

Secondary High Hones in Koshikijima Japanese*

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JK Workshop on ‘Prosody and Prosodic Interfaces in Japanese and Korean’

2017.10.11@U. Hawaii

Key Words: Koshikijima Japanese, endangered language, secondary H tone, H tone clash, H tone deletion

1. Introduction

(1) Goals

- a. To examine the nature and behavior of secondary High tones (Hs) in Koshikijima Japanese (甑島) .
- b. To trace the development of Hs in Koshikijima by comparing three pitch accent systems (see the maps on the last page):
 - (i) Nakakoshiki (中甑, henceforth ‘Naka’) system in 1937 (Kamimura 1937),
 - (ii) Naka system today,
 - (iii) Kuwanoura (桑之浦, henceforth ‘Kuwa’) system today.

2. Koshikijima Japanese

2.1. Background

- (2) a. Spoken on the Koshikijima Islands (north, central, and south), about 40 km to the west of the mainland of Kagoshima, Kyushu (see the maps on the last page).
- b. Highly endangered, with only 2,500 native speakers (population: 5,000)
- c. Old work on word accent by Takaji Kamimura (1937, 1941)
- d. Accent Database (Google Chrome) (Kubozono et al. 2016)
<http://koshikijima.ninjal.ac.jp/>

2.2. Common Features of KJ Prosody

(Kamimura 1937, 1941; Kubozono 2010, 2012a,b, 2016)

- (3) a. Two-pattern accent systems like Kagoshima and Nagasaki Japanese
- b. Mora-counting systems (i.e. moraic version of Kagoshima Japanese)

Type A: H tone on the penultimate *mora*

Type B: H tone on the final *mora*

(Caps=H tone; dots=syllable boundaries)

* The work reported in this talk is based on the collaborative fieldwork with the following scholars: Zendo Uwano, Nobuko Kibe, Akiko Matsumori, Tomoyuki Kubo, Tetsuo Nitta. It was supported by the JSPS KAKENHI Grant Numbers 26244022, 16H06319, and 17K18502 and the NINJAL collaborative research project ‘Cross-linguistic studies of Japanese prosody and grammar’.

	Koshikijima (mora-based)	Kagoshima (syll-based)	Gloss
Type A	A.me	A.me	candy
	o.NA.go	o.NA.go	woman
	zi.KAn	ZI.kan	time
	ba.REe	BA.ree	volleyball
Type B	a.ME	a.ME	rain
	O.to.KO (~o.to.KO~O.TO.KO)	o.to.KO	man
	MI.kaN(~MI.KAN~mi.KAN)	mi.KAN	orange

Hirayama (1951), Kubozono (2004, 2015)

c. *Bunsetsu* phrase as the domain of pitch accent assignment

Type A: A.me ‘candy’, a.ME-ga ‘candy-NOM’...

Type B: a.ME ‘rain’, ...-GA ‘rain-NOM’, ...-ka.RA ‘from rain’

☞ Three-mora nouns have the same accent pattern as [two-mora noun + one-mora particle]: e.g. a.ME-ga ‘candy-NOM’ = o.NA.go ‘woman’

d. Remarkable regional differences among the villages, especially regarding the H tones.

2.3. Regional Differences (Kubozono 2016)

(4) One-H-tone system vs. Two-H-tone system

a. KJ-Taira (平良) permits only one H tone per word just like Kagoshima Japanese.

Type A: LH_pL

Type B: LH_p

b. All other KJ dialects today show two H tones in three-mora or longer words.

Type A: H_sLH_pL (H_s=secondary H tone; H_p=primary H tone)

Type B: H_sLH_p

c. Taira: na.tu.ya.SU.mi ‘summer holiday’

H

Elsewhere: NA.TU.ya.SU.mi

H_s H_p

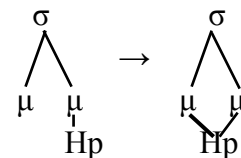
(5) Two solutions to avoid rising contour in H_p.

a. H tone *spreading* in Taira¹

(A) puU.ru → PUU.ru ‘swimming pool’

paN.tu → PAN.tu ‘pants’

(B) mi.kaN → mi.KAN ‘orange’

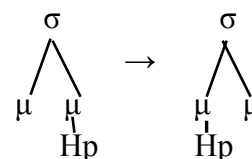


b. H tone *shift* elsewhere

(A) puU.ru → PUu.ru

paN.tu → PAN.tu

(B) MI.kaN (unchanged) → *mi.KAN²



☞ From here, we discuss only two-H systems, with main focus on the behavior of H_s.

