

# The Phoneme System of Classical Segami Dialect Spoken on Koshiki Islands in Kagoshima Prefecture

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Key word: Hichiku dialect (肥筑方言), Satsuma dialect (薩摩方言),  
distinctive feature, natural class, phonological rule

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## 1 Introduction

In this paper, I elucidate the phoneme system of classical Segami dialect.

15 Segami (瀬上)<sup>1</sup> is a small community on Koshiki Islands in Kagoshima Prefecture (鹿児島県甑島列島). The islands composed of Kami-, Naka-, Shimo-Koshiki Islands (上・中・下甑島), and so on are located on East China Sea, about 38km west of Kushikino New Port (串木野新港) from where the ferry comes in (cf. Figure 1, Figure 2).

20 Classical Segami dialect (hereafter, “Segamian”) is a Japanese dialect and belong to Hichiku (肥筑) and Satsuma (薩摩) dialect families like the other Koshiki dialects. It obviously differs from Standard Japanese in phonology as follows:

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- |     |      |               |            |                   |                    |
|-----|------|---------------|------------|-------------------|--------------------|
| (1) | SGM: | [ n:ojeno     | imo:ɖa:    | hajawaraŋa        | su:ŋʲine           |
|     | SJ:  | [ uteino      | imo:towa   | harawataga        | sʉkʲide            |
|     |      | ‘ 1.house.NOM | sister.TOP | entrails.NOM.IFRR | liking.be.ADV.ME D |

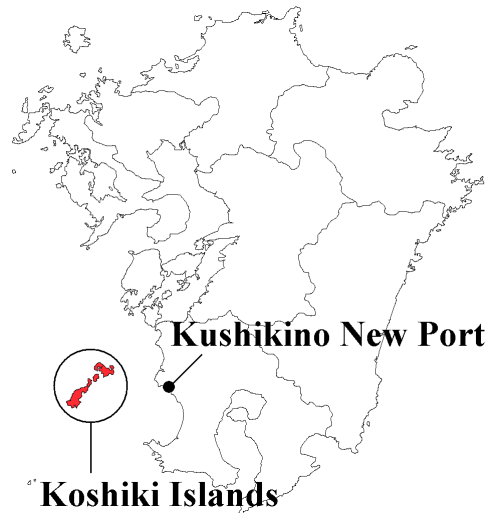


Figure 1: The position of Koshiki Islands

<sup>1</sup> It is pronounced [seŋa:mʲi, ɕeŋa:mʲi] B by native speakers and literally means ‘upper part of rapids’. The administrative name is “Kami-koshiki-chô Segami, Satsuma-sendai City, Kagoshima Prefecture (鹿児島県薩摩川内市上甑町瀬上)”.

hajawarabak:ai jet:e ku:ta:jo ]  
 harawatabak:ar'i et:e ku:ndajo ]  
 entrails.IFRR.ONLY choose.ADV.MED eat.ADN.NMNL.be.ADN.GREE '

5 (In this paper, I type [u] [ʉ] [a] instead of [ɯ] [ɯ̥] [ḁ] for convenience' sake)

Based on a large amount of data, several researchers has vigorously studied the phoneme inventory, phonological rules, the word tone system, and so on up to the present (Kamimura 1941; 1965; Minami 1967; Ogata 1987a; 1987b; 1988a; 1988b; Kibe 2001a; 2001b; Kuroki 2012). Thus Segamian phonology is being advanced, but the following points are not necessarily clear even today:

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- (2) a. What phonological features are distinctive in Segamian phoneme system?
- 20 b. Which featurre is more important than the others?

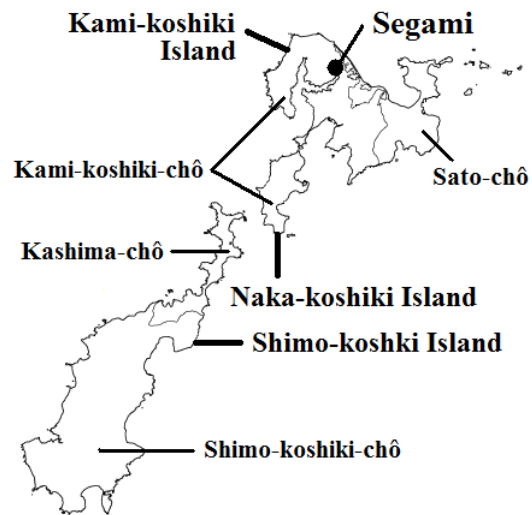
On account of Japanese monolingualization and an aging speaking community, Segamian is in danger of extinction as other classical dialects of Japanese. The time to study Segamian is now or never. Hence, I will solve the above questions to elucidate Segamian phoneme system.

## 2 Previous studies

30 There are a large number of previous studies on Segamian phonemics.

Kamimura (1965) which is the first basic study of Segamian described (i) the phonetic correspondence between Segamian and Standard Japanese, (ii) the formation of noun-based phrases, and (iii) the verb conjugation.

Since Ogata (1987a; 1987b; 1988a; 1988b) and Kibe (2001a) also provided a large



**Figure 2: The structure of Koshiki Islands and the position of Segami**

namount of data, we can learn much of Segamian phoneme system only from their descriptions.

Minami (1967), Ogata (1987a; 1987b; 1988a), and Kuroki (2012) explicated phonological rules useful for understanding Segamian morphophonology which is supposed to be most complicated in Japanese dialects.

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### 3 Data

Segami belonged to the former Kami-koshiki Village, Satsuma Country (薩摩郡上甕村) and was integrated into Satsuma-sendai City (薩摩川内市) in October, 2004. The population in May, 2013 is 188 despite that of 970 in 1960.

I will make Segamian phoneme system clear based on the following data:

- (3) a. Data obtained through surveys conducted in Segami during 2010–12. The data is divided into conversations and the answers to questionnaires.
- b. Data cited in previous studies.

The attributes of my consultants are as follows:

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(4)	ID	Sex	Born	Lived outside Segami	Interviewed
	[A]	Female	1920's	The age of 16–21	2010
	[B]	Male	1920's	The age of 16–23	2011
	[C]	Female	1920's	Never	2010–12
25	[D]	Female	1920's	The age of 9–15	2010–12
	[E]	Female	1930's	The age of 15–18	2011
	[F]	Male	1940's	The age of 30–45	2010–11
	[G]	Male	1950's	The age of 15–22	2010–11

30 I obtained most of the data (3a) from Consultants [C–D]. I could not ask all of the consultants the exact same questions to clarify individual differences. Thus, I note a difference in age, gender, and so on only in times of need.

