

Another allomorph of the negative affix readjusted with a juncture segment at the initial

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辞頭に接続音で再調整された否定辞のもうひとつの異形態¹

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Abstract

The current paper discusses the ‘reanalysis’ and ‘analogy’ analysis of the negative forms of verbs with an ‘extra /ra/’ inserted, as suggested in Sasaki 2012, for some of those of Japanese-Kyushu Kuju dialect. Observing the entire ‘extra /ra/’ phenomenon in Japanese-Saga western dialect, we will point out that the phenomenon is too stable to explain with ‘analogy’ of language use, and that the ‘reanalysis’ of a ‘theme vowel’ plus the affix as another allomorph of the affix nullifies the assumed ‘conjugation’. We will show that the phenomenon is explained by an OT account with surface constraints in a morpheme-based morphology.

[Keywords]: affix, prosodic minimality, juncture segments, agglutinative languages

1 The phenomenon in Japanese-Saga western dialect

The descriptive generalization of the extra /ra/’s is that they are the /ra/’s occurring immediately before the final syllabic nasal of the negative forms of verbs in dialects and yet not occurring in their standard counterparts, for example, as contrasted by the underlined in Table 1, on the assumption that the dialectal counterpart of /-nai/ ‘not’ is the syllabic nasal /-N/.²

The extra /ra/ will occur in the negative forms of the so-called ‘vowel /e/-final’ base verbs if and only if the verbal stem is equal to or shorter than one consonant plus one vowel (CV), as exemplified by /ne-ra-N/ (cf. /ne-nai/ in standard) and */tabe-ra-N/ (cf. /tabe-nai/ in standard). The extra /ra/ occurs in those of all the ‘vowel /i/-final’ base verbs, as exemplified by /ki-ra-N/ and /oki-ra-N/.³ The extra /ra/ never occurs in the negative forms of the strong base verbs, as exemplified by */ko-ra-N/ (cf. /ko-N/) and */se-ra-N/ (cf. /se-N/).

There is a further observation. If and only if its shorter negative counterpart is at least inappropriate, the extra /ra/ can occur in the negative form, in other words, the longer negative form

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²As will be clarified later, the extra /ra/ will actually be the juncture consonant /r/ plus the derived allomorph of the negative lexeme /N/, /aN/. The negative lexeme of classical Japanese was /nu/, as in /oka-nu/ ‘put-not’. The negative forms of adjectives are the adverbial forms of adjective plus the negative morpheme /naka/ ‘not’ like /oishuu-naka/ ‘not delicious’ and /shizukaja-naka/ ‘not quiet’.

³I happened to hear a high school student in Saga City uttering [kiranai-de] to intend [kinai-de] ‘wear-not-Comp [inf]’ with the meaning of ‘please do not wear it’. This error is not be stable, but can be heard.

V-class	V-stem	neg. forms		V-stem	neg. forms	
Japanese-Saga western dialect						
C-final	ok ‘put’	okaN	*okaraN	nok ‘give way’	nokaN	*nokaran
/e/-final	n(e) ‘sleep’	?neN	neraN	tab(e) ‘eat’	tabeN	*taberaN
/i/-final	ki ‘wear’	*kiN	kiraN	oki ‘wake’	?okiN	okiraN
strong	k(o) ‘come’	koN	*koraN			
strong	s(e) ‘do’	seN	*seraN			
Standard Japanese						
C-final	ok	okanai	*okaranai	nok	nokanai	*nokaranai
/e/-final	ne	nenai	*neranai	tabe	tabenai	*taberanai
/i/-final	ki	kinai	*kiranai	oki	okinai	*okiranai
strong	k(o)	konai	*koranai			
strong	s(i)	sinai	*siranai			

Table 1: Verbal negative forms in Saga western dialect and standard Japanese

is appropriate, as exemplified by /ne-ra-N/ in contrast with ?/neN/, */tabe-ra-N/ in contrast with /tabeN/, /ki-ra-N/ in contrast with */kiN/ and /oki-ra-N/ in contrast with ?/okiN/ in the table.