¹ See Hyman (2007) for a similar process in African languages.

² H tone shift is blocked in Type B: */mi.KAN/ would be identical to Type A pattern, /zi.KAN/ ‘time’.

3. Naka System in 1937

(6) Takaji Kamimura (1908-1996)

- a. Born in Takeo in Saga Prefecture, Kyushu, in 1908 and adopted by Kamimura Family in Nakakoshiki immediately after birth.
- b. Did extensive fieldwork in 1937, covering ‘most villages on the Islands’ (except Kuwanoura to be discussed in section 5 below).
- c. Already described Taira as different from all other villages.
- d. Described all other villages as having a more or less homogeneous accent system.

(7) Basic rule: Hs is fixed to the second mora in both accent types.

(A) na.TU.ya.SU.mi ‘summer holiday’
 Hs Hp

(B) ha.RU.ya.su.MI ‘spring holiday’
 Hs Hp

- ☞ Hs is assigned from the left edge (L→R).
- ☞ Hs is (largely) independent of Hp.
- ☞ Hs is not distinctive—maybe a boundary tone.

(8) Hs is linked to the second mora, whether or not it is the head mora of the syllable.

(A) zyoQ.ki.SEn ‘steam boat’
 ka.ZA.ri.MOn ‘decoration’
 ka.ZAI.MOn ‘decoration (colloquial)’
 (B) aN.saN ‘elder brother’

(9) Hs shift (No Clash): Hs is not allowed to clash with Hp.

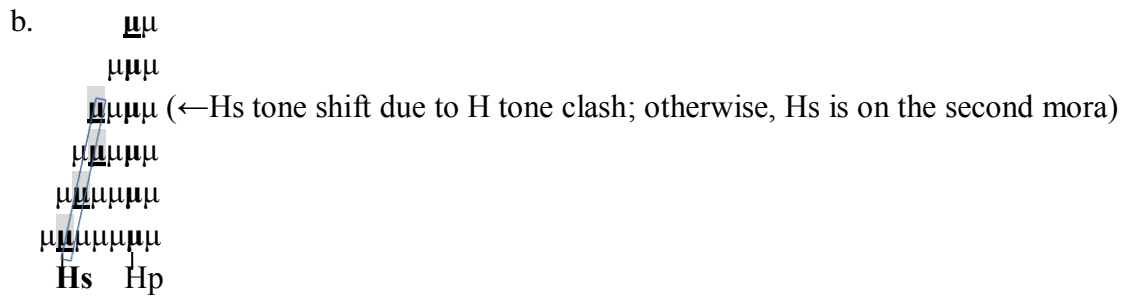
(A) A.ma.ZA.ke, *a.MA.ZA.ke ‘sweet drink made from fermented rice’
 Hs Hp Hs Hp
 (B) Q.to.KO, *o.TO.KO ‘man’
 Hs Hp Hs Hp

(10) No Hp tone deletion in connected speech

- a. In present-day KJ dialects, Hp deletes in non-final positions in connected speech, as we will see shortly (see (14) below).
- b. Kamimura (1937) did not report such a phenomenon, which suggests that Hp deletion had not occurred 80 years ago.
- c. Hp deletion might have resulted in the loss of contrast between Type A and Type B.
 (A) *na.TU.ya.su.mi...
 (B) *ha.RU.ya.su.mi...

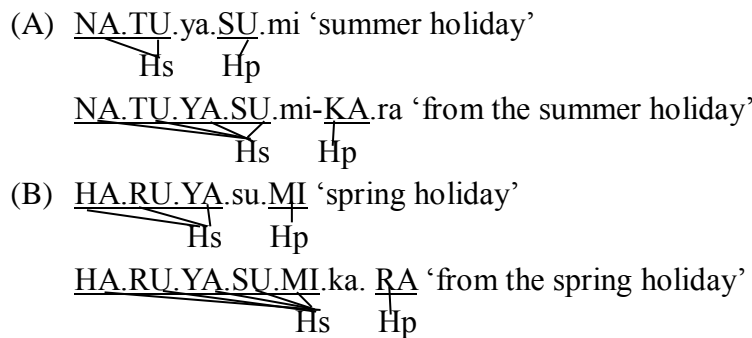
(11) Summary (Naka system in 1937)