## 4 Phonemes

### 4.1 Phoneme inventory

Segamian phoneme inventory is not much different from that of Standard Japanese. However, the phonetic value of phonemes almost differs from that of Standard Japanese as follows:

- (5) a. Moraic phonemes (M; /+mora/)
- i. Vowel phonemes (V; /+mora, -cons/): /i/ [i], /u/ [u], /e/ [e ~ e], /o/ [o ~ o], /a/ [a] (I type [u] [a] instead of [u] [a] for convenience' sake as mentioned above)
- 10 ii. Moraic consonant phonemes (C<sub>M</sub>; /+mora, +cons/): Q [oPA, -son], N [oPA, +nas] (= [m ~ n ~ n ~ n])<sup>2</sup>
- b. Unmoraic phonemes (U; /-mora/)
- i. Glide phoneme (G; /-mora, -cons/): /w/ [w], /j/ [j]
- 15 ii. Consonant phonemes (C; /-mora, +cons/): /m/ [m], /f/ [f], /p/ [p], /b/ [b], /n/ [n/n ~ n], /r/ [r/r] (new?), /s/ [s], /t/ [t/d ~ t], /d/ [n ~ d], /c/ [z/z ~ ts ~ tɕ], /z/ [n ~ dz/dz], /k/ [g ~ k], /g/ [ŋ ~ g], /h/ [h]
- (See p. 20 and later for symbols and abbreviations)

## 20 4.2 Allophones

### 4.2.1 Palatalization

Most of unmoraic phonemes are realized as follows when occurring just before /i/. This is caused by palatalization, a well-known phonetic phenomena in Japanese:

- 25 (6) /m/ [m<sup>i</sup>], /p/ [p<sup>i</sup>], /b/ [b<sup>i</sup>], /f/ [f<sup>i</sup>], /w/ [w<sup>i</sup>], /n/ [n], /r/ [r<sup>i</sup>], /s/ [ɕ], /c/ [z ~ tɕ], /z/ [n ~ dz], /k/ [g<sup>i</sup> ~ k<sup>i</sup>], /g/ [ŋ<sup>i</sup> ~ g<sup>i</sup>], /h/ [ç]

/s/ is also sometimes palatalized just before /e/ (e.g. /segaami/ [ɕeŋa:m<sup>i</sup>] B 'Segami'; i.e. /s/ → [ɕ] / \_\_\_V<sub>[+front]</sub>)

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<sup>2</sup> I define obstruents and nasals in the end of syllable (including the first half of long obstruents and nasal) as /Q/ and /N/. The phonetic value of /Q/ and /N/ correspond to that of the next consonant (e.g. ●/koQpa/ [kop:a] B 'sliced dried sweet potato', /taQka/ [tak:a] B 'high.ADN', /giNmi/ [gim:<sup>i</sup>] A 'meeting' (味), /fuNde/ [funde] B 'step on.ADV.MED', /naNka/ [nanka] B 'long.ADN').

#### 4.2.2 Phonemes which have few allophones

/e, o, n, t, d, c, z, k, g/ have few allophones which are conditioned as follows:

- 5 (7) /e/ → [e]<sup>3</sup> / V\_\_ : e.g. /fu.e/ [ɸu<sup>j</sup>e] A ‘flute’, /ki.e.te/ [k<sup>j</sup>i<sup>j</sup>ere] ‘disappear.ADV.MED’, /fu.ee/ [ɸu<sup>j</sup>e:] B ‘bath.ALL’  
 → [e] / EW: e.g. /ee.ta/ [e:ra] B ‘be tired of.ADN.PST’, /ko.kee/ [koge:] A ‘this.PLACE.ALL’
- (8) /o/ → [w<sup>o</sup>] / V\_\_ : e.g. /i.o/ [i<sup>w</sup>o] A ‘fish’, /si.o/ [ei<sup>w</sup>o] B ‘salt’  
 10 → [o] / EW: e.g. /o.i/ [oi] A ‘1.S’, /so.ne/ [sone] ‘sleeve’, /daN.poo/ [dampo:] ‘lamp’<sup>4</sup>
- (9) /n/ → [ɲ/n] / \_\_V<sub>[+high]</sub> : e.g. /nizooju/ [ɲizo:ju] A ‘resemble.RSL.ADN’, /nuuju/ [ɲnu:ju] A ‘apply (a liquid) to.ADN’ (According to Kamimura (1965: 28), [ɲu] is older than [nu])  
 15 → [n] / EW: e.g. /nekoze/ [negone] ‘hunchback’, /nodo/ [nono] ‘throat’, /naNda/ [nan:a] ‘tear’
- (10) /t/ → [t/d] / V\_\_ : e.g. /koote/ [ko:re] A ‘buy.ADV.MED’, /satoo/ [saro:] B ‘sugar (砂糖)’, /atama/ [arama, aɖama] ‘head’  
 e.x. → [t] / C<sub>[+nas]</sub> or [-voi] V<sub>[+high]</sub>\_\_<sup>5</sup> : e.g. /kite/ [k<sup>j</sup>ite] B ‘come.ADV.MED’,  
 20 /muta/ [muta] A ‘damp ground’<sup>6</sup>  
 → [t] / EW: e.g. /taQta/ [tatta] B ‘stand up.ADN.PST’, /biNta/ [b<sup>i</sup>inta] A ‘temporal region’
- (11) /d/ → [n] / P<sub>[+son]</sub>\_\_<sup>7</sup> (“P” is the abbreviation for “phoneme”): e.g. /fude/ [ɸune] A ‘pen’, /joNda/ [jonna] B ‘read.CCL.IMP.NEG’

<sup>3</sup> I type phonetic sounds which can not be heard clearly or at all in superscript.

<sup>4</sup> I type the meaning of loanwords in italic, and in addition, annotate that of Chinese words with Chinese characters.

<sup>5</sup> It means the position just after /fi, fu, mi, mu, ni, nu, ci, cu, ki, ku, hi/.

<sup>6</sup> /t/ on the beginning of a morpheme is realized as [t] because the position is similar to the beginning of a word:

- (I) ●//see+teN// ‘clear (晴)+sky (天)’ → /seeteN/ [se:teŋ, \*se:reŋ] B ‘clear whether’;  
 ●//o-toto-caN// ‘BEAU-father-ED’ → /otoQcaN/ [ototteŋ] B ‘dad’

<sup>7</sup> Based on the distinctive feature /+son/ or not, Segamian morphemes can be divided into the following two types:

- (II) ●/+son/: /V, N, G, m, n, r/; ●/-son/: /Q, f, p, b, s, c, k/; ●/osyl/: /t, d, z, g/

- [d] / EW: e.g. /doosooku/ [do:so:gu] B ‘candle (蠟燭)’, /suQdaka/ [suddaga] B ‘few.ADN’
- (12) /c/ → [z/z] / P<sub>[+son]</sub> \_\_\_: e.g. /taacu/ [ta:zu] B ‘stand up.ADN’, /icuucu/ [izu:zu] B ‘five’, /teco/ [tezo] A ‘father’, /naacaa/ [na:za:] A ‘summar.TOP’
- 5 → [ts] /  $\neg$ P<sub>[+son]</sub>\_\_\_V<sub>[+high]</sub> or [+front]: e.g. /cikii/ [tejik<sup>h</sup>i:] ‘steelyard’, /miQcu/ [m<sup>h</sup>ittsu] B ‘three’, /kaQcee/ [kattse:] A ‘get into one’s group.CCL.IMP’ (In “ $\neg$ P<sub>[+son]</sub>\_\_\_i”, /c/ is pronounced [te] as /cikii/ [tejik<sup>h</sup>i:] as a result of the palatalization described in §4.2.1)
- 10 → [tɕ(/ts)] /  $\neg$ P<sub>[+son]</sub>\_\_\_V<sub>[–high, –front]</sub>: e.g. /taQcooju/ [tattɕo:ju] A ‘stand up.RSL.ADN’, /caigase/ [tɕaigase] A ‘drop.TR.CCL.IMP’, /otoQcaN/ [otot<sup>h</sup>tsaŋ, otot<sup>h</sup>tsaŋ]<sup>8</sup> B ‘dad(dy)’
- (13) /z/ → [ŋ] / P<sub>[+son]</sub>\_\_\_: e.g. /itaziki/ [irapnik<sup>h</sup>i] B ‘board floor’, /eNzuu/ [jep<sup>h</sup>u:] B ‘pea (豌豆)’, /nekoze/ [negope]<sup>9</sup> B ‘hunchback’, /dozoo/ [dop<sup>h</sup>o:] B ‘loach’, /cazawaN/ [tɕapawaŋ] B ‘tea cup (茶茶碗)’, /tonzaaku/ [toŋ<sup>h</sup>a:gu] ?? ‘minding (頓着)’<sup>10</sup>
- 15 → [dz/dz] / EW: e.g. /zigo/ [dzijo] A ‘bottom’, /zuibaN/ [dzuibaŋ] A ‘hause sitting’, /zuusuke/ [dzu:suke] B ‘Jūsuke (重助; given name)’, /zuu/ [dzu:, dzu:] B ‘ten (+)’, /zeNsoku/ [dzeŋsoku] A ‘asthma (喘息)’, /zeN/ [dzeŋ,

<sup>8</sup> [otot<sup>h</sup>tsaŋ] is cited on Ogata (1988b: note 1 in the page of 50), but Kamimura (1965: 30) denied [tsa] and I have also not heard it.

