Chapter V

Morphophonological variations

5. Introduction

This chapter expounds the various morphophonological variations that exist between the geminate group (GG) and the non-geminate group (NGG) of Mising dialects. Data from each of the Mising dialects would be presented wherever it is pertinent to do so; otherwise the comparison is collectively made in the light of the two major groups, i.e. geminate and non-geminate. As mentioned earlier, the dialects which fall under the geminate group are Pagro, Dulu, Ojan, and Dambuk. On the other hand, Sa:jaj and Mo:jij are placed under the non-geminate group (for details, see §1.2.5). Here, data from Mi;jog and Padam would also be illustrated so as to show its similarity and/or differences with some of the Mising dialects (especially those which are grouped under the non-geminate group).48

Before looking into the morphophonological variations, it is important for us to deal with the morphosyntactic variation that exists between geminate and non-geminate groups of Mising dialects. It is due to this morphosyntactic difference, various morphophonological differences are triggered between the two groups concerned. The morphosyntactic differences that exist between different Mising dialects could be brought out to light with the attachment of -ə to both geminate and non-geminate groups' nominal and adjectival roots. The syntactic functions of -ə are described in

48 Das Gupta (1977) reports the general resemblance of Mi;jog adi with the Padam Adis with some striking phonological differences. Among other Eastern Tani languages as spoken in Arunachal Pradesh, Padam Adi and Mi;jog Adi appears to be the closest cognates of Mising.
§5.1. Discussions on morpho-syntactic difference is given in §5.2. The various morphophonological changes which triggers vowel coalescence, vowel deletion, and word-medial gemination are expounded in §5.3 followed by an assessment of the various morphophonological processes triggered as a result of the attachment of the marker -ə to root words ending in various vowels.

5.1. Syntactic functions of -ə in GG and NGG

In both the groups of Mising dialects, i.e. geminate and non-geminate, -ə has two different syntactic functions. It has the function of a copula as well as that of a generic/definite non-specific marker. These two functions are discussed in the following two sub-sections (§5.1.1-5.1.2).

5.1.1. -ə as copula

Copula is a term used in grammatical description to refer to a linking verb, i.e. a verb which has little independent meaning, and whose main function is to relate other elements of clause structure especially subject and complement (Crystal 1980:84). The term copula as a constituent of copular construction has been used in typological studies to refer to any morpheme (affix, particle or verb) that links or couples a subject with a copula compliment in a family of constructions, collectively often referred to as predicate nominal constructions (Payne 1997:111). A verb can be identified as a copula when it has (1) two core arguments (2) relational rather than a referential meaning, and (3) at least the relations of identity/equation/naming and or attribution (Dixon 2002:4).

In Mising, the marker -ə operates as a copula when it is suffixed to a sentence-final nominal or adjective. Examples from the geminate and the non-geminate groups of Mising dialects are given below.
In Mising (both the GG and the NGG Mising dialects), sentences of identity and equation are frequently expressed by the copula verb -ə. As shown in (109a and 110a) above, we see that -ə links the subject zon-bi ‘John-3.SG’ to kai ‘elder brother’ and zon-bi ‘John-3.SG’ to sa:si ‘elder brother’. Here, we see that the marker -ə links the subject to another noun, or rather, one NP to another NP. Likewise, in (109b), the subject mimbir-do ‘young girl-DEF’ and mijum-do ‘young girl-DEF’ as in (110b) is linked to an adjective k8lJkan ‘beautiful’ and kampu ‘beautiful’ respectively. Thus, going by the traditional definition of a copula as a linking element, one can say that the suffixation of -ə to a sentence-final nominal or adjective amounts to a copula function in Mising.

5.1.2. -ə as a generic marker

In §5.1.1 we have argued for the function of -ə as a copula. Apart from this, -ə occurs as a generic marker when it attaches to a subject NP in both the geminate and the non-geminate groups of Mising dialects. Examples (111a-c) are taken from the
geminate group and (112a-113c) from the non-geminate group. Irrespective of the phonological variation in the subject NP between the geminate and non-geminate groups, -o functions as a generic marker. We notice phonological variation in the subject NP, and lexical and grammatical suffix variations in the VP in between the non-geminate varieties; (112a-c) is taken from the Sa'ajag Mising and examples (113a-c) from the Mo'jig Mising.