a. Type A (μ=mora)
 #μu... μμ#
 Hs Hp



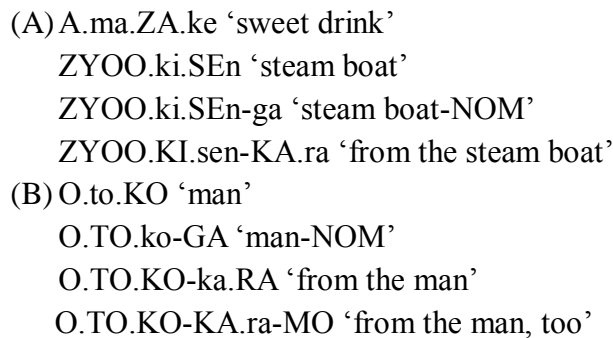
4. Naka System in 2017 (widespread in Koshikijima today) [300? native speakers]

(12) Basic rule: Hs perfectly correlates with Hp. It is assigned to every syllable before Hs, with one L-toned syllable in between. Consequently, the domain of Hs becomes larger as the phrase becomes longer.

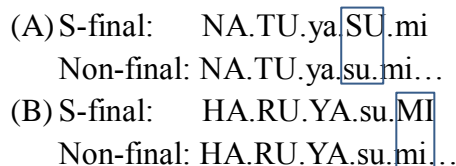


- ☞ Hs is assigned from the *right* edge (R→L).
- ☞ Hs is entirely dependent on Hp.
- ☞ Hs is distinctive (redundantly).

(13) No Clash between Hp and Hs



(14) Hp deletion in connected speech (Kubozono 2012a)



- ☞ Hp deletion—absence of a second F0 rise—indicates non-finality of the sentence.
 Lack of Hp deletion—presence of a second F0 rise—signals sentence-finality.
- ☞ Hs functions as distinctive in non-final positions in connected speech.

- (15) Why does Hp deletion happen in connected speech?
- Account 1
Culminativity: at most one prominence peak per word (Hyman 2006) (\neq OCP)
 - Account 2
Avoid Clash: Avoid H tone clash within a word

- (16) These accounts do not explain:
- Why Hp deletion does not occur at the lexical level.
 - Why Hp deletion does not occur in sentence-final position in connected speech.
 - Why the primary H tone (Hp) is the target of deletion. Why not Hs?

(17) Answer: Hp deletion occurs to avoid H tone clash with the H tone in the *following* phrase.

(A) $\underline{\text{NA.TU}}$.ya. $\underline{\text{SU}}$.mi # $\underline{\text{XXX}}$ xxXx

Hs Hp Hs Hp

<clash>

(B) $\underline{\text{HA.RU}}$.YA.su. $\underline{\text{MI}}$ # $\underline{\text{XXX}}$ xxXx

Hs Hp Hs Hp

<clash>

- ☞ This account answers all the three questions in (16).
- ☞ It also predicts that Type B words would be more likely to undergo Hp deletion than Type A words. This is borne out by the evidence from the Kuwa system (section 5).

(18) Similarities with the Rhythm Rule in English (Kubozono 2012b)

The primary stress of one word is deleted/reduced if it is followed by another word.

e.g. Jàpànése péop|le → Jàpànese péop|le

- ☞ Pitch-accent systems can be similar to stress-accent systems in this respect.

Question: similar evidence from tone languages?

(19) Summary (Naka system in 2017)

- Type A (σ =syllable, μ =mora)

$\underline{\sigma}$... $\underline{\sigma}\mu\mu$

Hs Hp

- $\mu\mu$

$\mu\mu\mu$

$\underline{\sigma}\mu\mu$

$\underline{\sigma}\underline{\sigma}\mu\mu$

$\underline{\sigma}\underline{\sigma}\underline{\sigma}\mu\mu$

$\underline{\sigma}\underline{\sigma}\underline{\sigma}\underline{\sigma}\mu\mu$

Hs Hp

5. Kuwa(noura) System in 2017 [60 native speakers]

(20) Basic rule: Hs is usually linked to the initial two moras.

(A) NA.TU.ya.SU.mi ‘summer holiday’

(B) HA.RU.ya.su.MI ‘spring holiday’

☞ Hs is assigned from the left edge (L → R).

☞ Hs is not distinctive.

(21) Clash is permitted between Hs and Hp

(A) A.MA.ZA ke ‘sweet drink’

Hs Hp

(B) O.TO.KO ‘man’

Hs Hp

☞ The two H tones may be adjacent to each other; Hs is entirely independent of Hp.

