

Approaches to Endangered Languages in Japan and Northeast Asia - Poster Session -



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to
Endangered Languages
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– Poster Session –

5 August 2018 National Institute for Japanese Language and Linguistics



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Contents

On the Accented Moraic Oral Obstruent in the Owase Dialect (Mie Prefecture)	1
Non-Core Vocabulary Cognates in Ryukyuan and Kyushu	8
Palatalization and Vowel Coalescence in Jejueo	30
'I'm Afraid of Thunder': The Dative Stimulus Construction in Japanese Dialects	39
Far Away but So Close to the HeartLooChoo (Ryukyuan) Language: Revitalization Movement in Hawaiʻi	50
Zero-Subject in the 'be done' Construction in Irish	60
Developing Web-Based Learning Resources while Managing Language Classes in an Endangered Language	73

On the Accented Moraic Oral Obstruent in the Owase Dialect (Mie Prefecture)*

HIRATA, Shu

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In this paper, I argue that a moraic oral obstruent on which an accent falls is found in the Owase dialect. There are four kinds of special morae in Japanese phonology: the second morae of diphthongs (/J/), the second morae of long vowels (/R/), moraic nasals (/N/), and moraic oral obstruents (/Q/). /Q/ has the weakest phonological independence among the four special morae and generally does not receive an accent. However, interestingly, an accented /Q/ is observed in the Owase dialect, where preaccenting morphemes in compound nouns are found. When the pre-accenting morpheme begins with /k/ and the morpheme that precedes the pre-accenting morpheme ends with /ku/, the accented /Q/ appears.

Keywords: Japanese accent, moraic obstruent (Sokuon)

- 1. Introduction
- 2. Accent system of the Owase dialect
- 3. Pre-accenting morphemes
- 4. The accented moraic oral obstruent
- 5. Conclusion

1. Introduction

In this paper, I argue that a moraic oral obstruent (促音, sokuon), on which the accent falls, is found in the Owase dialect. Owase City is located in the southern region of Mie Prefecture, Japan. Mie Prefecture is a part of Tokai Region, near Nagoya City. Since the percentage of people aged 65 years and older in the total population of Owase City is 42.8% (as of November, 2018), the Owase dialect is in danger of extinction.

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2 HIRATA, Shu





Fig. 1 Mie Prefecture

Fig. 2 Owase City

There are four kinds of special morae in Japanese phonology: the second morae of diphthongs (/J/), the second morae of long vowels (/R/), moraic nasals (/N/), and moraic oral obstruents (/Q/) (Kawakami 1977: 74–95, Uwano 2003: 69, Kubozono 2015: 11–12). Special morae only appear as the second mora of a heavy syllable and never form an independent syllable alone. In Standard Japanese, the special morae are phonologically weak and do not receive the accent (Uwano 2003: 69, Kawahara 2015: 453–454). Uwano (2003: 78) indicates that /J/, /R/, and /N/ receive the accent in some Japanese dialects other than Standard Japanese; however, /Q/ has the weakest phonological independence among the four special morae and generally does not receive the accent. /Q/ is basically realized as a voiceless obstruent (Ito and Mester 1995: 819, Saito 2003: 14, Kawahara 2015: 53), and it rarely bears the accent.

(1) Four kinds of special morae in Japanese phonology

/ J /	the second morae of diphthongs	Saitama	/sa.J.ta.ma/	さいたま
/R/	the second morae of long vowels	Tokyo	/to.R.kjo.R/	とうきょう
/N/	moraic nasals	Gumma	/gu.N.ma/	ぐんま
/Q/	moraic oral obstruents	Tottori	/to.Q.to.ri/	とっとり

However, interestingly, the accented /Q/ is observed in the Owase dialect, where preaccenting morphemes in compound nouns are found. Before describing the accented /Q/ in detail, I examine this dialect's accent system in the next section.

2. Accent system of the Owase dialect

The Owase dialect has a quite complicated accent system. It has a three-register accent system with one lexical accent per word (Hirata 2013). "Register" or "式 (shiki)" is the term used in Japanese accentology and it determines the pitch movement of a whole word or a "syntagma" (Uwano 1989: 195), which refers to a noun or a noun

followed by one or more particles (Kawakami 1961: 175). The three registers in the Owase dialect are Registers α , β , and γ , with the following features.

(2) Three registers in the Owase dialect:

Register α: A high pitch lasts for only one mora.

Register β : A high pitch lasts for two adjacent morae.

Register γ : When an unaccented word or syntagma is pronounced independently, a high pitch lasts from the beginning of the word to its end. On the other hand, when a word in Register γ is accented, a high pitch lasts from the beginning of the word to the accented mora.

In addition to the three registers, the Owase dialect has one lexical accent per word. The pitch fall occurs after the mora that bears the accent. There is an unaccented pattern in the Owase dialect, and the pitch fall does not occur in the unaccented words. This lexical accent is called "下げ核 (sagekaku)," or the lowering kernel in Japanese accentology (Uwano 2012: 1416).

Examples of the four-mora words (including two-mora and three-mora words) in the Owase dialect are displayed in (3). All the words are given with the topic marker -wa. "[" stands for pitch rise before a mora and "]" for pitch fall after a mora. The morae with high pitch are written in bold font.

(3) Examples of four-mora words (including two-mora and three-mora words) in the Owase dialect

	Examples	Gloss	Register	The mora that bears the accent
a.	to.mo.da.ci.[wa	'friend'	α	Unaccented
b.	[ka].pu.se.ru.wa	'capsule'	α	1st mora
c.	e.[ha].ga.ki.wa	'picture postcard'	α	2nd mora
d.	ka.mi.[so].ri.wa	'razor'	α	3rd mora
e.	[me.ji].ru.si.wa	'mark'	β	2nd mora
f.	i.[ci.ji].ku.wa	'fig'	β	3rd mora
g.	[a.me.wa	'rain'	γ	Unaccented
h.	[mo.me].N.wa	'cotton'	γ	2nd mora
i.	[mu.ra.sa].ki.wa	'purple'	γ	3rd mora

Examples (3a-d) are in Register α . (3b-d) are accented, and the high pitch occurs only on the mora that bears the accent. (3a) follows the unaccented pattern, and the high

4 HIRATA, Shu

pitch occurs on the last mora of the syntagma. (3e-f) are in Register β . In the examples in Register β , the high pitch occurs on two adjacent morae, namely the accented mora and the mora preceding it. In the examples in Register γ , the high pitch lasts from the beginning of the syntagmata (3g-i).

Next, we will examine (3b) and (3e). Both (3b) and (3e) have high pitch on the beginning of the syntagma. In this way, (3b) and (3e) can be assumed to be in Register γ . However, when the adnominal adjective *kono*- 'this' precedes Registers α , β , and γ , a difference occurs.

```
(4) kono- 'this' + Register \alpha, \beta, and \gamma
 [ka].pu.se.ru
                    (Register α)
                                              ko.no.[ka].pu.se.ru
 [me.ji].ru.si
                    (Register β)
                                              ko.no.[me.ji].ru.si
 [a.me
                    (Register \gamma)
                                              ko.[no].a.me
 [mo.me].N
                    (Register γ)
                                              ko.[no.mo.me].N ~
                                              ko.[no].mo.me].N (pitch fall occurs twice)
 [mu.ra.sa].ki
                    (Register \gamma)
                                              ko.[no.mu.ra.sa].ki ~
                                              ko.[no].mu.ra.sa].ki (pitch fall occurs twice)
```

When *kono*- precedes the words or syntagmata in Register γ , the pitch rises between *ko* and *no*. In contrast, *kono*- precedes the words or syntagmata in Registers α and β , but the pitch rise does not occur between *ko* and *no*. In this way, we can specify the register of the words or syntagmata with a high beginning.

3. Pre-accenting morphemes

There are pre-accenting morphemes in the accent of the Owase dialect. If the second member of a compound noun is a pre-accenting morpheme, the accent falls on the preceding mora of the pre-accenting morpheme, and the compound noun is in the Register α . The accent of the first member of a compound noun is irrelevant to that of the entire compound noun. Examples of pre-accenting morphemes are displayed in (5).

```
(5) Examples of pre-accenting morphemes in compound nouns
 -shi 'city':
                   [o.wa.se 'Owase' + shi
                                                            o.wa.[se].shi 'Owase City'
 -ki 'machine':
                   shi.ba.[ka].ri 'mowing the lawn'
                                                            shi.ba.ka.[ri].ki 'lawn mower'
                   + ki
 -e.ki 'station':
                   [o.wa.se 'Owase' + e.ki
                                                            o.wa.[se].e.ki 'Owase Station'
 -ka.J 'meeting',
                   ko.do.[mo 'children' + ka.J
                                                            ko.do.[mo].ka.J 'party for
                                                            children'
       'party':
```

In o.wa.[se].shi and shi.ba.ka.[ri].ki, the accent falls on the preceding mora of the pre-accenting morpheme '-shi' and '-ki'. In o.wa.[se].e.ki and ko.do.[mo].ka.J, once again, the accent falls on the preceding mora of the pre-accenting morpheme '-e.ki' and '-ka.J'.

4. The accented moraic oral obstruent

As mentioned above, interestingly, an accented /Q/ is observed in the Owase dialect. To date, the accented /Q/ has been found when the pre-accenting morpheme begins with /k/ and the morpheme that precedes the pre-accenting morpheme ends with /ku/.

```
(6) Examples of the accented moraic oral obstruent (/Q/) se.N.ta.[ku 'washing' + ki → se.N.ta.[Q].ki 'washing machine' [o].N.ga.ku 'music' + ka.J → o.N.ga.[Q].ka.J 'concert'
```

In se.N.ta.[Q].ki, the last /u/ in se.N.ta.[ku is truncated and /Q/ is pronounced as [k]. Likewise, the same truncation occurs in o.N.ga.[Q].ka.J. However, this truncation is not obligatory, as in (7).

```
(7) Examples of the pattern where the truncation does not occur re.R.kja.[ku 'cooling' + ki → re.R.kja.[ku].ki 'refrigerating machine' shi.N.bo.[ku 'friendship' + ka.J → shi.N.bo.[ku].ka.J 'Socializing party'
```

In the pitch patterns, the accent is realized as an acute pitch fall in the mora following the accented mora. In the pitch pattern of ka.mi.[so].ri.o 'razor (accusative form)', where the accent falls on /so/, an acute pitch fall occurs on /ri/, the mora following /so/ (Fig. 3). In Fig. 4 and Fig. 5, an acute pitch fall occurs on /ki/ and /ka/; therefore, we can determine that the accent falls on /Q/.

6 Hirata, Shu

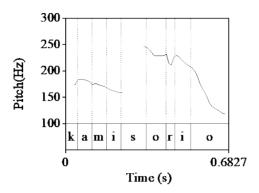


Fig. 3 Pitch pattern of ka.mi.[so].ri.o

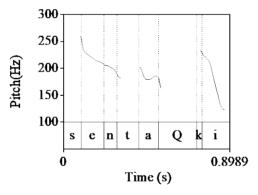


Fig. 4 Pitch pattern of se.N.ta.[Q].ki

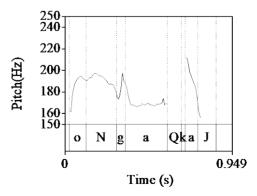


Fig. 5 Pitch pattern of o.N.ga.[Q].ka.J

5. Conclusion

In this paper, I have argued that the moraic oral obstruent (/Q/), on which the accent falls, is interestingly found in the Owase dialect. So far, the accented /Q/ has only been found in compound nouns. When the pre-accenting morpheme of the compound noun begins with /k/, and the morpheme that precedes the pre-accenting morpheme ends with /ku/, the accented /Q/ appears. The question remains as to whether the accented /Q/ occurs in other circumstances. I expect that future research will find more instances of the accented /Q/.

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Non-Core Vocabulary Cognates in Ryukyuan and Kyushu*

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The present paper provides an overview of eighteen identified likely cognates from Ryukyuan and Kyushu regiolects which the author argues have been inherited from Common Kyushu-Ryukyuan (CKR). The alleged cognates all belong to non-core vocabulary, the working definition of which adopted here is "vocabulary not found on the basic vocabulary lists of Swadesh 200 and Leipzig-Jakarta." Following Hock (1991), the author presumes that in equal relations between language communities – the relations between Pre-Proto-Ryukyuan speakers while they still inhabited the Kyushu area and speakers of other Kyushu-Japonic regiolects are believed to have been such – the so-called basic vocabulary is no more resistant to borrowing than the non-basic (including culture-specific and environment-specific) lexicon. One can thus infer that a study of non-core vocabulary would be a valuable contribution to the state of knowledge on the history of the southern Japonic language area. Consequently, this paper analyzes the distribution of putative CKR cognates in both Kyushu and the Ryukyus as well as the typology of shared features among them, discussing these against a broader Japonic background when relevant. Preliminary results show the most shared features between the Ryukyuan and Tokara regiolects, encouraging an identification of the final stage of Pre-Ryukyuan with Common Tokara-Ryukyuan. The division of the next lowest order also includes Ōsumi and Koshiki islands, implying that the pre-final stage of Pre-Ryukyuan was what is here called Common Insular Kyushu-Ryukyuan.

Keywords: comparative linguistics, Kyushu, Ryukyuan, Kyushu-Ryukyuan, Japonic

- 1. Background
- 2. Analysis of the vocabulary
- 3. Analysis of the outcome

1. Background

In this paper, I will provide a sample of non-basic vocabulary shared by Ryukyuan languages and mainland Japanese Kyushu dialects which I hypothesize to be likely descendants of the Common Kyushu-Ryukyuan (CKR) language. By CKR I mean a historical regiolect, or a set of closely related regiolects, spoken somewhere in the

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present-day Kyushu area, from which Proto-Ryukyuan (PR) eventually branched off, as Japonic settlers moved south to the Ryukyus; this movement, according to one of the conceivable hypotheses, is estimated to have taken place starting in the 10th century (cf. Serafim 2003, Pellard 2015, Karimata 2017).

The division of the Japonic family into Mainland and Ryukyuan groups has been generally undisputed (Pellard 2015), although the phylogenesis of the eastern Japonic regiolects including Hachijō is still a subject of debate.¹ Consequently, the regiolects spoken on mainland Kyushu and in the surrounding islands (such as Ōsumi, Tokara, or Gotō) have also traditionally been classified as Mainland. Nevertheless, an increasingly popular agreement is that Japonic speakers came to the Ryukyus from Kyushu, which appoints Kyushu as the most likely homeland of Proto-Ryukyuan (Thorpe 1983, Serafim 2003, Pellard 2015, Karimata 2017). This implies that regiolects from the Ryukyuan group used to be spoken in Kyushu, but have become extinct due to the expansion of Mainland Japanese; these regiolects likely converged with the dominant language(s) in the process. Such an assumption encourages a revised division of the Japonic phylogenetic tree into Kyushu-Ryukyuan and Mainland (Central) groups (Thorpe 1983, Igarashi 2018).

Research of shared Kyushu-Ryukyuan innovations (Igarashi 2017, 2018) localizes the closest relatives of Ryukyuan in Kagoshima Prefecture and the Morokata area of Miyazaki Prefecture. An alternative approach, looking at grammatical/morphophonological features, (Serafim 2003) considers the possibility of Ryukyuan branching off of the northeastern Kyushu/westernmost Honshu area. With either approach, the exact location of the CKR-speaking area remains unidentified, and so do the locations of modern Kyushu regiolects with significant CKR substratum which would reveal a former CKR-affiliated language.

The goal of this paper will thus be to analyze a number of vocabulary items which appear traceable to CKR as cognates and localize the Kyushu regiolects that share these items with Ryukyuan.

To be included into the present analysis, specific vocabulary items need to meet the following conditions:

a. The vocabulary items do not represent core/basic vocabulary.

¹ Hirako and Pellard (2013: 65) conclude their discussion of conservative and innovative features of Hachijō by proposing that Hachijō is either a sister language of Ryukyuan and Central (Mainland) Japanese or belongs to a separate group as opposed to a common Ryukyuan-Central group. In contrast, Igarashi (2018: 2, 17) argues that Hachijō is only one of subdivisions of the Extended Eastern Japanese group (*kakudai higashi nihongoha*), which it shares with other modern eastern Japanese regiolects, and not a sister language to the Ryukyuan and Central groups.

The working definition of core vocabulary adopted in this paper is simply "vocabulary not found in the Swadesh 200 and Leipzig-Jakarta basic vocabulary lists."²

There are two factors that influenced my decision to focus on non-core vocabulary in this study. First, core vocabulary lists by definition tend to include conservative items which hardly change over time. Given the relatively low time depth of Proto-Japonic (PJ) split into putative (Pre-)Mainland and (Pre-)Ryukyuan groups (Pellard 2015 concludes that the split occurred in the late Yayoi period, meaning sometime around the 3rd century CE; incidentally, Hattori 1957 dates the split of PR from PJ at around the 3rd century CE too, although the lexicostatistical method he used for the calculation would currently be untenable; cf. Campbell 1998:177–181) and naturally even later split of CKR, this leaves a relatively low degree of divergence among basic vocabulary in Ryukyuan, Kyushu, and other Japonic areas,³ with the consequence that it is not possible to draw conclusions regarding the shared features between Ryukyuan and specific Kyushu regiolects merely by comparing the presence or absence of specific vocabulary items. Only through a significant increase of the examinable vocabulary sample can one investigate patterns of distribution that will imply the existence of a CKR substratum in the investigated Kyushu regiolects.