(111a)  
\[
\text{ik}:\text{-ko ra-la}-\text{dug}
\]
\[
dog-\text{INDEF} \quad \text{bark-}\text{NF-EXIST}
\]
\[
\text{A dog is barking.}
\]

\text{(GG:PM)}

(111b)  
\[
\text{ik}:\text{-d}\text{o ra-dak}
\]
\[
dog-\text{DEF} \quad \text{bark-}\text{PRES}
\]
\[
\text{The dog barks.}
\]

\text{(GG:PM)}

(111c)  
\[
\text{ik}:\text{-}\text{o ra-dak}
\]
\[
dog-\text{GENR} \quad \text{bark-}\text{PRES}
\]
\[
\text{Dogs bark.}
\]

\text{(GG:PM)}

(112a)  
\[
\text{ak}:\text{-ko ra-la}-\text{dug}
\]
\[
dog-\text{INDEF} \quad \text{bark-}\text{NF-EXIST}
\]
\[
\text{A dog is barking.}
\]

\text{(NGG:SM)}

(112b)  
\[
\text{ak}:\text{-do ra-dak}
\]
\[
dog-\text{DEF} \quad \text{bark-}\text{NF-PRES}
\]
\[
\text{The dog barks.}
\]

\text{(NGG:SM)}

(112c)  
\[
\text{ak}:\text{-o ra-la}-\text{dug}
\]
\[
dog-\text{GENR} \quad \text{bark-}\text{NF-PRES}
\]
\[
\text{Dogs bark.}
\]

\text{(NGG:SM)}

(113a)  
\[
i:ki:-\text{ko po-na}-\text{dug}
\]
\[
dog-\text{INDEF} \quad \text{bark-}\text{NF-EXIST}
\]
\[
\text{A dog is barking.}
\]

\text{(NGG:MM)}
(113b) *i:ki:-do pa-do*
  dog-DEF bark-PRES
  ‘The dog barks.’ (NGG:MM)

(113c) *i:ki:-ə pa-do*
  dog-GENR bark-PRES
  ‘Dogs bark.’ (NGG:MM)

The marker `-ko` in (3a, 4a, and 5a) is almost certainly derived from the numeral *ako* ‘one’. But here, it is not occurring as an enumerative modifier, but rather as a referential marker. When an NP is marked in `-ko`, the reading is indefinite; giving the sense of ‘any given dog’. When an NP is marked in `-da` and `-a`, the understanding is definite; `-da` gives the reading of a *definite specific* noun phrase and `-a` as that of a *generic/non-specific* noun phrase. For instance, while in (111a-b, 112a-b, and 113a-b) the reading is that of an individual dog, in (111c, 112c, and 113c), the reading is that of all dogs as a natural class.

However, `-ə` may have different functions in different languages belonging to the Tani group. For instance, it has a somewhat different role in Galo.\(^49\) Consider the following examples from the Lare dialect:

(114a) *bii ticər anə.*
  [bii][ticər][anə]
  3.SG teacher COP.IPV=DECL
  ‘He or she is a teacher (currently).’ (Post 2007:423)\(^50\)

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\(^49\) Galo is spoken in Arunachal Pradesh. It is a “transitional” (Eastern-convergent) language of the Western Tani group (Post 2007).

\(^50\) Transcription of a long vowel *ə* here is faithful to the source cited. It has since been determined that the source is incorrect in this respect, and that Galo `-ə`, like its Mising cognate, is underlyingly short. Occasional surface lengthening of Galo `ə` seems purely to be a response to (phonological) word minimality rules.
In both (114a) and (114b) we notice that, like in Mising, Galo makes use of \( \rla \) as a sentence-final copula. However, in (114b) and (114c), \( \rla \) occurs both with a subject NP and with a backgrounding clausal nominalization; it is analyzed by Post (2007:423) as a *topic marker*, entailing both definite specific and non-specific functions. Thus, it also includes the function of the definite marker \( -d\rla \) in Mising (for which there is no corresponding form in Galo). We may say that \( \rla \) has closely similar patterning in Mising and Galo, but has a wider range of uses in Galo when marking an NP.

