Dissimilation is a process by which one segment systematically avoids taking on a feature (or a set of features) of a neighboring segment. Dissimilatory processes are reflected both dynamically in synchronic alternations and statically as co-occurrence restrictions in the lexicon. In Tashlhiyt Berber, for example, labial prefixes like the reflexive [m-] delabialize when they combine with a root that also contains a primary labial consonant, i.e., [b, f, m], producing the following alternations: [m-xazar] ‘scowl’, [m-saggal] ‘look for’, cf. [n-fara] ‘disentangle’, [n-kaddab] ‘consider a liar’. As static restrictions on the lexicon, Arabic roots strongly avoid adjacent homorganic consonants, and the Yamato stock of the Japanese lexicon prohibits stems with more than one voiced obstruent. While dissimilation processes are in principle possible with any phonological feature (Suzuki 1998), the most common cases involve dissimilation of tone, place, and laryngeal features.

As the avoidance of two like segments, the input of dissimilation can in many cases be compared with the output of ASSIMILATION, where two dissimilar segments become more alike. Observing this formal relationship, Ohala 1981, 1993 proposes that dissimilation implies an inversion of an assimilatory process presupposed by the listener. Concretely, the listener may assume that the occurrence of two similar segments is the result of assimilation and correct this assumed form by modifying one of the segments. The Rule Inversion theory therefore predicts that dissimilation should involve inversion
of an attested assimilation process, which appears to be true for only a subset of the dissimilation processes. For example, the long distance dissimilation of [labial] in Berber is unlikely to be approached as assimilation in any language.

In part as a solution to long distance dissimilation, AUTOSEGMENTAL PHONOLOGY models dissimilation as delinking of a feature that is local to an identical feature on the same tier. For instance, the case of delabialization in Berber involves delinking of [labial] associated with the prefix:

\[
\begin{array}{c|c|c}
\text{Input} & \text{Output} \\
\hline
m + k a d d a b & n - k a d d a b \\
\hline
\text{lab} & \emptyset & \text{lab} \\
\text{cor} & \text{cor} & \text{lab} \\
\text{dor} & \text{dor} & \text{lab} \\
\end{array}
\]

The motivation for delinking of [labial] is the Obligatory Contour Principle (OCP), which stipulates that adjacent identical elements are prohibited (Goldsmith 1976, McCarthy 1986, Yip 1988). This analysis of dissimilation has two important consequences:

(i) features are represented on separate phonological tiers (TIER SEGREGATION), and
(ii) that features that are inactive in dissimilation are unspecified (UNDERSPECIFICATION). The [labial] specification of the prefix is only adjacent to the [labial] of the stem-final segment above if the place features of the intervening consonants are on a separate tier. Furthermore, the nasal prefix is not specified for [coronal] in the output because this specification would also violate the OCP.
In the Autosegmental theory, features are active in dissimilation if specified, and inactive if not. However, features may be inactive in some contexts, and active in others. For example, in the Berber example, coronals are inactive in the sense that they can co-occur with another coronal in the stem: \( [\text{n-kaddab}] \). But coronals are active in a dissimilatory effect that applies to adjacent segments: when the stem begins with another coronal sonorant, the nasal prefix either fails to delabialize, e.g., /m + laqqaf/ \( \rightarrow \) [m-laqqaf] ‘to catch in the air’, or the prefix delabializes and is separated by the sequence [ya], as in /m + lkm/ \( \rightarrow \) [nya-lkam] ‘to reach’. Sequences of coronal sonorants are avoided in adjacent segments, showing that [coronal] must be specified, an outcome which is inconsistent with the assumptions made for [n-kaddab].

Phonological activity is also often correlated with MARKEDNESS (Smolensky 1995). Building on this observation, Alderete 1997 and Itô & Mester 1998 propose that dissimilation is a cumulative effect of markedness constraints. The Cumulative Markedness Theory is developed in OPTIMALITY THEORY, where phonological markedness is encoded directly as a set of ranked constraints that prefer unmarked structure over marked structure. In this theory, dissimilation is the effect of a doubled markedness constraint, e.g., *Lab \( \rightarrow \) *Lab\(^2\). Ranking the constraint banning two [labial] specifications over the same constraint for coronals provides both the motivation for labial dissimilation and the observed coronal output:

<table>
<thead>
<tr>
<th>Input: /m + kaddab/</th>
<th>*Lab(^2)</th>
<th>*Cor(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \rightarrow ) n-kaddab</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>m-kaddab</td>
<td>*!</td>
<td></td>
</tr>
</tbody>
</table>

Dissimilation as the Cumulative Effect of Markedness Constraints
Moreover, the avoidance of two adjacent coronals, e.g., [m-laqqaf], *[n-laqqaf], follows from a separate doubled markedness constraint, *Cor\+Son\(^2\), defined for adjacent segments. The activity of coronals in this context therefore follows from the ranking of this constraint over *Lab\(^2\), a result which is independent of feature specification.

BIBLIOGRAPHY