<sup>9</sup> Some speakers pronounce [ne] instead of [ŋe], but I have not elucidated whether the speakers distinct [ŋe] and [ne].

<sup>10</sup> /z/ in the beginning of a morpheme is realized as [z/z] because the position is similar to the beginning of a word:

- (III) ●//tate+sima// ‘the vertical+stripes’ → /tatezima/ [tarezima] B ‘vertical stripes’;  
 ●//ko+suuto// ‘mini+father-in-law’ → /kozuuto/ [kozu:to] A ‘brother/sister-in-law’;  
 ●//ge+zoo// ‘low (下)+lady (嬢)’ → /gezoo/ [gezo:] B ‘maidservant’; ●//hana+zoo// ‘Hana (given name)+lady (嬢)’ → /hadazoo/ [hanazo:] (pronounced [hanap<sup>h</sup>o:] once according to Kamimura 1965: 24) B ‘Miss Hana’; ●//nojo+some+Ø// ‘mud+dye+NMNL’ → /nojozome/ [nojozome] B ‘mud dyeing’; ●//ame=zaj-u// ‘rain=be-ADN’ → /amezaaju/ [ameza:ju, ameza:ju] (the latter is used by women) A; ●//kudar-i+saka// ‘go down-NMNL+slope’ → /kudaizaka/ [kunaizaka] A ‘downward slope’

However, exceptions for the phonetic value of /z/ are found more frequently than the others. At this point in time, I do not know what the cause is (See also Kibe 2001b: 47).

- dz**en] B ‘money’, /zoi/ [**dz**oi] B ‘sandal (草履)’, /taQzoka/ [tadd**dz**oga, tadd**dz**oga] B ‘stand up.good.ADN’, /kaQzasuka/ [kadd**dz**asuka] B ‘write.easy.ADN’, /zaNdo/ [zanno] A ‘I know (an approval)’
- (14) /k/ → [g] / V\_\_\_: e.g. /dooku/ [do:gu] B ‘poison’, /joka/ [joga] B ‘good.ADN’  
 5 e.x. → [k] / C<sub>[+nas]</sub> or [-voi]V<sub>[+high]</sub>\_\_\_: e.g. /sike/ [ɕike] B ‘storm’, /nuka/ [ɲuka] B ‘rice bran’<sup>11</sup>  
 → [k] / EW: e.g. /kanajazu/ [kanaja:ɲu] A ‘certainly’, /meQkuu/ [mekku:] B ‘blind’, /naNka/ [naɲka] B ‘long.ADN’
- (15) /g/ → [ŋ] / /+son/\_\_\_: e.g. /usaagi/ [usa:ŋi] B ‘rabbit’, /koŋga/ [koŋŋa] B  
 10 ‘row.ADN.GREE’  
 → [g] / EW: e.g. /geege/ [ge:ge] ?? ‘cold’, /taQga/ [tagga] B ‘stand up.ADN.GREE’

### 4.3 Phonotactic constraints

15 In so far as simple words, the following phoneme sequences are uncommon or is not allowed on the surface level (but not the underlying level)<sup>12</sup>:

- (16) Phonotactic constraints
- a. /\*VVV ... , \*VVCM/
- 20 b. /\*C<sub>M</sub>V, ?C<sub>M</sub>C<sub>M</sub>/: e.g. /NNdoN/ A ‘1.PL’
- c. /\*GC<sub>M</sub>, \*GG, \*GC, G#/
- d. /\*CC<sub>M</sub>, \*C<sub>[-VEL]</sub>W, \*CC, C#/

<sup>11</sup> /k/ on the beginning of a morpheme is realized as [k] because the position is similar to the beginning of a word:

- (IV) ●//hana+kuso// ‘nose+feces’ → /hanakuso/ [hanakuso] A ‘nasal mucus’;  
 ●//o-ka-saN// ‘BEAU-mother-TTL’ → /okasaN/ [okasaŋ] B ‘mom’

<sup>12</sup> In compound words and the like, /VVV ... / is sometimes found as follows:

- (V) a. ●//mai+asi// ‘front+leg’ → /maiaasi/ B ‘front leg’; ●//toi+ut-(i)Ø// ‘bird+hit-NMNL’ → /toiuuci/ A ‘bird hunting’  
 b. ●//ue-(i)Ø+woj-(j)u// ‘plant-NMNL+be.ANM-ADN’ → //ue-!(g)oj-(j)u// ‘plant-PROG-ADN’ → /ueooju/ A; ●//ha+or-(i)Ø// ‘feather+break off-NMNL’ → /haoi/ A ‘haori (half coat for kimono)’

On the other hand, /VVV ... / is not allowed in simple words. I distinguish simple words and compound words because the phonotactic constraint in the latter is weaker than that of the former as above.

- e. /ii, \*iu, \*ie, ?io, \*ia/: ●cf. /e/ (\*ie/) B ‘house’; ●e.g. /io/ A ‘fish’, /sio/ B ‘salt’
- f. /ui, uu, ?ue, \*uo, \*ua/: ●cf. /juwe, juweba/ A ‘say.CCL.IMP, —ADV.COND’; ●e.g. /ue/ A ‘upper part’, /uete, ueziN/ A ‘plant.ADV.MED, —ADV.MED.NEG’
- 5 g. /ei, \*eu, ee, \*eo, \*ea/
- h. /oi, ?ou, ?oe, oo, \*oa/: ●cf. /jokuu, jokuwe/ (\*ikou, \*ikoe) B ‘rest.ADN, —CCL.IMP’, /koi/ (\*koe) B ‘voice’; ●e.g. /moete/ A ‘burn.ADV.MED’ /woou, woe/ A ‘chase.ADN, —CCL.IMP’
- i. /ai, ?au, ?ae, ?ao, aa/: ●cf. /waruu/ (\*warau) A ‘laugh.ADN’, /cuja/ (\*kao) A ‘face’; ●e.g. /au/ A ‘suit; meet’, /kau/ A ‘buy.ADN; keep (animal(s)).ADN’, /ao/ B ‘blue’<sup>13</sup>
- 10 j. /\*#Q, \*Q#, \*QP<sub>[+son]</sub>/
- k. /\*#—NN/
- l. /\*ji, ju, \*je, jo, ja/
- 15 m. /?fi, fu, \*fe, \*fo, ?fa, \*fj, ?#—f/:
- n. /?wi, \*wu, we, \*wo, wa, \*wj/:
- o. \*ti, \*tu, te, to, ta, \*tj
- p. \*di, \*du, de, do, da, \*dj
- q. /ci, cu, \*ce, \*co, ca, ?cj/: e.g. /cjuugoku/ [tɕu:goku, \*tsu:goku] ‘China B (中国)’, /cjuugaku/ [tɕu:gaku, \*tsu:gaku] B ‘junior high school (中学)’ (cf. /segaNzuu/ [seŋa:n.u:] B ‘all over Segami (一中)’)
- 20 r. \*nu#: cf. /iN/ B ‘dog’, /beN/ B ‘lipstick’
- s. /hi, \*hu, he, ho, ha, \*#—h/

## 25 4.4 Syllable structure

### 4.4.1 The basic unit

The basic unit of Segamian syllable is composed of /{C}{G}V{M}/. Only /V/ is an obligatory element, and the others are optional ones.