5.2. Variations in GG and NGG

In §5.1 we have established the different functions of \( \rla \) in both the varieties. In this section we discuss how exactly the morphosyntactic variations that exist between the two varieties could be shown. In the geminate group, the form of a word is frequently altered when \( \rla \) is suffixed to it. The form of a word in non-geminate group, on the other hand, does not get affected in any way with the suffixation of \( \rla \) to the root.
word. Few examples with the suffixation of -ə to nominal stems (either as subject NP or occurring as sentence-final NP) are illustrated below:

(115a) \textit{bi} \textit{zonkə} \textit{omma}\textit{ə}  \\
\textit{bi} \textit{zon-ko} \textit{oma-ə}  \\
3.SG John-GEN daughter-COP  \\
'She is John’s daughter.' \quad (GG)

(115b) \textit{bi} \textit{zonkə} \textit{oməə}  \\
\textit{bi} \textit{zon-ko} \textit{oma-ə}  \\
3.SG John-GEN daughter-COP  \\
'She is John’s daughter.' \quad (NGG)

(116a) \textit{tabbə} \textit{zonmə} \textit{pato}  \\
\textit{tabi-ə} \textit{zon-mə} \textit{pa-to}  \\
snake-GENR John-ACC bite-PERF  \\
'Some snake has bitten John.' \quad (GG)

(116b) \textit{tabiə} \textit{zonmə} \textit{pato}  \\
\textit{tabi-ə} \textit{zon-mə} \textit{pa-to}  \\
snake-GENR John-ACC bite-PERF  \\
'Some snake has bitten John.' \quad (NGG:SM)

(116c) \textit{tabiə} \textit{zonbim} \textit{septo}  \\
\textit{tabi-ə} \textit{zon-bi-m} \textit{sep-to}  \\
snake-GENR John-ACC bite-PERF  \\
'Some snake has bitten John.' \quad (NGG:MM)

The root words as in \textit{omə} ‘daughter’ and \textit{tabi} ‘snake’ in both the varieties are same, but the combination of -ə with the root words bring about morphophonemic changes in the geminate group and not in the non-geminate group (115a-116c). The alternation is further exemplified in Table 35.
Table 35 - Suffixation of -ə to GG and NGG root words along with their syllabic representations

<table>
<thead>
<tr>
<th>Root + -ə</th>
<th>Structure</th>
<th>Gloss</th>
<th>GG</th>
<th>NGG</th>
</tr>
</thead>
<tbody>
<tr>
<td>tabi-ə</td>
<td>CV.CV-V</td>
<td>‘snake-GENR’</td>
<td>tabbə (CVC.CV)</td>
<td>tabi-ə (CV.CV.-V)</td>
</tr>
<tr>
<td>omə-ə</td>
<td>V.CV-V</td>
<td>‘daughter-COP’</td>
<td>ommə (VC.CV)</td>
<td>omə-ə (V.CV.-V)</td>
</tr>
</tbody>
</table>

Among the geminate group forms shown, when -ə is suffixed to a root word, gemination of the medial consonant and deletion of the word-final vowel are observed. But we see that the suffixation of -ə to non-geminate group root word does not bring about any change to the form of the word. Notably, the alternation is relevant only to forms ending in vowels; forms ending in consonants are not affected (117a-118b).

(117a) ədə bik kujabə
  ədə bi-kə kujab-ə
  DEM 3.SG-GEN spade-COP
  ‘That is his spade.’

(117b) ədə bikko pakulo
  ədə bi-kə pakul-ə
  DEM 3.SG-GEN spade-COP
  ‘That is his spade.’