(22) Hs spreading: Hs spreads to the third mora if the second and third moras form a syllable.

a. KA.ZA.ri.MOn vs. KA.ZAI.MOn ‘decoration (colloquial)’

Hs Hs

b. FU.RAN.DAa.su ‘Flanders’

c. NI.GI.ri.ME.shi vs. NI.GII.ME.shi ‘rice ball (colloquial)’

(23) Hp deletion: Hp is deleted in connected speech, but only in Type B words.

(A) S-final: NA.TU.ya.SU.mi

Non-final: NA.TU.ya.SU.mi...(no deletion)

(B) S-final: HA.RU.ya.su.MI

Non-final: HA.RU.ya.su.mi...(deletion)

☞ Hp deletion can happen although Hs is non-distinctive.

☞ Despite Hp deletion, tonal contrast between A and B is preserved.

It is signaled by the presence or absence of Hp in non-final position.

If Hp is present (i.e. if Hp is not deleted), then it is Type A;

If absent, then Type B

(24) Summary (Kuwa system in 2017)

a. Basic pattern (Type A)


#μμ..μ..μ#
Hs Hp

b. μμ

μμμ
μμμμ
μμμμμ
μμμμμμ
Hs Hp

6. Comparison of the Three Systems

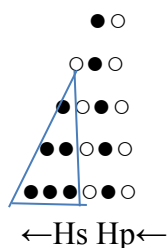
(25) Nature and behavior of Hs



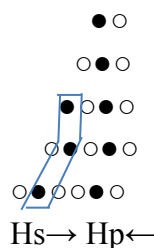
	Naka in 2017	Naka in 1937	Kuwa in 2017
(examples)	NA.TU .ya.SU.mi HA.RU.YA .su.MI	na. TU .ya.SU.mi ha. RU .ya.su.MI	NA.TU .ya.SU.mi HA.RU .ya.su.MI
Dependence on Hp	Entirely dependent	Largely independent	Entirely independent
Direction	R → L	L → R	L → R
Hs-Hp Clash	No clash	No clash	Clash
Distinctiveness	Distinctive (redundantly)	Non-distinctive	Non-distinctive
Hp deletion in connected speech	Deletion in both accent types (A & B)	No deletion	Deletion in Type B only

(26) Hs (Type A): ●=High, ○=Low; syllable/mora distinction is ignored.

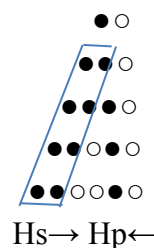
a. Naka in 2017



b. Naka in 1937



c. Kuwa in 2017



☞ Hs developed in opposite directions in the two systems: Hs has become a lexical property in the Naka system, whereas it has intensified its phrasal nature in the Kuwa system.

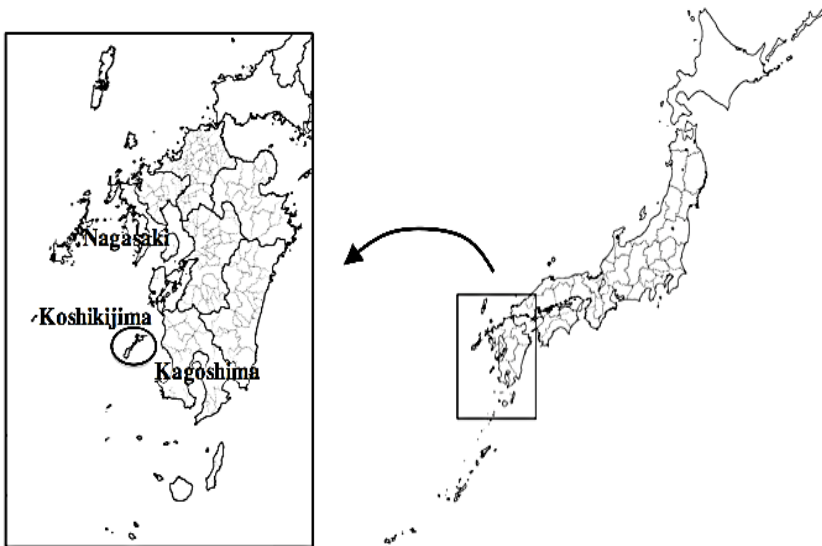
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38 km (north to south) x 10 km (east to west)