

Nasal-lateral assimilations as Agreement-by-Correspondence

Assimilatory nasalization and lateralization across heterosyllabic nasal-lateral (NL) and lateral-nasal (LN) clusters, among other possible repairs, are well-attested cross-linguistically. Such patterns have been attributed to a heterogeneous set of assimilation-driving constraints. In this paper, I argue instead that such assimilations might constitute a coherent class of phenomena, driven by similar underlying forces. Viewing nasal-lateral interactions as consequences of ABC constraints penalizing *uncomfortable similarity* (after Inkelas & Shih 2013) may offer an improved perspective on patterns previously entirely attributed to constraints on sonority contour or to feature spreading. I also suggest that the selection of nasalizing versus lateralizing repair is partially motivated by place considerations, and that asymmetries in these assimilations provide marginal evidence for asymmetry in correspondence relations.

Based on a survey of 34 languages displaying at least one such process, certain broad typological predictions may be suggested:

- i. The existence of assimilation in LN sequences implies assimilation in NL.
cf. Moroccan Arabic (Harrell 1962), Leti (van Engelenhoven 1995)
- ii. TL assimilation implies NL assimilation, e. g. Korean, Sakha (Baertsch 2002)
- iii. Heterorganic NL assimilation implies homorganic NL assimilation.
(assimilation in /ml/ must imply assimilation in /nl/, although directionality may vary)
- iv. Nasalization is preferred in heterorganic sequences, lateralization is preferred in homorganic sequences e. g. Ponapean, Meitei (Chelliah 1997), Korean, Toba Batak

We then have a hierarchy in which coronal NL is the most susceptible to assimilation – languages with other nasal-lateral assimilations but no assimilation in /nl/ are unattested – and non-coronal LN is the least so. Previous analyses of similar cases within OT have attributed these alternations to Syllable Contact (SC)/sonority considerations (for Korean and Sakha, Davis & Shin 1999, Baertsch 2002), or to SHARE-[lateral] (for Toba Batak and Moroccan Arabic, Yip 2004). Neither seems to produce the typological generalizations that appear here. The SC account, in which falling sonority is highly preferred across a syllable boundary, does not predict LN assimilation, and incorrectly penalizes TL sequences over NL sequences when in fact NL is preferentially repaired. SC is also problematic in systems where NL sequences are repaired, but sequences with analogous sonority drop are not: consider Korean, in which stop-fricative sequences [p.s] may surface despite unfavorable sonority contour. In brief, an analysis predicated upon lateral spreading does not extend to cases of assimilatory nasalization, especially in homorganic sequences (nasalization in non-coronals may result from a highly-ranked ban on non-coronal laterals).

I suggest a formulation within Agreement by Correspondence theory (Hansson 2001, Rose and Walker 2004, inter alia), or ABC – although initially developed to handle long-distance phenomena, recent work (Inkelas & Shih 2013, Lionnet 2014) suggests that ABC may be of use in treatments of local effects. In ABC, patterns of assimilation and dissimilation are attributed to the interaction of corresponding surface segments, whose (CORR) correspondences are determined by phonological similarity. Within this frame, repairs may be triggered by 'unstable surface correspondence' (ibid): that is, in which structures are similar enough to correspond, but too similar to coexist within a certain distance (here, adjacency). In this solution, as shown in (1) for Korean (Iverson & Sohn 1994) and (2) for , adjacent nasals and laterals must correspond (heterorganic, Corr-N↔L; homorganic, Corr-M↔L) and must match in laterality (Ident-CC [lat]). The homorganic-

heterorganic asymmetry is motivated by place preservation. Informally, extrapolation from similarity considerations suggests $NN \gg NL \gg ML$ (homorganic N and L are more similar); $NN \gg NL \gg TL$ (N and L are closer than T and L), generating the preference for homorganic NL repair that may be expected.

(1) Homorganic and heterorganic repair in Korean.

/sam-lju/	Ident-CC [son, lat]	Corr-N↔L	Corr-M↔L	Ident-IO[place]	Ident-IO[lat]	Ident-IO[son]
☞ sam _x n _x ju					*	
sam _x l _x ju	*!					
sal _x l _x ju				*!		

/han+ljan/	Ident-CC [son, lat]	Corr-N↔L	Corr-M↔L	Ident-IO[place]	Ident-IO[lat]	Ident-IO[son]
☞ hal _x l _x jan					*	
han _x l _x jan	*!					
hal _x l _y jan		*!			*	

(2) Unrepaired heterorganic sequences in Moroccan Arabic.

/mlih/	Ident-CC [son, lat]	Corr-N↔L	Ident-IO[place]	Ident-IO[lat]	Ident-IO[son]	Corr-M↔L
☞ m _x l _y ih						*
m _x l _x ih	*!					
l _x l _x ih			*!	*		

As (2), the relative ranking of correspondence constraints for heterorganic and homorganic sequences, subject to the requirement $Corr-N↔L \gg Corr-M↔L$, predicts attested systems in which only coronal NL is repaired.

It remains, however, to account for the broader generalization that NL sequences appear preferentially repaired relative to LN. The commutativity of the correspondence relation implies no predicted asymmetry, but NL-repairing systems are attested in which LN remains unrepaired – e. g. Meitei (Chelliah 1997), Fur (Jakobi 1990), Klamath (Blevins and Garrett 1993). One possible solution is the (re-)introduction of asymmetric correspondence relations (as Walker 2000, 2001; Hansson 2001, 2010). In an analysis of this type, correspondence in one direction does not necessarily imply correspondence in the other, and constraints $Corr-N←L$ (N is a correspondent of L if N precedes L in the string) and $Corr-N→L$ (N is a correspondent of L if L precedes N in the string) can be ranked independently. $Corr-N←L$ can then be ranked significantly above $Corr-N→L$ (analogous to(2) above) in order to favor repairs to NL over LN. It has been suggested (cf. Bennett 2013, 2015) that asymmetric correspondence offers no 'significant advantage over the symmetric model' and should thus be discarded, as directionality patterns in harmony and assimilation do not necessarily follow from directionality in the correspondence relation; however, I argue here that the asymmetric correspondence relation provides an advantage in the analysis of cases whose directionality is at the level of the string itself.