Another point is that, although the very purpose of establishing basic vocabulary lists is to ensure their low degree of borrowability (cf. Tadmor and Haspelmath 2009), basic vocabulary is in fact borrowable, especially in the case of an equal power relation between the communities in question. On the other hand, the prestigious sections of the lexicon, such as cultural notions, may be more easily borrowed from a more prestigious language of a dominant community (Hock 1991: 411). Since one can assume an equal relationship between the CKR communities and their non-CKR, phylogenetically divergent Kyushu neighbors, it seems that, paradoxically, non-core vocabulary would be less susceptible to borrowings – or, at any rate, no more susceptible – than the so-called basic vocabulary.⁴

² For Swadesh 200, cf. DiACL homepage, For Leipzig-Jakarta, cf. Tadmor and Haspelmath (2009).

³ According to Hattori's (1957: 330) lexicostatistic calculations, the percentage of shared vocabulary in his examined sample does not fall below 59% (percentage of shared vocabulary between Miyakoan and Tokyo or Kyoto). The figure rises to 70% when comparing the allegedly most distant Ryukyuan regiolects in Hattori's sample, Ishigaki (Yaeyaman), and Yamatohama (Amamian).

⁴ One might draw an interesting parallel between the putative CKR compared to mainland Kyushu regiolects and English compared to the language of the Nordic people called Danes in Pre-Norman England, with the resultant abundance of Old Norse borrowings into English precisely in the realm of basic vocabulary (a case presented by Hock 1991: 409–410).

b. The vocabulary items are attested at least in Kyushu and South Ryukyuan. Items shared only by North Ryukyuan and Kyushu are not considered.

Since the Satsuma invasion of the Ryukyu Kingdom in 1609, which resulted in the subjugation of the Kingdom to Satsuma as well as the incorporation of the Amami islands into Satsuma domain, Ryukyuan languages had been exposed to an in-depth, prestige-related influence of the Mainland language of Satsuma. Even prior to that, the Ryukyu Kingdom maintained an animated trade relationship with Kyushu, which conceivably enabled an influx of cultural loanwords. This is especially the case with North Ryukyuan languages due to geographic and political factors (cf. also Karimata 2015, 2017, or Igarashi 2018). Similarities between North Ryukyuan and Kyushu are therefore likely to reflect borrowings rather than inherited CKR lexicon; on the other hand, similarities between Kyushu and South Ryukyuan islands, which were geographically isolated and generally exposed to Kyushu only directly via North Ryukyuan mediation, present a much lower possibility of representing an effect of borrowing. The likelihood of the tokens under discussion being actual CKR cognates increases even more if a given item is only found in Kyushu and the Southern Ryukyus, but not in the Northern Ryukyus, in other words, if a given item is a CKR retention lost in the languages of the Northern Ryukyuan group; as expected, however, such instances have so far been extremely rare.

- c. The vocabulary items represent any of the following:
 - > a shared lexical innovation:
 - > a shared semantic innovation:
 - > a shared sound innovation;
 - > a shared lexical or phonological retention with the condition that other instances of such retention are not observed anywhere else in Kyushu.

Be it lexical or phonological, shared retentions are usually not considered in historical linguistics due to not being a valid criterion for phylogenetic subgrouping (Harrison 2003). Also, here, retentions will be treated with more caution than items which appear to be innovations limited to Kyushu and the Ryukyus. Since, however, the purpose of this paper is essentially to search for CKR features remaining as substratum in modern Kyushu regiolects, those CKR features that are retentions from PJ or any other earlier (putative Pre-Kyushu-Ryukyuan) proto-language state and are not distributed elsewhere in Kyushu should still be relevant to the present study as substratum features that have resisted replacement by the features of the dominant

Mainland dialects. Also, while retentions are insufficient as a criterion for subgrouping, they are sufficient for excluding certain subgroupings, indirectly testifying against certain phylogenetic configurations.⁵ Thus, although shared retentions cannot be used in favor of arguing for the existence of CKR, they may be of use as secondary evidence of conservative features reconstructible for CKR. At any rate, the least that can be said about such conservative features is that they can be reconstructed for the common ancestor of the regiolects in question.

In further sections of the paper I will present eighteen vocabulary items that meet the criteria a–c, which have been categorized semantically as plants, animals, human body parts, verbs, and miscellaneous. For each item, I will list the putative cognates as found respectively in the Kyushu, North Ryukyuan, and South Ryukyuan regiolects. Then, I will comment on the distribution of each item, its possibility of being a loanword, and, in the case of retentions, hypothetical or attested cognates outside the Kyushu-Ryukyu area.

In the final part of the paper, I will discuss the outcome of the analysis by identifying the Kyushu areas where the density of shared putative CKR items is the thickest. I will also synthesize the innovations that can be attributed to the alleged CKR genetic subgrouping and suggest conceivable CKR proto-forms for each item.

A disclaimer needs to be made that, although, compared to what is usually thought about this kind of vocabulary, there is generally a lower likelihood that the non-core vocabulary discussed in this paper represents loanwords rather than cognates, the possibility that some are loanwords cannot be discarded, especially since lexical items are those elements of the language system that tend to be most easily borrowed (Thomason 2001: 70). The method of searching for CKR substrata in Kyushu as experimentally adopted in this paper should be thought of as supportive and complementary to other comparative methods, such as comparisons of core vocabulary or grammatical systems.

1.1. Terminology

To facilitate the discussion about notions specific to this paper, the following terms will be used as specified below.

• Common Kyushu-Ryukyuan: any language natively shared by the inhabitants of Kyushu and speakers of Pre-Proto-Ryukyuan. I deliberately avoid the term "Proto-Kyushu-Ryukyuan" in order to avoid the connotations

⁵ That is to say that if among languages A, B and C, A and B have a conservative feature X while C has an innovative feature Y, this precludes grouping A or B together with C.

of a proto-language being a single-stage synchronic entity fixed at a certain point of time. As the results of this study will show, there are multiple layers to Ryukyuan linguistic ancestorship in Kyushu, and until the final part of Section 3, the term of CKR may refer to any of these layers.

- **Pre-Proto-Ryukyuan:** the direct ancestor language of today's Ryukyuan languages spoken in the Kyushu area (understood here as any area to the north of the Amami islands). It can also be conceived of as the last language spoken by the future Ryukyuan population before it migrated to the Ryukyus.
- item: a group of lexemes which can be traced to a single proto-form.
- **token:** specific lexemes as realized in specific regiolects which, put together, constitute an item.
- far south: the area of today's Kagoshima and Okinawa prefectures.
- mainland Kyushu regiolect (spelled with a lowercase <m>, as opposed to "Mainland," referring to a genetic subdivision of Japonic): a regiolect spoken on the main island of Kyushu.
- insular (remote) Kyushu regiolect: a Kyushu regiolect spoken on the smaller islands offshore, as opposed to the mainland Kyushu regiolect. This expression usually refers to the Tokara, Ōsumi or Koshiki islands.

Concerning the treatment of region and regiolect divisions in Kyushu, regiolects spoken in Kagoshima prefecture are presented in a significantly more detailed way than those of any other Kyushu area. The reason behind this is that, as will be made clear through the vocabulary discussed in Section 2, Ryukyuan shares many more putative cognates with Kagoshima prefecture regiolects than with any other Kyushu area, which increases the demand for a relatively precise geographic division of the Kagoshima linguistic landscape.

Ryukyuan regiolects are presented by indicating the name of the island, followed by the name of a specific settlement if applicable (example: Miyako-Hirara).

Insular Kyushu regiolects are presented through the name of the island group, followed by the name of specific island (example: Tokara-Takara), or just by the name of the island (example: Kamikoshiki).

The mainland regiolects of Kagoshima prefecture are divided into Satsuma, Ōsumi Peninsula, and Morokata, and are further specified following a hyphen (example: Satsuma-Ibusuki).

Other Kyushu regiolects are presented by indicating the prefecture, and then the regiolect following the hyphen (example: Kumamoto-Kagamimachi). The lack of a

hyphen indicates the regiolect of the capital (eponymous) city of the prefecture (example: Fukuoka).

In presenting the vocabulary, the following regiolect group abbreviations will be used: KY for Kyushu, NR for North Ryukyuan, SR for South Ryukyuan.

1.2. Lexicographic sources

The core of the database utilized in this paper has been provided by Hirayama (1992) (for all of Japan's area, including the Ryukyus), Hashiguchi (2004) (for the regiolects of Kagoshima prefecture), Nevskiy (1922–1928) (mostly Miyakoan, but also containing data on other Ryukyuan, Kyushu, and different Mainland Japanese regiolects; cf. also the digitalization in Jarosz 2015), and Miyara (1980 [1926]) (thematic listing of Ryukyuan as well as Kagoshima's Hioki and Kagoshima city vocabulary). The extraction of sample tokens has been supplemented by dictionaries of specific languages and regiolects, such as Kokuritsu Kokugo Kenkyūjo (1963) (Shuri-Okinawan), Oshio (2009) (Ie-Okinawan), or Miyara (1980 [1930]) (Yaeyaman). The botanical sources Amano (1979) and Shirai (2008) were consulted for plant-related vocabulary.

1.3. Note on previous studies

Nohara (1979–1983) contains a comprehensive listing of vocabulary shared by Kyushu and Ryukyuan. As the label itself implies, however, it is literally a list of vocabulary with (often superficial) formal and semantic similarities, and not a historical/comparative study, so its applicability to the research on CKR is limited.

Igarashi (2017, 2018) are reports on a project which scrutinizes the Japonic lexicon, including the items listed in Nohara's papers, so as to find regional shared innovations that will allow for a reevaluation of the traditional division of the Japonic family tree into Ryukyuan and Mainland. Igarashi's conclusion is that the shared innovations (and the consequent phylogenetic subdivisions) in Japan's far south form a kind of "matrioshka" distribution pattern: the Southern Japanese language group, which Igarashi proposes as a sister language to Mainland and Eastern Japanese in place of the traditional Ryukyuan vs. Mainland groups, contains the Southwestern Kyushu-Ryukyuan subgroup, which in turn contains the Southern Kyushu-Ryukyuan group.

Upon eliminating loanwords and retentions, Igarashi's (2018) revision of Nohara's papers contributed to an updated listing (ibid., 7–11) of probable innovative Kyushu-Ryukyuan cognates. I will indicate the items in this paper which also appear on Igarashi's list.

2. Analysis of the vocabulary

2.1. Plants

'Chinese banyan', Ficus microcarpa

KY kadzumaru (Ōsumi-Kuchinoerabu), kadzimaru (Tokara-Suwanose), kadzumoi (Tokara-Takara), gadzimaru (Tokara-Io, Ōsumi-Yaku), gadzimori (Tokara-Akuseki)

NR gadzimaru (Okinawa-Shuri, Okinawa-Nago, Kikai, Yoron, Okinoerabu, Amami-Naze), gadzimaru (Amami-Yamato, Tokunoshima), gatumaru (Amami-Koniya)

SR gadzima-gi: (Miyako-Hirara), gatsipana-gi: (Irabu-Sawada), gadzipana-gi: (Ikema ⁶-Sarahama), gadzamunje: (Ishigaki-Shika), gadzimari (Kuro), gadzamani (Hateruma)

Given that the Okinawan word form *gadzimaru*, widely spread in the Ryukyus, was actually borrowed as a "native" name for the tree in question into standard Japanese, one can be rather confident that the identical forms in the Io and Yaku islands are Okinawan borrowings, too. Focusing on the initial morpheme, PR *gadu/gadzu, however, one can find mostly regular, predictable correspondences between Kyushu and Ryukyuan tokens. It may be therefore an idea worth entertaining that the remaining insular Kyushu tokens, or at least some of them, have been inherited from CKR. The fact that a few of Kyushu tokens have an initial voiceless velar as opposed to Ryukyuan's voiced counterpart is perhaps an example of occurrence of the alleged irregular *k > *g / #___[-high] development in Ryukyuan and its closest Kyushu relatives, as also observed in 'crow' introduced in this paper, and also discussed for 'crab', * 'whale', and 'crow' in Thorpe (1983).

'grapevine', Vitis ficifolia

⁶ Sarahama is a settlement located on Irabu, but genetically it is a subregiolect of Ikema, hence the decision to indicate it as a representative of Ikema.

⁷ Although the meaning of *gadu is unclear, the comparison of the 'Chinese banyan' tokens shows that *gadzumaru* cognates are compounds with a boundary following *gadzu*. The second composite of the compound, *pana-gi*: 'flower-tree', is transparent in the case of Miyakoan.

⁸ 'Crab' tokens with a voiced initial can also be found in Tōhoku and elsewhere in mainland Japan. Therefore, either the change *k > *g was a parallel innovation, or these initial velars reflect a yet different sound/sound sequence from PJ. This is a proposal put forward by Vovin (2009b: 20), who claims that this initial PR *g reflects PJ *nk.

KY kanebu (Saga, Nagasaki, Kumamoto, Miyazaki, Morokata, Kagoshima, Tanega, Yaku, Koshiki), kaneb (Satsuma-Makurazaki; Ōsumi Peninsula-Kimotsuki)

NR hanifu (Okinoerabu), hanibu (Okinoerabu, Yoron, Okinawa-Kunigami, Nakijin, Ōgimi), kanifu, kanibu, kanibu (Tokunoshima), kanibu, ganibu (Amami-Naze)

SR kaniv (Tarama, Irabu), kaniu (Ikema), kanifun (Ishigaki-Shika), kanifu (Taketomi), kanibu (Yonaguni), kanin (Hatoma, Yonaguni)

This item with perfectly matching sound forms with Ryukyuan is encountered in all of the Kyushu prefectures except Fukuoka. Ryukyuan reflexes for their part are also fairly regular, with little of the idiosyncrasy often encountered in plant names.

The same name is also used with the meaning 'wild grape' (*Ampelopsis glandulosa* var. heterophylla) in all three regiolect groups.

2.2. Animals

'dragonfly'

KY akedzu (Miyazaki – 'a brownish subspecies that appears around the time of the obon festival', Hirayama 1992/4: 3599; Kagoshima-Higashi Morokata, including the genus *Sympetrum*, cf. Hashiguchi 2004: 73), akes, akeemero (Satsuma proper), akee (Satsuma-Sendai, Ibusuki, Satsuma proper; Kita Morokata, Ōsumi Peninsula-Kimotsuki), ke:dzu (Kamikoshiki)

NR ake:dza (Okinawa-Nakijin), ake:dzu (Okinawa-Shuri)

SR akidzi (Miyako-Hirara, archaic), ake:dzi (Tarama), ake:ntsi (Kohama), a:gettsi (Taketomi), hake:dzi (Kuro), kake:dzi (Ishigaki-Shika, Aragusuku)

A cognate of this item, *akidzu* (*akyiNtu* in Vovin's 2009a: 518, 519, 703 rendition), is attested in Old Japanese, therefore it cannot be a CKR lexical innovation. The crucial link between the Kyushu and Ryukyu tokens comes down to a shared sound which distances them from the Mainland variant: The Ryukyuan vowel in the second syllable match the vowel in Kyushu, reconstructible as CKR *akedu/*akedzu, while the OJ form displays the otsu variant of the vowel <i> (Vovin's 2009a /yi/, Frellesvig's 2010 /wi/), which is an innovation from PJ *e.

'butterfly'

KY habi: (Takara-Tokara, Kodakara)

NY habura (Amami-Naze), haberu (Okinawa-Shuri), fabe:ru (Okinawa-Kin)

SR pabi:z (Miyako-Hirara), pabil (Irabu-Sawada), pabiru (Tarama), pabiru (Ishigaki, Hatoma, Kuro), papiru (Hateruma)

The Ryukyuan item 'butterfly' seems morphologically complex, and although fragmentary matches or at least some formal similarities with this item can be found dispersed discontinuously in mainland Japan (cf. Hachijō he:rume, Hyōgo be:ro, Kōchi hi:ru; the bero/beru-related morphemes are also found in vocabulary indicating 'dragonfly', also in Ryukyuan – cf. Hirara bi:z), the only complete match is found in the cited Tokara tokens. The fact that Tokara habi: seems to produce an exact match with Miyakoan Hirara and Sawada forms is especially interesting, as those may be conservative reflexes retained in distant CKR relatives.

Thus, considering the Ryukyuan correspondences, variant CKR and PR forms *paberi and *pabero can be proposed.

Included in Igarashi (2018: 8).