2 Literature Review

There is no explicit analysis in the literature to explain all the extra-/ra/’s in any one of the Japanese dialects, and we will discuss an analysis such as one suggested in the ongoing research of Sasaki 2012 in the ‘conjugation’ framework. Every inflectional affix attaches to the sequence (‘stem’ in their terminology) of the stem (‘root’ in their terminology) plus a thematic vowel, or to the conjugated form of the verb. Observing only some extra /ra/’s in the vowel /i/-final base verbs in Japanese-Kuju dialect, he suggests a ‘reanalysis’ of 1) a theme vowel and 2) the negative affix /N/ as another morpheme of the affix. Stipulating that the reanalysis only applies to those verbal forms with the verbal root consisting of more than one phoneme, i.e., the consonant-final base verbs, the sequence /a-N/ is reanalyzed as such. Then, he uses ‘analogy’ of the /r/-insertion to derive /raN/ from /aN/ from that of the ‘non-past’ affix, /ru/ from /u/. We wonder why not both /N/ and /aN/ have been assumed as the negative affix from the scratch. The suggested analysis cannot explain why not, for example, */ko#raN/ ‘come-not’ and */se#raN/ are grammatical.

We will propose a falsifiable and restrictive analysis of all the extra /ra/ insertions (or, actually the extra /r/-insertions) of Saga western dialect in a lexeme-morpheme based morphology, which revises Kiyose’s 1995.

3 Framework

3.1 Architecture of grammar

Grammar as a whole is a function mapping a given meaning, m , to an optimal candidate, or output, a sequence of sounds with a morpho-syntactic structure and with its meaning equivalent to the input, as follows. First, the core components of lexicon, phonology, morphology, syntax and semantics, map the given meaning m to its candidates, as the ‘generator’ does in Lee 2004. Then, some candidates are excluded as inappropriate by surface constraints, and some will be optimal one that

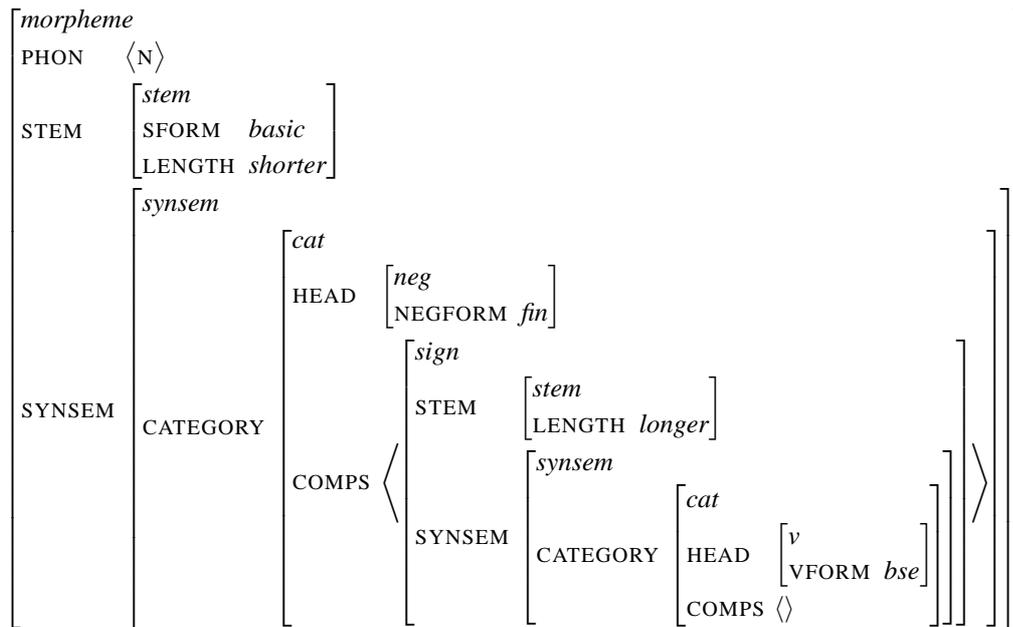


Figure 1: The structure of feature specifications of the allomorph of the negative affix, /N/

invites the least serious violations of violable surface constraints, ranked for the dialect/language-specific hierarchy.

