

The comparative study of the Japonic languages

NINJAL International Symposium *Approaches to endangered languages in Japan and Northeast Asia: Description, documentation and revitalization*, Tachikawa: 6–8 August 2018

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Why do we compare?

(1) Goals and methods of science

- to advance our understanding of the world
- answering “what?” (observation) is not sufficient, we also need to ask “how?” and “why?” (explanation)
- the hallmark of the scientific method is the artificial experiment, but such experiments are often not possible or ethical in many fields, especially those who study the past and unique events: evolutionary biology, archaeology, but also epidemiology, ecology, sociology, etc.
- one alternative to the controlled experiment is the “natural experiment”, or “comparative method”: manipulation is replaced by comparison with other attested cases
- comparison has a long history and has been a standard method of enquiry in anatomy for centuries

We consider that it is worth while to examine many animals of different species because what is often more condensed or more concealed in one species Nature displays more clearly and openly in another. (Regnier de Graaf 1663, *Disputatio medica de natura et usu succi pancreatici*, cited in Cole 1944: 12)

(2) In linguistics too, comparison is an invaluable tool

1. *typological* comparison: search for the universal laws, tendencies, and possible variations of language (see the presentation by M. Shimoji)
2. *historical* comparison: explanation of languages by reference to their evolutionary changes, as revealed by comparison with related languages¹

The historical comparative method in linguistics

(3) Motivation and method

- usually, we cannot observe ling. changes, only their results
- there are usually few historical records, so that we have to rely on comparison with related languages, which constitute as many pieces of the original puzzle
- we infer (reconstruct) an earlier state (proto-language) from which all languages can be plausibly derived
- regularity of sound change and arbitrariness of form-meaning associations allow to rule out coincidences

(4) Alternatives to the traditional comparative method?

- mass comparison, lexical diffusion, allofams, typology-based classifications, etc., have not and will never produce any reliable etymology nor explain any irregular inflection
- i.e. they do not solve interesting problems

(5) The goal of comparative linguistics is and has always been to *explain* languages and their evolution

Another and not less important reason, which makes a critical comparison of the Sanskrit with its European sisters, worthy to be undertaken, is the light thrown thereby upon each of the languages compared, and the clearer view we thence obtain of the most ancient forms of each respectively, and probably some conception of the original and primitive signification of a great part of the grammatical inflections common to all. It is chiefly by comparison that we determine as far as our sensible and intellectual faculties reach, the nature of things. Frederic Schlegel justly expects, that comparative grammar will give us quite new explications of the genealogy of languages, in a similar way as comparative anatomy has thrown light on natural philosophy. (Bopp 1820: 2)

It is usual to call comparative grammar the grammar that does not only describe but as far as possible explains linguistic forms, because it cannot as a rule limit itself to the examination of a single language. (Schleicher 1861: 2)

Comparison is the only effective tool available to the linguist for writing the history of languages. We observe results of changes, not changes themselves. It is thus only with the help of combinations that we follow, and can follow, the development of languages. (Meillet 1925: 11)

Even if we were, by some miracle, handed a complete grammar of Common Indo-European as spoken somewhere in, say, 4000 B.C. (the date is meaningless), the work of the Indo-Europeanist would scarcely be done. In fact, it would be barely begun. For his task would be, then as before, to relate the facts vouchsafed him to the facts of attested languages: to construct hypotheses, and to demonstrate precisely how it is possible, within a linguistic tradition or traditions, for a language to pass from one system at one point in time to another system at a later point. (Watkins 1973: 101)

(6) Contrary to more or less common misunderstandings

- proving relatedness is not much a goal as a result of the comparative method; nobody needed to prove that the Indo-European languages were related: it was self-evident since they shared irregularities that could only be explained through comparison
- reconstructions are not speculative educated guesses but models that account for correspondences between related languages and that allow to derive attested forms
- a phylogenetic tree is not a goal nor simply pigeonholing, it is a model of the historical diversification of languages

(7) The most successful example of the comparative method is its application to the Indo-European languages

- the verb ‘be’ is irregular in most languages, but it reconstructs as a regular verb alternating between full grade in singular forms and zero-grade in plural forms (**h₁és* : **h₂s*)

1. “Comparative linguistics” has been used in the latter sense for more than 200 years. It would be very inappropriate to turn everything on its head by rebranding “linguistic typology” as “comparative linguistics”, as awkwardly proposed by Haspelmath (2018). See Morpurgo Davies (1998) for a good overview of the early history of the field and Hock (1991) for a good introduction to the concepts and methodology of historical linguistics.