'spider'

KY kobu (Fukuoka-Chikugo, Saga, Nagasaki, Kumamoto-Kagamimachi, Miyazaki), ko:bu (Kamikoshiki)

SR kuv (Miyako-Hirara), ku: (Ikema), kuvu (Tarama)

The item 'spider' with medial consonant /b/ or prenasalized /mb/ as such is also found in the Tōhoku area (examples: Hachinohe, Aomori, Akita kuümbo, Akita-Kawabe, Hirosaki kuübo), so this development is not specific to the Kyushu-Ryukyu area and does not imply a shared innovation. What sets the Kyushu-Ryukyu cognates apart from the rest of the Japonic area is the reflexes of a proto-language mid-vowel *o, as evidenced not just by the presence of /o/ in the modern Kyushu dialecticisms, but most importantly in Miyakoan /ku/ reflexes (PR *ku reflects in Miyakoan as /fu/, as in *kumo > fumu 'cloud'). Although it is up for debate whether this alleged CKR *ko in 'spider' is a retention or innovation, the proto-form *kobu was apparently spread in the whole of the relevant area and carried as such into PR.

Included in Igarashi (2018: 7).

'lizard'

KY wakagi: (Tokara-Takara)

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NR wahagirja (Amami-Yamato)
SR bakagzza (Miyako-Hirara), bakaddza (Ikema), bagira (Ishigaki-Shika)
```

The morpheme *kiri* as a part of compound items indicating 'lizard' has a significantly wider distribution in Kyushu than the combination waka + kiri, as it can be found both in mainland and insular Kagoshima as well as Fukuoka, Kumamoto, and Miyazaki. It is also attested outside the far south area, in Yuki (Hiroshima Prefecture) as *dzo:rikiri* and Yamaguchi as *tokakiri*. The change *kiri > kira (SR)/kirja (NR) is, however, limited to the Ryukyu area (cf. also *djenagirja* in Kakeroma-Osai, or *tsuma-girja* in Amami-Naze).

The compound that includes the morpheme *waka 'young' outside of the Ryukyus is only attested in Tokara. Apparently it was a shared innovation which further developed into the respective *-girja (NR) or *-gira (SR) forms. According to a study by Tōyama et al. (1980: 27–29), in Miyakoan the *wakagiri > *wakagira-related forms usually refer to the endemic Sakishima species *Plestiodon kishinouyei* (English name 'Kishinoue's giant skink'), but it can be more loosely used to refer to different species of lizards.

'snake'

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KY hebu (Tokara-Takara), he:bu (Kamikoshiki)
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NR habu (Amami-Naze, Okinawa-Shuri, Kadena), fabu (Okinawa-Nakijin)

SR pav (Hirara-Miyakoan), hau (Ikema), po: (Tarama-Shiokawa), pau (Tarama-Nakasuji, Aragusuku) pabu (Hatoma), paku (Hateruma), papu (Kohama), pan (Kuro)

The important point in this item is the final back vowel, which is opposed to the front vowel distributed in all of Japan in the vein of standard Japanese *hebi*. This back vowel is not found in mainland Kyushu, but is attested on the islands of Tokara and Koshiki, hinting at a shared CKR innovation. At the same time, no Kyushu regiolect provides evidence of an *e > a change in the first syllable, leading to the conclusion that putative PJ *pebi first underwent a change to *pebu in CKR, and then to *pabu in the Ryukyus only.

The back vowel is also attested in the Hokuriku area of Honshu: hebo in Gokayama (Tōyama prefecture) and he:bu in Fukui. Considering the insular nature of the occurrence of the back vowel in Hokuriku and in the far south, it seems plausible that this *i > u (and later > o) is an instance of unrelated parallel innovation, although there

is also a slight and at the moment undisprovable chance of a randomly shared PJ retention.

'crow'

```
KY garasu (Tokara-Takara, Nakano)
NR garasi (Amami-Naze), garasa: (Nakijin)
SY garasa (Miyako-Hirara, Ikema, Hatoma), garasa (Tarama)
```

Voicing of the initial velar, as opposed to standard Japanese *karasu* and its peers, is exclusive to Tokara and the Ryukyus, and as such is a good candidate for a shared innovation. This is the same environment as the one discussed for 'Chinese banyan' (2.1.). The assimilation of the final close vowel into [a] is a Ryukyuan innovation apparently not shared by the Amami regiolects (or at least not by Naze).

'hermit crab'

KY amamu (Tokara-Takara)

NR aman (Amami-Naze, Yoron, Tokunoshima, Okinawa-Shuri), amamu (Amami-Sumiyō, Okinoerabu), ama:mu (Okinawa-Nakijin)

SR amam (Miyako-Hirara, Ikema, Irabu-Nagahama), aman (Kuro, Hateruma), amo: (Iriomote)

The distribution of perfect cognates (both form- and meaning-wise) is limited to the Ryukyus and Tokara. There is also an alternative set, likely introduced through a later borrowing, encountered in the northern Amami islands with tokens such as *amami* (Amami-Kominato) and *amja:mi* (Kakeroma) phonologically relatable with the 'cockroach' item *amame* broadly distributed across the Kagoshima prefecture (also *amami* 'cockroach' in Satsuma-Hioki and Tokara-Toshima, and *amami* 'sea roach' in Satsuma-Miyanojō and Ōsumi Peninsula-Kokubu).

Included in Igarashi (2018: 11).

'wrasse' (the family of marine fish *Labridae*)

Cognates of this item may refer to wrasses in general or to specific species, which also have been noted below.

KY kusabi (Satsuma-Izumi; apart from general 'wrasse' the name may refer to 'Pseudolabrus sieboldi', 'Pseudolabrus eoethinus', 'Parajulis poecilepterus' and a non-wrasse species of 'Variola louti' from the Serrenidae family); kusabi 'Pseudolabrus sieboldi', 'Pseudolabrus eoethinus', 'Parajulis poecilepterus' (Ōsumi islands-Tanegashima, Ōsumi Peninsula-Nishino Omote and Kumage); kusabi 'Halichoeres melanurus', 'Halichoeres biocellatus', 'Bodianus perditio', 'Choerodon azurio' (Ōsumi Peninsula-Kumage)

NR kusabi (Yoron, Okinawa-Shuri), kucaba (Okinawa-Shuri) SR fusabz (Miyako-Hirara, Irabu-Sawada)

The distribution pattern reveals the presence of the item in question in both the North and South Ryukyus as well as Kagoshima Prefecture, especially in the Ōsumi islands and the northwestern shore of the prefecture. The scarcity of regions with attested tokens in the Ryukyus may result from a lack of lexicographic sources that would include the item in question, rather than breaks in its distribution.

Included in Igarashi (2018: 7).

2.3. Verbs

'to rest'

KY jokou (Fukuoka, Kumamoto-Kagamimachi, Ōita-Notsumachi, Tokara-Takara), joku: (Miyazaki), joku: (Kamikoshiki, Kagoshima)

NR johojun (Amami-Naze), jufujun (Yoron, Ie), juku:jun (Okinawa-Shuri, Naha) SR juku: (Hirara, Tarama, Irabu-Sawada), ju:ku:n (Hatoma), dugun (Yonaguni)

A verb attested in all of the Kyushu-Ryukyu area except for Nagasaki prefecture, and at the same time exclusive to this area. It is thus a fairly certain top-level CKR innovation.

Included in Igarashi (2018: 7).

'to steal, to snatch'

KY bakau (Satsuma proper, Higashi Morokata), baka:au (Tanegashima)

NR not found

SR bako: (Miyako-Hirara), bakau (Irabu-Sawada), baku: (Tarama), bago:n (Ishigaki-Shika), ba:fu (Iriomote)

Another rare instance of the Kyushu-Ryukyuan lexical continuum broken with no known attestations in North Ryukyuan. The scarcity of attestations in Kyushu further increases the believability of this being an old verb traceable to a shared Ryukyu-(Kagoshima) Kyushu ancestor language.

Included in Igarashi (2018: 7).

'to hatch' (transitive)

