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Research Report on the Kikaijima Dialects : General Study for Research and Conservation of Endangered Dialects in Japan

メタデータ	言語: English 出版者: 公開日: 2019-11-29 キーワード (Ja): キーワード (En): 作成者: KIBE, Nobuko, KUBOZONO, Haruo, SHIMOJI, Kayoko, LAWRENCE, Wayne P., TAKEDA, Koko メールアドレス: 所属:
URL	https://doi.org/10.15084/00002509

**General Study for Research and Conservation of
Endangered Dialects in Japan
Research Report on the Kikaijima Dialects**

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August 2011

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1 Project Overview

1 Purposes of the project

The ‘General Study for Research and Conservation of Endangered Dialects in Japan’ project was started in 2009 as a core collaborative research project of the National Institute for Japanese Language and Linguistics. The purposes of the project are as follows.

As globalization proceeds, minority languages around the world have become endangered. Among Japanese dialects, almost all of the dialects of Okinawa Prefecture, the Amami dialects of Kagoshima Prefecture, and the dialect of the island of Hachijōjima, part of Tokyo Metropolis, are classified as ‘endangered’ in a UNESCO report published in February 2009. Many of these endangered dialects retain features from Old Japanese that have already been lost in other dialects and have linguistic systems different from theirs. These dialects are therefore not only valuable for the dialectology of a particular area, but also for historical and general linguistics. Moreover, these dialects often differ from village to village, so the question of how this variation arose is also of interest.

In this project, a group of researchers from throughout Japan with a track record in fieldwork was brought together to study these endangered dialects and elucidate their characteristics, as well as to shed light on linguistic diversification processes and general properties of language. In addition, the endangered dialects are recorded, preserved, and promoted by recording and preserving video and audio data of them and making these available to the general public.

2 Research methods

Endangered dialect research is an urgent matter. It is therefore necessary to organize researchers from both inside and outside Japan with a track record in field research, in order to move their research forward efficiently. Additionally, in order to obtain high-quality data, dialect (or language) survey and description methodologies need to be made consistent, which they have not always been. Furthermore, it is necessary to train young researchers to be able to undertake future dialect (or language) research. In light of the above, this project is being carried out based on the following two kinds of research:

- (1) field research conducted by each of the collaborating researchers at their respective research sites, and
- (2) joint research conducted by the collaborating researchers in concert.

In the case of the former, each of the collaborating researchers conducts field research at their respective research sites and presents the results of this research at the project's collaborative research workshops, which provides them with an opportunity to develop their research further. Additionally, young researchers who are not part of the group of collaborating researchers are sometimes invited to give presentations, in order to support their research.

In the case of the latter, a survey site is decided upon and its dialect described comprehensively in terms of, among other things, its phonetics, accent, grammar, and basic vocabulary, as well as discourse. Not only the group of collaborating researchers, but also young researchers such as postdoctoral fellows, research fellows of the Japan Society for the Promotion of Science, and graduate students participate in this research; the participants carry out the survey, organize the data, and produce a report collaboratively. The first joint survey was conducted on the island of Kikaijima in Kagoshima Prefecture in September 2010. The present volume constitutes the research report resulting from that survey.

3 Collaborating researchers

As of July 30, 2011, this project is being carried out by the following collaborating researchers (in alphabetical order):

Akihiro KANEDA (Chiba University), Shigehisa KARIMATA (University of the Ryukyus; invited scholar at NINJAL), Tomoyuki KUBO (Kyushu University), Haruo KUBOZONO (NINJAL), Wayne LAWRENCE (University of Auckland), Daniel LONG (Tokyo Metropolitan University), Satomi MATAYOSHI (Shigakukan University), Akiko MATSUMORI (Japan Women's University; invited scholar at NINJAL), Hirotake MATSUMOTO, Harumi MITSUI (NINJAL), Jo NAKAHARA (University of the Ryukyus), Yumi NAKAJIMA (Hitotsubashi University), Satoshi NISHIOKA (Okinawa International University), Tetsuo NITTA (Kanazawa University), Takuichiro ONISHI (NINJAL), Kayoko SHIMOJI (Okinawa International University), Michinori SHIMOJI (Gunma Prefectural Women's University; invited scholar at NINJAL), Koko TAKEDA (temporary researcher at NINJAL), Yukinori TAKUBO (Kyoto University; invited scholar at NINJAL), Zendo UWANO (invited scholar at NINJAL).

