

## Towards an adequate description of the tonal systems of Southern Ryukyuan

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## 2 Background and the aim

- ▶ Aim
  - To discuss methods that facilitate an adequate description of the tonal systems of Southern Ryukyuan.
- ▶ Background
  - Most of the studies that reconstruct the proto-Ryukyuan tonal system are based on a single data source.
  - The data source turned out to be **incorrect** with respect to Southern Ryukyuan tonal systems.
  - Therefore, any reconstruction of the Proto-Ryukyuan tonal system should be regarded as **unreliable!**
  - We need to describe Southern Ryukyuan tonal systems by means of an appropriate method.

## 3 Tonal classes in Proto-Ryukyuan

- ▶ Proto-Ryukyuan Three tonal classes (Hattori 1959; Matsumori 1998; Igarashi 2016)
  - Class A  
\**pana* 'nose', \**usi* 'cow', \**oto* 'sound', \**gama* 'cave'
  - Class B  
\**pana* 'flower', \**kata* 'shoulder', \**ifa* 'beard', \**wata* 'belly'
  - Class C  
\**pama* 'beach', \**pune* 'boat', \**woke* 'bucket', \**kobu* 'spider'

## 4 Tonal classes in Proto-Ryukyuan

- ▶ Reflexes of the tonal classes in contemporary dialects
  - Class A \**pana* 'nose':
 

Asama	<i>hánáá</i>
Yoron	<i>pana</i>
Nakijin	<i>phánáá</i>
Ikema	<i>hána</i>
  - Class B \**pana* 'flower':
 

Asama	<i>hanaá</i>
Yoron	<i>paná</i>
Nakijin	<i>phánaá</i>
Ikema	<i>hána</i>
  - Class C \**pama* 'beach':
 

Asama	<i>haamá</i>
Yoron	<i>pámá</i>
Nakijin	<i>phámaa</i>
Ikema	<i>hamá</i>

## 5 Reconstruction of the Proto-Ryukyuan tonal system

- ▶ No consensus has emerged.  
(Hattori 1959; Matsumori 1998; Shimabukuro 2007; Vovin 2008)
- ▶ The controversy arises, in my view, because of the absence of reliable Southern Ryukyuan data.
- ▶ Standard data source (Hirayama et al. 1967) is incorrect in many respects, even with respect to the number of tonal contrasts.

## 6 Two tones -> three tones

The map shows the following data points for the transition from two to three tones:

- Tarama**: 2 tones (Hirayama et al. 1960) ⇒ 3 tones (Matsumori 2001, 2010)
- Ikema**: 2 tones (Hirayama et al. 1960) ⇒ 3 tones (Igarashi et al. 2011)
- Komi**: 2 tones (Hirayama et al. 1967) ⇒ 3 tones (Matsumori 2015)
- Kohama**: 2 tones (Hirayama et al. 1967) ⇒ 3 tones (Matsumori 2015)
- Yonaha**: 2 tones (Hirayama et al. 1960) ⇒ 3 tones (Matsumori 2013)
- Karimata**: 2 tones (Hirayama et al. 1960) ⇒ 3 tones (Matsumori 2015)
- Kuroshima**: 2 tones (Hirayama et al. 1967) ⇒ 3 tones (Matsumori 2015, 2016)

### 7 Recent findings about S. Ryukyuan

- Characteristics of Sothern Ryukyuan tones (Matsumori 2010; Igarashi et al. 2011, 2012; Igarashi 2015; Igarashi 2016)
  - Tonal contrasts are neutralized in a wide range of prosodic contexts
  - A single tonal class can exhibit several allophonic variations.
  - The distinctive feature of a lexical tone may be observed outside the word having that tone.