```
KY sudasu (Tokara-Takara)
NR sidijun (Amami-Naze; intransitive), ¢irasun (Okinawa-Nakijin)
SR sidasi (Miyako-Hirara, Sarahama-Ikema, Tarama), ¢idasun (Hatoma)
```

A perfect match between Ryukyu and Tokara, both phonologically and morphologically. No attestations outside the Ryukyu-Tokara area.

Included in Igarashi (2018: 11).

2.4. Human body

'skin patch'

KY naba (Kamikoshiki)

NR not found

SR naba (Miyako-Hirara, Kurima), gaba (Ishigaki, Aragusuku, Yonaguni)

Naba is fairly widely distributed up to the Shikoku (Ehime) and Chūgoku (Hiroshima) areas with the meaning 'mushroom'. An extension meaning 'mold' is attested in Kagoshima and the Northern Ryukyus, but not in the Southern Ryukyus. Quite fascinatingly, the meaning innovation 'skin patch' is only attested in Kamikoshiki and the Southern Ryukyus, but not in the Northern Ryukyus, hinting at a rare case of an innovation retained in (insular) Kyushu and South Ryukyuan without the mediation of North Ryukyuan.

'lips'

KY suba (most of the Kagoshima prefecture area, Kamikoshiki, Ōsumi, Tokara-Takara, Nakano; Miyazaki), tsuba (Satsuma-Ibusuki, Izumi, Komenotsu, Akune;

Morokata-Kobayashi, Ōita-Nozu, Kumamoto-Kagamimachi, Fukuoka, Iki, Gotō-Fukue)

NR siba (Amami-Naze, Yara, Okinawa-Itoman, Yoron); kutsi-nu siba (Okinawa-Shuri); suba (Kikai, Kakeroma-Hyō)

SR siba (Miyako-Hirara, Ikema-Sarahama), sipa (Irabu-Sawada, Aragusuku, Hateruma), mba (Yonaguni)

With nothing resembling the phonetic shape of this item to the northeast of Kyushu, this is an unambiguous far south innovation. From the distribution of its two main variants, the [ts]-initial and [s]-initial, it would appear that the one with [ts] is the conservative form, while the [s]-initial form was an innovation limited to Miyazaki, Kagoshima, and the Ryukyus.

Included in Igarashi (2018: 9).9

2.5. Miscellaneous

'gimlet'

KY iri (Satsuma proper, Morokata-Higashi Morokata, Ōsumi Peninsula-Kimotsuki, Sō), i: (Kamikoshiki, Satsuma-Makurazaki, Ibusuki, Kagoshima, Hioki; Ōsumi Peninsula-Aira, Sō; Morokata-Kobayashi, Kita Morokata), igi: (Satsuma-Akune, Izumi) NR iri (Amami-Naze, Kasari, Koniya; Kikai; Tokunoshima; Okinawa-Shuri, Kadena, Itoman), ?iri: (Okinawa-Nakijin), iji (Ie)

SR i:z (Miyako-Hirara), i: (Ikema), i:l (Irabu-Sawda), il (Tarama), i:ru (Hatoma), irɨ (Kohama, Kuro, Aragusuku), iːrɨ (Ishigaki-Shika, Hirae, Shiraho; Kohama, Aragusuku)

This item's distribution is limited to southern Kyushu and the Ryukyus. A number of Kyushu as well as some Ryukyuan regiolects lenite or delete the proto-language *r (i:, il, etc.), which suggests a possibility of variant *iri/*i: forms in CKR.

Included in Igarashi (2018: 9).

'fish scales'

KY iriko (Tanegashima, Ōsumi Peninsula-Kumage, Nishino Omote), iruko (Kagoshima, Morokata-Kobayashi, Ōsumi Peninsula-Kimotsuki, Sō, Aira), i:ko/iko (Saga), ira (Ōita)

⁹ Igarashi 2018 also considers the possibility that it is the [s]-initial form that is conservative and [ts]-initial innovative.

NR iriki (Amami-Naze, Kasari, Yamato, Koniya; Kakeroma-Osai, Okinawa-Itoman), i:ki (Yoron), irje:ki: (Okinawa-Nago), iritei (Okinawa-Shuri, Kadena), i:tei: (Okinoerabu)

SR izki (Miyako-Hirara), iriki (Aragusuku), irigi (Hateruma), iragi (Ishigaki-Shika, Shiraho), iragi (Kohama), iraki (Hatoma, Kuro), irigi (Iriomote)

Uroko is the token predominant in most areas of Japan, as opposed to the Kyushu and Ryukyuan versions with initial [i] and a front vowel in the second syllable. The token *iroko* is also attested in Old Japanese, clarifying that initial [i] is not a CKR innovation. One should therefore look for CKR innovations in the presence of a front vowel in the second syllable, and these are found in mainland Kagoshima, on the Ōsumi islands, and in Saga. On the other hand, the *o > *e innovation in the last syllable is apparently exclusive to the Ryukyus. Many Kyushu and Ryukyuan regiolects also share the meaning extension for this item of 'dandruff'.

It is also worth observing that Yaeyama and Ōita share the [a] vowel in place of a reflex of *i in the second syllable, although the chances that this may reflect some innovative CKR variant form are admittedly slight.

Included in Igarashi (2018: 7).

'outside (of the house)'

KY arake (Satsuma-Kushikino, Higashi Morokata)

NR ara: (Okinawa-Nakijin)

SR ara (Miyako-Hirara, Ikema); 'outside clothes' a:ra-kɨn (Shika-Ishigaki, Aragusuku), ara-kɨn (Kuro, Hatoma), ara-kɨnu (Kohama)

The item traceable to *ara used as a noun and with the specific meaning of 'outside' has a very limited distribution both in Kyushu and in the Ryukyus, and no attestations elsewhere. As seen in the Kyushu and Yaeyama tokens, it is also frequently encountered in compounds rather than as a standalone lexeme. It is unclear if this item is an innovation in terms of both form and meaning, or if it is a meaning transfer from either of the popular Japonic adjectives/property concept morphemes ara-meaning respectively 'new' or 'rough, coarse, crude'. 10

According to Hashiguchi 2004:125, the form arake was already attested in the 18th century Russian-Kagoshima Japanese Gonza-Bogdanov lexicon. It may also be worth considering to etymologically derive ara from ada 'outside', used in unspecified west Japan regions in 18th century according to the dialectal dictionary Butsurui Shōko (Tōjō 1941:162).

3. Analysis of the outcome

The outcome of the analysis in Section 2 has been summarized in Table 1.

A discussion of CKR subgroupings/levels that emerge from Table 1 needs to be preceded by a disclaimer that due to the limits and disproportions of the available lexicographic sources on Kyushu, the analyzed data may present some biases. For this reason, not all of the results in Table 1 can be taken at face value. For instance, the fact that of the Tokara islands, Takara seems to share the most features with Ryukyuan does not make the Takara regiolect the single closest relative of Ryukyuan – it simply means that out of the (unfortunately poorly documented) Tokara regiolects, the majority of sources pertain to Takara. By the same token, the fact that the 'skin patch' meaning innovation is attested for Koshiki, but not for Tokara, does not indicate a closer relationship of Koshiki over Tokara with Ryukyuan – most likely it simply means that the 'skin patch' meaning for Tokara has not been recorded.

Vocabulary items in Table 1 have been presented in increasing order concerning the area range, from the narrowest to the broadest.

Table 1 Non-core CKR cognate candidates

	Table 1 Non-core CK		
meaning	occurrence in Kyushu	shared Kyushu- Ryukyuan characteristic	putative CKR form
'skin patch'	Kamikoshiki	meaning innovation 'mushroom' > 'skin patch'	*naba
'hermit crab'	Tokara-Takara	lexical innovation	*amamu
'lizard' (compound with the morpheme 'young')	Tokara-Takara	lexical innovation	*wakagiri
'to hatch'	Tokara-Takara	lexical innovation	*sudas-u
'butterfly'	Tokara-Takara, Kodakara	lexical innovation	*paberi/*pabero
'crow'	Tokara-Takara, Nakano	change of the initial *k > g	*garasu
'Chinese banyan' (gajumaru)	Tokara islands, Ōsumi islands	lexical innovation; in Tokara-Akuseki and perhaps Io (Tokara) and Yaku (Ōsumi) change of the initial *k > g	*kadu/*kadzu > later, in a part of Tokara (and perhaps Ōsumi), *gadu/*gadzu
'snake'	Tokara-Takara, Kamikoshiki	alleged innovation *bi > *bu	*hebu
'outside of the house'	Satsuma-Kushikino, Higashi Morokata	lexical innovation or meaning innovation: 'new' and/or 'coarse' > 'outside'	*ara
'gimlet'	Satsuma, Ōsumi Peninsula, Morokata	lexical innovation; in part of the regions likely a shared irregular *igiri > *iri change (Igarashi 2018:9)	*iri
'to steal, to snatch'	Satsuma proper, Higashi Morokata, Tanegashima	lexical innovation	*baka-u
'wrasse'	Ōsumi Peninsula, Tanegashima, Kagoshima-Izumi	lexical innovation	*kusabi
'dragonfly'	Miyazaki, Morokata, Satsuma, Ōsumi Peninsula, Kamikoshiki	reflection (alleged retention) of proto- language *ke	*akedu/*akedzu
'fish scales'	Ōsumi Peninsula, Morokata, Satsuma, Ōita, Saga	sound innovation *iroko > *ireko	*ireko
ʻlips'	Takara-Tokara and Nakano, Ōsumi Peninsula, Morokata, Satsuma, Miyazaki (narrow), Satsuma, Ōita, Iki, Gotō, Fukuoka (broad)	lexical innovation; in the narrow group innovation of the initial *tsu > *su	*suba (narrow group)
'to rest'	everywhere except the northwest area (Saga and Nagasaki)	lexical innovation	*joko-u
'grapevine' and/or 'wild grape'	everywhere except Fukuoka	lexical innovation	*kanebu
'spider'	everywhere up to southern Fukuoka (Chikugo)	reflection (alleged retention) of proto- language *ko and *b/*mb	*kobu

3.1. Typology of shared features

A definite majority of the examined sample words constitute lexical innovations (there are twelve clear instances of lexical innovations, plus one possible one – 'outside'). Among vocabulary that is also distributed elsewhere in Japonic, there is one clear ('skin patch') and one potential ('outside') meaning innovation, three sound innovations ('crow', 'snake', and 'scales'), and two sound retentions ('dragonfly' and 'spider'). Among the lexical innovations specific to the Ryukyus and Kyushu, in some items (namely 'lips', 'gimlet', and possibly 'Chinese banyan') there are further shared sound innovations observed for the Ryukyus and a smaller number of Kyushu regiolects, constituting a basis for a subdivision within the CKR area.

3.2. Geographical distribution and its implications

In general, the wider the area covered, the fewer shared items could be found. This conclusion matches Igarashi's (2017, 2018) "matrioshka distribution" theory proposed for southern Japan and all Japonic-speaking areas in general.

Based on the tendencies inferred from Table 1, one can derive the following rough layers of CKR, starting from the smallest order (the lower the digit, the lower the phylogenetic/diachronic order), with makeshift labels added for the purpose of differentiation.

- 1. Common Tokara-Ryukyuan (CKR level 1).
- Common Insular Satsuma-Ryukyuan (CKR level 2). This layer includes, apart from the Tokara islands, Ōsumi islands such as Tanegashima or Yaku, and the Koshiki islands.
- 3. Common Satsuma-Ryukyuan (CKR level 3). Here, the areas of CKR level 2 are joined by the regiolects of the Satsuma district, Ōsumi Peninsula, and Morokata.
- 4. Common Core Kyushu-Ryukyuan (CKR level 4). To this layer, the regiolects of Miyazaki prefecture are added.
- Common Extended Core Kyushu-Ryukyuan (CKR level 5). In addition to Kagoshima and Miyazaki, this layer is composed of the regiolects of Kumamoto and Ōita.
- 6. Common Kyushu-Ryukyuan Proper (CKR level 6). This area includes regiolects from virtually the entire Kyushu area. At this point no conclusions can be proposed regarding whether this level should be divided even further through a graded inclusion of Nagasaki, Saga, and Fukuoka regiolects, although judging from the data introduced in this paper alone, the mainland Nagasaki and

northeastern Fukuoka areas in general do not participate in the innovations considered here.

Although the details such as the perspectives on the Ōita or Nagasaki regiolects differ, the CKR levels 3–6 as outlined above essentially match the phylogenetic results presented in Igarashi (2017 and 2018). As for the CKR levels 1–2, they warrant an indepth consideration as the most likely candidates for the status of immediate kin of the Ryukyuan languages.

The Tokara islands appear as the obvious option, considering their geographic proximity to the Amami islands and considering that in the times of the migration of Pre-Proto-Ryukyuan speakers it was not possible to sail as a larger group of people, all together at one time, from mainland Kyushu directly to Amami. The same can be said about the Ōsumi islands located still closer to mainland Kyushu. On the other hand, the fact that the CKR level 2 also includes the Koshiki islands – in other words, the fact that the Ryukyuan languages share more non-core vocabulary features with Koshiki than with mainland southern Kyushu, even though the former can hardly be imagined to just have happened to "be there" when Pre-Proto-Ryukyuan speakers embarked on their migration journey off the southern Kyushu shore - is fairly intriguing. This observation thus leads to a tentative insular embarkation hypothesis: in other words, it is worth considering that Proto-Ryukyuan branched off from the languages of already insular populations. The shared prehistory of the Ryukyuan, Tokara, Ōsumi, and Koshiki regiolects may parallel a number of small-scale waves of inter-insular migrations, which may have been a commonsense solution to some of the easily imaginable problems of insular communities, such as overpopulation or lack of resources.

Abbreviations

CKR Common Kyushu-Ryukyuan

KY Kyushu

NR North Ryukyuan
OJ Old Japanese
PJ Proto-Japonic
PR Proto-Ryukyuan
SR South Ryukyuan

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Palatalization and Vowel Coalescence in Jejueo

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This study explores palatalization and vowel coalescence in Jejueo, a language spoken in Jeju Island. This study establishes a corpus based on Hyon (1962) and focuses on dental and velar palatalization. The data reveal different patterns of variants in the two types of palatalization. In Jejueo, there are three phonetic realizations of vowels in *k*-palatalization and two realizations in *h*-palatalization. According to the data, this study also suggests a chronology: palatalization preceding vowel coalescence.

Keywords: Jejueo, palatalization, vowel coalescence, Seoul dialect

- 1. Introduction
- 2. Corpus and data selection criteria
- 3. Results
- 4. Discussion
- 5. Conclusion

1. Introduction

This paper investigates the interaction of palatalization and vowel coalescence in Jejueo, a language spoken in Jeju Island, South Korea.¹ In Korean, palatalization is pervasive in alveolar stops across the Korean Peninsula (Yeon 2002).² In the history of the Korean language, alveolar stops have undergone palatalization from Middle Korean to Modern Korean, as in the word 'earth, land' *chi* (< *ti*). In addition to dental

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¹ In Korean dialectology, the language spoken in Jeju Island is one of the dialects of Korea, while in western linguists' viewpoint, it is a language sharing equal status with Korean. In other words, peninsula Korean and Jeju Korean are sister languages. Following O'Grady (2015), Brenzinger and Yang (2017), and Yang, Yang, and O'Grady (to appear), this study uses Jejueo 'Jeju language' rather than Jeju dialect to refer to the language spoken in Jeju Island.

² Yeon (2002) classifies the Korean language into six zones. When palatalization is taken into account, there are three major areas: (a) without any palatalization, (b) with dental palatalization, but without velar palatalization, (c) with dental and velar palatalization. Although dental palatalization is pervasive across the Korean Peninsula, Phyongan dialect in the northern area lacks dental palatalization, as in the words 'to hit' [thida] and 'firmly' [kudi]. The second major area corresponds to the central area, i.e., Seoul for example. The words 'to hit' and 'firmly' in Seoul dialect are [chida] and [kudʒi], respectively. In the southern area, there is velar palatalization. In Jejueo, the word 'road' is [cil] (= [kil] in Seoul dialect).

palatalization, Korean has other types of palatalization, such as *k*-palatalization and *h*-palatalization. According to Chung (1995), Kim (2001), and Yeon (2002), in southern dialects, including Jejueo, velar stops also undergo palatalization, as in (1).

(1) a. Jejueo		b. Seoul dialect	gloss
	[c ^h i]	$[k^h i]$	'rudder'
	[cil]	[kil]	'road'
	[cim]	[kim]	'seaweed'
	[cire]	$[k^hi]$	'height'
	[cip ^h i]	[kip ^h i]	'depth'

In (1), the examples in Jejueo have been palatalized, while the initial velar stop in Seoul dialect is still k. In addition to k-palatalization, Jejueo has h-palatalization, in which the glottal fricative h becomes s when it is followed by the high front vowel i or the palatal glide j. Examples are shown in (2).

(2)	a. Jejueo	b. Seoul dialect	gloss
	[se]	[hjə]	'tongue'
	[səl]	[hjəl]	'blood'
	[ʃim]	[him]	'strength'
	[suga]	[hjuga]	'vacation'
	[saŋgi]	[hjaŋgi]	'fragrance, scent'

The five examples in (2) have twp phonetic realizations. In Jejueo, the initial consonant is s, whereas its corresponding form in Seoul dialect is h.

The second phonological process explored in this paper is the coalescence of /j/ and /ə/ in Jejueo. (3) shows the fusion of the sequence /jə/ into a front mid vowel, [e].

(3)	a. Jejueo	b. Seoul dialect	gloss
	[phen]	[pʰjəŋ]	'bottle'
	[men]	[mjən]	'face'
	[penmen]	[pjənmjəŋ]	'to distinguish'
	[perak]	[pjərak]	'lightning'

32 LIN, Chihkai

In (3), the syllables in Jejueo contain mid front vowels [e], while the corresponding syllables in Seoul dialect are a sequence of [j] and [ə]. The examples of the mid front vowel [e] in (3) are mostly attested after labial onsets.

In Jejueo, palatalization and vowel coalescence are independent processes, as in (2) and (3), but they interact in the sequence of /Cjə/ (C = consonant /k/ or /h/). This interaction has three possible outputs. First, the onset could be palatalized without vowel coalescence, as in [cə] or [sə]. Second, it is also possible that vowel coalescence could take place without palatalization, and the outputs would be [ke] or [he]. The third output is a complete interaction. In this case, the output is [ce] or [se].

To find out how the two phonological processes interact, this paper adopts a corpusbased approach by analyzing data from two sources: Hyon (1962) and an online dictionary of Jeju dialect, located at https://www.jeju.go.kr/culture/dialect/dictionary.htm. To fully explain the corpus, Section 2 discusses the corpus and data selection criteria. Section 3 reports the results: k-palatalization and k-palatalization. Section 4 compares the results of the two types of palatalization, and Section 5 concludes.

2. Corpus and data selection criteria

A small corpus is established in this paper, and the data are collected from Hyon (1962) and an online dictionary of Jeju dialect, located at https://www.jeju.go.kr/culture/dialect/dictionary.htm. Hyon (1962) conducted a general survey on Jejueo and then compiled a Jejueo-Seoul dialect dictionary in two volumes, comparing Jejueo with Seoul dialect in the first volume, and Seoul dialect with Jejeuo in the second volume. The data in this dictionary were sorted and, if necessary, the online dictionary was used.

The gleaned data were classified according to the three criteria in (4).

- (4) a. Place of articulation (k vs. h)
 - b. Variants (yes or no)
 - c. Weight of palatalization and vowel coalescence
 - i. Palatalization outweighs vowel coalescence
 - ii. Vowel coalescence outweighs palatalization
 - iii. Palatalization interacts with vowel coalescence

The data were first divided into k-palatalization and h-palatalization. The former refers to a velar stop and the latter to a glottal fricative. In Hyon's (1962) data, an entry

might have multiple readings. This paper includes all the possible readings and then classifies the sorted entries into those with variants and those without. For example, the word 'road' can be [cil] and [kil]. In this paper, the word 'road' is classified as having variants. It should be noted that although there are two readings for a word, it is not necessary to classify it as having variants. The word 'to carve' can be [sagida] or [segida]. These are not considered variants in this paper because palatalization and vowel coalescence are not involved.

The data were further divided according to the weight of the two phonological processes. There are three situations: (a) palatalization outweighs vowel coalescence, (b) vowel coalescence outweighs palatalization, and (c) palatalization interacts with vowel coalescence.

This paper focuses on the two processes in the word-initial position because of the constraint that palatalization is far less frequent in non-initial positions (Kim 2001, Lin 2019). Due to the two directionalities of data presentation, the data selection criteria differ. From Jejueo to Seoul dialect, the four initial sequences of k-palatalization, [cə], [ce], [ke] and [kjə], and those of k-palatalization, [sə], [se], [he] and [hjə], are collected. In contrast, from Seoul dialect to Jejueo, the examined sequences are [kjə] and [hjə]. The data were sorted, and the results are reported in Section 3.

3. Results

The sorted data are divided into k-palatalization (Section 3.1) and k-palatalization (Section 3.2). In each subsection, the distribution of variants and the weight of the two processes are also discussed. In the discussion, the data from Jejueo to Seoul dialect are presented first, followed by the data from Seoul dialect to Jejueo.

3.1. k-palatalization

In the data from Jejueo to Seoul dialect, there are 32 examples of *k*-palatalization, of which thirteen examples have variants. Table 1 shows the distribution.³

				· ,				
V	yes					no		
Variants			13		1	9		
Phonological	P	P VC			P	VC		
processes	$kj \sim c$	kjə ∼ ce	kjə ∼ cə	kjə ∼ cə ∼ ke	c	э		
Tokens	13	1	11	1	19	19		

Table 1 Distribution of *k*-palatalization from Jejueo to Seoul dialect

³ P = palatalization, VC = vowel coalescence

34 Lin, Chihkai

There are thirteen words that have variants, and all of them alternate between [kj] and [c], as in the word 'to be married', [kjəlhon] or [cəlhon]. Among the thirteen words with variants, two examples that also undergo vowel coalescence are the word 'only', which can be [ceu] or [kjəu], and the word 'to be married', in which there is no palatalization, but there is vowel coalescence, [kelhon]. There are nineteen examples with a single reading. All of the examples have undergone palatalization. Meanwhile, in these nineteen examples the vowel [ə] is maintained, as in the word 'spare time', [cəruu(1)] in Jejueo (= [kjərul] in Seoul dialect). The data in Table 1 reveal that no single example resists palatalization in the corpus either in the forms with variants or in the fully palatalized forms. Nevertheless, vowel coalescence seems to be rare, as there is only one example in the corpus.

Table 2 shows the distribution of the data from Seoul dialect to Jejueo.

Table 2	Distribut	ion of K	-рагата	iizalion iroi	n Seou	i dialec	t to Jeji	ueo
Variants	yes				no			
variants	22				17			
Phonological	P	VC		P	VC			
processes	kj ∼ c	$\sigma \sim \sigma$	ə ~ e	$\mathfrak{d}\sim e\sim \mathfrak{v}$	с	ə	e	υ
Tokens	8	12	1	1	17	11	3	3

Table 2 Distribution of k-palatalization from Seoul dialect to Jejueo

In Table 2, there are 22 examples of k-palatalization with variants. Eight examples show the alternation of [kj] and [c], as in the word 'determination' [kj] and [c] as in the word 'determination' [kj] and [c] in Seoul dialect. The Jejueo form of this word can be [kj] and [c] or [c] and [c] in the eight examples that have a velar stop as the onset, seven examples do not have vowel coalescence. The only exception is the word 'to be married', which can be [kj] hon, [c] [c] hon, or [k] hon.

The other fourteen examples with variants are attested with vowel coalescence, and their onsets are only [c]. There are three types of alternations in the vowels. First, twelve examples exhibit the alternation of [ə] and [v], as in the word 'lined clothes', which can be [cəp-ot] or [cɒp-ot]. The other two types of alternations have only one example each. The example alternating between three vowels is the word 'side' [kjət] in Seoul dialect. The Jejueo word 'side' can be [cək], [ce] or [cɒk]. The example that alternates between [ə] and [e] is the word 'a double-layered wall' [kjəp-tam] in Seoul dialect. The Jejueo form can be [cəp-tam] or [cɒp-tam].

In the corpus, there are seventeen examples without variants. All of these examples are palatalized as [c], and these seventeen examples have three realizations of vowels. Eleven examples are realized as schwa [ə], as in the word 'to compare' [kjəncuda] in Seoul dialect. The Jejueo form is [cəncuda]. There are three examples with [ce]. For instance, the word 'be difficult to stand' in Seoul dialect is [kjəpda], which is [ceuda]

in Jejueo. There are also three examples with [co]. In the word 'a lobe of the liver of a cow', the Seoul dialect is [kjət-kan] (= [cot-kan] in Jejueo).