2 Survey Overview

1 Overview of Kikaijima

Kikaijima, or Kikai Island, is located in the northeastern part of the Amami Islands, which are located in the south of Kagoshima Prefecture and further consist of Amami Ōshima, Tokunoshima, Okinoerabujima, and Yoronjima (figure 1). It has a circumference of 48.6 km and contains 33 villages with, according to the 2010 census, a total population of 8,090. The island can be reached by plane, from Kagoshima Airport or Amami Airport to Kikai Airport, and by ferry, from Kagoshima Port or Amami Ōshima Naze Port to Kikaijima Wan Port or Sōmachi Port. The cultivation of sugar cane and the production of sugar form the main industry, the number of sugar factories being the highest among the Amami Islands; the sugar cane is also used to produce brown sugar *shōchū* liquor. The production of white sesame has also been thriving in recent years, the island being its largest producer within Japan.

The 2010 survey was conducted at the following ten sites: Onotsu, Shitooke, Shiomichi, Aden, Gusuku, Kamikatetsu, Sakamine, Wan, Nakasato, and Araki (the areas underlined in figure 2).

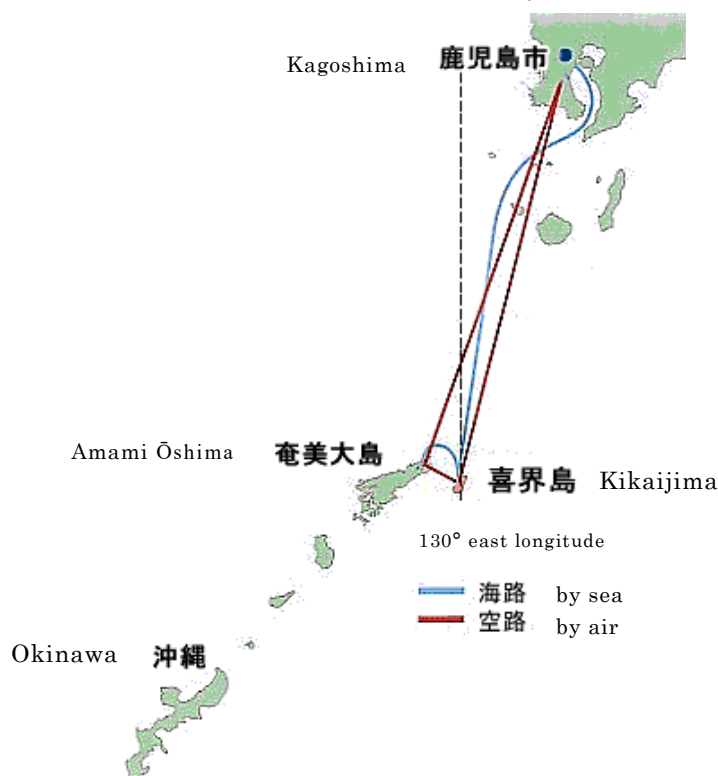


Figure 1. Location of Kikaijima (reproduced from the official website of Kikai Town).



Figure 2. Map of villages within Kikai Town (reproduced from the official website of Kikai Town).

2 Survey overview

2.1 Schedule, sites, subjects, and researchers

The survey was conducted between September 10 and September 14, 2010. Survey sites, subjects, and researchers were as follows:

Date and time	Site	Subject	Researchers
Friday, September 10; morning	Onotsu	Basic vocabulary 1	Ogawa, Aoi, Kibe
		Basic vocabulary 2	Lawrence, Nakahara, Hirayama, Takeda
		Accent A	H. Kubozono, Giriko, Pellard, Hirako, Takemura
		Accent B	Matsumori, Nitta, Kang, Takayama
		Grammar M	Matsumoto, Shimoji
		Grammar K	Kaneda, Inoue, Niinaga
		Grammar O	Onishi, Ogino, Toyama, Shigeno
		Grammar T	Takubo, Shirata, Yamada
Afternoon	Aden	Basic vocabulary 1	Aoi, Ogawa, Kibe, Hirako
		Basic vocabulary 2	Lawrence, Nakahara, Hirayama, Takeda
		Accent A	H. Kubozono, Matsumori, Giriko, Pellard, Takemura
		Accent B	Uwano, Nitta, Kang, Takayama
Evening	Gusuku	Basic vocabulary 2	Lawrence, Nakahara
		Accent	Nitta, Shigeno
		Expressions of giving and receiving	Ogino
		Onomatopoeia	Takeda