(118a) ukumə jumrasə kama
  ukum-ə jumrag-ə ka-ma
  house-GENR forest-DEM EXIST-NEG
  ‘There is no house.’

(118b) akumə jumrasi kama.
  akum-ə jumrag-si ka-ma
  house-GENR forest-DEM EXIST-NEG
  ‘There is no house.’
It is evident from the examples (117a-118b) that a word ending with a consonant phoneme is not affected when suffixed by -ə in either geminate or non-geminate group. However, the attachment of -ə to words ending in voiceless stops /p/, /t/, and /k/ are turned to voiced stops /b/, /d/, and /g/ respectively. This morphophonemic change is common to all Mising dialects placed in the geminate and non-geminate group. On the other hand, no change takes place in words ending in various consonants (excluding the voiceless stops) in both the groups. Some examples from each of the dialects categorized under the geminate and non-geminate group are illustrated below:

**PM**

(119a) *tala*p + -ə → *talabə* 'spade-cop'
(119b) *tabab* + -ə → *tababə* 'leech-cop'
(119c) *taket* + -ə → *takedə* 'body louse-cop'
(119d) *tajod* + -ə → *tajodə* 'infectious fuss-cop'
(119e) *matsik* + -ə → *matsigə* 'knife-cop'
(119f) *kopag* + -ə → *kopagə* 'banana-cop'
(119g) *ta:par* + -ə → *ta:parə* 'mushroom-cop'
(119h) *tapum* + -ə → *tapumə* 'insect-cop'
(119i) *iγin* + -ə → *iγinə* 'bamboo basket-cop'
(119j) *ta:γ* + -ə → *ta:γə* 'thorn-cop'

**DM**

(120a) *asup* + -ə → *asubə* 'bed-cop'
(120b) *kujab* + -ə → *kujabə* 'spade-cop'
(120c) *pipit* + -ə → *pipidə* 'sparrow-cop'
(120d) *tagad* + -ə → *tagadə* 'coral tree-cop'
(120e) *tamik* + -ə → *tamigə* 'mosquito-cop'

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51 Not all consonant phonemes in Mising occur in the word-final position of nominal and adjectival roots. In Pagro Mising and other dialects of the geminate group (Dolu, Ojan, and Dambuk) the dental lateral /l/, palatal nasal /ɲ/, palatal continuant /j/, and the alveolar fricatives /s/ and /z/ does not occur in the word final position. The distribution of consonant phonemes in geminate group Mising dialects is same.
(120f) e:ɡ  + -ə → e:ɡə  ‘pig-COP’
(120g) attar  + -ə → attarə  ‘stuff-COP’
(120h) ukum  + -ə → ukumə  ‘house-COP’
(120i) tukun  + -ə → tukunə  ‘cane stick-COP’
(120j) tulay  + -ə → tulayə  ‘oil-COP’

DAM

(121a) alap  + -ə → alabo  ‘wing-COP’
(121b) məjab  + -ə → məjabo  ‘fan (made of bamboo)-COP’
(121c) pəpit  + -ə → pəpido  ‘name of a small bird-COP’
(121d) ligad  + -ə → ligado  ‘name of a fish-COP’
(121e) tajik  + -ə → tajigo  ‘louse-COP’
(121f) abbug  + -ə → abbugo  ‘gun-COP’
(121g) gasor  + -ə → gasoro  ‘shawl-COP’
(121h) məram  + -ə → məramo  ‘fire place in a Mising house-COP’
(121i) ugon  + -ə → ugono  ‘loin cloth-COP’
(121j) mensaruɡ  + -ə → mensarugə  ‘fox-COP’