The data from Jejueo to Seoul dialect are similar to those from Seoul dialect to Jejueo in the palatalization of [kj], which is pervasive in the corpus. In Tables 1 and 2, there are only a few examples of vowel coalescence [e] (< 3). The corpus data also show that schwa [ə] is lowered to [v] in the data from Seoul dialect to Jejueo.

3.2. h-palatalization

Table 3 shows the distribution of *h*-palatalization from Jejueo to Seoul dialect.

Variants	ye	es	no		
variants	4		11		
Phonological	P	VC	P	,	VC
processes	hj ∼ s	Э	S	e	Э
Tokens	4	4	11	8	3

Table 3 Distribution of *h*-palatalization from Jeiueo to Seoul dialect

There are fifteen examples of h-palatalization Table 3. Four examples have variants, which are attested in the alternation of [hj] and [s]. When palatalization takes place, vowel coalescence does not occur concurrently. The four examples keep schwa as their nuclei. For instance, the word 'cash' in Jejueo can be [sengum] or [hjengum], while it is [hjengum] in Seoul dialect. In the eleven examples without variants, all are palatalized as [s]. There are two realizations of the vowel. Eight examples were realized as [se], and all of these were attested in the word 'tongue'. The other three examples lack vowel coalescence, as in the word 'blood and breath', [selgi] in [s

From Seoul dialect to Jejueo, there are seventeen examples.⁴

Table 4 Distribution of *h*-palatalization from Seoul dialect to Jejueo

In Table 4, there are five examples of *h*-palatalization with variants that exhibit the alternation of [hj] and [s]. In the variants, the vowel is schwa [ə], as in the word 'cash', which is [hjənqum] in Seoul dialect, but [sənqum] or [hjənqum] in Jejueo. There are

⁴ In the corpus, the word 'side door' is [hjəpmun] in Seoul dialect (= [jəpmun] in Jejueo). This example is not included in the corpus because there is no palatalization or vowel coalescence.

36 LIN, Chihkai

twelve examples without variants in Table 4. All twelve of these are palatalized as [s]. The realizations of the vowels are twofold. One realization is [e] (in seven examples), as in the word 'tongue' [hjə] in Seoul dialect.⁵ The corresponding Jejueo form of this word is [se]. The other realization is [sə], as in the word 'brothers' [hjəŋʒe] in Seoul dialect (= [səŋʒe] in Jejueo).

The data from Jejueo to Seoul dialect do not deviate much from those from Seoul dialect to Jejueo in the palatalization of [sj]. No example resists palatalization. In the corpus, the vowel remains as [ə] or undergoes coalescence as [e].

4 Results

The k-palatalization and h-palatalization in Section 3 show one similarity and one difference. The similarity is that no single example in the two types resists palatalization. When there is [kjə]/[hjə], there is [cə]/[sə] as well. If a variant is not attested, the output must be palatalized. The difference is that there is a low vowel [b] in k-palatalization. The low vowel does not appear in k-palatalization, however. With three vowels, k-palatalization shows more variation than k-palatalization does in Jejueo.

As there are two phonological processes in the data, there might be a chronology in the development of Jejueo. The two processes can order in two different ways: palatalization preceding vowel coalescence or vowel coalescence preceding palatalization. It is also possible that the two processes interact although there is no chronology. Based on the data in Section 3, this paper suggests that palatalization must precede vowel coalescence; the chronology is explained in the following discussion.

First, when palatalization precedes vowel coalescence, the chronology is that of (5).

(5)		
Input	kjə	hjə
Palatalization	/kjə/ > [cə]	/hjə/>[sə]
Coalescence		
Output	[eɔ]	[sa]

In the corpus, when there is [kj] or [hj], there is [c] or [s]. Thus, in (5), when [kj] or [hj] undergo palatalization, vowel coalescence does not take place.

When vowel coalescence precedes palatalization, the chronology appears as in (6).

⁵ All the examples of [se] occurred in the word 'tongue'.

(6)		
Input	kjə	hjə
Coalescence	/kjə/ > [ke]	/hjə/ > [he]
Palatalization		
Output	[ke]	[he]

The chronology in (6) is not supported by the corpus data, however. There is a single example of [ke] in the word 'to be married' [kelhon], which also has two other variants, [kjəlhon] and [cəlhon]. In h-palatalization, there is no [he]. Therefore, the chronology in (6) has not been applied in Jejueo.

In addition to the orderings in (5) and (6), the two processes interact, as [kj = 3] and [hj = 3] turn into [ce] and [se]. In the corpus, there are sporadic examples of [ce]. As for [se] in h-palatalization, it is only attested in the word 'tongue'. With this low frequency attested for only a single example in h-palatalization, it seems that the interaction of the two processes is not salient in Jejueo.

5. Conclusion

This paper has used a corpus-based approach to investigate how palatalization and vowel coalescence take place in Jejueo. The results reveal that palatalization outweighs vowel coalescence, suggesting a progressive directionality such that vowel coalescence without palatalization does not occur in Jejueo. Once the palatalization has occurred, vowel coalescence is blocked. The blocking effect can also be attributed to the low frequency of [ke] or [he] in the corpus. The data also demonstrate that *k*-palatalization has one more variant with the vowel [p], which is not attested in *h*-palatalization.

Future research on this topic can be extended to the emergence of the low vowel [\mathfrak{p}] in k-palatalization. As this vowel is not observed in k-palatalization, the restriction is likely to be related to onsets. The palatalized c (<[k]) differs from s (</h/) in the degree of obstruction in the oral cavity. Whether the phonetic factor can be attributed to this difference is left open for future research. This issue demands a more detailed phonetic investigation in the future.

38 LIN, Chihkai

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'I'm Afraid of Thunder': The Dative Stimulus Construction in Japanese Dialects*

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The present study discusses the issue of non-canonical argument marking in Japanese dialects with a special focus on the stimulus argument of adjectival experiencer constructions (e.g. 'thunder' in 'I'm afraid of thunder'). The stimulus argument in question is canonically marked by the nominative case, but in many Kyushu and other western Japanese dialects it is also marked by the dative case. By focusing mainly on the Omae dialect of Shiiba Village, Miyazaki Prefecture, we discuss the following facts about non-canonical dative marking (NCDM) patterns in Japanese dialects: (1) NCDM is not a unique phenomenon of Omae, but is found across western Japanese dialects, especially Kyushu dialects and Shikoku dialects, (2) NCDM is restricted to experiencer constructions and is not found in other two-place adjectival sentences like the double subject construction, (3) NCDM is most likely to occur in a sentence where the predicate is a negative psych adjective like 'feel afraid', 'feel uncomfortable', etc.

Keywords: experiencer, stimulus, dative, non-canonical argument marking, Japanese dialect

- 1. Introduction
- 2. Previous studies
- 3. NCDM in Omae
- 4. NCDM from a typological perspective
- 5. Cross-dialectal comparison
- 6. Conclusion

1. Introduction

The present study discusses the issue of non-canonical argument marking in Japanese dialects with a special focus on the stimulus argument of adjectival

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experiencer constructions, as illustrated in (1) from the Omae dialect of Shiiba Village, Miyazaki Prefecture.

(1) oraa kaminari{=ga/=ni} ozyee.

1SG.TOP thunder{=NOM/=DAT} afraid.NPST

'I'm afraid of thunder.'

In Omae, the stimulus argument, like kaminari 'thunder' in (1), is canonically marked by the nominative case marker =ga, just as in the case of most Japanese dialects (including Standard Japanese); however, it may also be marked by the dative case marker =ni as a non-canonical option. Non-canonical dative marking like in (1), in which one argument of a two-place adjectival sentence may receive non-canonical dative marking as opposed to canonical nominative marking will henceforth be called Non-Canonical Dative Marking (NCDM). The present paper demonstrates the following three facts about NCDM by focusing mainly on Omae.

- (2) NCDM is not a unique phenomenon of Omae, but is found across western Japanese dialects, especially Kyushu dialects and Shikoku dialects.
- (3) NCDM is restricted to a certain subtype of two-place adjectival sentences. Specifically, it only occurs in a transitive adjectival sentence (TA sentence), which requires an experiencer and a stimulus as its required arguments, as illustrated in (1).
- (4) NCDM is most likely to occur in a TA sentence where the predicate is a negative psych adjective like 'feel afraid', 'feel uncomfortable', etc.

2. Previous studies

No previous work exists for NCDM as such, even though it is possible to find examples of what we call NCDM in past descriptions of individual dialects or in cross-dialectal works, text materials, etc. (see Figure 1 and Table 1).

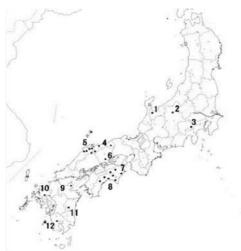


Fig. 1 The prefectures where dialects with NCDM are spoken

Table 1 Adjectives that occur with NCDM in Japanese dialects

#	prefecture	Place	adjectives	sources
1	Toyama	Himi City	poor at	NHK (1966: 34)
2	Nagano	the north	troublesome	Fujiwara (1997: 419)
3	Yamanashi	Kitatsuru County	Like	NHK (1967: 454, 457)
4	Tottori	Yazu County	poor at, like	Fujiwara (1981: 72)
5	5 Shimane	Okinoshima	like, dislike, good at, poor at	Hiroto (1949: 82), Kanbe (1978: 446)
		Izumo City, Aki City, Nita County	Like	Fujiwara (1981: 198)
6	Okayama	Kibi County	good at	Makimoto (1925: 44)
7	Tokushima	Kaifu County, Iya	like, good at, afraid	Kanazawa (1960: 206), Kanazawa (1961: 90), Doi (1997a: 27)
8	Kochi	Agawa County, Tosa County etc.	like, dislike, afraid, good at	Doi (1958: 268), Doi (1997b: 57)
9	Oita	whole area	Like	Fujiwara (1997: 419), Mikaziri (1937: 59)
10	Saga	Kitagata of Takeo City	afraid, noisy, etc.	our field data
11	Miyazaki	Oteno of Shiiba Village	Afraid	Kaneda (to appear)
12	Kagoshima	Sato of Koshikishima	afraid, etc.	Kubozono (2018)

Each of these works identified just a few attested examples of NCDM, with a simple descriptive observation that nominative marking in Standard Japanese is somehow replaced by dative case in the dialects concerned. No detailed analysis has been made

about in which cases NCDM is possible and in which cases it is impossible in individual dialects, why NCDM occurs, how it is characterized in general linguistics, whether NCDM is a shared retention/innovation of a certain historical group or a parallel development, etc. The upshot is that almost everything has been left untouched for any aspect of NCDM except for its seemingly 'weird' dative case-marking for the stimulus argument, compared to the nominative marking expected of 'standard' Japanese.

3. NCDM in Omae

3.1. Classification of two-place adjectival sentences

This section gives a descriptive overview of NCDM in Omae. To describe NCDM precisely, it is crucial to distinguish between two types of two-place adjectival sentences: the Double Subject (DS) type and the Transitive Adjectival (TA) type.

In a two-place adjectival sentence of the DS type, the two arguments exhibit a kind of whole–part relationship, as illustrated in (5) to (7).

- (5) oraa zu=no ityaa.

 1SG.TOP (my) head=NOM hurt.NPST

 'I have a headache (lit. My head hurts).' (object and its part)
- (6) oraa oya=ga byooki=wai.

 1SG.TOP (my) parent=NOM ill=SFP

 'My parent is ill (lit. As for me, (my) parents are ill).' (possessor and possessed)
- (7) oraa se=no takyaa=wai.

 1SG.TOP (my) height=NOM tall=SFP

 'I'm tall (lit. As for me, (my) height is tall).' (theme and its related property)

In semantic terms, the DS-type sentences do not consist of two independent arguments; the existence of the whole (i.e., the first argument in each example, ora) is a logical pre-requisite for the existence of its part (i.e., the second argument, zu in (5), oya in (6), and se in (7)). Morphosyntactically, one diagnostic for identifying the DS type is to see whether the first argument and the second argument can be connected by the genitive =no, which turns the two argument NPs into one. DS-type sentences are thus quite like monovalent (i.e., intransitive) sentences, both in semantic and morphosyntactic terms.

By contrast, a TA-type sentence takes two arguments which are semantically independent of each other, that is, the experiencer and the stimulus.

- (8) oraa oya=ga ozyee.

 1SG.TOP (my) parent=NOM afraid.NPST
 Experiencer Stimulus
 'I'm afraid of my parent.'
- (9) oraa hanako=ga suki=wai.
 1SG.TOP hanako=NOM love=SFP
 Experiencer Stimulus
 'I love Hanako.'
- (10) oraa mizu=ga hosi-i.

 1SG.TOP water=NOM want-NPST

 Experiencer Stimulus

 'I want some water.'

Note that the two arguments of a sentence of the TA type can never be turned into a single NP with the genitive =no. They are clearly divalent (transitive) even though they are non-verbal sentences. In fact, a certain kind of stimulus argument, especially a human stimulus like oya 'parent' in (8) and hanako 'Hanako' in (9), behaves like a direct object in a usual transitive sentence in that it can be followed by =no koto (see Kishimoto 2004 for issues relating to this test as a diagnostic for direct objecthood in Standard Japanese). Previous studies also noted that the stimulus argument of a certain kind of TA-type sentence may be marked by the accusative marker. For example, the stimulus argument mizu 'water' in (10) may be marked by the accusative =oba. These facts support the view that sentences of the TA type are transitive.

The most important fact about NCDM in Omae is that it is restricted to occurring in the TA type. Thus, in the following pair of sentences, of which (11) is of the DS type and (12) is of the TA type, DM is only possible in (12).

(11) oraa oya{=ga/=*ni} ozyee.

1SG.TOP (my) parent{=NOM/=DAT} scary.NPST

'As for me, my parent is scary.'

(12) oraa oya{=ga/=ni} ozyee.

1SG.TOP (my) parent{=NOM/=DAT} afraid.NPST

'I'm afraid of my parent.'

In (11), the first argument oraa 'as for me' and the second argument oya 'parent' are of the possessor–possessed relationship, and it is possible for them to be connected by the genitive marker $=ga^1$ (ora=ga oya 'my parents'). The adjective ozyee 'scary' describes the property of the second argument alone, with the first argument serving as the topic of the sentence. By contrast, (12) is a TA-type sentence in which the same adjective ozyee 'be afraid (of something)' now functions as a transitive adjective, taking the experiencer argument (which is the locus of the emotion denoted by the adjective) and the stimulus argument (which is the cause of the emotion). It is impossible for the two arguments to be connected with a genitive if the semantic interpretation of (12) is intended.

The fact that NCDM is found in TA-type sentences but not in DS-type ones is not self-evident and requires an explanation. It will be discussed in Section 5.

3.2. Semantic type of the predicate

Another important fact about NCDM is that it is not regularly found in all TA-type sentences. Roughly speaking, NCDM is more likely to occur with emotion predicates, as in the examples noted above, than in bodily sensation predicates, as in (13).

(13) oraa tyuusya {=no/=*ba/=*ni} ityaa.

1SG.TOP injection {=NOM/=ACC/=DAT} painful.NPST

'The injection hurts me.'

Not all emotion predicates allow NCDM, as illustrated in (14) below. Note that in this particular example, the accusative may be used instead. In Section 4, we will discuss complementary distribution of dative and accusative in the marking of the stimulus argument, a very important feature which allows for an understanding of the underpinnings of NCDM.

(14) oraa hanako{=ga/=ba/=*ni} nikii.

1SG.TOP Hanako(person){=NOM/=ACC/=DAT} hate.NPST

'I hate Hanako.'

¹ In Omae dialect, the genitive marker and the nominative marker take the same morpheme =ga. The genitive marker is distinct from the nominative marker in terms of its intonation.

Speakers' judgments about which predicate allows or disallows NCDM varies considerably from one speaker to another. Table 2 lists the results of our elicitation in which three speakers of Omae (FO, CO, and KO) were asked to judge whether or not a given adjective may allow NCDM. Eight emotion adjectives and nine sensation adjectives were chosen for this elicitation. The blank cell indicates that the datum has not yet been collected.

Table 2 The predicate of NCDM in Omae

FO	CO	KO	emotion	FO	CO	KO	Sensation
OK	OK	OK	afraid	-	-	-	Cold
OK	OK	OK	hard	-	OK	-	Painful
OK	-	OK	dislike	-	-	-	ill-smelling
-		-	dread	-	-	-	Bitter
-	OK	-	hate	-	OK	-	Noisy
-	?	?	glad	-	-	-	hot, spicy
-	-	-	like	-	-	-	Sour
-	-	-	want	-	-	-	Sweet
				-	-	-	delicious

Table 2 enables us to suggest two important generalizations about NCDM in Omae:

- (15) If a speaker allows NCDM for any of the sensation adjectives, then they allow NCDM for at least one of the emotion adjectives. Thus, there is a hierarchical relationship between the two lexical classes of adjectives in terms of the likelihood of NCDM use: Emotion > Sensation.
- (16) NCDM is more likely to occur with a stimulus argument that is depicted as evoking a 'negative' emotion or sensation (e.g. 'afraid', 'dislike', 'painful', etc.) than with one that is depicted as evoking a 'positive' emotion or sensation (e.g. 'glad', 'want', 'like', 'sweet', 'delicious'). Again, we can postulate a hierarchical relationship: Negative stimuli (i.e., stimuli that causes negative effects on the experiencer) > Positive stimuli (i.e., stimuli that causes positive effects on the experiencer). In other words, a speaker who allows NCDM for the lower end of the hierarchy always allows NCDM for the higher end.

4. NCDM from a typological perspective

NCDM poses a number of theoretical-typological questions. What makes it particularly interesting cross-linguistically is the fact that it is the stimulus, not the experiencer, which is dative-marked. In a cross-linguistically common pattern, the experiencer is non-canonically marked, typically with the dative case (e.g., Haspelmath

2001). We naturally wonder what is the motivation for the cross-linguistically rarer non-canonical marking and why the dative case is used for this purpose. In this section we suggest a hypothesis so that the above-mentioned questions can be answered.

We claim that the use of the dative case for the stimulus argument is synchronically well motivated if we pay attention to the semantic similarity between the stimulus argument of TA-type sentences and the passive agent of a passive sentence. As an initial approximation, let us characterize the stimulus argument and the passive agent as 'secondary agents', in the sense that they have the semantic properties of an agent but they are syntactically not coded as the subject of a sentence. Let us consider (17), which illustrates NCDM of a TA-type sentence, and (18), which illustrates dative-marking of a passive agent.

- (17) oraa kaminari=ni ozyee.

 1SG.TOP thunder=DAT afraid.NPST

 'I'm afraid of thunder.' (NCDM for the stimulus)
- (18) tubo=no taroo=ni war-are-ta.
 vase=NOM Taroo(person)=DAT break-PASS-PST

 'The vase was broken by Taroo.' (dative-marking for the passive agent)

(17) depicts a situation where the experiencer *ora* (first person) feels afraid due to the stimulus *kaminari* 'thunder'. What is notable about the experiencer is its lack or considerable reduction of agency. In fact, it is more like a patient in the sense that the experiencer is emotionally affected. In (17), it is the stimulus argument *kaminari* 'thunder' that is more like an agent: it causes the emotion of fear on the part of the experiencer, and it is an instigator of the emotion/sensation event concerned, a feature crucially pertaining to a prototypical agent (Dowty 1991, Naess 2007).

In this way, we associate NCDM in (17) with the dative-marking in passive constructions as in (18), with the assumption that dative-marking in this language functions to indicate a secondary agent, i.e., a non-subject agent or agent-like argument, i.e., the stimulus *kaminari* in (17) and the agent *taroo* in (18). Our analysis accords well with the fact that NCDM is possible only in TA-type sentences and not in DS-type sentences (Section 3.1): there is no agent-like argument in DS-type sentences. Also, as we noted in Section 3.2, NCDM shows complementary distribution with accusative marking. This is a natural result of the analysis that NCDM functions to mark an agent, given that accusative prototypically marks a patient.

5. Cross-dialectal comparison

The two hierarchical generalizations suggested for Omae (Section 3.2) hold for at least two other dialects of Kyushu that we surveyed: the Kitagata dialect of Takeo City (Saga), and the Sato dialect of Koshikishima Island (Kagoshima). The Sato data are from Kubozono (2018). Table 3 compares the results of the elicitation of NCDM where we asked the speakers to judge whether or not NCDM may occur with each of the adjectives listed. The symbols 'O', 'K' and 'S' represent Omae, Kitagata, and Sato respectively. Blank cells indicate that the data have not yet been collected.

Table 3 The predicates with NCDM in Omae, Kitagata and Sato

О	K	S	emotion	О	K	S	sensation
OK	OK	OK	afraid	-	OK	OK	painful
OK	OK	OK	dislike	-	OK		astringent
OK	OK		hard	-	OK		ill-smelling
-	OK	OK	glad	-	OK		noisy
-		OK	dread	-	-	OK	cold
-	OK		hate	-	-		bitter
-	OK		troublesome	-	-		delicious
-			like	-	-		hot, spicy
				-	-		sweet

It is unclear at this stage how to interpret the above hierarchies. Haspelmath (2001: 8) suggests that the stimulus argument of an emotion predicate is more likely to be treated like an agent than that of a sensation predicate, with the assumption that emotion is less rational and is uncontrollable, making the experiencer less like an agent, though Haspelmath is cautious about this assumption itself. At any rate, if this is a cross-linguistically valid analysis, the hierarchy of Emotion > Sensation can be interpreted as a hierarchy of stimulus arguments that are likely to behave like agents, and our analysis explains why Emotion is higher than Sensation: dative-marking functions to mark an agent-like argument. However, as Haspelmath himself admits, we need to be cautious about the way agency is discussed here, as it is difficult to argue for or against the claim objectively.

6. Conclusion

The present study has examined a cross-linguistically rare pattern of non-canonical argument marking found in Omae and other western Japanese dialects: NCDM, non-canonical dative-marking of the stimulus argument of adjectival experiencer constructions. NCDM in Omae is restricted to sentences of what we call the TA (transitive adjective) type, which take an experiencer and a stimulus as required arguments; NCDM is not found in sentences of the DS (double subject) type. We

argued that this restriction can be explained by assuming that dative marking indicates a 'secondary agent'. Since the stimulus behaves like an agent, as it emotionally or sensationally affects the experiencer, there is a motivation for NCDM in TA-type sentences, while there is no motivation for NCDM in DS-type sentences, as there is no agent-like argument. We also suggested two hierarchies that describe the likelihood of the occurrence of NCDM: Emotion > Sensation, and Positive stimuli > Negative stimuli. A speaker who allows NCDM for the lower end of these hierarchies always allows NCDM for the higher end.

Our survey of NCDM is still ongoing and our suggested analyses may well be subject to modifications and refinement when new data are added. As noted in Section 2, NCDM is not a unique phenomenon of Omae but is found across western Japanese dialects. It is therefore necessary to broaden our focus to integrate these other dialects into our analysis in future research.

Abbreviation

1	first person	ACC	accusative case
DAT	dative case	NOM	nominative case
NPST	non-past	PASS	passive