	Sanskrit	Latin	Gothic	PIE
'be.PRES.3SG'	<i>ásti</i>	<i>est</i>	<i>ist</i>	* <i>h₁és-ti</i>
'be.PRES.3PL'	<i>sánti</i>	<i>sunt</i>	<i>sind</i>	* <i>h₁s-énti</i>

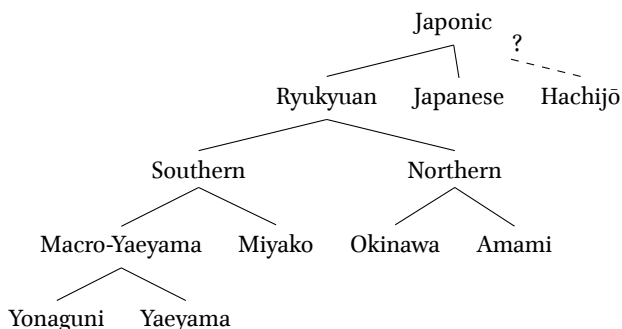
- the name of the Greek god Zeus has an irregular declension which can be shown to go back to an earlier regular pattern where lengthened *e*-grade in strong cases alternates with zero-grade in weak cases (**dǵéu-* : **dǵu-*), with a sound law **dǵ* > *z* / ___*V* in Greek

	Greek	Sanskrit	PIE
NOM.SG	<i>zéus</i>	<i>dyáus</i>	* <i>dǵéu-s</i>
GEN.SG	<i>di(w)ós</i>	<i>divás</i>	* <i>dǵu-és</i>

- (8) It is proven that historical-comparative linguistics do work
- Saussure (1879) made the bold hypothesis that some IE forms could be better explained if we assumed that some sounds had been lost, and it was later discovered (Kuryłowicz 1927) that Hittite preserved in some cases Saussure's reconstructed sounds:² 'protect' PIE **peh₂-s-* > Hittite *paḥš-*, Latin *pāstor*, *pāscō*, Sanskrit *pāsati*
 - Bloomfield (1928) compared several Algonquian languages and reconstructed a cluster **çk* not distinguished in any language, which he later discovered to be distinguished as *htk* in Swampee Cree

Japonic comparative linguistics

- (9) Japonic (also Japanese-Ryukyuan, Japonesian)
- Japanese, and its endangered dialects
 - Ryukyuan: ~5 endangered languages spoken in the Ryukyu Islands, a chain of around 50 inhabited islands stretching from the Southeast of Kyushu to the Northeast of Taiwan³
 - Hachijō: an endangered language spoken 287 km south of Tokyo, in the Izu archipelago; its phylogenetic position has yet to be determined
 - the degree of diversity and the time depth of the family can be said to be not much different from that of the Romance or Slavic families (Pellard 2013; 2016a)



- (10) Comparisons have usually focused on Japanese and another language or language family (Altaic, Austronesian, etc.)
- such hypotheses seldom try to explain idiosyncrasies of Japanese (irregular verbs, tone and accent, apophony, etc.)
 - in absence of a convincing (i.e. explanatory) hypothesis of a relationship with other languages, comparison within the Japonic family is the only alternative (Pellard 2011; 2016a)

2. The now famous laryngeals, see Keiler 1970 and Lindeman 1987.

3. See Shimoji & Pellard (2010) and Heinrich et al. (2015) for a general introduction.

- (11) Comparison within Japonic

- the first historical-comparative study of Ryukyuan and Japanese is Chamberlain's (1895) grammar of Shuri Okinawan
- mainly of historiographic interest today, but Chamberlain did thought of comparative grammar as explanatory

It may be asked of what nature is the light which Luchuan [i.e. Ryukyuan] throws on Japanese. We reply that it is such as, in general, sister languages shed upon each other. (Chamberlain 1895: 6)

Japanese etymologies, too, mostly remained at the guessing stage. As for the accident, grammarians could enumerate forms, but were often unable to explain them; they could imagine theories, but could not build trustworthy theories. With Luchuan to refer to the case becomes different, for Luchuan stands to Japanese in about the same relationship as Italian does to French and Spanish. (Chamberlain 1897: 56)