3.2 Stem and affix-related assumptions of Kiyose 1995

There is no ‘conjugation’ in Kiyose 1995. Every ‘thematic vowel’ in the ‘conjugation’ assumption, which is the rest of the verbal stem minus its root, is analyzed as a part of the affix. That is, every affix is associated with two allomorphs: one beginning with a vowel and the other beginning with a consonant (Kiyose 1995), as the possible patterns are Pattern I: V[C...]_i and [C...]_i and Pattern II: C[V...]_k and [V...]_k.

3.3 Morphological specifications independent of syntax and semantics

Grammar specifies morphological features of the allomorphs of 1) every affix and 2) every verbal lexeme independently of their syntactic and semantic features (Bonami & Boyé 2006). The morphological features of the allomorphs of affixes and verbal lexemes are specified by two dimensions in Japanese and its dialects: one, derivationhood (SFORM) and two, length (LENGTH) (Koga and Ono 2010; Koga 2012). The feature SFORM specification indicates whether the allomorph is basic one (*basic*) or one derived from the basic (*adjstd*). The feature LENGTH specification indicates whether the allomorph is the longer (*longer*) or the shorter (*shorter*).

The idea (1) determines which is the basic and which is the derived among the allomorphs.

- (1) a. The basic allomorphs of the affixes are the morphemes of original verbs or adjectives (Kiyose 1995).⁴

⁴The basic allomorph of the ‘non-past’ affix is /u/, and the derived one is /ru/. The basic allomorph of the causative is /sase/, and the derived one is /ase/. The basic allomorphs of the imperative affix are /e-(yo)/, and the derived ones are /ro-(yo)/. See footnote 9 for the allomorphs of the past affix.

- b. The basic allomorphs of the verbal lexemes are the stems selected by the past affix and the infinitive complementizer (Koga 2012).⁵

It follows that, for example, the so-called ‘vowel /e/-final’ base verbal lexemes /n(e)/ ‘sleep’ and /tab(e)/ ‘eat’ are associated with the allomorphs /...e/ with the morphological specifications of [STEM [SFORM *basic*] [LENGTH *longer*]] and the allomorphs with no final /e/ like /n/ ‘sleep’ and /tab/ ‘eat’ with those of [STEM [SFORM *adjstd*] [LENGTH *shorter*]]. See the structure of NON-HD-DTR [PHON *ne*] in Figure 4 for the entire feature specifications of the verbal lexeme /n(e)/. See Figure 2 of Koga 2012 for the feature specifications of the verbal lexeme /k(o)/ ‘come’. Similarly, it follows that, for example, the basic allomorph of the negative affix in Japanese-Saga western dialect is /N/, and the derived one is /aN/. The allomorph of the negative affix /N/ contains the morphological specification of [STEM [SFORM *basic*] [LENGTH *shorter*]], as the entire structure of the feature specifications of /N/ ‘not’ given in Figure 1, and the other allomorph /aN/ contains those of [STEM [SFORM *adjstd*] [LENGTH *longer*]].

3.4 Selections of Morphological Complements

The verbal stems entertain default implicative relations in the stem dependency of the dialect, which is represented in Figure 3 of Koga 2012. The stem dependency reflects the fact that the more deeply embedded or marked the affix is, the longer or at least equally lengthened verbal stem allomorph will be selected (in order for the audibility of the verbal stem. The negative affix (of the allomorphs /N/ and /aN/) selects the longer allomorph of a verbal lexeme (Koga 2012), for example, as in the COMPS specification of /N/ ‘not’ in Figure 1.⁶

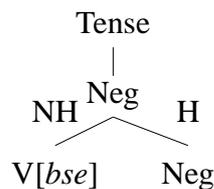


Figure 2: The morphological phrase of a verbal stem and the negative affix

A morphological phrasal rule identifies a verbal stem and an affix as a verbal form if the verbal stem satisfies the requirement for its morphological complement by the affix, as you will see how the morphological phrasal rule identifies the verbal stem /ne/ and a negative morpheme /raN/ as a morphological phrase of [HEAD *neg* [NEGFORM *fin*]] in Figure 4.⁷ A morphological phrasal rule with the zero affix of tense, as formalized as in Figure 3, identifies a morphological negative phrase /ne#N/ as a tense phrase with the zero tense morpheme, as you will see for the verbal tense form /ne#raN/ with [HEAD *t* [TFORM *zero*]] in Figure 4.⁸

The core components of grammar correctly do not ‘generate’ some forms (or disallow them as ungrammatical), as in (2).