### 8 Ikema (e.g. Igarashi et. al 2017)

(1) X (isolation)	<i>bútu</i> husband	<i>májú</i> cat	<i>nabí</i> pan
(2) X=nu (X=NOM)	<i>buú=nu</i> husband=NOM	<i>maju=nu</i> cat=NOM	<i>nabi=nú</i> pan=NOM
(3) X=mai (X=also)	<i>buú=mai</i> husband=also	<i>maju=mai</i> cat=also	<i>nabi=mái</i> pan=also
(4) X=nu miin/ njaan. (X=NOM not.exist)	<i>buú=nú miin.</i> husband=NOM not.exist	<i>maju=nú miin.</i> cat=NOM not.exist	<i>nabi=nú njáán.</i> pan=ACC not.exist
(5) X=nu tumi-n. (X=ACC search.NEG)	<i>buú=ú tumin.</i> husband=ACC search.NEG	<i>maju=ú tumi-n.</i> cat=ACC search.NEG	<i>nabjú=ú túmí-n.</i> pan=ACC search.NEG
(6) X=mai njaan.	<i>buú=mai njaan</i> husband=also not.exist	<i>maju=mai njáán.</i> cat=also not.exist	<i>nabi=mái njaan.</i> pan=also not.exist

### 9 Tarama (Matsumori 2010; Igarashi 2015, 2016b; Aoi 2016)

(1) X (isolation)	<i>mídzí</i> water	<i>mámi</i> bean	<i>wáa</i> pig
(2) X=nu (X=NOM)	<i>mídzí=nu</i> water=NOM	<i>mámi=nu</i> bean=NOM	<i>wáa=nu</i> pig=NOM
(3) X=mai (X=also)	<i>mídzí=mái</i> water=also	<i>mámi=mái</i> bean=also	<i>wáa=mai</i> pig=also
(4) X=mai neen. (X=also not.exist)	<i>mídzí=mái néén.</i> water=also not.exist	<i>mámi=mái neen.</i> bean=also not.exist	<i>wáa=mai neen.</i> pig=also not.exist
(5) X+kami (X+jar), X+kii (X+tree), X+muú (X+miso)	<i>mídzí+gámi</i> water+jar	<i>mámi+gii</i> bean+jar	<i>wáa+muú</i> pig+miso
(6) X+kami=mai (X+jar=also), X+kii=mai (X+tree=also), X+muú=mai (X+miso=also)	<i>mídzí+gámi=mái</i> water+jar=also	<i>mámi+gii=mái</i> bean+jar=also	<i>wáa+muú=mái</i> pig+miso=also

### 10 New methods for elicitation

A sequence of poly-moraic morphemes is necessary for full realization of tonal contrasts in Sothern Ryukyuan.

Noun (μ μ (μ)) = Particle (μ μ (μ)) = Predicate (μ μ (μ))

*mami=mai njaan.*  
bean=also not.exist  
'There is no bean, either'

Noun (μ μ (μ)) + Noun (μ μ (μ)) = Particle (μ μ (μ))

*mami+gii=mai*  
bean+tree=also  
'bean tree, too'

Noun (μ μ (μ)) = Particle (μ μ (μ)) = Particle (μ μ (μ))

*jama=kara=mai*  
mountain=from=also  
'from the mountain, too'

Noun (μ μ (μ)) + Noun (μ μ (μ)) + Noun (μ μ (μ))

*gadzi+hana+gii*  
hook+flower+tree  
'Ficus retusa'

### 11 New methods for elicitation

- New frame sentences are required!
  - The "noun-plus-particle frame" is no longer useful for Sothern Ryukyuan.
- New frame sentences recommended
  - X=kara/karadu frame
  - "X+field frame"
  - "X+people frame"
  - "X+language frame"

Compounds (developed by Matsumori (2013-))

### 12 Polymoraic particle X kara/karadu frame

「カラ・カラドウ・フレーム」 (adopted from Matsumori 2016)

- Examples:
  - Class A: *ábú=hára=dú* (*muduri kee.*) 'Came back from the cave'
  - Class A: *jámá=hára=du* (*muduri kee.*) 'Came back from the mountain'
  - Class A: *fune=hera=du* (*muduri kee.*) 'Came back from the boat' (The Kuroshima dialect (Matsumori 2016: 45))
- Noun & polymoraic particle & predicate
  - Polymoraic particle
  - =kara 'from', =mai 'also', =nkai/=nkee 'ALL' (Ikema, Tarama (e.g. Igarashi 2015))
  - =mee=du 'also=FOC', =nkee=du 'ALL=FOC' (Yonaha (Matsumori 2013))
  - =hara, 'from', =hara=du 'from=FOC', =kin=a 'than, TOP' (e.g. Kuroshima (Matsumori 2016))