OM

(122a) raŋkop  + -ə → raŋkobə  ‘land turtle-COP’
(122b) poːpibr  + -ə → poːpiro  ‘a bamboo holder-COP’
(122c) taŋut  + -ə → taŋuto  ‘hornet-COP’
(122d) rogmidə  + -ə → rogmido  ‘feathers of hen/cock-COP’
(122e) tatik  + -ə → tatiko  ‘frog-COP’
(122f) pinbag  + -ə → pinbago  ‘froth of rice-COP’
(122g) poːpir  + -ə → poːpiro  ‘butterfly-COP’
(122h) reːkam  + -ə → reːkamo  ‘ear wax-COP’
(122i) adin  + -ə → adino  ‘meat/flesh-COP’
(122j) keːdaŋ  + -ə → keːdaŋə  ‘orchid-COP’
The codas -n and -l are preserved in Sajañ Mising but however, we find the occurrence of the dental lateral /l/ only in few words such as pimpil 'scrap', takil 'divination', takil 'spit', makol 'charcoal', napbel 'lips', and i:sol 'saliva'. The coda -l is slowly disappearing from the Sajañ Mising as speakers of this dialect are converging towards the geminate group of dialects (which is spoken by the maximum number of Mising) where we do not observe the occurrence of the coda -l.

Unlike other Mising dialects (including Sajañ Mising), the velar nasal /n/ no longer occur in the word-final position in Moñij Mising. On the other hand, the lateral /l/ is well reserved by Moñij Mising speakers. In fact, the substitution of /n/ by /l/ in Moñij Mising is observed in all the positions of a word in different lexical classes such as nouns and verbs. However, replacement of /r/ by /l/ in adjectival roots is observed only in medial and final positions (as discussed in §3.2.1.1). It is worth mentioning here that the occurrence of /l/ is to a greater extent in Moñij Mising vis-à-vis Sajañ Mising.
Nominal roots ending in voiceless stops /p/, /t/, and /k/ are turned to voiced stops /b/, /d/, and /g/ respectively when -o is attached as a copula. The same morphophonemic changes occur when -o is suffixed as a generic marker. Adjectival roots end in only few consonants. Like nominals, adjectival roots ending in voiceless stops /p/, /t/, and /k/ are turned to voiced stops /b/, /d/, and /g/ with the suffixation of -o as a copula, for instance: dogup ‘miser’ + -o ‘COP’ → dogubu ‘greedy-COP’, out ‘tall’ + -o ‘COP’ → oudo ‘tall-COP’, lobak ‘lazy’ + -o ‘COP’ → lobago, otherwise no morphophonemic change is triggered in roots ending with various consonants. Few examples are- kajkan ‘handsome/beautiful + -o ‘COP’ → kajkano ‘handsome/beautiful-COP’, andoŋ ‘short’ + -o → andoŋɔ ‘short-COP’, and kajum ‘good looking’ + -o ‘COP’ → kajumo ‘good looking-COP’.

5.3. Morphophonemic variations

In §3, we saw that when -o is suffixed to non-geminate group root words ending with either a vowel or a consonant, no change takes place, whereas some morphophonemic changes occur in geminate group root words ending with a vowel.

However, not all the available vowels trigger the change in geminate group. For instance, words ending with a long high front vowel /i:/ or long mid front vowel /e:/ do not undergo any change. For instance; iliki: + o → iliki:o ‘dog.COP’ and take: + o → take:o ‘ginger.COP’. A few more examples of words ending in i: and e: which are common to both geminate and non-geminate groups of Mising dialects which do not trigger any morphophonemic changes are ke:di: ‘mango’, ki:ni: ‘navel’, be:siri: ‘young female monkey’, ope: ‘family’, sibe: ‘monkey’, take: ‘ginger’, me:re: ‘charcoal’, and gule: ‘pot’.
In both geminate and non-geminate groups, most types of long vowel occur in non-word-final (word-initial and word-medial) positions only. For instance: *ga:r* ‘ask someone to move’, *a:bu* ‘river’, *ga:m* ‘chieftain or head of a village’, *u:sa* ‘lift, especially clothes’, *tuːli* ‘pot’. Some examples in Sa:jaŋ Mising (NGG) are *a:zo* ‘old woman’, *sa:si* ‘elder brother’, *a:na* ‘river’, *ti:k* ‘louse’, and *jojo* ‘grandmother’. In the geminate and non-geminate groups, only /i:/ and /e:/ are found word-finally among long vowels.