- (2) a. *n#aN

⁵We depart here from Kiyose 1995. Kiyose 1995 assumes that /ko/ is the basic allomorph for the verbal lexeme /k(o)/ ‘come’, and /se/ is the basic allomorph for the verbal lexeme /s(e)/ ‘do’.

⁶See Koga and Ono 2010 for an analysis of the ‘non-past’ affix as the tense expletive that selects the shorter allomorphs.

⁷We assume that the juncture between a verbal stem and an affix is either C#V or V#C. The pattern of C#C will be used, except for the case avoiding /s#t/ in the juncture, if the affix is the past affix because of its leveling. See footnote 9.

⁸Even if the negative affix and the tense morpheme form one word, the adverb /amari/ ‘very ... (not)’, for example, adjoins to the negative form, but not the tensed form, as in /amari ne#nak]-atta/ is interpreted as ‘did not sleep very much’. Thus, the unary phrasal rule is better than a non-inflecting lexical rule, making the analysis of [*tense* [amari [*neg* neN]]] possible.

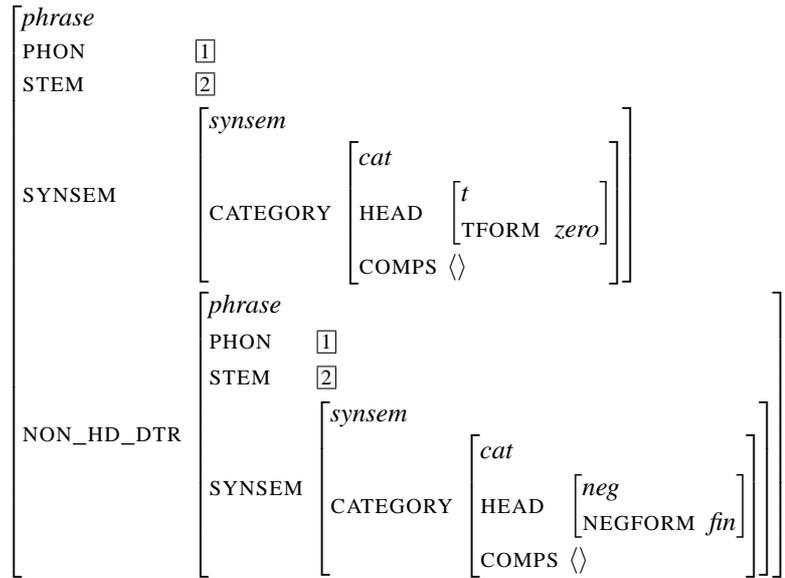


Figure 3: The morphological phrasal rule with its head the zero tense morpheme

- b. *tab#aN
- c. *k#aN
- d. *s#aN

4 A proposal

The analysis we propose consists of three violable constraints outside of the core components of grammar and a readjusted allomorph of the stem-selecting affix in the core components. These four work in a division of labor.

4.1 In the core components of grammar

Given an affix with two allomorphs, another allomorph of the affix is associated with the longer allomorph, the same as the longer allomorph except for a juncture consonant or a juncture vowel present at the end of the non-head direction (or at the beginning for the head-final language Japanese), as schematized as in (3).

- (3) a. $C_{\text{Juncture}}\text{-}V[C\dots]_i$, e.g., *CaN*, *Ce-(yo)*, *Cita*, where the affix is also associated with $V[C\dots]_i$ and maybe, $[C\dots]_i$.
- b. $V_{\text{Juncture}}\text{-}C[V\dots]_k$, e.g., *Vru*, *Vro-(yo)*, *Vsase*, where the affix is also associated with $C[V\dots]_k$ and maybe, $[V\dots]_k$.⁹

The juncture consonant for the affixes is the default one of the language. The default consonant of Japanese is the weakest one, or the dental liquid /r/.¹⁰ It follows that the newly associated allomorph of the negative affix is /raN/ ‘not’. We propose:

⁹ The allomorphs of the past affix, /ita/ and /ta/, have been leveled to /ta/ except in the case of the verbal stems ending with /s/. The juncture vowel for /Vta/ would be /i/ in order to analyze, for example, /kaita/ ‘wrote’ for /kak-ta/ and /oyoida/ ‘swam’ for /oyog-ta/.

