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## The Historical Position of the Ryukyuan Languages

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### 1. Japanese and the other Japonic languages

Japanese is widely considered to be an *isolate*, a language that has not been convincingly demonstrated to be related to any other language, in spite of countless proposals (Korean, Altaic/Transeurasian, Ainu, Uralic, Austronesian, Sino-Tibetan, Dravidian, Basque, Sumerian, Indo-European, etc.).

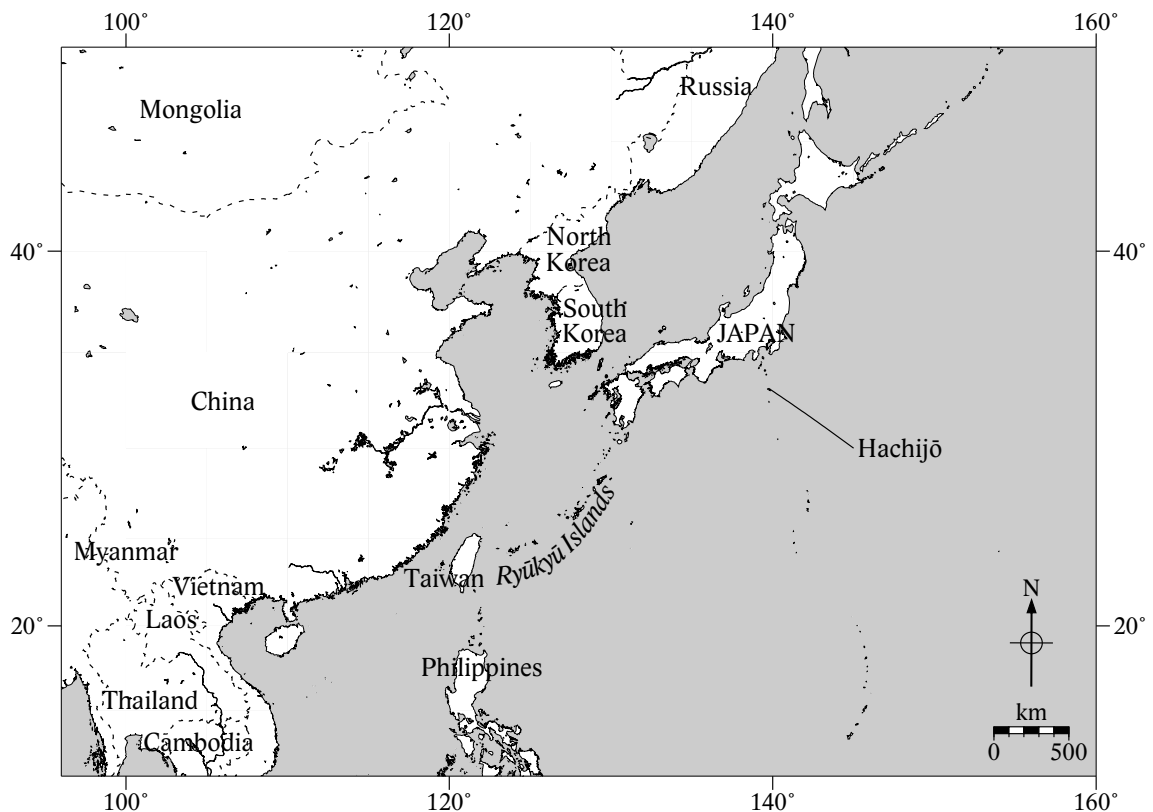


Figure 1. The Japanese Islands and East Asia

However, this view considers neither the Ryukyuan languages nor the language of Hachijō Island, whose relationship with Japanese is beyond any doubt, to the point that they are often treated as Japanese dialects. Though the recognition of several “Japonic” languages does not solve the problem of their relationship with other languages, it opens new perspectives. A systematic comparison of Ryukyuan and Japanese and the reconstruction of their common ancestor is a necessary preliminary step in the search for external relatives:

- Ryukyuan can be shown to be a sister family of Japanese that split from it before the 8<sup>th</sup> c. CE
- Ryukyuan preserves many features already lost or obsolescent in Old Japanese

## 2. What, if anything, is Ryukyuan?

Ryukyuan languages:

- generic name given to the native languages spoken in the Ryūkyū Islands, scattered across more than 800km between the south of Kyūshū and the northeast tip of Taiwan
- this territory, delimited by the Kuroshio current, corresponds to that of the ancient Ryūkyū kingdom that was conquered by Japan in 1609 and officially annexed in 1872
- abundant correspondences within both the lexicon and the grammar leave no doubt concerning the genetic relationship between Japanese and Ryukyuan

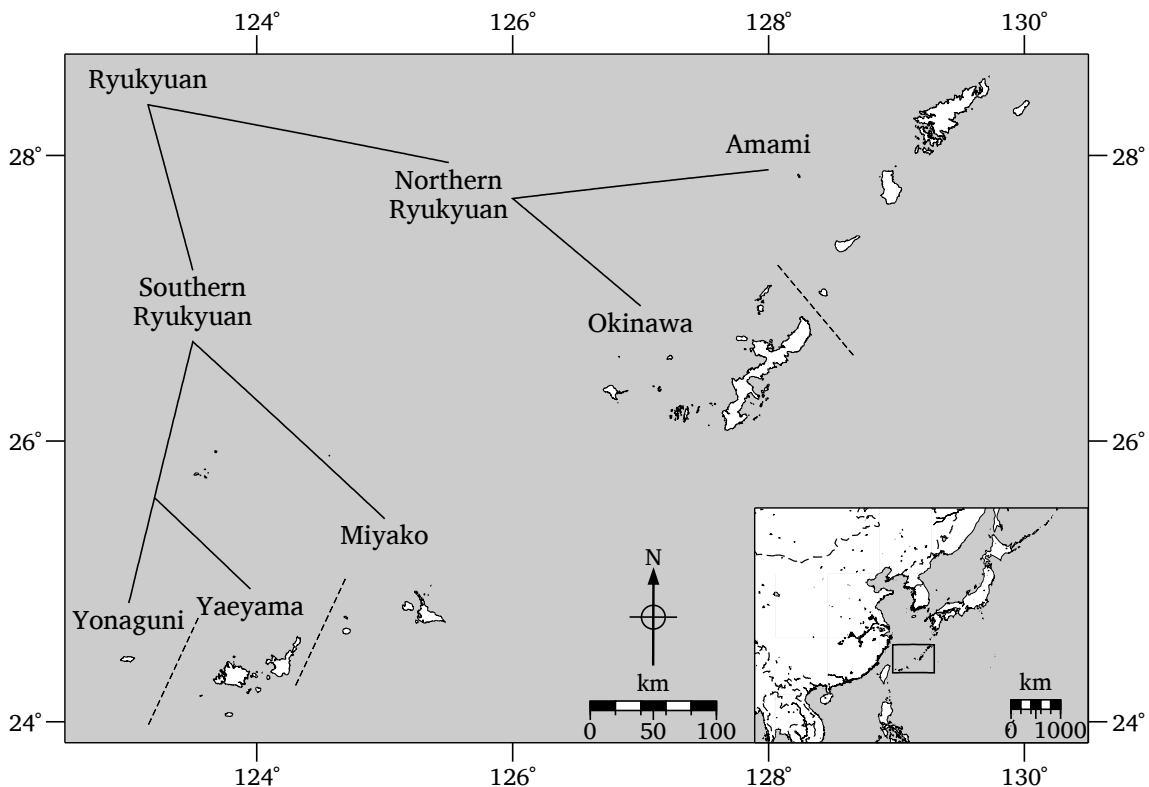


Figure 2. The Ryūkyū Islands

Languages or dialects?