In the following discussion (§5.3.1-§5.3.3), then, we will be primarily concerned with changes that occur in geminate group root words ending in short vowels when combined with *-ə*. In geminate group, a set of morphophonological rules apply when *-ə* is added to nominal stems and adjectives ending in various types of short vowel. The vowels triggering the changes form natural classes: mid polar vowels /e/ and /ə/, central vowels /i/, /o/, and /a/, and high polar vowels /i/ and /u/ each trigger different processes when combined with *-ə*. The phonological operations involve vowel coalescence, vowel deletion, and gemination, which are determined by the type of vowel a word ends with.

5.3.1. Coalescence: words ending in high polar vowels /i/ and /u/

In general, coalescence is a phonological process whereby two adjoining or contiguous segments converge or fuse into one element such that the new segment is phonologically distinct from the input segments. Crystal (1980:65) defines coalescence as “the coming together of linguistic units which were originally distinguishable. Allophones of a phoneme may coalesce, as many different phonemes and different morphemes.”
In geminate group, coalescence occurs when \(-\vartheta\) is attached to root words ending in high polar vowels /i/ and /u/. Not all words ending with these two vowels allow coalescence; it is determined by the syllabic structure of a word. The fusing of the vowels triggers word-medial gemination which is again allowed or restricted by the presence or absence of a heavy initial syllable. Given below are few examples with words ending in /i/ with various syllabic structures.

(125a) \(ui + \vartheta \rightarrow uija\) ‘spirit.cop’
(125b) \(asi + \vartheta \rightarrow asse\) ‘water.cop’
(125c) \(posi + \vartheta \rightarrow posse\) ‘needle.cop’
(125d) \(ampi + \vartheta \rightarrow ampe\) ‘sticky rice.cop’
(125e) \(rugzi + \vartheta \rightarrow rugze\) ‘a kind of fern.cop’
(125f) \(do:ni + \vartheta \rightarrow do:jo\) ‘sun.cop’
(125g) \(baboi + \vartheta \rightarrow baboija\) ‘father’s brother.cop’

Examples (125a-g) above exhibit words ending in /i/ with various possible syllable types (VV, V.CV, CV.CV, VC.CV, CVC.CV, CVV.CV, and CV.CV) in geminate group. Here, we have both monosyllabic and disyllabic words. We notice the presence of light and heavy initial and final syllables in the given disyllabic words. Words with light initial and final syllables (VC.V and CV.CV, as in (125b-c)) both allow coalescence and produce word-medial gemination when \(-\vartheta\) is attached. On the other hand, a disyllabic word with heavy initial syllable and final light syllable (VV, CV.CV, CVC.CV, and CVV.CV) allows coalescence but not word-medial gemination. The fusing of /i/ and \(-\vartheta\) gives the resultant vowel e, and this can be represented as \(V_1\) (high, front) \(+ V_2 \rightarrow V_3\) (mid, front), or \(i + \vartheta \rightarrow e\). It is worth noting here that a monosyllabic word in geminate group which is in diphthongal form (125a) or a disyllabic word in which the word-final syllable is a diphthong (125g) neither coalesces
nor exhibits word-medial gemination; rather, we notice the insertion of the palatal continuant /j/ in between the root-final vowel and the suffix -ə.

In words ending in /u/ include the structures VV, CVV, CV.CV, VC.CV and CVV.CV. Consider the following examples:

(126a) ou + -ə → ouwa 'mother.COP'
(126b) bau + -ə → bauwa 'father.COP'
(126c) anu + -ə → anno 'new.COP'
(126d) pepu + -ə → peppo 'owl.COP'
(126e) pe:gu + -ə → pe:'go 'a Mising surname.COP'

As above, words which have light-light syllable structure (V.CV and CV.CV) as in (126c) and (126d), allow coalescence and as well as gemination when -ə is fused with word-final /u/. On the other hand, words with heavy-light syllable structure allow coalescence but do not trigger word-medial gemination (see (126e)). Here, the fusing of /u/ and -ə results with /o/ as the output vowel and it can be represented as V₁ (high, back) + V₂ → V₃ (mid, back) or u + -ə → o.

