dissimilation patterns attested in other branches of the language family (Garrett 2015).

Long-distance aspiration dissimilation is a process whereby a feature is deleted when it appears in the vicinity of another identical feature: e.g. Ancient Greek **t^hrik^hos* 'hair' > *trik^hos*, where the aspirate feature of C₁ (**t^h*) is deleted ($\rightarrow$ t) and that of C₂ is preserved (**k^h=k^h*). This phenomenon is usually considered to be phonetically abrupt (one feature is deleted at once) and lexically sporadic (Hock 1991). In contrast to these assumptions, two languages have been recently reported to display a *gradient* long-distance dissimilation of aspiration: Aberystwyth English (AE; Jatteau & Hejná 2016) and Halh Mongolian (Svantesson & Karlsson 2012). Gradient dissimilation is a process whereby a feature is reduced (not deleted) when it appears in the vicinity of another identical feature. In AE, the pattern has been found to be progressive; in Mongolian, it is reported to be regressive. Moreover, what's interesting in the case of Mongolian is that a number of varieties, including Chahar, have undergone a complete, regressive aspiration dissimilation: **t^hat^ha* > *tat^h* 'to pull'. Could the gradient dissimilation pattern we observe in Halh reflect the phonetic precursor of the complete dissimilation pattern of Chahar? Crucially, however, the Mongolian evidence is based on only one speaker and an inconclusive number of words.

10 speakers of Halh Mongolian were recorded for the purposes of this study, reading a list of 61 words (3 times). This yielded 183 tokens per speaker and 1,830 tokens in total. The C₁ and C₂ loci both included the following contexts: T^h (fortis plosives), D (lenis plosives), R (resonants/sonorants), and /s/. We obtained measures of release duration, voiceless pre-aspiration duration, and the duration of local breathiness (in line with Hejná 2015). In addition, the frequency of application of voiceless pre-aspiration and local breathiness were quantified, as well as their intensity (via CPP measures).

The analyses confirm that there is indeed gradient dissimilation of C₁ post-aspiration depending on the laryngeal specification of C₂ in CVC(V) sequences. The pattern is only regressive: the aspiration duration of C₂ T^h does not show progressive gradient dissimilation, reflected in post- or pre-aspiration, or local breathiness. Although visual analyses of noisiness suggest that the dissimilatory context is associated with lower-intensity C₂ pre-aspiration, these results are not statistically significant. In this respect, the Halh dissimilation thus reflects the categorical dissimilatory pattern found in Chahar, giving support to the hypothesis that gradient dissimilation may be the phonetic precursor of complete dissimilation patterns. A new finding is that, although /s/ is always post-aspirated in C₁ and sometimes post-aspirated in C₂, it does not show aspiration dissimilation.