30 Based on data of Kamimura (1941; 1965), Ogata (1988a), Kibe (2001a) and the result of my investigation, possible pitch patterns in a syllable seem to be limited to the followings:

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<sup>13</sup> Since the phonetic values of /Ve/ and /Vo/ are [V<sup>i</sup>e] and [V<sup>w</sup>o], they are not consecutive vowels on the phonetic level:

(VI) ue [u<sup>i</sup>e] A ‘upper part’, sio [ɕi<sup>w</sup>o] B ‘salt’, kaoo [ka<sup>w</sup>o:] A ‘buy.CCL.IRR’



- (17) a. /(<sup>1</sup>){C}{G}V<sup>1</sup>M/                      b. /(<sup>1</sup>){C}{G}V{M}<sup>1</sup>/  
 c. /{C}{G}V<sup>1</sup>M/                                d. /<sup>1</sup>{C}{G}V{M}/  
 e. /{C}{G}V{M}/ (flat)

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It is worthy of note that (17c–d) is only found in the final syllable words.

#### 4.4.2 Pre-syllable composed of /N{N}/

Although extremely rare, some words begin with /N{N}/ as follows:

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- (18) /Nme/ [m:e] A ‘ume (Japanese apricot; 梅)’, /Nma/ [m:a] B ‘horse (馬)’, Nmaka [m:aga] B ‘delicious.ADN’, Ndoge [n:ɔja] A ‘my house’, NNdoN [n:ɔŋ] A ‘1.PL’

Word tones of /N{N}/-initial words are as follows:

15

- (19)
- |    | ∅     | ALL  | ACC  |   |
|----|-------|--|--|---|
| a. | ume   | /N <sup>1</sup> me                               | N <sup>1</sup> me <sup>1</sup> e                 | N <sup>1</sup> me <sup>1</sup> ba / A                 |
| b. | 1.PL  | /N <sup>1</sup> N <sup>1</sup> do <sup>1</sup> N | N <sup>1</sup> no <sup>1</sup> me <sup>1</sup> e | N <sup>1</sup> N <sup>1</sup> no <sup>1</sup> Nba / A |
|    |       | /NN <sup>1</sup> do <sup>1</sup> N               |  | N <sup>1</sup> N <sup>1</sup> noN <sup>1</sup> ba /   |
| c. | horse | /N <sup>1</sup> ma                               | N <sup>1</sup> me <sup>1</sup> e                 | N <sup>1</sup> ma <sup>1</sup> ba / B                 |

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(19a–b) suggest that their syllable structure is as follows:

- (20)
- |    | ∅    | ALL   | ACC  |   |
|----|------|---|--|---|
| a. | ume  | /N <sup>1</sup> .me                               | N. <sup>1</sup> me <sup>1</sup> e                  | N. <sup>1</sup> me <sup>1</sup> .ba / A                 |
| b. | 1.PL | /N <sup>1</sup> N. <sup>1</sup> do <sup>1</sup> N | N <sup>1</sup> .no. <sup>1</sup> me <sup>1</sup> e | N <sup>1</sup> N. <sup>1</sup> no <sup>1</sup> N.ba / A |
|    |      | /NN. <sup>1</sup> do <sup>1</sup> N               |  | N <sup>1</sup> N. <sup>1</sup> noN <sup>1</sup> .ba /   |

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- (21) The syllable structure  
 PRE{N}{N}.<sub>1st</sub>{C}{G}V{M}.<sub>2nd</sub>{C}{G}V{M}.<sub>3rd</sub>{C}{G}V{M} ...

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- (22) ‘pulse      doctor      ladle      ten      gaiters ’  
 SGM / meeku    isanON    hisaaku    zuu    kehaaki /

[ me:gu isanoŋ çisaagu dzu: keha:g'i ]  
 SJ [ m'aku iea(dono) çicaku dzuu: k'ahan ]

5 5 **Distinctive features**

**Table 1 Distinctive features of vowel phonemes**

	+front		-front	
	-lound		+lound	
+high	i			u
-high	e	a		o

**Table 2 Distinctive features of vowel phonemes**

		m	f	p	b	w	n	r	s	t	d	j	c	z	k	g	h
		BIL				BIL-VEL	ALV				PAL			VEL		GLT	
P A	grv	+	+	+	+	+	-	-	-	-	-	-	-	-	+	+	-
	diff	+	+	+	+	±	+	+	+	+	+	-	-	-	-	-	-
	cor	-	-	-	-	-	+	+	+	+	+	+	+	+	-	-	-
M A	voi	+	-	-	+	+	+	-	○	+	+	○	+	○	+	○	-
	son	+	-	-	-	+	+	+	-	○	○	+	-	○	-	○	-
	nas	+	-	-	-	-	+	-	-	-	○	-	-	○	-	○	-
	cont	-	+	-	-	+	-	-	+	-	-	+	±	+	-	-	+

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**5.1 Major classes of phonemes**

As phonotactic constraints and the syllable structure suggest, the distinction between major classes of phonemes, V, C<sub>M</sub>, G, and C, is most important in Segamian phoneme system. For example, allophones of /t, k/ are conditioned by V or not as in (10, 14)

### 5.1.1 The insertion of a medial phoneme

In the verb formation, a medial phoneme belonging to a suffix is inserted just after vowel or unmoraic phoneme as if to avoid /UU/, /U#/ or /VV/ as follows:

- 5 (23) The insertion of a medial phoneme
- a. (V) → V / U\_\_: e.g. ●//kak(-i)-Ø// ‘write(-V)-NMNL’ → /kaki/;  
●//kak(-a)-ziN// ‘write(-V)-ADV.MED.NEG’ → /kakaziN/
- b. (U) → U / V\_\_: e.g. ●//age(-s)asu(-j)-u// ‘raise(-C)-CAUS(-G)-ADN’ → /agesasuuju/; ●//mi(-j)-aju-eba// ‘look(-G)-AACT-ADV.COND’ → /mijajueba/

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### 5.1.2 The alternation of //Cu// with //M//

In Segamian, //CV<sub>[+high]</sub>// just before morpheme boundary alternates with //M//. First, the following alternation occurs when conclusive imperative negative clitic //da// or conclusive reminder clitic //doo// immediately follows an ADNOMINAL<sup>14</sup> verb:

15

- (24) The alternation of //Cu// with //M// in the formation of verb phrases ending in //da// or //doo//<sup>15</sup>
- a. C<sub>[+son]</sub>u → N / \_\_={ da / doo }: e.g. ●//jom-u=da// ‘read-ADN=CCL.IMP.NEG’ → /joNda/ B; ●//agu-j-u=doo// ‘raise-G-ADN=CCL.RMND’ → /aguNdoos/ A (The same alternation also occurs for //j//final, //g//final, and irregular verb stems)
- b. C<sub>[-son, +cont]</sub>u → i / ditto: e.g. ●//kas-u=da// ‘lend—’ → /kaida/ A; ●//kas-u=doo// ‘lend—’ → /kaidoo/ A
- c. C<sub>[-son, -cont]</sub>u → Q / ditto: e.g. ●//tob-u=da// ‘fly—’ → /toQda/ B; ●//kak-u=doo// ‘write—’ → /kaQdoo/ B (The same alternation also occurs for //t//final verb stems)

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Secondly, the following alternation occurs when a //C<sub>[ALV, -son, -cont]</sub>//initial word except for the above //da, =doo// immediately follows an ADNOMINAL verb:

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<sup>14</sup> It means adnominal-conclusive.