Monosyllabic words with VV and CVV structure (126a-b) neither coalesce nor exhibit gemination in the word-medial position. However, we notice the insertion of /w/ in between the root-final vowel and the suffix -ə.

The discussion above establishes the presence of vowel coalescence when -ə is attached to words ending in /i/ and /u/, except when /i/ and /u/ are second members of diphthongs as in (126a), (126g) and (126a-b).
5.3.2. Deletion: words ending in central vowels /i/, /o/, and /a/

In geminate group, the rule of vowel deletion applies instead of vowel coalescence when -ə follows words ending in /i/, /o/, and /a/. In this rule, the word-final vowel is deleted while -ə is preserved (127a-f).

(127a) api + -ə → appə ‘egg.COP’
(127b) pakə + -ə → pokə ‘dove.COP’
(127c) oma + -ə → onma ‘daughter.COP’
(127d) karə + -ə → karə ‘raised bamboo platform.COP’
(127e) sirə + -ə → sirə ‘wild boar.COP’
(127f) silə + -ə → silə ‘kite.COP’

As shown in (127a-f), gemination is triggered at the word-medial consonant in words with light-light syllable structures V.CV and CV.CV. This rule also applies to loan words, for instance, *sila ‘kite’ as in (127f) is a word borrowed from Assamese. The attachment of -ə to the root results in the deletion of the word-final vowel and like a Mising word gemination is triggered at the word-medial consonant. Further, we notice that in (127a-b) and (127e-f), deletion of the word-final vowel i and a are clear, whereas in (127c-d) one cannot easily assume which one of the vowels gets deleted as V₁ (-ə) and V₂ (-ə) are identical. However, from our observation of the other central vowels (i and a), we may come to an understanding that it is the word-final vowel (V₁) which gets deleted, and not the vowel suffix (V₂). This can be re-written as V₁ (central) + V₂ → V₂.

Words which end in short central vowels with a heavy initial syllable allow vowel deletion but do not exhibit word-medial gemination (128a-d).

(128a) ka:kə + -ə → ka:kə ‘mother’s brother.COP’
(128b) c:nə + -ə → c:nə ‘female pig.COP’
From the above discussion it is evident that both vowel deletion and word-medial gemination occur with a word ending in central vowels /i/, /a/, and /a/ with light-light syllable structures (V.CV and CV.CV) when suffixed in -ə. On the other hand, the presence of a heavy initial syllable CVV.CV as in (128a-d) triggers vowel deletion but restricts word-medial gemination in the same conditions.

5.3.3. Deletion: words ending in mid polar vowels /e/ and /o/

In §4.2 we observed that word-final central vowels /i/, /a/, and /a/ are deleted when followed by -ə. However, in words ending with mid, polar vowels /e/ and /o/, we find deletion of the suffixal vowel -ə (V₂), not the word-final vowel (V₁). A few examples are given in (129a-f).

(129a) ege + -ə → ege ‘a kind of arum.COP’
(129b) take + -ə → takke ‘crab.COP’
(129c) bomze + -ə → bomze ‘a big village.COP’
(129d) apo + -ə → apo ‘winnowing fan.COP’
(129e) mibo + -ə → mibbo ‘guest.COP’
(129f) po:lo + -ə → po:lo ‘moon.COP’

As shown, the combination of /e/ and /o/ (V₁) with -ə (V₂) results in the deletion of the latter; this can be rewritten as V₁ (mid, polar) + V₂ → V₁. Here, words with V.CV, CV.CV structure ending in both the vowels also trigger word-medial gemination. However, words with final /e/ and /o/ with heavy initial syllables, as discussed earlier, exhibit vowel deletion but restrict word-medial gemination.