- still indebted to the breakthroughs achieved by Hattori Shirō, reprinted in Hattori (1959) and Hattori (2018)
- the first attempt at a systematic reconstruction of proto-Ryukyuan is Thorpe (1983), which also contains many comparisons with Japanese, though not all are convincing
- Pellard (2019) presents an overview of the current state of the field of Japanese-Ryukyuan comparative linguistics
- for comparison with Hachijō, see Kaneda (2001), Hirako & Pellard (2013) and references therein

- (12) Methodological problems

- a distrust, if not contempt, for reconstruction and a bias toward philology: tendency to enshrine cherrypicked Old Japanese forms as proto-forms and to posit ad hoc adjustments rather than to resort to comparative reconstruction⁴

None of these scholars has attempted to reconstruct the phonology and morphology of the ancestral Proto-Ryukyuan language and to formulate the "sound laws" accounting for the linguistic situation found today in the islands. [... T]he comparative method [...] has never been applied to these data. In Ryukyuan studies formal historical statements are generally confined to arrangements of variant forms in hypothetical evolutionary sequences, unsupported by comparative method evidence. (Thorpe 1983: 4–5)

- a prejudice against unwritten non-standard varieties
- the prominence of linguistic geography over systematic structural descriptions: though the study of the geographical distribution of linguistic features is a valuable tool of historical enquiry (see the presentation by A. Kaneda & M. Holda), it is insufficient, and we cannot reconstruct a linguistic system from a map

Some contributions of Ryukyuan to Japonic historical-comparative linguistics

- (13) Apophony in OJ

- the same *i₂* shows two different alternation patterns
- internal reconstruction leads to reconstruct two different sources for OJ *i₂*
- this is confirmed by comparison with Ryukyuan

4. This is reminiscent of the situation in Romance linguistics (Buchi 2012).

	'moon'	'tree'	'mouth'	'to fall'
OJ	<i>tuki₂ : tuku-</i>	<i>ki₂ : ko₂-</i>	<i>kuti : kutu-</i>	<i>oti : otos-</i>
pR	* <i>tuki</i>	* <i>ke</i>	* <i>kuti</i>	* <i>{u,o}te</i>
Yamatohama	<i>ts[?]ik[?]i</i>	<i>k^hi:</i>	<i>k[?]ute[?]i</i>	<i>ʔut^hi-</i>
Yonamine	<i>ci^hei:</i>	<i>k^hi:</i>	<i>kù^hei:</i>	<i>phi^hʔi^hri^hŋ</i>
Hirara	<i>ts^hki</i>	<i>ki:</i>	<i>futs^hi</i>	<i>uti^h</i>
Ishigaki	<i>ts^hki</i>	<i>ki:</i>	<i>phi^hts^hi</i>	<i>uti^hri^hŋ</i>
Yonaguni	<i>t[?]i:</i>	<i>k^hi:</i>	<i>t[?]i:</i>	<i>uti^hri^hŋ</i>

(14) Mid vowels

- mid vowels are rare in OJ and often secondary
- Ryukyuan requires to reconstruct **e* and **o*

	'ditch'	'water'	'daytime'	'garlic'
pJ	* <i>minsə</i> ≠ * <i>mentu</i>		* <i>piru</i> ≠ * <i>peru</i>	
OJ	<i>mi₁zo₂</i> = <i>mi₁du</i>		<i>pi₁ru</i> = <i>pi₁ru</i>	
pR	* <i>mizo</i> ≠ * <i>medu</i>		* <i>piru</i> ≠ * <i>peru</i>	
Yamatohama	<i>midzo</i> ≠ <i>midzi</i>		<i>çiru</i> ≠ <i>phi^hru</i>	
Yonamine	<i>dzú:</i> ≠ <i>midzú:</i>		<i>p[?]iru:</i> ≠ <i>p^hiru:</i>	
Hirara	<i>mdzu</i> ≠ <i>midz^hi</i>		<i>pr:</i> ≠ <i>p^hi</i>	
Ishigaki	<i>ndzú</i> ≠ <i>midz^hi</i>		<i>p^hri:</i> ≠ <i>p^hi</i>	
Yonaguni	<i>ndú</i> ≠ <i>mán</i>		<i>ts[?]u:</i> ≠ <i>çiru</i>	