<sup>15</sup> Unless otherwise noted, alternations formulated like this mean that of the underlying level.

- (25) The alternation of //Cu// with //M// in the formation of verb phrases ending in //C<sub>[ALV, -son, -cont]</sub>//-initial words except for (25)
- 5 a. C<sub>[+nas]u</sub> → N / \_\_\_&C<sub>[ALV, -son, -cont]</sub> (except for //da, =doo//): e.g.  
 ●//jom-u=to// ‘read-ADN=NMNL’ → /joNto/ B; ●//kog-u=de//  
 ‘row(-G)-ADN=ADV.RAT’ → /koNtde/ B
- b. C<sub>[-nas, -voi]u</sub> → i / ditto: e.g. ●//kas-u=to// ‘lend—’ → /kaito/ [kaito] A;  
 ●//kas-u=de// ‘lend—’ → /kaide/ A
- 10 c. C<sub>[-nas, +voi]u</sub> → Q / ditto: e.g. ●//tob-u=to// ‘fly—’ → /toQto/ B;  
 ●//agu-j-u=de// ‘raise—’ → /aguQde/ A (The same alternation also occurs  
 for //t//-final, //j//-final, //k//-final, and irregular verb stems)

Finally, the following alternation occurs when in formation of various words or phrases except for (24–25)

- 15 (26) The alternation of //CV<sub>[+high]</sub>// with //M// in formation of various words or phrases except for (24–25)
- a. C<sub>[+nas]V<sub>[+high]</sub></sub> → N / \_\_\_&C: e.g. ●//jom-i-dagaja// ‘read-V-ADV.SML’ → /joNdagaja/ B; ●//kog-i-ke// ‘row-V-ADV.PURP’ → /koNdagaja/ B;  
 ●//jom-u=ka// ‘read-ADN=NMNL.Q’ → /joNka/ B; ●//kog-u=ga//  
 20 ‘row-ADN=GREE’ → /koNga/ B; ●//cum-i-Ø+woj-u//  
 ‘pick-V-NMNL+be.ANM-ADN’ → /cuNmooju, cuNgooju/ A  
 ‘pick.PROG.ADN’; ●//kami+hasami// ‘paper+scissors’ → /kaNbasaami/  
 ‘scissors for cutting paper’; ●//segami+cjuu// ‘Segami+the inside’ →  
 /segaNzuu/ B ‘all over Segami (—中)’
- 25 b. C<sub>[-nas, +cont]V<sub>[+high]</sub></sub> → i / ditto: e.g. ●//kas-i-dagaja// ‘lend—’ →  
 //kas-i-dagaja// → /kaidagaja/ A; ●//toj-u=ka// ‘take—’ → /toika/ B;  
 ●//jasu-ka// ‘easy-ADN’ → /jaika/ [jaika]; ●//waju-ka// ‘bad—’ → /waika/;  
 ●//kas-i-Ø+woj-u// ‘lend—’ → //kai+woj-u// → /kaiooju/ A (cf. //usu-ka//  
 → /usuka, \*uika/; This data shows that //su// in “#u\_\_\_” does not alternate  
 30 with //i//)
- c. C<sub>[-nas, -cont]V<sub>[+high]</sub></sub> → Q / ditto: e.g. ●//tob-i-dagaja// ‘fly—’ → /toQdagaja/ A;  
 ●//ut-i-ke// ‘hit—’ → /uQke/ B; ●//kak-u=ga// ‘write—’ → /kaQga/ B;  
 ●//ik-i-Ø+cuk-!ta// ‘go-V-NMNL+arrive-ADN.PST’ → //ik-i+cui-ta// →  
 /iQciita/ ‘get to.ADN.PST’ A; ●//tob-i-Ø+jo-ka// ‘fly-V-NMNL+good-ADN’  
 35 → /toQzoka/ ‘fly.ABL.ADN’; ●//mot-i-Ø+joo// ‘have-V-NMNL+shape’ →

/moQzoo/; ●//mici-Ø+sio// ‘fill-NMNL+tide’ → /miQsio/ ‘flood tide’ B;  
 ●//moci+cuk-i-Ø// ‘rice cake+jab-V-NMNL’ → /moQcuugi/ ‘making a rice  
 into a cake’ A; ●//nak-i-Ø+besu// ‘cry-V-NMNL+sobbing’ → /naQgweesu/  
 ‘sobbing’ A

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## 5.2 Natural classes

### 5.2.1 On vowels

#### 5.2.1.1 The height of tongue

10 According to the height of tongue, certain phoneme sequences alternate as follows:

(27) Phonotactic constraints on /t, d, c/ (previously cited in (16o–q))

(28) The alternation of //t// with /c/ in the conjugation of //t//-final stem verbs  
 15 //t// → /c/ / \_\_V<sub>[+high]</sub>: e.g. ●//toi+ut-i-Ø// ‘bird+hit-V-NMNL’ → /toiuuci/ ‘bird  
 hunting’; ●//tat-u// ‘stand up-ADN’ → /taacu/ B

(29) The alternation of CV<sub>[+high]</sub> with M in formation of various words or phrases  
 (previously cited on (24–26))

20

(30) The alternation of //Vi// with //V<sub>i</sub>V<sub>i</sub>// in the formation of ALLATIVE<sup>16</sup> phrases,  
 topic phrases, and sandi verbs

a. V<sub>[+high]</sub>i → ii / //Vi// occurs in a morpheme chain: e.g. ●//aku=i//  
 ‘harshness=ALL’ → /aakii/ ??; ●//fuk-!ta// ‘wipe-ADN.PST’ → //fui-ta// →  
 25 //fiita/ A

25

b. V<sub>[-high]</sub>i → ee / ditto: e.g. ●//ike=i// ‘pond=ALL’ → /ikee/ ??; ●//wek-!ta//  
 ‘put-ADN.PST’ → //wei-ta// → /weeta/ A; ●//ko-ko=i// ‘this-PLACE=ALL’  
 → /kokee/ A; ●//kog-!ta// ‘row-ADN.PST’ → //koi-da// → /keeda/ B;  
 ●//ika=i// ‘squid=ALL’ → /ikee/ ??; ●//kak-!ta// ‘write-ADN.PST’ →  
 30 //kai-ta// → /keeta/ B

30

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<sup>16</sup> It means allative-dative-locative-essive.