- the Ryukyuan languages have been considered to be Japanese dialects since the rise of Japanese nationalism and the creation of a nation-state
- but the differences between Japanese and Ryukyuan and within Ryukyuan are at least as great as between the different Slavic or Romance languages
- no intercomprehension possible between Japanese and Ryukyuan, nor between the different Ryukyuan languages
- it is thus preferable to consider there are *at least* 5 Ryukyuan languages, all highly endangered and still under-described: Amami, Okinawan, Miyako, Yaeyama and Yonaguni

## 2.1. Classification

The Ryukyuan languages have never been demonstrated to form a single branch coordinate with Japanese

- they are spoken in the same area, share some surface similarities, but they could be a heterogeneous group resulting from several independent migrations (see Fig. 3)
- most Japanese dialectologists base their tentative classifications on superficial features, such as the number and qualities of vowels
- but it is widely known such phonological features can easily
  - spread geographically through language boundaries, by contact
  - arise independently

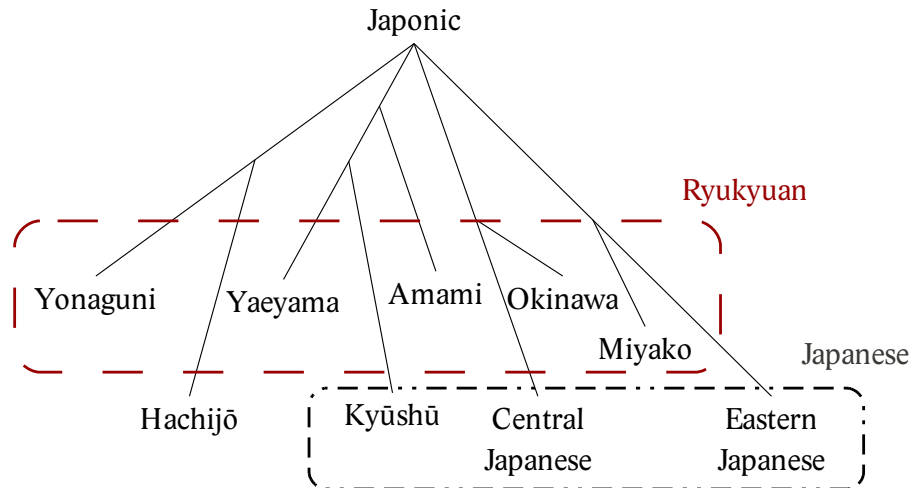


Figure 3. A theoretically possible tree of the Japonic language family

Genetic classification:

- should be based on the sole criterion of *shared innovations*, as done in modern biology (*phylogenetics*)
- subgroups are established if they share innovations that are not present in other species/languages/dialects
- the common retention of an old feature or the lack of an innovation is not indicative of subgrouping

A detailed comparison of Japanese and Ryukyuan reveals:

- they do exhibit mutually exclusive innovations, and thus form two sister branches (Pellard 2009)
- but the exact position of the Hachijō language is still unclear
- important consequences for the reconstruction of the linguistic prehistory of the Japanese islands (see §4)

Ryukyuan is defined by several innovations, e.g.,

- semantic change: ‘intestines’ > ‘belly’ for \*wata
- adversative marker: \*soga (including nominalizer \*so)
- instrumental marker: \*se (< ‘do’)
- interrogative pronoun: \*nawo ~ \*nowo ‘what?’
- plural markers: \*kja and \*ta
- reflexive pronoun: \*du (< ‘body’)

On the other hand, all Japanese dialects seem to share the forms *otoko* ‘man’, *kami* ‘hair (of the head)’ and *tabe* ‘eat’ (< honorific), all innovations absent from Ryukyuan.

