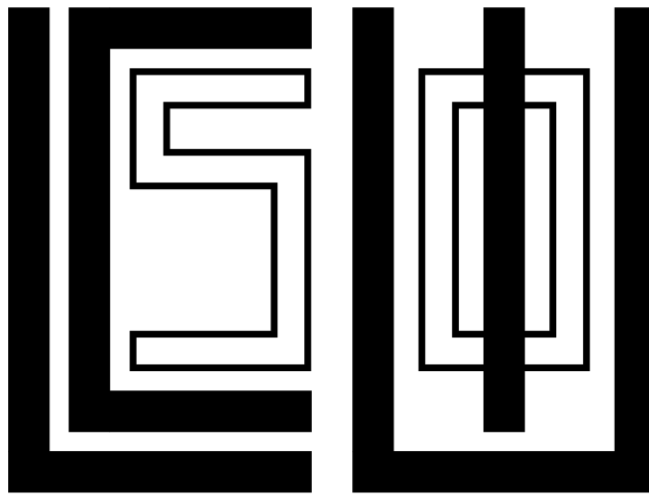


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Saamia NC Phonology

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This short paper describes aspects of the NC phonology of Saamia, based on data I collected from Hannington Ochwada in 2001-2002 as part of a field methods course at Indiana University led by Robert Botne. I thank Hannington for his patience, good nature, and enthusiasm in supporting our research on his language and Bob for providing a stimulating environment learning environment that incubated my interest in languages of the Luyia cluster, which I have been studying ever since. I also acknowledge helpful feedback from Stuart Davis, who provided input on a term paper based on some of the same data for a phonology course I took with him in Spring 2002.

Saamia is a member of the Luyia macrolanguage that is spoken on both sides of the Kenya/Uganda border. It has the ISO code [lsm] and is classified as JE34 by Maho (2009). The 2014 Uganda census reports 421,000 members of the Saamia community and 99,900 members of the closely related Gwe community. The 2009 Kenya census gives a population of 125,000.

There is relatively little prior research on Saamia. The main works describing aspects of the structure of Saamia are Chagas (1976), Poletto (1998), Marlo (2002, 2004, 2006), Marlo & Brown (2002), Botne (2004), Botne et al. (2006), and Heida (2016). There is also a *Samia – Lugwe – English Dictionary*, published in Kenya and Uganda in 2013 by Irenaeus Wandera Barasa, but I have not been able to obtain a copy of the work.

The data discussed below show morphophonological alternations involving the 1S subject marker *N-* when combined with stems of different phonological types. These data all involve unmarked present tense forms that have no other prefixes beside the 1S subject marker and which take the final vowel *-a*. The same general patterns are presented in Botne et al. (2006), though I give a few additional forms here to provide additional empirical exemplification.

A more complete study of allomorphy of the 1S subject marker would also include forms where 1S subject marker precedes a prefix, such as tense-aspect prefix or an object marker; see Botne et al. (2006: 81-83) for some details. A more complete study of NC phonology in Saamia would also include the 1S object marker and nouns from noun class 9 and noun class 10. The 1S object marker mostly has the same forms as the subject marker, but there are differences when the prefixes combine with vowel-initial verb stems. Class 9 and class 10 nouns begin with the noun class prefix *eN-*.

The verbs stems in (1) all begin with a voiced stop or affricate, as shown in the left column, with the bare verb stem, which is segmentally identical to the imperative form of the verb in the case of consonant-initial verb stems. (Tone is not transcribed.) In forms inflected with the 1S subject marker in the center column, the 1S prefix is realized as a nasal that has the same place of articulation as the following stem-initial consonant. I take no position on the issue of whether the surface NC sequence should be treated as a single complex segment or as a cluster. See Downing (2005) for discussion of this controversial issue in Bantu languages.

(1) Stems beginning with a voiced stop/affricate

| Stem | 1S+Stem | Gloss |
|-------------|----------------|---------------------------|
| buungul-a | m-buungul-a | 'stay' |
| bw-a | m-bw-a | 'go away' |
| deex-j-a | n-deex-j-a | 'marry (lit. 'make cook') |
| dʒooŋ-a | ŋ-dʒooŋ-a | 'get tired' |
| gamul-a | ŋ-gamul-a | 'catch' |

In (2), we see that stems that begin with a voiceless stop or affricate become voiced after the nasal, and the nasal prefix has the same place of articulation as the following consonant.

(2) Stems beginning with a voiceless stop/affricate

| Stem | 1S+Stem | Gloss |
|----------|------------|--------------|
| paang-a | m-baang-a | 'arrange' |
| tem-a | n-dem-a | 'chop' |
| tʃex-a | ɲ-dʒex-a | 'laugh' |
| kon-a | ŋ-gon-a | 'sleep' |
| keend-a | ŋ-geend-a | 'walk' |
| kees-j-a | ŋ-gees-j-a | 'walk (tr.)' |

There is only one other voiced obstruent in Saamia, the bilabial fricative [β]. As shown in (3), stem-initial /β/ hardens to [b] after the nasal prefix, which assimilates in place to the stem-initial consonant and is realized as [m].