- (31) The condition on the lengthening of the penultimate //V//  
 Penultimate //V<sub>i</sub>// → /V<sub>i</sub>V<sub>i</sub>// The phrase ends in //V<sub>[+high]</sub>//: e.g. ●//cuki// ‘moon’  
 → /cuuki/ B; ●//mizu=i// ‘water=ALL’ → //mizii// → /miizii/ A; ●//jom-u//  
 ‘read-ADN’ → /joomu/ B; ●//ku-j-u// ‘come-G-ADN’ → /kuuju/ B

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- (32) The condition on the exceptional realization of /t, k/  
 a. /t/ → [t] / C<sub>[+nas]</sub> or [-voi]V<sub>[+high]</sub>\_\_: e.g. /kite/ [k<sup>h</sup>ite] B ‘come.ADV.MED’,  
 /muta/ [muta] A ‘damp ground’  
 b. /k/ → [k] / ditto: e.g. /sike/ [e<sup>h</sup>ike] B ‘storm’, /nuka/ [nuka] B ‘rice bran’

10

- (33) Natural classes of vowels based on the height of tongue  
 ●/V<sub>[+high]</sub>/: /i, u/; ●/V<sub>[-high]</sub>/: /e, o, a/

### 5.2.1.2 The position of tongue towards lips

15 According to the position of tongue towards lips, certain phoneme sequences alternate as follows:

- (34) Conditions on the allomorph selection of topic clitic //i ~ =(w)a//  
 a. //i// / C/GV<sub>[+front]</sub>\_\_: e.g. ●//mici=i// ‘road=TOP’ → /miicii/ A; ●//ike=i//  
 ‘pond=TOP’ → /ikee/ ??  
 b. //a// / C/GV<sub>[-front]</sub>\_\_: e.g. ●//toofu=a// ‘tofu=TOP’ → /toofaa/ B;  
 ●//siwo=a// ‘salt=TOP’ → /siwaa/ B; ●//kaN=na// ‘can=TOP’ →  
 /kaNna/ B; ●//jama=a// ‘mountain=TOP’ → /jamaa/ B; ●//hoN=a//  
 ‘book=TOP’ —(30)→ /hoNna/ B  
 c. //wa// / VV\_\_: e.g. ●//toi=wa// ‘bird=TOP’ → /toiwa/ A; ●//enzuu=wa//  
 ‘pea=TOP’ → /enzuuwa/ B; ●//boo=wa// ‘stick=TOP’ → /boowa/ A

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- (35) The alternation of //Va// with //aa// in the formation of topic phrases  
 V<sub>[-front]</sub>a → aa: e.g. ●//naacu=a// ‘summer=TOP’ → /naacaa/ B; ●//kak-u=a//  
 ‘write-ADN.PST=RMND’ → /kakaa/ B; ●//fujo=a// ‘bath=TOP’ → ●//fujaa/  
 B; ●//kawa=a// ‘river=TOP’ → /kawaa/ B

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- (36) Natural classes of vowels based on the position of tongue towards lips  
 ●/V<sub>[+front]</sub>/: /i, e/; ●/V<sub>[-front]</sub>/: /u, o, a/

## 5.2.2 On consonants

- (37) The alternation of //CV<sub>[+high]</sub>// with //M// in formation of various words or phrases except for (24–25) (previously cited on (26))  
5
- (38) The alternation of //t// with /c/ in the conjugation of //t//-final stem verbs (previously cited on (28))
- (39) Natural classes of consonants  
10 ●/C<sub>[+nas]</sub>/: /m, n, g/; ●/C<sub>[-nas, +cont]</sub>/: /s, j/; ●/C<sub>[-nas, -cont]</sub>/: /b, t, c, g/

## 5.3 Point of articulation

- (40) Conditions on the allophone selection of /N/  
15 /N/ → [m] / \_\_/BIL/: e.g.  
→ [n] / \_\_/ALV/: e.g.  
→ [ɲ] / \_\_/PAL/: e.g.  
→ [ŋ] / EW: e.g.

### 20 5.3.1 Bilabials (= /+grv, +diff/)

- (41) The conditions on the alternation of /±diff, +cont/ with /+diff, -cont/ or /-diff, -cont/ in the formation of PROGRESSIVE<sup>17</sup> verb stems
- 25 a. C<sub>[+grv, ±diff, +voi, +cont]</sub> → C<sub>[+diff, -cont]</sub> / The immediately preceding //C<sub>[BIL]</sub>V<sub>[+high]</sub>// alternates with //C<sub>M</sub>//: e.g. ●//cum-i-Ø+woj-u// ‘pick-V-NMNL+be.ANM-ADN’ → /cuNmooju/ A; ●//tob-i-Ø+woj-u// ‘fly—’ → /toQbooju/ A
- 30 b. C<sub>[+grv, ±diff, +voi, +cont]</sub> → C<sub>[-diff, -cont]</sub> / The immediately preceding //C<sub>[-BIL]</sub>V<sub>[+high]</sub>// alternates with //C<sub>M</sub>//: ●//tat-i-Ø+woj-u// ‘stand up—’ → /taQgooju/ B; ●//kog-i-Ø+woj-u// ‘row—’ → /koŋgooju/ B; ●//kak-i-Ø+woj-u// ‘write—’ → /kaQgooju/ B

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<sup>17</sup> It means progressive-habitual.

By the way, /cuN<sup>g</sup>ooju, toQ<sup>g</sup>ooju/ are also acceptable<sup>18</sup>. This fact suggest that the method for forming PROGRESSIVE verb stems is shifting from compound to derivation as follows:

- 5 (42) The insertion of medial consonant //g// to avoid /C<sub>M</sub>V/ in the formation of PROGRESSIVE verb stems (cf. (16j))
- (g) → g / The immediately preceding //C// alternates with //C<sub>M</sub>//:  
 ●//cum(-g)-!oj(-j)-u// ‘pick(-C)-PROG(-G)-ADN’ → //cuN-g-<sup>g</sup>oj-u// → /cuN<sup>g</sup>ooju/ A;  
 ●//tob(-g)-!oj(-j)u// ‘fly(-C)-PROG(-G)-ADN’ → //toQ-g-<sup>g</sup>oj-u// → /toQ<sup>g</sup>ooju/;  
 10 ●//tat(-g)-!oj(-j)u// ‘stand up(-C)-PROG(-G)-ADN’ → //taQ-g-<sup>g</sup>oj-u// → /taQ<sup>g</sup>ooju/ B

### 5.3.2 Palatals (= /-grv, -diff, +cor/)

- 15 (43) The alternation of palatals to avoid /QC<sub>[+son]</sub>/ (cf. (16j))
- C<sub>[PAL, +son]</sub> → C<sub>[-son]</sub> / The immediately preceding //C<sub>[-son, -cont]</sub>V<sub>[+high]</sub>// alternates with //Q//: e.g. ●//tob-i-∅+j<sup>o</sup>-ka// ‘fly-V-NMNL+good-ADN’ → /toQ<sup>z</sup>oka/ ‘fly.ABL.ADN’;  
 ●//mot-i-∅+j<sup>oo</sup>// ‘have-V-NMNL+shape’ → /moQ<sup>zoo</sup>/;  
 ●//nak-i-∅+j<sup>am</sup>-!te// ‘cry-V-NMNL+stop.INTR-ADV.MED’ → /naQ<sup>zoo</sup>ode/

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### 5.3.3 Grave

### 25 5.3.4 Diffuse

- (44) The alternation of /+diff/ with /±diff/ in formation of various words or phrases
- C<sub>[+grv, +diff, +voi, -cont]</sub> → C<sub>[±diff]</sub> / The immediately preceding //C<sub>[+grv, -diff, -son]</sub>V<sub>[+high]</sub>// alternates with //Q//: e.g. ●//wek-u=<sup>mee</sup>// ‘put-ADN=CCL.IRR.NEG’ → /weQ<sup>g</sup>wee/ (old)<sup>19</sup> A;  
 30 ●//hak-i-∅+<sup>mon</sup>// ‘put on-V-NMNL+thing’ →

<sup>18</sup> Ogata (1987a)’s consultants who were born in 1900’s–1910’s answered /toQ<sup>oo</sup>ju/, but not /toQ<sup>g</sup>ooju/. However, I got /toQ<sup>g</sup>ooju/ and /asuQ<sup>g</sup>ooju, asoQ<sup>g</sup>ooju/ ‘play—’ from my consultants born in 1920’s.