	'horse'	'sea'	'mortar'	'medicine'
pJ	* <i>uma</i> ≠ * <i>omi</i>		* <i>{u,o}su</i> ≠ * <i>kusori</i>	
OJ	<i>uma</i> = <i>umi₁</i>		<i>usu</i> = <i>kusuri</i>	
pR	* <i>uma</i> ≠ * <i>omi</i>		* <i>{u,o}su</i> ≠ * <i>kusori</i>	
Yamatohama	<i>m[?]a:</i> ≠ <i>ʔumi</i>		<i>ʔusi</i> ≠ <i>k[?]usuri</i>	
Shuri	<i>m[?]mà</i> ≠ <i>ʔumi</i>		<i>ʔusi</i> ≠ <i>k[?]usuri</i>	
Hirara	<i>mma</i> ≠ <i>in</i>		<i>usr</i> ≠ <i>fusur</i>	
Ishigaki	<i>mmá</i> ≠ <i>in</i>		<i>úsi</i> ≠ <i>phi^hei^hri</i>	
Yonaguni	<i>mmá</i> ≠ <i>unnágá</i>		<i>úci</i> ≠ <i>ts[?]uri</i>	

(15) Accent and tone (see also the presentation by Y. Igarashi)

- until recently, the Ryukyuan accent and tone systems were presented as simply deriving from Japanese
- however, the Ryukyuan data requires to reconstruct more distinctions than in Japanese (Hattori 1959 [1958]; Hattori 2018 [1979]), but the reconstruction of the phonetic content of those distinctions is problematic (Pellard 2016b)

	'rain'		'shadow'	
EMJ	<i>ámé</i>	LF	<i>kàgê</i>	LF
Kametsu	<i>ʔámí</i>	LH	<i>k^hágì</i>	HL
Yoron	<i>ʔámí</i>	LF	<i>hági</i>	HL
Yonamine	<i>ʔámí:</i>	LR:	<i>hági</i>	HL
Shuri	<i>ʔámì</i>	LL	<i>kà:gì</i>	L:L
Yonaguni	<i>àmì</i>	LL	<i>k^hàjì</i>	LF

(16) Ambivalent pronoun in Old Japanese

- the pronoun *na* can refer to both 1st and 2nd person in OJ (Whitman 1999)

a. 奈何名能良佐禰

na ga na no₂r-as-ane

2 NOM name name-HON-DES

'I wish you tell me your name' (MYS 5.800)

b. 名兄乃君

na se no₂ KI₁MI₁

1 beloved GEN lord

'my beloved lord' (MYS 16.3885, cf. *a se* 'id.' KK 29)

- in Southern Ryukyuan, it is a reflexive or logophoric pronoun: Irabu *nara*, Ishigaki *nâ*, *nárà*

(17) Demonstratives

- no reflex of OJ mesial *so₂* in Ryukyuan
- pR mesial **{u,o}*- = Hachijō distal *u-*
- demonstrative **{o,ə}* in pJ (cf. OJ *ono₂* 'REFL'?)

		pronoun	adnominal
Yamatohama	<i>ʔuri</i>	<i>ʔun</i>	
Yonamine	<i>ʔuri:</i>	<i>ʔuni</i>	
Irabu	<i>uri</i>	<i>unu</i>	
Ishigaki	<i>úri</i>	<i>úni</i>	
Yonaguni	<i>ú:</i>	<i>úni</i>	
Hachijō	<i>ure</i>	<i>uno</i>	

(18) Numeral 'one'

- *hapax legomenon* in *Makura no sōshi* (1001)
- *fite-tu kuruma* 'one carriage' (186) instead of the expected *fito-tu kuruma*
- comparative evidence shows that the alternation *fito-* : *fite-* is original and Japanese *fito-tu* < *pi₁to₂-tu* must thus be due to analogical levelling

pJ	* <i>pitə-</i>	* <i>pite-tu</i>
OJ	<i>pi₁to₂-</i>	<i>pi₁to₂-tu</i>
Yamatohama	<i>te[?]u-</i>	<i>t[?]i:-tsi</i>
Yonamine	<i>teu-</i>	<i>t[?]i:-tei</i>
Hirara	<i>ptu-</i>	<i>pti-ts^hi</i>
Ishigaki	<i>ptu-</i>	<i>piti-dz^hi</i>
Hachijō	<i>to-</i>	<i>te-tsu</i>

The relevance of comparison for the description of Ryukyuan languages

(19) It is true that

- synchrony and diachrony should be kept apart
- speakers do not have knowledge of a language's history
- historical and comparative considerations are always secondary to synchronic description