(3) Stems beginning with [β]

| Stem | 1S+Stem | Gloss |
|---------|-----------|-----------------------|
| βuk-a | m-buk-a | 'return soil to hole' |
| βukul-a | m-bukul-a | 'take' |
| βwiix-a | m-bwiix-a | 'thatch a house' |
| βul-a | m-bul-a | 'be without' |
| β-a | m-b-a | 'give' |
| βon-a | m-bon-a | 'see' |

As shown in (4), the nasal deletes before voiceless fricatives, and the stem-initial voiceless fricatives surfaces unchanged. A formal analysis of these facts needs to explain why the stem-initial voiceless fricative does not undergo post-nasal voicing and post-nasal hardening, since both processes independently occur. In a rule-based analysis, a rule deleting nasals before voiceless fricatives would apply before the rules of post-nasal voicing and post-nasal hardening.

(4) Stems beginning with a voiceless fricative

| Stem | 1S+Stem | Gloss |
|---------|---------|------------|
| fʊutʃ-a | fʊutʃ-a | 'spit' |
| sik-a | sik-a | 'roast' |
| xeɛŋg-a | xeɛŋg-a | 'cut' |
| xooj-a | xooj-a | 'ought to' |
| xuβ-a | xuβ-a | 'beat' |

A form of nasal deletion also takes place in stems beginning with a nasal consonant, as shown in (5). (There is generally a tonal difference on the verb stem between imperatives and present tense forms, so although the two columns are segmentally identical, they are tonally distinct.) Since there is no natural class that groups together voiceless fricatives with nasals, it is worth considering whether a single process is at play or distinct processes. The likely explanation for nasal deletion in the context of a nasal-initial stem is that Saamia does not allow for geminate consonants, and therefore the deletion process we see here is really a degemination process.

(5) Stems beginning with a nasal

| Stem | 1S+Stem | Gloss |
|----------|----------|---------------|
| mal-a | mal-a | 'finish' |
| niin-a | niin-a | 'climb' |
| ɲdʒaas-a | ɲdʒaas-a | 'spoil (tr.)' |
| ɲdʒol-a | ɲdʒol-a | 'receive' |
| ɲul-a | ɲul-a | 'snatch' |

Just as there is hardening when the stem begins with the voiced fricative /β/, there is also hardening with stems that begin with the lateral liquid /l/. As shown in (6), stem-initial /l/ becomes the stop [d] in the post-nasal context.

(6) Stems beginning with /NC/, where C is non-nasal

| Stem | 1S+Stem | Gloss |
|--------|----------|---------------|
| lir-a | n-dir-a | 'cry' |
| leet-a | n-deet-a | 'bring' |
| loβ-a | n-doβ-a | 'fish' |
| lux-a | n-dux-a | 'weave' |
| lj-a | n-dj-a | 'eat' |
| leej-a | n-deej-a | 'become tall' |
| lex-a | n-dex-a | 'stop' |
| lol-a | n-dol-a | 'look' |
| loot-a | n-doot-a | 'dream' |

In all of the examples in (6), the second consonant of the stem is a non-nasal. The examples in (7) show that there is a different outcome when the consonant following an /l-initial stem is a nasal. Here we find that Meinhof's Law (Meeussen 1962) applies, as the input /N-lVN/ sequence surfaces as *nVN*. Note that when combined with the reduplicated stem *lom-a-lom-a* 'talk', the nasal component of the 1S marker surfaces in both halves of the reduplicated verb: *nom-a-nom-a* 'I talk'. One possible analysis of these data is to set up a rule deleting /l/ between nasals. Such a rule would have to apply before post-nasal hardening, since there is generally no problem with *ndVN*. Another possibility is to set up a rule that nasalizes /l/ between the nasals, creating intermediate representations with geminate nasals *nn*, which subsequently undergo degemination to *n*.

(7) Stems beginning with /VN/

| Stem | 1S+Stem | Gloss |
|-------------|-------------|-------------|
| laang-a | naang-a | 'call' |
| lem-a | nem-a | 'be lame' |
| lim-a | nim-a | 'cultivate' |
| lum-a | num-a | 'bite' |
| lom-a-lom-a | nom-a-nom-a | 'talk' |
| liind-a | niind-a | 'wait' |
| liing-a | niing-a | 'face' |
| luung-a | nuung-a | 'cook' |
| lwaan-a | nwaan-a | 'fight' |

The main data remaining to be described are forms with a vowel-initial stem, one subset of which are shown in (8). These data contain an additional column compared to previous examples, where the stem and the imperative form of the verb are segmentally identical. Here I have distinguished the underlying form of the stem (1st column) from the imperative form of the verb (2nd column). Verbs with a V-initial stem are generally realized in the imperative with an initial glide [j], except in /i/-initial stems, where there is no initial [j], or it is optionally present. I assume that the glide is underlyingly absent because in other contexts where a prefix ending in a vowel is present, the underlying /N+V/ combination gives rise to typical hiatus-resolving alternations, such as glide formation and coalescence. For instance, we find infinitival forms such as *ó-xw-aat-á* 'to split', *ó-xw-eek-á* 'to learn', *ó-xw-oot-á* 'to warm self by fire', and *ó-xw-iβ-á* 'to steal', which all show the infinitival marker /ó-xu-/ undergoing glide formation before a non-identical vowel. As with /l/-initial stems, there is a difference between V-initial stems depending on whether the consonant after the initial vowel is a nasal. The forms in (8) have a non-nasal consonant after the stem-initial vowel, and here we see that the 1S subject marker is realized *ɲdʒ*-.