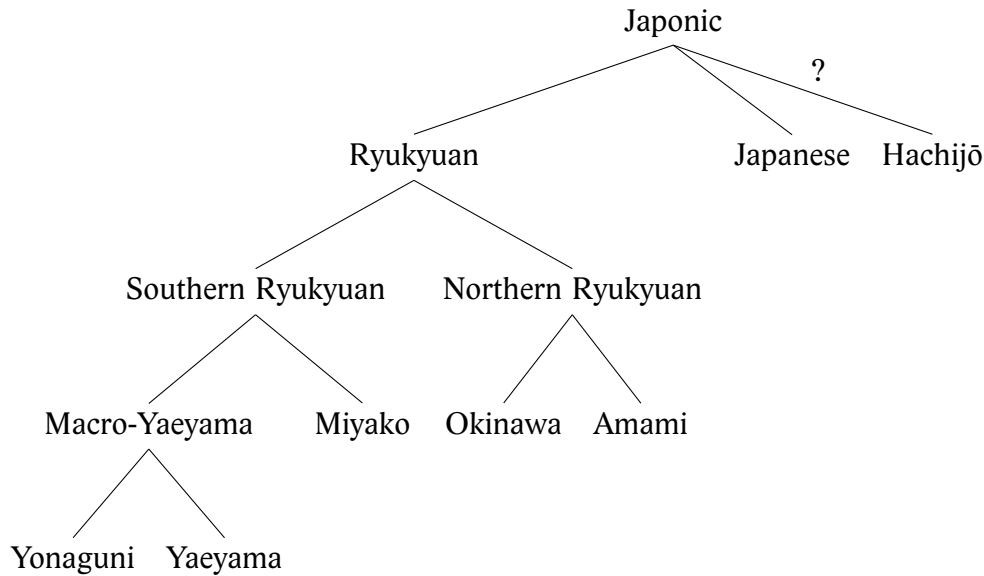


Figure 4. The Japonic language family tree

### 3. Dating the separation of Japanese and Ryukyuan

How old is Ryukyuan?

- very innovative in some aspects
- the settlement of the Ryūkyū Islands probably happened quite late (see §5.1)
- but many lexical, phonological and grammatical features of Ryukyuan can only be explained if we assume Ryukyuan and Japanese split before the 8<sup>th</sup> c. CE

Previous scholarship:

- relied on *glottochronology*, a mathematical method that measures the number of basic words in common between related languages in order to estimate when they separated
- different formulas give different dates: Hattori (1959) 500 CE, Ōshiro (1972) 587 CE, Unger (2008) 996 CE
- controversial method: based on the (unproved) assumption that in all languages words change at a fixed rate
- a recent study (Lee and Hasegawa 2011) based on a more sophisticated statistical method gives 2<sup>nd</sup> c. BCE as an estimate, but there are many problems with both the data and the method involved (cognacy assessment, chronological calibration)

Alternative method: relative chronology compared to the oldest written records.

If we can show Ryukyuan has not undergone some changes attested in Japanese, we can conclude Ryukyuan and Japanese split before those changes happened. For example, we know from the written records the distinctions between *e/we/je*, *o/wo* and *i/wi* were lost in Japanese during the 10<sup>th</sup>-11<sup>th</sup> c. CE, but these generally remain distinct in Ryukyuan (Table 1).

More important, Ryukyuan preserves some phonological distinctions already lost in Old Japanese, but which we can recover thanks to some alternations. For instance, the same Old Japanese vowel *i*<sub>2</sub> alternates with the vowel *u* in some cases (ex: ‘moon’ *tuki*<sub>2</sub> ~ ‘moon night’ *tuku-yo*) but with *o*<sub>2</sub> in other cases (ex: ‘tree’ *ki*<sub>2</sub> ~ ‘tree leaf’ *ko*<sub>2</sub>-*no*<sub>2</sub>-*pa*). It is thus possible to conclude there were earlier two different sounds (usually reconstructed

as \*ui and \*əi) that merged in Old Japanese as  $i_2$ . This is confirmed by the fact that they remain distinct in Ryukyuan (Table 2).