<sup>19</sup> /kakaN<sup>mee</sup>/ and the same kind are being used as CONCLUSIVE-IRREALIS-NEGATIVE verb since  
 (Continued on the following page)



//haQ+gwon// → /haQgON/ A; ●//kak-u=baQte// ‘write-ADN=ADV.CCSV’ →  
 /kaQgwaQte/ B (old); ●//nak-i-Ø+besu// ‘cry-V-NMNL+sobbing’ →  
 /naQgweesu/ ‘sobbing’ A

- 5 (45) The alternation of /±diff, +cont/ with /+diff, –cont/ or /–diff, –cont/ in the formation of PROGRESSIVE verb stems (previously cited on (41))

### 5.3.5 Coronals

- 10 (46) The alternation of /–voi/ with /+voi/ in the formation of sandhi verbs  
 $C_{[+cor, -voi, -cont]} \rightarrow C_{[+voi]} / C_{[+voi, -cont]} \_$ : e.g. //jom-!te// ‘read-ADV.MED’ →  
 //jou-de// → /joode/; //tob-!ta// ‘fly-ADN.PST’ → //tou-da// → /tooda/;  
 //sin-!ta// ‘die-ADN.PST’ → /sinda/; //kog-!coj-u// ‘row-RSL-ADN’ →  
 //koi-zoj-u// → /keezooju/

15

- (47) The alternation of //C<sub>[+cor, +cont]</sub>V<sub>[+high]</sub>// with //i// in formation of various words or phrases except for (24–25) (previously cited on (26b))

## 5.4 Mannar of articulation

### 20 5.4.1 Voiced

- (48) The alternation of /–voi/ with /+voi/ in the formation of sandhi verbs  
 $C_{[+cor, -voi, -cont]} \rightarrow C_{[+voi]} / C_{[+voi, -cont]} \_$ : e.g. //jom-!te// ‘read-ADV.MED’ →  
 //jou-de// → /joode/; //tob-!ta// ‘fly-ADN.PST’ → //tou-da// → /tooda/;  
 25 //sin-!ta// ‘die-ADN.PST’ → /sinda/; //kog-!coj-u// ‘row-RSL-ADN’ →  
 //koi-zoj-u// → /keezooju/

### 5.4.2 Sonolant

- 30 (49) The alternation of /+son/ with /–son/ in the formation of verb phrases ending in  
 //mee//  
 $C_{[+grv, +diff, +voi, +son]} \rightarrow C_{[-son]}$  / The immediately preceding //C<sub>[+grv, +diff, +voi,</sub>

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Ogata (1987a) whose consultants were born on 1900’s–1910’s.

-son]V<sub>[+high]</sub>// alternates with //Q//: e.g. ●//tob-u=mee// ‘fly-ADN  
=CCL.IRR.NEG’ → /toQbee/

### 5.4.3 Nasal

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(50) The insertion of /n/ to avoid /NV/ (cf. (16b))

//N// → /nV/ / N\_\_: e.g. ●//kaN=i// ‘can=ALL’ → /kaNni/ B; ●//hoN=a//  
‘book=TOP’ → /hoNna/ B

10 (51) The alternation of //C<sub>[+nas]</sub>V<sub>[+high]</sub>// with //N// in various word formation (cf.  
(24–26)a))

### 5.4.4 Continuous

15 (52) The alternation of //C<sub>[+cor, +cont]</sub>V<sub>[+high]</sub>// with //i// in formation of various words or  
phrases except for (24–25) (previously cited on (26b))

(53) The alternation of /±diff, +cont/ with /+diff, –cont/ or /–diff, –cont/ in the  
formation of PROGRESSIVE verb stems (previously cited on (41))

## 20 6 Morpho-phonemes

In order to analyze the structure of certain word, I also define the following  
morpho-phonemes which are realized variously according to the difference in  
phonological environment:

25 (54) //N// → /N/ / \_\_u: e.g. ●//kak-a-N-u// ‘write-V-NEG-ADN’ → /kakaN/ B;  
●//kak-a-N-u=ka// ‘write-V-NEG-ADN=NMNL.Q’ → /kakaNka/ B  
→ /n/ / EW: e.g. ●//kak-a-N-eba// ‘write-V-NEG-ADV.COND’ → /kakaneba/  
B; ●//kak-a-N-u=a// ‘write-V-NEG-ADN=RMND’ → //kakaNaa// →  
/kakanaa/ B

30 (55) a. //Ju// → /i/ / \_\_G: e.g. ●//age-!taJ-u=joo// ‘raise-PST-ADN=IFRTL’ →  
/agetajoo/ A; ●//kog-!taJ-u=joo// ‘row-PST-ADN=IFRTL’ → //koidaJujoo//  
→ /keedajoo/ A

b. //Je// → /i/ / \_\_U: e.g. ●//ko-Je// ‘this-THING’ → /koi/ A; ●//kuJe-jeba//  
‘give-ADV.COND’ → /kuijeba/ A; ●//age-!taJ-eba// ‘raise-PST-ADV.COND’ →

/agetaiba/ A

- c. Other //JV// → /jV/: e.g. ●//ko-Je=i// ‘this-THING=ALL’ → //koJee// → /koJee/ A; ●//oJe=i// ‘1.S=ALL’ → //oJee// → /ojee/ A; ●//age-!taJ-oo// ‘raise-PST-CCL.IRR’ → /agetajoo/ A; ●//oJe=a// ‘1.S=TOP’ → //oJaa// → /oja/ A

5

I extract verb-to-verb past suffix //!taJ-// from non-ADNOMINAL past verbs as in (55), but not from ADNOMINAL past verbs. I analyze that the latter includes ADNOMINAL past suffix //!ta// instead of //!taJ-// as follows:

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- (56) ●//age-!ta// ‘raise-ADN.PST’ → /ageta/ A; ●//kog-!ta// ‘row-ADN.PST’ → //koida// → /keeda/ A

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Given that I define a phonological rule such as “//Ju// → /i/”, I can analyze ADNOMINAL past verbs as follows:

- (57) ●//age-!taJ-u// ‘raise-PST-ADN’ → /ageta/ A; ●//kog-!taJ-u// ‘row-PST-ADN’ → //koidaJu// → /keeda/ A

20

However, we can not extract //!taJ-// from ADNOMINAL past verbs with the following examples in mind:

- (58) /agetaa/ ‘row.CCL.PST.RMND, raise—’, keedaa/ ‘raise—’

25

The above forms are supposed to be verb phrases composed of ADNOMINAL past verb and conclusive reminder clitic //a//. If the verb phrases include //!taJ-// on the underlying level, /agetajaa, keedajaa/ instead of /agetaa, keedaa/ must be realized on the surface level through the following process:

30

- (59) ●//age-!taJ-u=a// ‘raise-PST-ADN=CCL.RMND’ → //agetaJaa// → /agetajaa/; ●//kog-!taJ-u=a// ‘row—’ → //koidaJaa// → /keedajaa/ (/agetajaa, keedajaa/ are actually ungrammatical)

35

Therefore, I analyze the verb phrases in (58) as follows:

- (60) ●//age-!ta=a// ‘raise-ADN.PST=CCL.RMND’ → /agetaa/ A; ●//kog-!ta=a// ‘row—’  
→ //koidaa// → /keedaa/ A<sup>20</sup>

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10 The responsibility for the final formulation, and any errors that it may concern, are entirely mine.