(8) Stems beginning with VC, where C is non-nasal

| Stem | Imperative | 1S+Stem | Gloss |
|--------|------------|------------|---------------------|
| at-a | j-at-a | ɲdʒ-at-a | 'split (vt.)' |
| ak-a | j-ak-a | ɲdʒ-ak-a | 'weed' |
| ek-a | j-ek-a | ɲdʒ-ek-a | 'learn' |
| ot-a | j-ot-a | ɲdʒ-ot-a | 'warm self by fire' |
| iβ-a | (j)-iβ-a | ɲdʒ-iβ-a | 'steal' |
| ikal-a | ikal-a | ɲdʒ-ikal-a | 'close' |
| irux-a | (j)-irux-a | ɲdʒ-irux-a | 'run' |
| itf-a | itf-a | ɲdʒ-itf-a | 'come' |
| ixal-a | ixal-a | ɲdʒ-ixal-a | 'sit down' |
| it-a | it-a | ɲdʒ-it-a | 'kill' |

One interpretation of these data is that the underlying form of the 1S subject marker is /ɲdʒ-/, and there are no alternations. Another interpretation is that the glide *j* is inserted in stem-initial position in the forms with the 1S subject marker, as it is in imperatives. Epenthetic *j* then undergoes post-nasal hardening to [dʒ], and conditions place assimilation of the preceding nasal. See Dalgish (1974, 1975) for a proposal along these lines in Tsootso, another Luyia variety.

When the consonant after the stem-initial vowel is a nasal, as shown in

(9), we find effects of Meinhof's Law, as only the palatal nasal *ɲ*- surfaces before the V-initial stem. This pattern supports an analysis with a rule of glide insertion over an analysis with underlying /ɲdʒ-/ because, as noted above with respect to /MN/-initial stems, there is no general deletion of a stop/affricate between nasals in Saamia. This pattern, however, does not distinguish between the alternatives of directly deleting the glide or first nasalizing it and then simplifying the geminate.

(9) Stems beginning with VN

| Stem | Imperative | 1S+Stem | Gloss |
|--------|------------|----------|-------------------|
| amb-a | j-amb-a | ɲ-amb-a | 'catch a chicken' |
| aɲdʒ-a | j-aɲdʒ-a | ɲ-aɲdʒ-a | 'start' |

| | | | |
|----------|-----------|------------|------------------------|
| eŋ-a | j-eŋ-a | ŋ-eŋ-a | 'want' |
| em-a | j-em-a | ŋ-em-a | 'stand up' |
| om-a | j-om-a | ŋ-om-a | 'plaster mud on house' |
| imb-a | (j)-imb-a | ŋ-imb-a | 'sing' |
| ijaamb-a | | ŋ-ijaamb-a | 'pass gas' |

One type of V-initial stem missing from the data in (8) –

(9) is /u/-initial verbs. Botne et al (2006: 163-164) list a handful of examples of this type. I do not have data involving the 1S subject marker with all of these verbs, but the three sets of examples I do have are given in (10). All three are recorded with an initial [w] in the imperative, which appears to also be present in the 1S forms, hardening to [b] when the following consonant is non-nasal, and undergoing Meinhof's Law when the following consonant is nasal. Although this analysis seems consistent with the one just given of other V-initial stems above, I would like to study forms of this type further (e.g. by inflecting the same stems with different prefixes) to ensure that they are truly vowel-initial, and not ghost consonant-initial.

(10) Stems beginning with /u/

| Stem | 1S+Stem | Imperative | Gloss |
|------|---------|------------|----------------|
| ul-a | mb-ul-a | w-ul-a | 'win' |
| uk-a | mb-uk-a | w-uk-a | 'be surprised' |
| uŋ-a | m-uŋ-a | w-uŋ-a | 'smell' |

Finally, there is one additional stem in my data set that appears to have an unexpected overapplication of Meinhof's Law, given in (11).

(11) Meinhof's Law applies unexpectedly

| Stem | 1S+Stem | Gloss |
|---------|---------|---------|
| βuumb-a | muumb-a | 'mould' |

This root, which derives from the Proto-Bantu root **búmb* 'mould pottery', is transcribed with stem-initial [β], but it seems to behave like the *u/w*-initial roots of (10) in undergoing Meinhof's Law, which is unexpected because there are no other examples in which a stem-initial obstruent is deleted between nasals. My other notes on stems that begin with βVN are not extensive, but the other example I have in my records, *m-bon-a* 'I see' (see (3) above), undergoes hardening and not Meinhof's Law. This matter will have to be taken up in additional research.

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