PST	past	SFP	sentence final particle
SG	singular	TOP	topic

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Far Away but So Close to the HeartLooChoo (Ryukyuan) Language: Revitalization Movement in Hawai'i*

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Out of approximately 7,000 estimated languages in the world, about 10 percent of them have fewer than ten speakers remaining (The Endangered Languages Project). Researchers have indicated that without efforts to revive them, not only these 10 percent but approximately half of all languages will become extinct within this century (Grenoble and Whaley 2006, Harrison 2007). With such linguistic situation becoming clearer and increasingly more attention has been paid to language endangerment, in 2009, UNESCO designated LooChoo languages as endangered languages (Mosley 2010). This paper concerns the efforts by the Okinawan diaspora to revitalize LooChoo languages in Hawai'i by illuminating three interrelated activities; 1) monthly LooChoo language and culture workshops conducted at University of Hawai'i at Hilo, 2) annual LooChoo identity conferences, and 3) series of education tours to Okinawa for the residents of Hawai'i and the mainland US.

Keywords: LooChoo, Ryukyuan languages, language shift, revitalization, Hawai'i, Okinawa, diaspora

- 1. Brief historical background
- 2. LooChoo Studies workshops at University of Hawai'i at Hilo
- 3. LooChoo Identity Conferences
- 4. Education tours to Okinawa
- 5. Discussion
- 6. Conclusion

1. Brief historical background

Language shift is a lengthy process involving various psychological, sociological, and political components. One of the earliest factors affecting the shift in Okinawa was the establishment of kaiwa denshūjo 'conversation academy' in 1880 by the Japanese government which was a school to train future teachers and interpreters

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between Okinawan and Japanese (cf. Clarke 2012, Kondo 1993, Yoshimura 2013). About 130 years later in 2009, UNESCO Atlas of the World's Languages in Danger listed eight endangered languages in Japan in which six were Ryukyuan languages. According to the Atlas, Yonaguni and Yaeyama are severely endangered while Miyako, Okinawa, Kunigami, and Amami are designated as "definitely endangered" (Mosley 2010). Heinrich (2007) asserted that inter-generational transmission was interrupted in the 1950's and now we find people above the age of 70 or 75 to be fluent speakers and those aged 50 and over to have some comprehensive ability with a sharp decline for younger people. Some estimated that these Ryukyuan languages will vanish within the next 50 years if concerted efforts are not begun soon (e.g., Read 2011).

Currently there are numerous attempts to strengthen these languages (cf. Heinrich 2018). For instance, Okinawago fukyū kyōgikai 'the Society for Okinawan Language Revitalization' was established in 2000 to promote local language use (see Ohara & Saft 2014, Hara & Heinrich 2015, Ishihara 2016). Other revitalization efforts that have been made in recent years include organizing speech contests, designating shimakutuba nu hi 'Okinawan community language day' in 2006 by Okinawa prefecture, as well as an increasing number of editorials and essays in Okinawan languages published by one of the two newspapers in Okinawa, Okinawa Times. There are other such efforts outside of Okinawa and this paper illuminates efforts taking place in Hawai'i. Unlike the examples that were mentioned above, these efforts are not initiated or run by the government office but are grassroots movements. We will focus on three such efforts, 1) monthly LooChoo ('LooChoo' being the Okinawan pronunciation of 'Ryukyu') language and culture workshops conducted at University of Hawai'i at Hilo, 2) annual LooChoo identity conferences, and 3) series of education trips taken by the residents of Hawai'i and the mainland US to Okinawa.

Before we describe those, it is necessary to mention the special connection between LooChoo and Hawai'i. Immigration of Okinawans to Hawai'i began at the end of the 19th century and today Hawai'i is the oldest and largest diaspora of Okinawans outside of Okinawa (Matsumoto 1982) and approximately 50,000 people in Hawai'i have Okinawan ancestry (Shimada 2012). Therefore, it is not surprising at all to find that there are many Okinawa organizations and associations in the state. United Okinawan Association of Hawaii is one of the largest such organization and it was established in 1951. It was renamed as the Hawaii United Okinawa Association in 1995 and it is the umbrella organization for 50 clubs in the state of Hawai'i. Hui Okinawa and Maui Okinawa Kenjinkai are association member clubs and many of these clubs are area based such as Itoman shijinkai 'association of people from Itoman' and Yomitan club.

There are other organizations and associations outside of the Hawaii United Okinawa Association in Hawaiii and Ukwanshin Kabudan is one of them. It is an Oʻahu Okinawan association which is also an Okinawa performing arts troupe working to maintain traditional culture. They organize educational programs to promote cultural awareness and understanding especially among local Okinawans and Okinawans in Japan. Ukwanshin Kabudan has two founding members, Eric Wada and Norman Kaneshiro, and both are master teachers of LooChooan traditional arts. Norman teaches sanshin and Eric teaches traditional Okinawan dance and music and both have been in their respective fields for over twenty years. These two descendants of immigrants to Hawaiii are the main force behind three closely related language and culture revitalization efforts that this paper is focused on.

2. LooChoo Studies workshops at University of Hawai'i at Hilo

Once a month, members of Ukwanshin Kabudan, Hui Okinawa, the Hilo community, and students at the University of Hawai'i at Hilo join the LooChoo Studies workshop at Ka Haka 'Ula o Ke'elikōlani College of Hawaiian Language. Eric Wada and Norman Kaneshiro fly in from Honolulu each month as the main instructors for the courses provided in the workshop.

2.1. Background

These workshops have been conducted at the Hilo campus since February 2016, and before then at community members' houses since September 2013. Gary Oshiro, one of the organizing members of the workshop, stated that he and his wife used to hold these workshops at their house with about twenty people attending. With the venue changed to Hale 'Ōlelo, attendance grew greatly to over fifty people each month. Hale 'Ōlelo is the Hawaiian language building at University of Hawai'i at Hilo where the internationally recognized revitalization and renormalization of Hawaiian language takes place (Ohara 2016, Wilson 2018). Also, it is well knowing in the field of language revitalization that the Hawaiian language is seen as one of the very few successful cases (Grenoble and Whaley 2006). It was at the University of Hawai'i at Hilo in 1982 that the Hawaiian language was brought back as a medium of instruction into governmentfunded education, the first time this occurred since the ban of education through the Hawaiian language in 1896. Hawaiian was thought to be one of the first languages within Polynesia to be extinct in the 1980's (Benton 1981), but now it shows some signs of successful revitalization, including an increase in the number of speakers (e.g., Iokepa-Guerrero 2016). It is historically significant to have workshops to aim

revitalizing LooChoo languages and cultures at this venue and faculty members of the Ka Haka 'Ula o Ke'elikōlani are also organizing members of the workshop.

2.2. The schedule/contents

Generally, the schedule consists of a morning session in which Eric or Norman (or both) conducts a presentation on a certain topic, such as dance, music, cuisine, social issues, etc. The afternoon session consists of two different classes: the uta-sanshin class, and the uchināguchi class. Often there are additional class for udui (dance) and fwansoo (Okinawan Flute). Alongside all of this is usually a keiki ('child' in Hawaiian) class, so the workshop can work as a sort of daycare while exposing both children and their parents to LooChoo languages and culture. The workshops are generally conducted from 10 am to 4 pm.

2.3. The themes

The themes for the workshops vary from linguistic, cultural, historical as well as sociological issues. The themes from February 2016 onward, when the workshops moved to the University campus, are presented below.

February 2016 "Uchināguchi (Okinawan language)"

March 2016 "Okinawa Performing Arts"

April 2016 "Culture and Uchinaaguchi (Okinawan Language)"

May 2016 "Okinawa Performing Arts"

June 2016 "Haari and obon"

July 2016 "Living Ryukyuan textiles of Okinawa"

September 2016: "LooChoo identity through music"

October 2016: "The Art of Okinawan dance"

November 2016: "Uchinaanchu Taikai experiences"

January 2017: "Uchinaa New Year"

February 2017: "Mimi-gusui: Life Sustenance Through the Ears"

March 2017: "Defining moments in Ryukyuan history"

April 2017: "Imi – Seeking Our Dreams For Future Generations"

May 2017: "Uchinaa Kwacchi (Okinawan Foods)"

June 2017 "45th Anniversary of Okinawa's reversion – Okinawa yesterday and today"

July 2017 "Yeisaa (Eisa) and Yaeyama Obon practices"

Aug 2017: "Okinawa Spirituality and Sacred Sites"

September 2017: "LooChoo Hairstyles and Clothing"

October 2017: "Sanshin Anatomy 101"

November 2017 "Uchinaanchu Identity"

January 2018 "Loochoo history through music: Edo Nobori"

February 2018 "Okinawa New Year"

March 2018 "Defining Shimanchu: Unity and Diversity of Loochoo People"

April 2018 "Defining Shimanchu: Unity and Diversity of Loochoo People"

May 2018 "Cultural Integrity in the Taketomi Island of Yaeyama: from the past to the present"

June 2018 "Katachiki, or Bingata stencil dyed fabric"

July 2018 "Obon and Haari"

As it can be seen from these themes, these workshops aim to provide information and insights for the local Okinawan diaspora in order to deepen their understanding as well as the tie with their ancestral homeland.

2.4. The participants

The participants range in age from children to elders. While the majority are middle-aged and older, students from University of Hawai'i at Hilo including exchange students from Okinawa consistently participate as well. While the workshops are somewhat geared toward Hawai'i uchinānchu and the majority of them are from that group, anybody is welcome and it is free of charge. Many people who live in Hilo, eastern side of island of Hawai'i, attend the workshops but residents of Kona, western side of Hawai'i Island, drive more than an hour and half to attend the workshop. The number of participants varies month to month, but often hovers around 40. The largest number of participants was 55.

2.5. Other workshops in Hawai'i

Besides the LooChoo Studies workshops at the University of Hawai'i at Hilo, the members of Ukwanshin Kabudan hold other various workshops, classes, and study trips. For instance, on Maui Island, Eric and Norman hold a monthly workshop. Norman focuses on sanshin and singing, and Eric teaches dance, flute, shimakutuba and lion and dragon dance. Keith Nakaganeku, another important member of Ukwanshin Kabudan, teaches classes once a month in Waikoloa on the Island of Hawai'i. In Honolulu, O'ahu, they hold twice a month shimakutuba classes and a weekly sanshin class. From 2007, Eric and Norman started a monthly lecture series, and by 2009 started doing classes and workshops including shimakutuba classes.

3. LooChoo Identity Conferences

The LooChoo Identity Conference (also LooChoo Identity Summit) is a three-day conference held by Ukwanshin Kabudan. As the name suggests, the purpose is to connect Okinawans (whether they be the diaspora or from Okinawa itself) with an identity distinct from that of mainland Japan. With assistance from many community members and volunteers, these conferences are held once a year in March. Occurring since 2015, the summits usually alternate between the different Hawaiian islands. The structure of the conference generally has the following components:

- 1. a large presentation or skit to the entire body of participants
- 2. breakup into small, assigned groups, where moderators ask questions about the presentation or skit and a recorder writes down the responses
- 3. return to the main conference hall where each group takes turns sharing their discussions

Each conference or summit has its own theme that directs the various presentations and skits that the small groups discuss. These themes themselves are guided by a phrase or word in uchināguchi in order to highlight the relationship between language and identity. The themes for each, as well as which island hosted that year, are listed below.

Maui 2015, Ninufwa Bushi Mii Ati - Looking to the North Star to Revitalize our Okinawan Culture for the Future

O'ahu 2016, Fichi Ukiin: Our Responsibility, Our Kuleana

O'ahu 2017, 'Imi: Seeking our dreams

Hawai'i 2018, Kataibusan: Sustaining the breath of our native languages

O'ahu 2019, Washiraran: Never forget

Based on our experience of participating in two of these conferences, we can say that the goals of these conferences are to deepen the relationship among the Okinawan diaspora who reside not only in Hawai'i but all over the world, and to strengthen the relationship between the Okinawan diaspora and people who currently live in Okinawa. They also offer the opportunities for every participant to question their own cultural identity and to explore a role that they can play in deepening and strengthening the relationship among uchinānchu world wide.

4. Education tours to Okinawa

About 10 years ago, Norman and Eric started to conduct a cultural study trip once a year. They take a group of Hawaiian Okinawans to Okinawa where they visit several significant sites and people to learn about Okinawan culture and history. Currently they are planning to have a cultural trip for people from Okinawa to come to Hawai'i and learn about Hawaiian culture and language revitalization. We will focus on the tour conducted in 2016 where three professors and one curriculum developer from Ka Haka Ula o Ke'elikōlani joined Eric Wada and Norman Kaneshiro and other Okinawans from Hawai'i. The tour also included attending the Sixth Worldwide Uchinānchu Taikai which took place in Naha that year. These four representatives from the college were carefully chosen and two of them, including the dean of the college, have Okinawan ancestry and one was the former dean of the college. The last one, one of the authors of this paper, was chosen for her ability to interpret among three languages, Hawaiian, English, and Japanese.

During the tour, the faculty of the college actively participated in a symposium, conference, and concert. Government officials, teacher representatives, elders and student representatives on language revitalization attended the symposium, where we discussed the following:

- 1. how Hawaiian language was brought in to the education system
- 2. how the Hawaiian revitalization movement got the attention of the government
- 3. how language education in academia is important and connects to the performing arts and protocols

In this indigenous language conference which was sponsored by Ryukyu University, the focus of the talk was what makes revitalization successful and each of the representatives shared their experiences and opinions. The topics for the conference were as follows:

- 1. what has Ka Haka 'Ula o Ke'elikōlani at University of Hawai'i at Hilo done to preserve and revitalize Hawaiian language?
- 2. why and how the program was started?
- 3. how training is done for language teachers?
- 4. what you do as a speaker of Hawaiian in your daily life and what you do with your children to perpetuate the language at home?
- 5. what it means to speak and normalize the language?

6. what are the connections of language and culture?

There was also a concert titled "'IMI ~ Seeking One's Self Through Dreams that Cross the Ocean" where there were video interviews of the people of Ka Haka 'Ula, Hawaiian and Okinawan dances and songs. Those professors performed 'oli 'chanting' and hula.

5. Discussion

Often, language revitalization is a grassroots effort to take back an ancestral language (cf. Oberly et al. 2015, Cru 2015) and what we have described above are definitely grassroots movements initiated by the Okinawan diaspora in Hawai'i. It is estimated that there are 420,000 Uchinānchu immigrants and their descendants in the world, which is approximately 40% of the current population of Okinawa. In Hawai'i, it is common for people to refer themselves as Okinawan instead of Japanese. For instance, an article titled "Hawai'i rainbow of cultures and how they got to the islands" in a local magazine pointed out three distinct groups of people who migrated to Hawai'i: Chinese, Japanese, Portuguese, Hawaiian, Filipinos, Koreans, and Okinawans. "Okinawa is the southernmost prefecture of Japan, comprised of hundreds of islands, but Okinawans in Hawaii rarely refer to themselves as Japanese. They are Okinawans, or Uchinanchu, and proud of the distinction" (Fox 2017). Scholars such as Shiramizu (2013) indicate that this distinction became more popular in early 1980's with strong influence from the civil rights movement of the 1950's and 60's. Thus, it can be asserted that Uchinānchu in Hawai'i are a more cohesive group than more general "Japanese-Americans" and many of them have strong interest in issues concerning Okinawa including the linguistic and cultural issues.

6. Conclusion

As language shift occurred in Okinawa in the 20th century, Okinawan associations such as Hawai'i United Okinawa Association sprung up in the diaspora. When Okinawans in Okinawa began shifting to a common Japanese identity during the support of reversion in the 1960s, their cousins in Hawai'i were seeking ways to connect to their Ryukyuan roots. These efforts continue to this day, most notably in the form of the inter-island LooChoo Studies workshops and the annual LooChoo Identity Summit. While these events focus more on building an Okinawan identity for the diaspora, this of course includes language. Efforts for revitalization are growing in Okinawa itself and at the same time the diaspora in Hawai'i has been making conscious

efforts to remedy the situation. The workshops allow the diaspora to learn about their ancestral background, compounded by the language, to the point where they call themselves "Okinawan-Americans/Okinawan-Hawaiians" rather than "Japanese-American". Furthermore, the annual summits provide an arena for discussion among different communities on problem solving efforts for Okinawa. Since the context is Hawai'i, these brainstorms usually involve inspiration from the Hawaiian revitalization movement. The leaders of this movement themselves even attended the Sixth Worldwide Uchinaanchu Taikai in 2016, with their own symposiums, in an attempt to demonstrate the successes of revitalization in Hawai'i. With governmental and educational bodies in attendance as well as sponsoring, the Taikai served as a study session, one that spectators hopefully took valuable knowledge away from. As pointed out by Hinton et al (2018), the goal and purpose of revitalizing varies according to a language; however, sharing remarkable historical and political parallels, the Hawaiian revitalization movement, with over thirty years of actual experience, can definitely reveal some of the possible outcomes of revitalization for the Okinawan people. As times are politically troubling for Okinawa, as revitalization grows in popularity but lacks the proper society-wide commitment and support, the Okinawans in Hawai'i, with a renewed sense of identity, are active in language and culture revitalization from islands afar, yet islands nonetheless.

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Zero-Subject in the 'be done' Construction in Irish

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Irish has two types of zero-subject: *impersonal* is expressed by a special verb conjugation; *apersonal* is expressed by a third-person singular verb form, but no grammatical subject appears in the clause. The 'be done' construction is a periphrastic perfect construction composed of an auxiliary verb and a verbal adjective (also called past participle). This paper considers characteristics of these two zero-subjects, based on data retrieved from an online corpus. As a result, the present paper argues that zero-subjects of the *impersonal* 'be done' construction denote a semantic agent, while those of the *apersonal* 'be done' construction denote a semantic patient. In addition, the *impersonal* 'be done' construction is very rare. It is proposed that this is because the 'be done' construction takes a semantic patient as a grammatical subject in the vast majority of cases, and this feature is incompatible with the characteristics of the subject of the impersonal form.

Keywords: Irish, impersonal, zero-subject

- 1. Introduction
- 2. Previous research
- 3. Problems with previous research
- 4. Methodology
- 5. Results and considerations
- 6. Conclusion

1. Introduction

This paper considers the two types of zero-subjects that can be taken by the 'be done' construction in the Irish language¹ (Indo-European, Celtic, Insular, Goidelic).

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The Irish language is spoken in Ireland by 44,000 people and labeled as *definitely endangered* (UNESCO). The total population on the Island of Ireland is approximately 660 million (480 million in the Republic of Ireland and 180 million in Northern Ireland). Irish is the first official language in the Republic of Ireland, but most people speak the second one, English, in their daily life. These days, the language is spoken in some areas called *Gaeltacht*. The preservation of the language is encouraged by the government and it is taught in schools as an obligatory subject.

I will argue that the semantic role (agent or patient²) of a grammatical subject is relevant with respect to the use of the two types of zero-subjects with the 'be done' construction: one type favors agents and the other favors patients.

First, some previous research (on the 'be done' construction, on the two types of zero-subjects and on zero-subject in the 'be done' construction) will be overviewed in §2 and some problems of analysis will be presented in §3. Then, the methodology of the study will be given in §4, and the results in §5.

Note that any glosses and translations without a special indication are ours.

2. Previous research

This section describes previous research on the 'be done' construction in §2.1, research on the two types of zero-subjects in §2.2 (the impersonal zero-subject in §2.2.1, and the apersonal zero-subject in §2.2.2), and on their combination, zero-subject in the 'be done' construction, in §2.3.

2.1. The 'be done' construction

Modern Irish has a VSO word order, as exemplified in (1). There, the first element *léigh* 'read' is the main verb, the second one *mé* 'I' (agent) is the grammatical subject, and the last one *an leabhar* 'the book' (patient) is the grammatical object. In this paper, such basic clauses will be called the *simple tense* construction.³

(1) Léigh mé an leabhar.

léigh-Ø mé an leabhar-Ø read-PST 1SG.CNJTV DEF.M.NOM book.M-SG.NOM 'I read the book'

When the 'be done' construction is applied to the simple tense construction, the result is like (2). This clause is composed of the substantive verb bi 'be' ($t\dot{a}$ in the present tense) and the verbal adjective of the verb $l\dot{e}ite$ 'read' ($< l\dot{e}igh$ 'read'). The patient an leabhar 'the book', which corresponds to the grammatical object in the simple tense construction (1), is the grammatical subject in the 'be done' construction, while the agent agam 'by me', which corresponds to the grammatical subject in (1), is expressed by the preposition ag 'at' in (2).

² In this paper, the terms *agent* and *patient* denote semantic roles, not syntactic arguments.

³ This concept can be contrasted with the composed tense (e.g., in French, *j'aimai* 'I loved' [simple past] and *j'ai aimé* 'I have loved' [composed past]).

62 YAMADA, Leo

(2) **Tá** an leabhar **léite** agam.