**Table 1. Pre-Middle Japanese distinctions preserved in Ryukyuan**

OJ	MJ	Amami	Okinawa	Miyako	Yaeyama	Yonaguni
<i>o</i>		ʔu	ʔu	u	u	u
<i>wo</i>	<i>o</i>	wu	wu	bu	bu	bu
<i>i</i>		ʔi	ʔi	ɺ, i	ɺ, i	i
<i>wi</i>	<i>i</i>	ji	ji	bɺ	bɺ	bi
<i>e</i>		ʔi	ʔi	i	i	i
<i>je</i>	<i>e</i>	ji	wi	bi	bi	bi
<i>we</i>						

**Table 2. Pre-Old Japanese distinctions preserved in Ryukyuan**

PJ	OJ	Amami	Okinawa	Miyako	Yaeyama	Yonaguni
*ui	$i_2$ (~ <i>u</i> )	ʔi	ji	ɺ	ɺ	i, Ø
*əi	$i_2$ (~ <i>o</i> )	<sup>h</sup> i	i	i	i	i

Ryukyuan also preserves several archaic grammatical features lost in the central dialect of Old Japanese:

- traces of a verbal adnominal suffix \*o, which is also attested in the Eastern Old Japanese dialectal poems and survives in the Hachijō language (Pellard 2008)
- negative converb suffix \*-ada/-ana (Kametsu *-ada*, Ōgami *-ata*, Ishigaki *-ana*), cognate with the Eastern Old Japanese *-ana* suffix

#### 4. The importance of Ryukyuan for Japanese historical linguistics

##### 4.1. Philology and the comparative method

Since Ryukyuan is not a daughter of Old Japanese but a sister branch to it, the logical conclusion is that the Ryukyuan data is at least as important as the Old Japanese texts for Japanese historical linguistics.

Traditionally:

- most studies have exclusively relied on philology and the internal reconstruction of Old Japanese
- the vast data mine of the Ryukyuan languages remains largely untapped
- sometimes the comparative method has been misunderstood or just rejected
- ‘dialectal’ data has generally been considered suspect and the prestigious literary tradition of the capital has been favored
- Ryukyuan features not attested in Japanese are sometimes ignored as being the result of dialect mixing
  - not supported by direct evidence
  - not falsifiable

- one could reverse the argument and propose that the Japanese features not attested in Ryukyuan are due to contact, since there are more contacts within Mainland Japan than within the Ryukyus

It thus seems that a proper *comparative* reconstruction of Proto-Japonic taking into account data from the whole family is needed more than ever as a preliminary step for further research on the prehistory of the Japanese language. Indeed, a thorough comparison of Ryukyuan and Japanese leads to modifications in the reconstruction of Proto-Japonic phonology, morphology and lexicon, and is thus important in the search for external relatives of Japonic.

#### 4.2. Some Ryukyuan contributions to the reconstruction of Proto-Japonic

One of the most important Ryukyuan contributions to the reconstruction of Proto-Japonic concerns the vowel system:

- most reconstructions have posited only 4 vowels (Miller 1967, Matsumoto 1975, Starostin 1975, Ōno 1977, Whitman 1985, Martin 1987, Starostin et al. 2003)
- but Ryukyuan evidence (Hattori 1978–1979, Thorpe 1983, Serafim 2008, Pellard 2011b) requires a reconstruction of *at least* 6 vowels (Figure 5, Table 3)

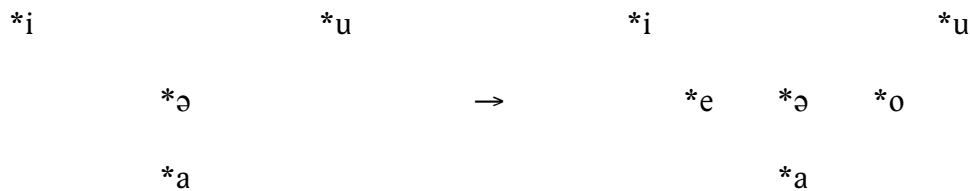


Figure 5. The Proto-Japonic vowel system

Table 3. Proto-Japonic vowel correspondences

PJ	OJ	Amami	Okinawa	Miyako	Yaeyama	Yonaguni
*i	<i>i</i> <sub>1</sub>	<sup>?</sup> i	j <i>i</i>	ɺ	ɺ	i, Ø
*e		<sup>h</sup> i	i	i	i	i
*u	<i>u</i>	<sup>?</sup> u, Ø	u, Ø	u, Ø	u, Ø	u, Ø
*o	<i>u</i> ( <i>o</i> <sub>1</sub> )	<sup>h</sup> u, o	u	u	u	u

