Syllable deletion as a prosodically conditioned derived environment effect

The aim of this presentation is to clarify the conditions for syllable deletion in the spontaneous predicate formation in the Hokkaido dialect of Japanese. I will argue that the constraint responsible for the syllable deletion is the locally conjoined constraint composed of the syllable-sized OCP and L-Anchor, and the constraints on the prosodic size of morphological elements, i.e., Prosodic Minimality and Morpheme Realization, play a crucial role in the blockage of this process.

The dialect spoken in Hokkaido shares some grammatical properties with the northern Tohoku dialects in the main island of Japan. The productive spontaneous predicate formation is one of the features shared with the northern Tohoku dialects. The phonological properties of spontaneous predicate formation are illustrated in (1). For the syntactic and semantic aspects, see Sasaki & Yamazaki (2006).

(1) Spontaneous formation
Morphological composition: verb root + /rasar/ (spontaneous suffix)
Phonological process accompanying spontaneous predicate formation: Suffix initial consonant deletion occurs when the verb root ends in a consonant.
e.g., /tabe-rasar-ru/ *taberasaru* 'eat-SP-PRES', /kak-rasar-ru/ *kakasaru* 'write-SP-PRES'

In most cases, the spontaneous form of a given verb can be predicted from the application or non-application of the suffix-initial consonant deletion. However, when the verb root ends in /s/, the realization of the spontaneous form may be shorter than the expected form. For example, the spontaneous form of *hagemas-u* 'encourage' is *hagemasaru*, although the expected form is **hagemasasaru*, derived through the suffix-initial consonant deletion in /hagemas-rasar-ru/. The shortened form can be regarded as the result of syllable deletion due to the avoidance of contiguous syllables with the same segmental content, i.e., [...sasa...], a syllable-sized OCP effect.

The […sasa…] sequences do not always result in ungrammaticality. The underived [sasa] sequences, such as *sasayaka* 'modest', and the [sasa] sequences derived through the attachment of nominalizer *–sa*, such as *urusa-sa* 'noisiness', do not undergo syllable deletion. The application of syllable deletion is limited to the spontaneous predicate formation where the derived [sasa] sequence involves the mismatch between morphological boundary and syllable boundary. This situation is accounted for by the constraint ranking in (2) where the constraint penalizing the simultaneous violation of the syllable-sized OCP and L-Anchor(suffix, σ) is undominated. Under the constraint ranking (2), the [s-a.sa.] derived through spontaneous predicate formation, such as **ha.ge.ma.s-a.sa.r-u.*, is ruled out but the underived [sa.sa.], such as *sa.sa.ya.ka.*, and the [sa.-sa.] derived through the attachment of nominalizer, such as *u.ru.sa.-sa.*, are not (a dot in square brackets means syllable boundary).

(2) *[L-Anchor&OCP] >> Max >> L-Anchor(suffix, σ), OCP

Comparative Markedness advocated by McCarthy (2003) makes the wrong prediction for the syllable deletion because the "new" markedness constraint NOCP penalizes not only the [sasa] derived through spontaneous predicate formation but also that resulting from the attachment of the nominalizer *–sa*. The syllable deletion in the Hokkaido dialect can be regarded as supporting evidence for the account of derived environment effects using locally conjoined constraints, advocated by Lubowicz (2002).

Syllable deletion sometimes fails to apply to the spontaneous form of verb roots ending in /s/, as shown in (3). The blockage of syllable deletion can be found in two types of environments, namely, with the verb roots containing less than one vowel and with the verbal noun + light verb sequences.

(3) /hagemas-rasar-ru/ [hagemasaru, *hagemasasaru] ‘encourage-SP-PRES’ | syllable deletion
/naos-rasar-ru/ [naosaru, *naosasaru] ‘repair-SP-PRES’
/to:s-rasar-ru/ [to:saru, *to:sasaru] ‘pass-SP-PRES’
/hos-rasar-ru/ [*hosaru, hosasaru] ‘dry-SP-PRES’ | no syllable deletion
/os-rasar-ru/ [*osaru, osasaru] ‘push-SP-PRES’
/s-rasar-ru/ [*saru, sasaru] ‘do-SP-PRES’
/tenzi s-rasar-ru/ [*tenzi saru, tenzi sasaru] ‘display-SP-PRES’

The blockage illustrated in (3) is due to two constraints on the size of morphemes, namely, Prosodic Minimality (Ito 1990) and Morpheme Realization (Kurisu 1999), and the faithfulness constraint Contiguity (McCarthy & Prince 1993).

(4) a. Prosodic Minimality requirement for spontaneous predicate formation:
The spontaneous suffix requires the prosodic size of the host to be larger than two morae.
b. Morpheme Realization: The total removal of a morpheme is prohibited.
c. Contiguity: Morpheme-internal deletion and insertion are prohibited.

The constraint ranking (5), where Contiguity and the constraints on the prosodic size of morphemes dominate *[L-Anchor&OCP], accounts for all the cases in (3).

(5) Morpheme Realization Contiguity
Prosodic Minimality
*[L-Anchor&OCP]

The constraints on the morphology-prosody interface play a crucial role for both triggering and blocking the syllable deletion.

References

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