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### Compounding I X+field frame 「○○畑フレーム」

(adopted from Matsumori 2015)

► Examples:

- Class A: **kúúsú + bári = kára** = du... 'from the pepper field'
- Class B: **mámi + bári = kara** = du... 'from the bean field'
- Class C: **búúgi + bari** = kara = du... 'from the bean field'

The Karimata dialect (Matsumori 2015: 59)

► First element

- Class A: **\*piru** 'onion', (**\*kooso**? 'pepper')
- Class B: **\*mogi** 'wheat', **\*mame** 'bean', **\*ori** 'gourd'
- Class C: **\*gaora** 'bitter gourd', **\*nabeara**? 'sponge gourd', **\*tamana** 'cabbage', (**\*woogi** 'sugar cane')

► Second element

- \*paru** 'field' (Class B) / **\*patake** 'field' (Class C)

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### Compounding II X+people frame 「○○人フレーム」

(adopted from Matsumori 2015)

► Examples:

- Class A: **mjááku + pitu = nu** = du... 'the Miyako people<sup>RYUKYU</sup>'
- Class B: **jámátú + pitú = nú** = du... 'the Japanese people<sup>RYUKYU</sup>'
- Class C: **tárámá + pitu + nu** = du... 'the Miyako people<sup>RYUKYU</sup>'

The Komi dialect (Matsumori 2015: 76-77)

► First element

- Class A: **\*jaama** 'Yaeyama', **\*pirara** 'Hirara', (**\*mijako** 'Miyako')
- Class B: **\*jamato** 'Japan', **\*okinawa** 'Okinawa', **\*ikema** 'Ikema'
- Class C: **\*tarama** 'Tarama', (**\*patoma** 'Hatoma')

► Second element

- \*pito** 'person' (Class A)

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### Compounding III X+language frame 「○○語フレーム」

(adopted from Matsumori 2015)

► Examples:

- Class A: **jámámá + múnñ = mái** = du... 'the Yaeyama language, too'
- Class B: **jámátú + múnñ = mái** = du... 'the Japanese language, too'
- Class C: **tárámá + munñ = mái** = du... 'the Tarama language, too'

The Karimata dialect (Matsumori 2015: 63)

► First element

- Class A: **\*jaama** 'Yaeyama', **\*pirara** 'Hirara', (**\*mijako** 'Miyako')
- Class B: **\*jamato** 'Japan', **\*okinawa** 'Okinawa', **\*ikema** 'Ikema'
- Class C: **\*tarama** 'Tarama', (**\*patoma** 'Hatoma')

► Second element

- \*monoi** 'speech' (Class B), **\*kufi** 'mouth/language' (Class A)

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### Vocabulary list

- **Matsumori's keiretsubetsugoi** (Matsumori 2000, 2012)  
系列別語彙
  - Standard list
  - 253 Ryukyuan cognates
- **"J-R COGNATES"** (Igarashi 2016a; 2018b)  
日琉語類別語彙
  - Large-scale list
  - 1441 Ryukyuan cognates (1290 Japanese-Ryukyuan cognates)
- **"Ryukyuan accent 160"**  
琉球語アクセント調査表160
  - Small list
  - 160 Ryukyuan cognates widely attested both in Northern and Southern Ryukyuan.

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### Conclusion

- Twentieth-century descriptions of Southern Ryukyuan turns out to be incorrect with respect to the tonal systems.
- They even underestimated the number of tonal contrasts because they overlooked wide-spread tonal neutralization.
- Any reconstruction of the Proto-Ryukyuan tonal system proposed so far should be regarded unreliable.
- **We need to start afresh with a clean slate!**
- In this talk I discussed methods that facilitate an adequate description of the tonal systems of Southern Ryukyuan.

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