One other great advance based on Ryukyuan is the reconstruction of the tone (or pitch-accent) system (Table 4):

- Ryukyuan has lost many tonal distinctions, and many Ryukyuan tone systems *superficially* resemble those of the southern Kyūshū Japanese dialects
- if Ryukyuan has a simpler system than most Japanese dialects, it exhibits several distinctions absent from Japanese (Hattori 1958, 1978–1979, Matsumori 1998, 2000, Igarashi et al. 2011)

Ryukyuan data also allows the identification of Korean loanwords in Old Japanese, as several words that resemble Korean are only found in Old Japanese and do not exist in Ryukyuan (Vovin 2007, 2010), e.g., ‘father’ *kasō*<sub>2</sub> (Paekche *kasō*), ‘precious bracelet’ *kusiro*<sub>2</sub> (MK *kwusul* ‘treasure’), ‘arrow’ *sa* (MK *sal*), etc.

**Table 4. Proto-Japonic tone correspondences for disyllables**

S. Kyūshū Makurazaki	E. Kyūshū Ōita	MJ	PJ	PR	Amami Onotsu	Okinawa Nakijin	Miyako Ikema	Yonaguni
LH	LH(=H) {	2.1	2.1	A	LH	LH	HH-LL-LL	LH
		2.2	2.2					
HL	LH(=L)	2.3	2.3a	B	LR	LR	HH-LL-HH	LL
			2.3b					
	HL	2.4	2.4a	C	HL	HL	HH-HH-LL	LH(L)
			2.4b					
		2.5	2.5a					
			2.5b					

## 5. Reconstructing the linguistic prehistory of the Ryūkyū Islands

### 5.1. The settlement of the Ryūkyū Islands

Linguistics:

- Ryukyuan and Japanese split before the 8<sup>th</sup> c. CE
- however, Ryukyuan exhibits some features, like the presence of Sino-Japanese words and other borrowings from Middle Japanese, that suggest close contact with Japanese until a recent date; the presence of such features even in Southern Ryukyuan suggests that contacts occurred at the Proto-Ryukyuan stage
- similarities exist between Ryukyuan and the Kyūshū dialects (Serafim 2003)
- the existence of a common vocabulary for agriculture, pottery and metallurgy suggests that Proto-Ryukyuan speakers were probably farmers

Archaeology and anthropology (Asato and Dohi 1999, Takamiya 2005):

- no Yayoi culture in the Ryukyus
- major physiological differences between the direct ancestors of the modern Ryukyuan and their Jōmon predecessors
- on the other hand, the direct ancestors of the modern Ryukyuan are close to Mainland Japanese
- Southern Ryukyus were isolated: no Jōmon culture, no contacts with the North before the 13<sup>th</sup> c. CE, major cultural and anthropological differences
- 8–10<sup>th</sup> c. CE: abrupt transition from foraging to agriculture and demographic explosion in the Northern Ryukyus
- 12<sup>th</sup> c. CE: Gusuku period, cultivated plant remains become common, emergence of a complex and stratified society based on agriculture, pottery and metallurgy
- the most probable explanation is that of a migration wave from Kyūshū

A tentative unified scenario:

- Ryukyuan and Japanese split sometime before the 8<sup>th</sup> c. CE, probably during the Kofun period (3<sup>rd</sup>–6<sup>th</sup> c. CE), which saw the formation of the Yamato state
- Proto-Ryukyuan is spoken in Kyūshū and is in contact with Japanese
- 8–10<sup>th</sup> c. CE: Proto-Ryukyuan speakers start to move in the Northern Ryukyus
- 12<sup>th</sup> c. CE: the Northern Ryukyus are now settled by Proto-Ryukyuan speakers, who supplant the foragers living there
- 13<sup>th</sup> c. CE: the Ryukyuan Gusuku culture reaches the Southern Ryukyus through colonization
- in the meantime, the para-Ryukyuan languages that had remained in Kyūshū are gradually wiped out by Japanese



## **5.2. Explaining the Ryukyuan diversity: an island effect**

Ryukyuan and Japanese:

- great linguistic, as well as cultural and anthropological, differences
- why?

Hypothesis of an Austronesian substratum:

- Taiwan, the Austronesian homeland, is only 100+km away from Yonaguni and can be seen with the naked eye several times a year from there
- archaeological traces of the presence of Austronesians in the Southern Ryukyus (Summerhayes and Anderson 2009)

However:

- no Austronesian presence attested in the Northern Ryukyus
- DNA studies reveal Southern Ryukyus have no relationship with the Taiwan aborigenes but are closely related to Mainland Japanese (Matsukusa et al. 2010)
- archaeological remains in the Yaeyama Islands show Austronesians from Taiwan occupied the Southern Ryukyus for a short period of time 4500-3900 years ago (Summerhayes and Anderson 2009), but there is a gap of several millennia between the end of the Austronesian presence and the arrival of the modern Ryukyus' ancestors
- islands cannot sustain a large population of foragers (Takamiya 2005), so the Jōmon foragers of the Northern Ryukyus were probably few in numbers and many islands were unoccupied
- no actual Ryukyuan linguistic material can be convincingly linked to Austronesian or any other language

Explaining the Ryukyuan diversity:

- linguistic diversity increases as we go further southwest in the Japanese Islands
- the area of greatest linguistic diversity is often the homeland of the language family, however, for Japonic, this is clearly wrong
- languages evolve in punctuational bursts (Atkinson et al. 2008), and colonization of new locations by small groups constitutes founder effects that cause rapid changes
- insular geography favors isolation and diversification

## **6. Last words: Non-everlasting languages**

The Ryukyuan languages, besides their many interesting synchronic features, play a key role in the reconstruction of the linguistic prehistory of the Japanese islands, and they cannot be neglected if we are ever to resolve the question of the origin of the Japonic language family. This is also probably the case of many lesser-known Japanese dialects, which remain, like most Ryukyuan languages, under-described. The importance of the study of the diverse Japanese and Ryukyuan linguistic varieties has been repeatedly argued by the eminent Japanese linguist Hattori Shirō, who already regretted in the 70's the paucity of good and sufficient descriptions. Though Hattori rightfully warned us of the coming extinction of those varieties and of the urge for detailed and extensive descriptions, little has been done in 40 years.

The recent disaster in Northeast Japan left thousands dead. Besides the human tragedy, several dialects are probably gone forever with the giant tsunami. Had it happened in the Ryukyus, little would have been left of the Ryukyuan languages. We should remember that actually an earthquake and a tsunami of similar magnitude struck the Ryūkyūs in the 18<sup>th</sup> c CE. In 1771, a magnitude 8 earthquake followed by a 40–80m high tsunami

reduced by two-thirds the population of the Southern Ryukyus. With more than 10,000 deaths, most of the linguistic diversity of the area was wiped out, and who knows how many pieces of the puzzle of the Japonic linguistic history disappeared with it.

The most important and urgent task in Japanese linguistics — perhaps the only really urgent task — remains the description and documentation of the Ryukyuan languages and the Japanese dialects.

### Abbreviations

MJ	Early Middle Japanese (9–12th c. CE)	H	high tone
MK	Middle Korean	L	low tone
PJ	Proto-Japonic	R	rising tone
PR	Proto-Ryukyuan		
OJ	Old Japanese (8 <sup>th</sup> c. CE)		

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