¹⁰ The juncture vowel, on the other hand, is one associated with the affix in question, for example, the first occurring vowel of the basic allomorph of the affix, or others

- (4) Neither the adjusted allomorph nor the readjusted allomorph of an affix selects the adjusted allomorph of a verbal lexeme.

It follows from this premise that the newly associated allomorph of the negative affix /raN/ ‘not’ selects the verbal stems with the property of being basic as well as being longer, as its morphological complement specified as in Figure 4.

The core components of grammar thus correctly do not ‘generate’ forms (or disallow them as ungrammatical), as in (5) by (4) (or Figure 4), and ‘generate’ other forms (or allow them as grammatical).

- (5) a. *ko#raN
b. *se#raN

Grammatical forms may be inappropriate or marginal or totally inappropriate, as marked with * or ?, as will be explained by surface constraints later.

4.2 Surface constraints

We follow Sasaki’s 2012 use of 1) Ito’s 1990 prosodic minimality, 2) Kobayashi’s 1995 phonological non-stability of the negative affix /N/, revising slightly for the phenomenon of Japanese-Saga western dialect. We add another surface constraint. The implementations of the three violable surface constraints are left for future research.

ITO 1990: The prosodic structure of every tensed verbal form is longer than one syllable with at least the nucleus and the coda filled, or one heavy syllable. Its violation has effect on native speakers’ judgments to judge the form 50% inappropriate. This surface constraint correctly excludes the verbal form ?/ne#N/ (as well as other forms ?/de-N/ ‘go out-not’ and ?/heN/ ‘past [time]-not’).

KOBAYASHI 1995: Kobayashi 1995 is revised in order for Japanese-Saga western dialect as follows: If the morpheme of the affix is one consonant or vowel, a verbal form will be avoided if the segment of a verbal stem and the morpheme of an affix in its boundary are not distinctively audible. Its violation has effect on native speakers’ judgments to judge the form 50% inappropriate. My speculation is that the place where the tongue for the [+high] vowel is raised and the point of articulation where the air flow stopped by the tongue for the syllabic nasal /N/ are too close for each to be distinctively audible. The verbal form */ki-N/ as well as the forms */ni-N/ ‘resemble-not’ and */mi-N/ ‘look at-not’ is correctly predicted to be inappropriate by the violations of both the prosodic minimality and the separate detectability of the final vowel and the negative syllabic nasal /N/.

NO JUNCTURE ELEMENT WITHOUT MOTIVATION: Our last surface constraint is as follows:

- (6) If and only if the verbal stem with the shorter allomorph of the affix is NOT appropriate, the verbal form with another allomorph of the affix adjusted with the juncture consonant or vowel present at the initial will be grammatical.

Three violable surface constraints are ranked in Saga western dialect of Japanese as follows:

- (7) The inviolability ranking among the given three surface constraints is *JunctWTOMoti >> ProsMini, ?...i#N.

PREDICTIONS BY THE SURFACE CONSTRAINTS IN TABLE 2:

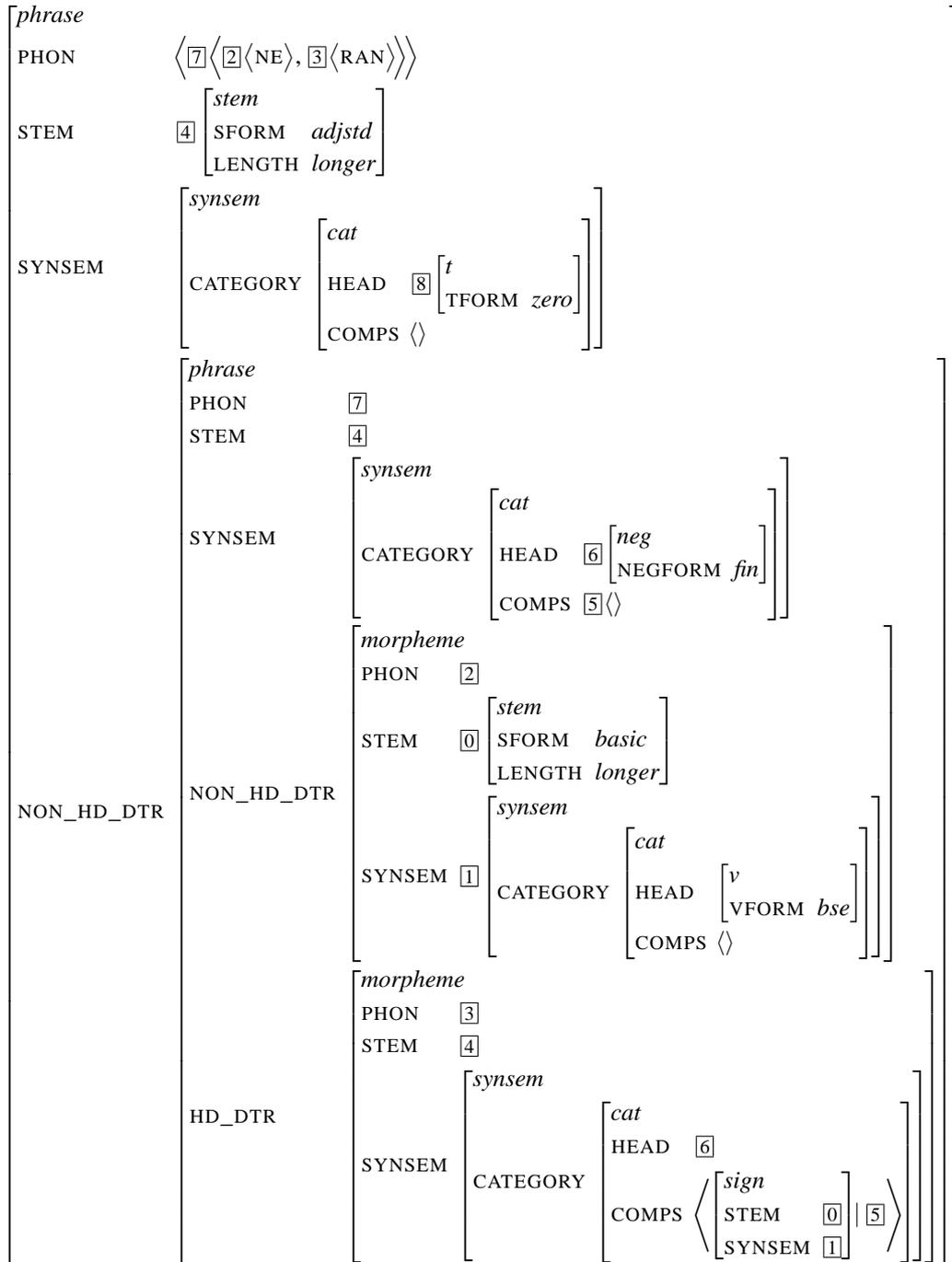


Figure 4: The morphological phrase /ne#raN/ 'sleep-not'

	[[V Neg] T]	S ₃	S ₁	S ₂		[[V Neg] T]	S ₃	S ₁	S ₂
☞	?ne#N ne#raN		*		☞	tabe#N *tabe#raN	*!		
☞	*ki#N ki#raN		*	*!	☞	?oki#N oki#raN			*
☞	ko#N		*						
☞	se#N		*						

S₁: ProsMini S₂: ?...i#N S₃: *JunctWTOMoti

Table 2: Negative Affix' Selections of Verbal Stems

The contrast between /oki#raN/ and */tabe#raN/ is correctly predicted. Since another form ?/oki#N/ is predicted to be only 50% appropriate, its longer form /oki#raN/ is predicted to be appropriate. Since another form /tabe#N/ is predicted to be appropriate, its longer form */tabe#raN/ is predicted to be not motivated and be inappropriate. The surface constraint predicts that /ko-N/ and /se-N/ are inappropriate since they violate the prosodic minimality. Using the Optimality Theoretic account, since there is no other grammatical form with less serious violations than these, there is no other way to select /ko-N/ and /se-N/.

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