(128c) ki:ra + -ə → ki:ra ‘trivet (tripod).COP’
(128d) do:la + -ə → do:la ‘a circular bamboo basket.COP’
5.4. Conclusion

The study between the geminate group and non-geminate group of Mising dialects has firmly established that the marker -σ in both the varieties has two different syntactic functions: (1) as a *copula* when suffixed to sentence-final nominal or adjective. (2) as a *generic or definite non-specific* marker when suffixed to a subject NP. The attachment of -σ to geminate group and non-geminate group root words exhibit differences.

The suffixation of -σ to the non-geminate group root word triggers no morphophonemic changes, regardless of syllable structure or the nature of the word-final vowel. In the geminate group, words ending in consonants and long vowels /iː/ and /eː/ (i.e., words with final heavy syllables) are not affected either, whereas various morpho-phonemic changes occur in words ending with a short final vowel (i.e. words with light final syllables).

Suffixation of -σ to words ending in short high polar vowels, central vowels, and mid polar vowels variously trigger vowel coalescence, vowel deletion, and word-medial gemination. Coalescence occurs only in words ending with high polar vowels, whereas deletion occurs in words ending with central and mid vowels. In the case of central vowels, it is the word-final vowel which is deleted, whereas in the case of mid, polar vowels, it is the suffix which is deleted. Word-medial gemination occurs in words with a light-light syllable structure ending in any short vowel, but it is blocked in words with a heavy initial or final syllable. Finally, we note that diphthongs ending in high polar vowels i and u exhibit none of the abovementioned changes when suffixed in -σ, but rather exhibit insertion of a homorganic liquid /j/ or /w/. Table 36 summarizes the observed set of changes.
Table 36 – Morphophonemic changes in GG root words (ending in short vowels) with various syllabic structures

<table>
<thead>
<tr>
<th>Syllabic Structure</th>
<th>Change</th>
<th>Vowel</th>
<th>Triggered/Not Triggered</th>
</tr>
</thead>
<tbody>
<tr>
<td>VV (diphthong)</td>
<td>Does not occur</td>
<td>e</td>
<td>Not triggered</td>
</tr>
<tr>
<td>V.CV</td>
<td>Occurs</td>
<td></td>
<td>Triggered</td>
</tr>
<tr>
<td>CV.CV</td>
<td>Occurs</td>
<td></td>
<td>Triggered</td>
</tr>
<tr>
<td>CVC.CV</td>
<td>Does not occur</td>
<td></td>
<td>Not triggered</td>
</tr>
<tr>
<td>CVV.CV (IS ending in a long vowel)</td>
<td>-a</td>
<td></td>
<td>Not triggered</td>
</tr>
<tr>
<td>CV.CV</td>
<td>Does not occur</td>
<td>a</td>
<td>Triggered</td>
</tr>
<tr>
<td>CV.CV</td>
<td>Does not occur</td>
<td>a</td>
<td>Triggered</td>
</tr>
<tr>
<td>V.CV</td>
<td>V1 deleted</td>
<td></td>
<td>Not triggered</td>
</tr>
<tr>
<td>VV.CV (IS ending in a long vowel)</td>
<td>-a</td>
<td></td>
<td>Not triggered</td>
</tr>
<tr>
<td>CV.CV</td>
<td>V1 deleted</td>
<td></td>
<td>Triggered</td>
</tr>
<tr>
<td>CVV.CV (IS ending in a long vowel)</td>
<td>-a</td>
<td></td>
<td>Not triggered</td>
</tr>
<tr>
<td>CV.CV</td>
<td>V1 deleted</td>
<td></td>
<td>Triggered</td>
</tr>
<tr>
<td>CVV.CV (IS ending in a long vowel)</td>
<td>-a</td>
<td></td>
<td>Not triggered</td>
</tr>
<tr>
<td>V.CV</td>
<td>Occurs</td>
<td>o</td>
<td>Triggered</td>
</tr>
<tr>
<td>CV.VV (IS ending in a long vowel)</td>
<td>-a</td>
<td></td>
<td>Not triggered</td>
</tr>
<tr>
<td>CV.CV</td>
<td>V2 deleted</td>
<td></td>
<td>Triggered</td>
</tr>
</tbody>
</table>

Note: WMG = word-medial gemination, IS = initial syllable