(20) However

- science is not only about observing and describing
- languages are no more fixed species than biological ones, and "[n]othing in biology makes sense except in the light of evolution" (Dobzhansky 1973)
- it is possible, as did Plato's Academy, to define humans as "featherless bipeds (with broad flat nails)", but e.g. "naked ape" is phylogenetically more correct, and thus far more enlightening
- explanation often requires reference to history: why is a cat called a *cat*? why *foot* : *feet* or *was* : *were*?
- many fieldworkers refer to prominent figures such as Boas, Bloomfield, or Sapir as their models, but all of them had a keen interest in historical comparison

(21) More concretely

- historical-comparative evidence can also shed light on competing synchronic analyses and theoretical issues (see e.g. Loporcaro 2007)
- comparative linguistics allows to make predictions from one (or several) language about what we can expect in another related language
- questionnaires, like those used in Japanese accentology, which are based on the comparative method

- the questionnaire I created for a survey of the Miyako dialects was based on my reconstruction of proto-Miyako (Pellard 2009) and was carefully designed to include words covering virtually all phonemes in all environments, and it made determining the phonological systems of the dialects surveyed rather straightforward (Pellard & Hayashi 2012)
- through a short elicitation list, it is thus possible to determine the main features of a linguistic system
- of course, one pitfall is to consider the work done when the questionnaire is over

(22) Monosyllables in Amami Ryukyuan

- open monosyllabic words usually have a long vowel (CV:), but a small class of exceptions has a short vowel (CV)
- in Yuwan, the exceptions are not random but confined to words with fortis onset consonant⁵
- comparison shows that all exceptions come from earlier disyllables:

	'fish'	'grass'	'rice plant'
Kamikatetsu	<i>ju</i>	<i>sa</i>	<i>inɪ</i>
Yuwan	<i>jʷu</i>	<i>kʷusa</i>	<i>nʷji</i>
Japanese	<i>ivo</i>	<i>kusa</i>	<i>ine</i>

(23) Apocope in Shodon

- some, but not all, final high vowels of HL-ending dissyllables alternate with zero: *mît* : *mîdê* 'water', but *sùdê* : *sùdê* 'sleeve'
- *i* < **e* does not undergo apocope, but *i* < **u* does

	'water'	'sleeve'
Shodon	<i>mît</i> : <i>mîdê</i>	<i>sùdê</i> : <i>sùdê</i>
Kamikatetsu	<i>mîdú</i>	<i>súdi</i>
OJ	<i>miɟdu</i>	<i>soɟde</i>

(24) Palatalization in Amuro

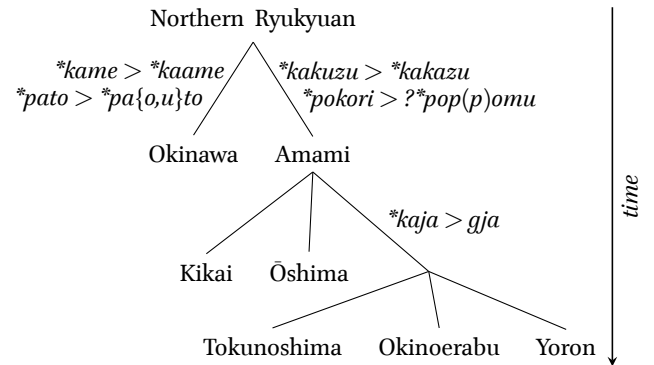
- some verbs take palatalized allomorphs of suffixes
- | | 'untie' | 'walk' |
|----------|-------------------|----------------|
| PRES | <i>ɸukkʷjur</i> = | <i>akkʷjur</i> |
| PRES.NEG | <i>ɸukkʷan</i> ≠ | <i>akkʷjan</i> |
| IMP | <i>ɸukkʷi</i> ≠ | <i>akkʷi</i> |
- progressive palatalization due to an earlier **i*

	'untie'	'walk'
Amuro	<i>ɸukkʷan</i>	<i>akkʷjan</i>
Yoron	<i>ɸutukannu</i>	<i>aikannu</i>
Japanese	<i>podokanu</i>	<i>arikanu</i>

(25) Classification is not about pigeonholing or drawing trees

- a phylogenetic tree represents sequences of shared developments
- in contrast with networks or isogloss maps, it has a time axis and is thus the only visualisation that is historical
- it needs to be based on shared innovations and to exclude coincidences and contact (comparative method)
- classifications based on typological features classify Northern Okinawan and Southern Amami together on the basis that they share the features **e* > **i* > *i*, **k* > *h*, **p* ≠ *h*
- earlier classifications are thus unable to explain why all Amami and all Okinawan varieties share mutually exclusive innovations (Lawrence 2006; Pellard 2015)