```
tá-Øanleabhar-Ølé-iteag-ambe-PRSDEF.M.NOMbook.M-SG.NOMread-VAat-1SG'I have the book read.'
```

[example and translation from Ó Siadhail (1989: 299–300)]

The 'be done' construction is often called the perfective passive, but as Ó Siadhail (1989) points out, it can be applied to intransitive clauses like (3).

(3) Tá sé imithe.

```
tá-Ø sé im-ithe
be-PRS 3SG.M.CNJTV go.out-VA

'He is gone off'

[example and translation from Ó Siadhail (1989: 299–300)]
```

When the 'be done' construction is applied to an intransitive clause, syntactic manipulations such as the promotion or demotion of arguments cannot occur and the grammatical subject in the simple tense construction retains its grammatical status even in the 'be done' construction.

In this paper, the author will not consider the features of the 'be done' construction itself, but the way in which it must be related to some sorts of the perfect tense.

2.2. Two types of zero-subjects

Concerning zero-subjects, na Bráithre Críostaí (1999)⁴ have suggested:

An Saorbhriathar: Is iad uimhir agus pearsa an ainmní a chinneann uimhir agus pearsa an bhriathair. Nuair nach luaitear aon ainmní úsáidtear foirm ar a dtugtar an saorbhriathar, sin nó foirm an tríú pearsa uatha gan ghníomhaí. Tá an saorbhriathar saor ar uimhir agus ar phearsa. Is gnách foirmeacha pearsanta a thabhairt ar na foirmeacha briathartha nach saorbhriathra.

The Free verb: It is the number and the person of the subject which determine the number and the subject of the verb. When any subject is not mentioned a form, called a free verb, or the third-person singular form without an agent, is used. The free verb is free from a number or a person. Personal forms are usually given to the verbal forms which are not free verbs.

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⁴ En. the Christian Brothers.

[na Bráithre Críostaí (1999: 156)]

In other words, in Irish, there are two possibilities for the realization of zero-subjects. In this paper, I follow the terms in Hewitt (2002), which is a study on Breton (the other branch of the insular Celtic languages), and call them:

α: *impersonal* – free verbs

β: apersonal – third-person singular verbs without an agent

2.2.1. Impersonal zero-subject

In the following lines concerning the impersonal zero-subject, na Bráithre Críostaí (1999) use the term *impersonal* (*neamhphearsanta* in Irish) in a broad sense, so that it includes both *impersonal* and *apersonal* in this paper:

Is iad na saorbhriathra na foirmeacha neamhphearsanta is coitianta. Úsáidtear iad nuair nach mian nó nach gá nó nach féidir an gníomhaí a lua.

Is minic a fhreagraíonn an saorbhriathar aistreach don fhaí chéasta atá i dteangacha eile:

The free verbs are the most common impersonal forms. They are used when it is not desirable nor necessary nor possible to mention an agent.

It is often the case that the transitive free verb corresponds to the passive voice which exists in other languages.

[na Bráithre Críostaí (1999: 189)]

The sentence in (4) is an example of such a use, which corresponds to the passive voice in English.

(4) **osclaítear** an doras in ainm an rí.

osclaí-tearandoras-Øinainm-Øopen-HPRS.IMPERSDEF.M.NOMdoor.M-SG.NOMinname.M-SG.NOManrí-ØDEF.M.GENking.M-SG.GEN

'the door **is opened** in the king's name'

[na Bráithre Críostaí (1999: 189)]

Concerning the impersonal form in the Celtic languages, Hewitt (2002) has suggested:

All the Celtic languages have "impersonal" verb forms in -r and -d. In English-language Celtic studies, the term "autonomous" is also used. These forms are said to be related to the "passive" conjugation of Latin ($-itur^5$), but there is only one form per tense (at least in the modern languages ...).

[Hewitt (2002: 15)]

In other words, verbs in many languages have six forms per tense (conjugated for three persons and two numbers), but verbs in the Celtic languages have seven forms per tense, as shown in Table 1. Note that, however, the paradigm of verb conjugation in Irish is incomplete, so that in the habitual present tense, only the first-person singular and the first-person plural have a conjugated form, while others are expressed analytically with personal pronouns.

Table 1 Irish Conjugation

Table 1 Men conjugation					
	dún 'close': habitual present				
	SG	PL			
1 st	Dún <i>aim</i>	dún <i>aimid</i>			
2 nd	dún <i>ann</i> tú	dún <i>ann</i> sibh			
$3^{\rm rd}$	dún <i>ann</i> sé	dún <i>ann</i> siad			
impersonal	Dún <i>tar</i>	_			

[from na Bráithre Críostaí (1999: 160)]

2.2.2. Apersonal zero-subject

According to Stenson (1989), some sort of agent can be conceived in the impersonal zero-subject in Irish. For example, she argues that, as illustrated by examples (5) and (6), the impersonal form cannot be used like in (5) because 'no agent, even implicit, is possible', and the apersonal form is instead used, like in (6).

(5) *Neartaíodh ar an ngaoth.

neart-aíodh ar an^E gaoth-Ø strengthen-PST.IMPERS on DEF.F.NOM wind.F-SG.NOM ('The wind strengthened')

[example and translation from Stenson (1989: 387)]

_

⁵ This is the indicative passive present third-person singular (e.g., *emitur* 'it is bought').

(6) Neartaigh ar an ngaoth.

```
neart-aigh ar an<sup>E</sup> gaoth-Ø

strengthen-PST on DEF.F.NOM wind.F-SG.NOM

'The wind strengthened'
```

[example and translation from Stenson (1989: 386)]

The finite verb in the initial position of (6) is originally the third-person singular form (and sometimes it is referred to in this way), but no grammatical subject can occur in this type of construction. This is the apersonal zero-subject examined in this paper.

2.3. Zero-subject in the 'be done' construction

Stenson (1989) has argued that the impersonal zero-subject can be applied to the 'be done' construction, as in the following example:

(7) Táthar buailte againn.

```
tá-tharbuail-teag-ainnbe-PRS.IMPERShit-VAat-1PL'They've been beaten by us'
```

[example and translation from Stenson (1989: 393)]

As mentioned in §2.1, the grammatical object (patient) of the simple tense construction is promoted to the grammatical subject in the 'be done' construction. The impersonal zero-subject is then applied to it, like in (7), where the promoted subject (the grammatical object in the simple tense construction) has been deleted and the substantive verb bi 'be' as an auxiliary is conjugated to the impersonal form tathar.

In other words, when the third-person plural pronoun siad 'they' in a personal 'be done' construction like (8) is deleted and the substantive verb $t\acute{a}$ 'is' is conjugated to the impersonal form, this results in an impersonal 'be done' construction like (7).

(8) **Tá** siad **buailte** againn.

```
tá-Øsiadbuail-teag-sinnbe-PRS3PL.CNJTVhit-VAat-1PL'They've been beaten by us'
```

Stenson (1989) seems to consider that even in the impersonal 'be done' construction, as in the impersonal simple tense construction, some sort of subject expressed by the impersonal form is conceived (a patient in the former, and an agent in the latter).

In addition, instances of the apersonal 'be done' construction also occur, although Stenson (1989) does not take these into considerations. The following are examples retrieved from an online corpus, *Nua-Chorpas na hÉireann* (The New Corpus for Ireland).

(9) Nuair a bhí ite, ólta againn,

```
nuair a<sup>L</sup> bí-Ø i-te ól-ta ag-ainn when REL.DIR be-PST eat-VA drink-VA at-1PL 'When (it) was eaten, drunk by us,'
```

[icfe9802]

For this paper, a survey was carried out based on this corpus regarding the impersonal 'be done' construction and the apersonal 'be done' construction in order to clarify the difference between the two.

3. Problems with previous research

The impersonal 'be done' construction, as illustrated by Stenson (1989) in (7), in fact, is hardly used in the *Nua-Chorpas na hÉireann* corpus. In contrast, the apersonal 'be done' construction, like in (9), is used more often.

Regarding the characteristics of the zero-subject of the impersonal form, Stenson (1989) proposes the same interpretation for both the simple tense construction and the 'be done' construction. However, the zero-subject of the impersonal form is semantically an agent in the simple tense construction and semantically a patient in the 'be done' construction. Can her interpretation truly be applied to both constructions, even though the semantic role of each of their subjects is quite different (agent and patient)?

In addition, Stenson does not consider the apersonal 'be done' construction.

It is hypothesized in this paper that the subject of the impersonal form is limited to an agent, so that the impersonal form is incompatible with the 'be done' construction, which takes a patient as the grammatical subject.

4. Methodology

As mentioned above, the online corpus used for this study was *Nua-Chorpas na hÉireann* (The New Corpus for Ireland). This corpus contains 34,358,267 tokens and 29,886,201 words in total. It must be noted, however, that all of the corpus texts were

used for this study, which means that some texts whose author is not a native speaker or which have been translated from another language were also included.

The following queries were used for the search:

α: impersonal

```
[lemma="bi" & tag="Vm..0"]
```

- substantive verb bi 'be'
- verb (V), main verb (m), all moods (.), all tenses (.), person: impersonal (0)

β: apersonal