## Symbols

●.: syllable boundary; ●&: morpheme boundary (no distinction between free and bound morphemes’); ●-: bound morpheme boundary except for clitics’; ●=: clitic boundary;  
15 ●+: stem boundary; ●#: phrase boundary; ●!: suffixes which cause sandhi; ●[A]: phonetic representation; ●/A/: phonemic representation; ●//A//: underlying representation; ●A/B: A and B are free variants; ●A{B}: ditto; ●A ~ B: A and B are allophones or allomorphs; ●A(B): ditto

## 20 Abbreviations

●1: first person; ●2: second person; ●AACT: anti-active; ●ABL: able; ●ACC: accusative;  
●ADN: adnominal; ●ADN: adnominal-conclusive; ●ADV: adverbial; ●ALL:

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<sup>20</sup> For the same reason, I analyze the following verb phrases composed of ADNOMINAL adjective and //a// as in (VIIb), but not in (VIIc):

- (VII) a. /joka/ ‘good.CCL.RMND’, /taQkaa/ ‘high—’, /aziroikaa/ [aziroika:] ‘beautiful—’  
b. ●//jo-ka=a// ‘good-ADN=CCL.RMND’ → /jokaa/ B; ●//taka-ka=a// ‘high—’ → /taQkaa/ B; ●//azirosi-ka=a// ‘beautiful—’ → /aziroikaa/ B  
c. ●//jo-kaj-(j)u=a// ‘good-VLZ-ADN=CCL.RMND’ → /jokajaa/ B;  
●//taka-kaj-(j)u=a// ‘high—’ → /taQkajaa/ B; ●//azirosi-kaj-(j)u=a// ‘beautiful—’ → /aziroikajaa/ B (/jokajaa, taQkajaa, aziroikajaa/ are actually ungrammatical)

allative-dative-locative-essive; ●ANM: animate; ●BEAU: beautifier; ●C: medial  
 consonant; ●CAUS: causative; ●CCL: conclusive; ●CCSV: concessive; ●CMPV:  
 comparative; ●CNT: continuous; ●COND: conditional; ●ED: endearment; ●GREE:  
 5 greeting; ●HS: hearsay; ●INANM: inanimate; ●IFRR: inferior; ●IFRTL: inferential; ●ILL:  
 illustrative; ●IMP: imperative; ●INTR: intransitive; ●IRR: irrealis; ●LOC: locative; ●MED:  
 medial; ●NEG: negative; ●NMNL: nominal function; ●NMLZ: nominalizer; ●NOM:  
 nominative-adnominal; ●OBLG: obligative; ●PL: plural; ●POL: polite; ●POSS: possible;  
 ●PROG: progressive-habitual; ●PST: past; ●PURP: purposive; ●Q: question; ●RAT:  
 10 rational; ●RMND: reminder; ●RSL: resultative-perfect; ●SG: singular; ●SML:  
 simultaneous; ●SSP: suspensional; ●TERM: terminative; ●THING: nominalizer to form the  
 demonstrative noun indicating a thing; ●TOP: topic; ●TR: transitive; ●TTL: title; ●V:  
 medial vowel; VBLZ: verbalizer

## References

- 15 Arak, Hiroyuki (ed.) (荒木 博之 (編)). (1970). 『甌島の昔話』, 三弥井書店 (上・下甌村方言のテキスト)
- Arimoto, Mitsuhiro (有元 光彦). (2007). 『九州西部方言動詞テ形における形態音韻現象の研究』, ひつじ書房
- Education board of Sato Village (ed.) (里村教育委員会 (編)). (2003) 『郷土の民話』, 私家版  
 20 (テキスト)
- Editing committee on the local history in Sato Village (ed.) (里村郷土史編纂委員会 (編)). (1985) 『里村郷土史』, 里村 (概説書, 語彙集)
- Kamimura, Takaji (上村 孝二). (1936). 「甌島方言の系統に就いて」, 『九大國文學會誌』11, pp. 51–55, 九州帝國大學國文學研究室
- 25 ————. (1937). 「甌島語彙考」, 『九大國文學會誌』12, pp. 29–37, 九州帝國大學國文學研究室
- . (1941a). 「甌島方言のアクセント」, 『音声学協会会報』65, 66, 音声学協会 (再録: 井上史雄・篠崎晃一・小林隆・大西拓一郎 (編) 『日本列島方言叢書 27 九州方言考 5 (鹿児島県)』, pp. 217–21, ゆまに書房)
- 30 ————. (1941b). 「甌島方言文例」, 『九大國文學會誌』17, pp. 38–52, 九州帝國大學國文學研究室
- . (1965). 「上甌島瀬上方言の研究」, 『鹿児島大学法文学部紀要文学科論集』1, pp. 21–49, 鹿児島大学法文学部
- Kibe, Nobuko (木部 暢子). (2001a). 「甌島方言の音声の特徴について——概説と語彙資料集——」, 真田信治 (編) 『日本語の消滅に瀕した方言に関する調査研究』 (「環太平洋の言語」 成果報告書 A4-001), pp. 125–79, 大阪学院大学情報学部
- 35 ————. (2001b). 「鹿児島方言に見られる音変化について」, 『音声研究』5-3, pp.

- 42-48, 日本音声学会
- Kodama, Nozomi (児玉 望). (2012). 「甌島の二型アクセント」, 『ありあけ 熊本大学言語学論集』 11, pp. 47-68: アクセント研究
- 5 Kubozono, Haruo (窪菌 晴夫). (2012). 「鹿児島県甌島方言のアクセント」, 『音声研究』 16-1, pp. 93-104, 日本音声学会
- Kuroki, Kunihiko (黒木 邦彦). 「上甌島瀬上方言における清濁の対立」, 日本言語学会・第145回大会, 2012年11月24日(土), 於九州大学箱崎キャンパス, 大会予稿集: pp. 88-93
- 10 ————. 「上甌島里方言の形態音韻論」, 第245回・筑紫日本語研究会, 2012年12月28日(金), 於九州大学箱崎キャンパス  
(<http://hotarugaikegengokenkyuuzyo.web.fc2.com/page4-1.html>)
- . 「上甌島諸方言の(形態)音韻類型論」, 日本語学会・2013年度春季大会, 2013年6月2日(日), 於大阪大学豊中キャンパス, 大会予稿集: pp. 109-16
- 15 Minami, Fujio (南 不二男). (1959). 「長崎県口之津方言の音韻体系」, 『国語学』 36, pp. 1-14, 国語学会
- . (1962). 「三 文法」, 国語学会(編)『方言学概説』, pp. 209-55, 武蔵野書院
- . (1966). 「長崎県口之津方言の形態音韻論」, 『言語研究』 49, pp. 11-27, 日本言語学会
- . (1967). 「鹿児島県甌島瀬上方言の音韻体系」, 『方言研究年報』 10, pp. 1-17, 20 広島大学方言研究会
- Ogata, Keisuke (尾形 佳助). (1987a). 「上甌島瀬上方言の形態音韻論」, 九州大学大学院人文科学府・昭和62年度修士論文, 未公刊
- . (1987b). 「上甌瀬上方言の子音体系」, 『九州大学言語学研究室報告』 8, 九州大学文学部
- 25 ————. (1988a). 「上甌瀬上方言の人称代名詞」, 『九州大学言語学研究室報告』 9, 九州大学文学部
- . (1988b). 「上甌瀬上方言の音韻の記述」, 『日本方言研究会 第46回研究発表会 発表原稿集(於国学院大学)』, pp. 46-54, 日本方言研究会
- 30 Ogawa, Tatsuo (小川 辰雄). (2012). 『さとことば(里方言)』, 南勢出版(語彙集)
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