	'jaw'	'dust'	'turtle'	'pigeon'	'thatch'
pR	* <i>kakuzu</i>	* <i>pokori</i>	* <i>kame</i>	* <i>pato</i>	* <i>kaja</i>
Yamatohama	<i>kʰaxadzɪ</i>	<i>ɸuɸuɸ</i>	<i>kʰami</i>	<i>hatʰo</i>	<i>gaja</i>
Shodon	<i>kʰaxat</i>	<i>ɸuɸum</i>	<i>kami:</i>	<i>hato:</i>	<i>gaja:</i>
Kamikatetsu	<i>kʰa:du</i>	<i>ɸu:mu</i>	<i>hami</i>	<i>hatu:</i>	<i>gaja</i>
Kametsu	<i>kʰa:dzi</i>	<i>ho:mun</i>	<i>kami</i>	<i>hatu</i>	<i>gja:</i>
Wadamari	<i>ka:dzi</i>	<i>ɸu:mu:</i>	<i>hami:</i>	<i>ɸa:tu:</i>	<i>gja:</i>
Yoron	<i>ka:dzi</i>	<i>pu:mu</i>	<i>hami</i>	<i>patu</i>	<i>gja:</i>
Ie	<i>hakʷudzi</i>	<i>pʰukʷui</i>	<i>ha:mi</i>	<i>pʰo:tʷu</i>	<i>haja:</i>
Yonamine	<i>hakʷudzi</i>	<i>pʰukʷui</i>	<i>ha:mi</i>	<i>pʰo:tʷu</i>	<i>haja:</i>
Shuri	<i>kakudzi</i>	<i>ɸukui</i>	<i>ka:mi</i>	<i>ho:tu</i>	<i>kaja</i>



(26) Historical-comparative linguistics and typology

- linguistic typology is interested in making cross-linguistic generalizations about the relative frequency or rarity of linguistic features
- problem of sampling and genetic bias
- is a feature found in many languages due to a universal tendency or to the fact that those languages inherited it?
- in other words, did that feature arise only once or several times independently?
- for instance, M. Shimoji argues that marked nominative alignment is cross-linguistically rare but frequent in Ryukyuan, but did that pattern arise several times independently, in which case an explanation is required, or did it arise only once and was simply inherited, in which case it will remain an isolated exception?

Conclusions

- much remains to do within the field of Japonic historical-comparative linguistics
- after a century of intense philological work and internal reconstruction, I expect most future breakthroughs to come from comparison with Ryukyuan, Hachijō and Japanese dialects
- historical-comparative linguists need to pay more attention to descriptive work on endangered Japonic languages
- descriptive linguists should not disregard historical-comparative data nor reduce historical-comparative linguistics to grammaticalisation theory
- it is widely acknowledged that descriptive grammars should be typologically and theoretically informed
- I argue that they should also be historically and comparatively, or more concisely *diachronically*, informed

5. However, there are also CʷV words, e.g. *tʷi* 'one', and the generalization cannot thus be reversed.

Abbreviations and sources

Amuro (Amami, Uke-jima: Shirata & Shigeno 2016)
 EMJ Early Middle Japanese
 Hachijō (Hirayama 1992)
 Hirara (Miyako: Nevskij 1922; Hirayama 1992)
 Ie (Okinawa, Ie-jima: Oshio 1999)
 Irabu (Miyako, Irabu: Tomihama 2013)
 Ishigaki (Yaeyama, Ishigaki: Miyagi 2003)
 KK *Kojiki*
 Kamikatetsu (Amami, Kikai: Kibe et al. 2011)
 Kametsu (Amami, Tokunoshima: Hirayama 1986)
 MYS *Man'yōshū*
 Yonamine (Okinawa: Nakasone 1983)
 OJ Old Japanese
 pIE proto-Indo-European (Rix et al. 2001; Fortson 2009)
 pJ proto-Japonic
 pR proto-Ryukyuan
 Shodon (Amami, Kakeroma: Karimata 1995; 1996)
 Shuri (Okinawa: Kokuritsu Kokugo Kenkyūjo 1963)
 Wadamari (Amami, Okinoerabu: Hirayama 1986)
 Yamatohama (Amami, Ōshima: Osada & Suyama 1977)
 Yonaguni (Yamada et al. 2013; 2015; personal fieldnotes)
 Yoron (Amami, Yoron: Kiku & Takahashi 2005)
 Yuwan (Amami, Ōshima: Niinaga 2014)

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