```
[lemma="bi" & tag="Vm.."]
```

- substantive verb bi 'be'
- verb (V), main verb (m), all moods (.), all tenses (.)

When the person is not designated, the third person singular form is obtained.

The data retrieved were then filtered by the regular expression: *(ta|te|tha|the|fa). These five forms are the possible endings of the verbal adjective. Note that, however, not all words ending in these five are verbal adjectives.

Last, it must also be noted that too many instances of the apersonal were retrieved to consider them all, so that only clauses beginning with the substantive verb bi 'be' are included in this paper, i.e. only clauses where neither an adverb (adverbial phrase) nor relative clause marker appears before the substantive verb bi 'be' will be taken into consideration.

5. Results and considerations

The type counts of the two zero-subject constructions in the corpus are given in Table 2.

Table 2 Frequency in Corpus

Type	frequency
impersonal 'be done'	33
apersonal 'be done'	2,429

As expected, the impersonal 'be done' construction is very rare. Note that, the frequency of the apersonal 'be done' construction may not be exact, as explained in the previous section.

5.1. Impersonal 'be done' construction

Examples of the impersonal 'be done' construction with the following verbs occurred in the corpus (number of examples noted in parentheses):

tosaigh 'begin' (8), tar 'come' (4), fág 'leave' (2), tabhair 'give' (2), oscail 'open' (2), gabh 'take' (2), meáigh 'estimate' (2), éirigh 'rise' (1), ceangail 'tie' (1), tóg 'raise' (1), imigh 'go out' (1), suigh 'sit' (1), bailigh 'gather' (1), caill 'lose' (1), mill 'ruin' (1), faigh 'find' (1), clis 'jump' (1), sáigh 'thrust' (1)

The verb *tosaigh* 'begin' is the most frequent. In the case of this verb, the impersonal 'be done' construction, the zero-subject should be interpreted as an agent, who performs the event voluntarily.

(10) Táthar tosaithe ag obair cheana féin

tá-thar tos-aithe ag obair cheana féin be-PRS.IMPERS begin-VA at work.VN ever self '(They) have begun working already'

[iwx00480]

(11) Táthar tosaithe ar chóireáil a dhéanamh

tá-thartos-aithearLcóireáil-ØaLdéan-amhbe-PRS.IMPERSbegin-VAontreatment.F-SG.NOMtodo-VN'(They) have begun to do treatment'

[itgm0119]

When motion verbs such as *tar* 'come', *éirigh* 'rise', etc. are rendered in the impersonal 'be done' construction, their deleted subject will be interpreted as an agent⁶ and this fact is compatible with the present hypothesis.

(12) táthar tagtha go dtí an staid

tá-thar tag-tha go^E **t-**i an staid- \emptyset **be-PRS.IMPERS come-VA** CMPL come-SUBJ DEF.F.NOM stadium.F-SG.NOM '(they) *have come* to the stadium'

[iwxu0101]

 6 Note that, again, this term should be understood as a semantic one; it denotes the entity who performs the event.

_

(13) táthar éirithe níos loime.

tá-thar éir-ithe ní-Ø+is lom-ie be-PRS.IMPERS rise-VA thing.M-SG.NOM+be.COP.PRS.REL.DIR close-COMP '(they) *have risen* more closely'

[itfo0023]

As a result, in about half of the examples the zero-subjects denote the agent of an intransitive clause, who performs the event. Some examples with a zero-subject are difficult to analyze; further research should be done to address such cases.

5.2. Apersonal 'be done' construction

Many examples of the apersonal 'be done' construction occurred with a transitive verb. The list of verbs is omitted here, however, because the construction is used with an enormous variety of verbs. In the following two examples, the zero-subject clearly denotes a patient (*the thing which is written or learned*).

(14) **Tá scríofa** sna seanleabhair gurb (...)

tá-Øscrío-fai+nasean=leabhar-igo+isbe-PRSwrite-VAin+DEF.PL.NOMold=book.M-PL.NOMthat+be.COP.PRS'(It) has been written in the old books that (...)'

[icco1126]

(15) **Tá foghlamtha** acu faoin slabhra a nascann na bláthanna

tá-Øfoghlam-thaag+iadfaoi+anslabhra-Øabe-PRSlearn-VAat+3PLunder+DEF.M.NOMchain.M-SG.NOMREL.DIRnasc-annnabláth-annatie-HPRSDEF.PL.NOMflower.M-PL.NOM

'(It) has been learnt by them about the chain which ties the flowers'

[icla1496]

The verb *tosaigh* 'begin' occurs in the impersonal 'be done' construction, and it is also used in the apersonal 'be done' construction. In the following example, the zero-subject is a patient, and the agent is expressed with the preposition *ag* 'at'.

(16) **Tá tosaithe** ag Mac Scaidín ar rince.

tá-Ø tos-aithe ag Mac-Ø Scaidín-Ø ar rince-Ø **be-PRS begin-VA** at PN.M-SG.NOM PN.M-SG.NOM on dance.M-SG.NOM

'(It) *has been begun* by Mac Scaidín to dance' (= 'Mac Scaidín **has begun** to dance')

[icco1232]

When example (16) with the verb *tosaigh* 'begin' is rendered in the simple tense construction, the result is a clause like (17). This is an intransitive clause and only an agent appears in the clause.

(17) Thosaigh Mac Scaidín ar rince.

L tos-aigh Mac-Ø Scaidín-Ø ar rince-Ø
PM begin-PST PN.M-SG.NOM PN.M-SG.NOM ondance.M-SG.NOM
'Mac Scaidín began to dance'

Even though this clause is intransitive – remember example (3) in §1, where a grammatical subject in the simple tense construction retains its grammatical position in the 'be done' construction – it can derive the apersonal 'be done' construction like (16) as if there were a patient as a grammatical object. This method can be formalized with the symbol \varnothing for the zero-subject as follows: **thosaigh** Mac Scaidín \varnothing ar rince (lit. 'Mac Scaidín **began** \varnothing on dance') > $t\acute{a}$ \varnothing tosaithe ag Mac Scaidín ar rince (lit. ' \varnothing is begun by Mac Scaidín on dance').

The situation of example (18) is very different from that of example (16). In (18), the zero-subject is expressed by the impersonal form and clearly denotes an agent.

(18) Táthar tosaithe ag obair cheana féin

tá-thar tos-aithe ag obair cheana féin be-PRS.IMPERS begin-VA at work.VN ever self '(They) have begun working already'

[iwx00480; identical to (10)]

6 Conclusion

Statistically, the frequencies of the impersonal 'be done' construction and the apersonal 'be done' construction are very different (33 versus 2479). This is most likely because of the incompatibility of the impersonal form and the 'be done' construction: the 'be done' construction takes a patient as a grammatical subject in the vast majority of cases (transitive verbs and some intransitive verbs) but the impersonal form normally requires an agent for its zero-subject.

Consider the following simple tense construction 'they began to dance':

(19) **Thosaigh** siad ar rince

```
Los-aigh siad ar rince-Ø
PM begin-PST 3PL.CNJTV on dance.M-SG.NOM
lit. 'they began on dance'
```

If the *agent* as a grammatical subject becomes unspecified, i.e., zero-subject, it will derive an impersonal 'be done' construction, exemplified in (20). In this case, the auxiliary verb bi 'be' is conjugated to an impersonal form and the agent in the form of a zero-subject can be said to be placed in the grammatical subject position (just after the finite verb).

(20) IMPERSONAL

Táthar Ø tosaithe ar rince

```
tá-thar Ø tos-aithe ar rince-Ø
be-PRS.IMPERS begin-VA on dance.M-SG.NOM
'Ø has begun on dance'
```

In contrast, if the agent as a grammatical subject remains specified, it will derive an apersonal 'be done' construction, exemplified in (21). In this case, the agent is demoted to a prepositional phrase and the patient in the form of a zero-subject is promoted to the grammatical subject position.

(21) APERSONAL

```
Tá Ø tosaithe acu ar rince
```

```
tá-Ø Ø tos-aithe ac-u ar rince-Ø
be-PRS begin-VA at-3PL on dance.M-SG.NOM
'Ø is begun by them on dance'
```

At least within the scope of this study, the impersonal 'be done' construction seems to be quite exceptional. The process for deriving the two types of the 'be done' construction with a zero-subject can be illustrated as above, with the same verb, *tosaigh* 'begin'. This paper has confirmed the hypothesis at the end of §3: the zero-subject of the impersonal 'be done' construction is normally an agent while the zero-subject of the apersonal 'be done' construction is normally a patient.

However, there are a few examples which are difficult to clarify and fit into this theory. Further and more detailed research should be carried out in the future.

Abbreviations

1	first person	M	masculine
3	third person	NOM	nominative
CMPL	complementizer	PL	plural
CNJTV	conjunctive	PM	past marker
COMP	comparative	PN	proper noun
COP	copula	PRS	present
DEF	definite	PST	past
DIR	direct	REL	relative
F	feminine	SG	singular
GEN	genitive	SUBJ	subjunctive
HPRS	habitual present	VA	verbal adjective
IMPERS	impersonal	VN	verbal noun

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Developing Web-Based Learning Resources while Managing Language Classes in an Endangered Language

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This paper proposes a method to develop endangered language materials based on a case study of Amami-Okinoerabu island. First, research on endangered languages is constantly moving forward, and therefore types of media that can easily allow revisions and additions are desirable. Second, so that materials will actually be used by locals, endangered language materials should not only be suited to local needs, but should also be actively promoted. Considering these points, in this study, I develop language materials on the web, revising and promoting them through trials in language classrooms. I observe that this process allows me to create suitable language materials, which reflect some of the local needs, for the present situation of endangered languages.

Keywords: language revitalization, Ryukyu language, language education, endangered language, language materials

- 1. Background
- 2. Development of language materials
- 3. Effects
- 4. Future issues

1. Background

1.1. Background

The Ryukyu languages are at risk of disappearance, and much ongoing work has been done to revitalize them. Development of materials for these languages is growing (cf. Toyama 2016, Okinawa Prefectural Board of Education 2014); however, the methods by which such materials are being developed have received less attention. The creation of instructional materials for minor languages can be quite a different experience from creating them for major languages such as English or Japanese. This

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paper proposes an approach that could be used for making instructional materials, which takes into account some requirements for endangered languages.

1.2. Case study background

This paper describes a case study that I am currently conducting. I am examining Okinoerabu, a language that is spoken on Okinoerabu Island in the North Ryukyu archipelago. The population of Okinoerabu Island is approximately 14,000, but only people over 60 years of age speak Okinoerabu, which has no mutual ineligibility with Standard Japanese. Yamada et al. (2018) reported that university school students in Tokyo understand less than 5% of spoken Okinoerabu. This language, like many other Ryukyu languages, is endangered. Young people living on the island typically speak only Standard Japanese. According to Kibe (2014), who judged the degree of endangerment of Okinoerabu using the UNESCO (2003) criteria, the lack of materials for education in a language is one of the main factors used in determining its status as an endangered language. Although Okinoerabu has several dialectal dictionaries (cf. Kinoe 2006, Nishie 1968), a vocabulary database (cf. NINJAL, ¹ shimamuni takarabako²), and grammar descriptions (van der Lubbe 2016, Yokoyama 2017), no systematic language materials have been created for teaching. Hence, my project is designed to develop language materials that can allow Japanese speakers to learn Okinoerabu as a foreign language.

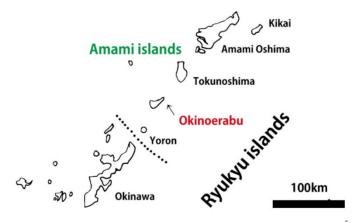


Fig. 1 Map of Okinoerabu Island

¹ Endangered languages database: http://kikigengo.ninjal.ac.jp/

² Shimamuni takarabako [Treasure box of Okinoerabu language]: http://erabumuni.com/

2. Development of language materials

2.1. Basic principles

Instructional materials for minority languages must differ from those used by widely spoken languages such as English and Japanese. First, research on endangered languages is constantly moving forward, which means that revisions and additions are often necessary as that research proceeds. Second, endangered languages face extinction across the globe, and Okinoerabu might disappear in the next 20–30 years, considering all present speakers are over 60 years old. Therefore, learning materials must be distributed as soon as possible instead of waiting until they are perfect. Furthermore, the purpose for which the materials are being created should not be forgotten, i.e., to help local people pass their language on to the next generation. For this reason, we must not only focus on creating materials but also on developing materials that will actually be used by the members of the community. Thus, materials should be created that suit local needs, and such materials should be promoted.

2.2. Procedures

Taking into account the above points, I have designed a procedure for developing materials. The characteristics of these materials are as follows: First, I intend to distribute them on the web, enabling me to revise them or add more material easily. Second, I am developing materials while also teaching language classes, and this allows me to promote my materials and receive feedback on them from the teaching and learning communities. I follow the "Action Research Cycle" (Figure 2) as I work to improve the quality of my materials.

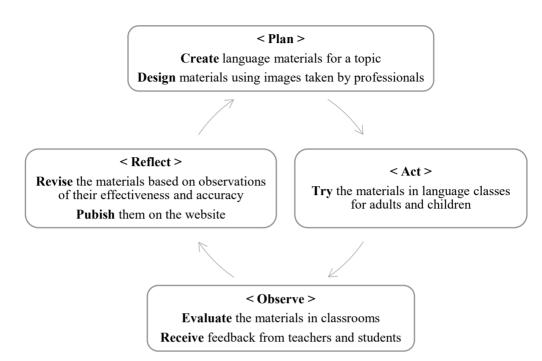


Fig. 2 "Action Research Cycle" to be followed for improving the quality of language materials

I create my materials for each topic, like "greetings (conversation lesson 1)" or "case markers (grammar lesson 3)." If I can publish such materials separately, i.e., on the web, then there is no reason to wait until the entire series is complete. Hence, I publish them as soon as possible. After finishing a draft, I hire a professional to design images for the materials. Visual design of language teaching materials is widely considered to be as important as user content. As a result, my drafts, which resemble Figure 3, are altered to resemble Figure 4.

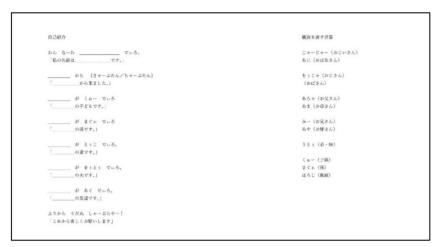


Fig. 3 Draft for a chapter on self-introduction

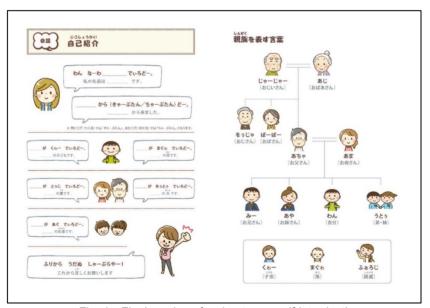


Fig. 4 Final version of a chapter on self-introduction

Second, I use the materials in my language classroom to assess their usability. I can then simultaneously receive feedback on their usability and comprehensibility from teachers and students. Currently, I teach two language classes on Okinoerabu Island: one for adults and the other for children. The former is held every two or three months, i.e., when I am able to travel to the island. A local native speaker of Okinoerabu assists

me in teaching, and generally 5–10 people attend my class. Most participants are migrants from outside the island and are very motivated. The children's class is conducted monthly. I teach the language when I visit the island, and a local collaborator teaches it in my absence. This class is based in the Kunigami community, which has 1000 residents. In general, 3–10 children attend the class, or as many as 50 children attend when the language class collaborates with a local event.



Fig. 5 Class for adults (@Okinoerabu Branch Office of Amami Shimbun on facebook, 2018/8/31)



Fig. 6 Class for children

Third, I revise my materials using the findings from the preceding steps. After my revisions are finished, I upload the latest version to the website. The website is accessed approximately 30–40 times daily, and it has drawn a definite audience.



Fig. 7 Top page, overview of materials page, and sample material page on the web

3. Effects

The observed effects of this process include the following:

- 1. I have been able to tailor my materials to be more suitable for the local state of affairs owing to the trials they have gone through and the feedback I have received. For example, I changed some of the vocabulary used in the introduction unit. The expressions I had originally used were chosen for their unique pronunciation, but then I learned that some are not generally used in daily life and are less suitable for the introductory part.
- 2. I have been able to promote awareness of these materials through my classes and by publishing them on the web. Since I first began my classes, I have been receiving requests for my materials from local residents and others who are native to the island but live elsewhere. Moreover, as mentioned earlier, my website receives 30–40 visits daily. In my opinion, the website has enabled people to access materials other than in book form.

3. The materials have led some residents to teach Okinoerabu themselves. Some of those who attend my classes are now teaching themselves, using the materials I developed. This would not have occurred if I had not shown how they could be used in classrooms. In the future, more people may be empowered to pass down their language to a new generation.

4. Future Issues

Although this report is based on my observations, the findings are still relevant to other work on endangered language revitalization: I think developing materials on the web and revising them based on trials in the language classroom have allowed me to create materials that suit the current circumstances of endangered languages and that reflect some of the local needs. However, the final goal of language revitalization studies is to cultivate local autonomy and to achieve sustainable language revitalization in a community, and in this sense, since I am currently developing materials on my own, these activities would not be sustained without me. In order to cultivate local autonomy, I must increase the involvement of local participants during the initial stages of the process of planning materials and provide them with the experience of creating materials and managing language classes on their own, so that they can be empowered to sustain language revitalization through their own activities.

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