Saturday, September 11; morning	Shitooke	Basic vocabulary 1	Ogawa, Aoi, Kibe
		Basic vocabulary 2	Lawrence, Hirayama, Pellard, Nakahara
		Accent A	H. Kubozono, Matsumori, Giriko, Takemura, Kang
		Accent B	Nitta, Uwano, Hirako, Takayama
		Grammar M, T	Matsumoto, Shimoji, Takubo, Shirata, Yamada
		Grammar K	Kaneda, Inoue, Niinaga, Sato
		Grammar O	Onishi, Ogino, Toyama, Shigeno
Afternoon	Shiomichi	Basic vocabulary 1a	Ogawa, Kawase
		Basic vocabulary 1b	Matsumori, Aoi
		Basic vocabulary 2a	Lawrence, Hirayama, A. Kubozono
		Basic vocabulary 2b	Nakahara, Pellard
		Accent A	H. Kubozono, Giriko, Takemura, Kang
		Accent B	Nitta, Uwano, Hirako, Takayama
Sunday, September 12; morning	Kamikatetsu	Basic vocabulary 1	Pellard, Kawase, Ogawa, Aoi
		Basic vocabulary 2	Lawrence, Hirayama, Matsumori, Nakahara
		Accent A	H. Kubozono, Giriko, Takemura, Kang
		Accent B	Nitta, Kibe, Takayama, Hirako
		Grammar M	Matsumoto, Shimoji, Takeda
		Grammar K	Kaneda, Inoue, Niinaga, Sato
		Grammar O	Karimata, A. Kubozono, Toyama, Shigeno
		Discourse	Takubo, Shirata, Yamada, Ogino
Afternoon	Wan	Basic vocabulary 1	Kawase, Pellard, Ogawa, Aoi
		Basic vocabulary 2	Lawrence, Nakahara, Matsumori, Mitsui, Hirayama
		Accent A	H. Kubozono, Giriko, Takemura, Kang
		Accent B	Kibe, Nitta, Hirako, Takayama
Monday, September 13; morning	Nakasato	Basic vocabulary 1	Aoi, Ogawa, Kawase, Pellard
		Basic vocabulary 2	Lawrence, Matsumori, Hirayama
		Accent A	H. Kubozono, Giriko, Takemura, Kang
		Accent B	Kibe, Takayama, Hirako, Nitta
		Grammar M	Matsumoto, Mitsui, Shimoji
		Grammar K	Kaneda, Inoue, Niinaga, Sato
		Grammar O	Karimata, A. Kubozono, Toyama, Shigeno
	Onotsu	Discourse	Takubo, Shirata, Yamada, Ogino
Afternoon	Sakamine	Basic vocabulary 1	Ogawa, Takubo, Pellard, Aoi
		Basic vocabulary 2	Lawrence, Matsumori, Kawase
		Accent A	H. Kubozono, Mitsui, Takemura, Shirata
		Accent B	Kibe, Takayama, Hirako, Sato
		Expressions of giving and receiving	Ogino

Tuesday, September 14; morning	Araki	Basic vocabulary 1	Aoi, Ogawa, Shirata
		Basic vocabulary 2	Pellard, Takubo, Hirayama, Ogino
		Accent A	Matsumori, Giriko, Takemura
		Accent B	Kibe, Takayama, Toyama, Sato
		Grammar M	Matsumoto, Mitsui, Shimoji
		Grammar K	Kaneda, Inoue, Niinaga
		Grammar O	Karimata, A. Kubozono, Kawase, Shigeno

2.2 Researcher names and affiliations

The full names and affiliations of the researchers are as follows:

Nobuko KIBE (project leader; Department of Language Change and Variation, NINJAL), Takuichiro ONISHI (Department of Language Change and Variation, NINJAL), Fumiko INOUE (Department of Language Change and Variation, NINJAL), Haruo KUBOZONO (Department of Linguistic Theory and Structure, NINJAL), Harumi MITSUI (Department of Linguistic Theory and Structure, NINJAL), Zendo UWANO (invited scholar at NINJAL), Kayoko SHIMOJI (temporary researcher at NINJAL), Manami HIRAYAMA (temporary researcher at NINJAL), Mikio GIRIKO (temporary researcher at NINJAL), Sichao SHENG (temporary researcher at NINJAL), Koko TAKEDA (temporary researcher at NINJAL), Akihiro KANEDA (Center for International Education, Chiba University), Shigehisa KARIMATA (Faculty of Law and Letters, University of the Ryukyus), Michinori SHIMOJI (Gunma Prefectural Women's University), Yukinori TAKUBO (Graduate School of Letters, Kyoto University), Jo NAKAHARA (lecturer at the University of the Ryukyus), Tetsuo NITTA (Faculty of Letters, Kanazawa University), Hirotake MATSUMOTO (formerly Chiba University), Akiko MATSUMORI (Faculty of Humanities, Japan Women's University), Wayne LAWRENCE (University of Auckland, New Zealand), Chisako OGINO (Faculty of Education and Welfare Science, Oita University), Youngsuk KANG (postdoctoral fellow at the University of Tokyo), Shinji OGAWA (JSPS research fellow at the University of the Ryukyus), Yuto NIINAGA (JSPS research fellow at the University of Tokyo), Thomas PELLARD (JSPS international research fellow at Kyoto University), Masahiro YAMADA (JSPS research fellow at Kyoto University), Hayato AOI (graduate student at the Tokyo University of Foreign Studies), Suguru KAWASE (doctoral student at Kyushu University), Ai KUBOZONO (doctoral student at Kyushu University), Kumiko SATO (doctoral student at Kyushu University), Hiromi SHIGENO (doctoral student at Hiroshima University), Rihito SHIRATA (graduate student at Kyoto University), Rintaro TAKAYAMA (doctoral student at the University of Tokyo), Akiko TAKEMURA (doctoral student at Kobe University), Nana TOYAMA (graduate student at the University of the Ryukyus),

Tatsuya HIRAKO (graduate student at Kyoto University).

2.3 Speakers

The details of the speakers are as follows:

Onotsu	Tosue KIMOTO (b. 1924, age 86), Setsue FUJIMOTO (b. 1926, age 83), Mitsuno MORIUCHI (b. 1926, age 83), Yoshie MAKI (b. 1931, age 79), Ritsuko NOMURA (b. 1934, age 76), Mieko ARIOKA (b. 1935, age 75), Shigeko TABATA (b. 1945, age 65), Hirotetsu YOSHIKAWA (b. 1922, age 88), Michinori UYAMA (b. 1934, age 76), Masaru ONO (b. 1936, age 74)
Shitooke	Toyo SUGANUMA (b. 1918, age 92), Moto NISHIYAMA (b. 1925, age 85), Teruko MUKAI (b. 1927, age 83), Fude MINAMI (b. 1927, age 83), Misae TAKAGI (b. 1928, age 81), Hiroko HAMAKAWA (b. 1931, age 79), Masako IMUTA (b. 1934, age 76), Katsuyo TANAKA (b. 1936, age 74), Setsue SUGANUMA (b. 1939, age 71), Takako HAMADA (b. 1939, age 71), Tomikatsu FUKUYAMA (b. 1924, age 86), Hirotada MATSUOKA (b. 1952, age 59)
Shiomichi	Tadako TANIMOTO (b. 1924, age 86), Terue MOTOI (b. 1930, age 80), Mitsuko IWAMURA (b. 1930, age 79), Eizo HAGIWARA (b. 1927, age 83), Joji KASHIWAGI (b. 1935, age 75), Teruo FUJIWARA (b. 1943, age 67)
Aden	Toshimi OKAMOTO (b. 1923, age 86), Heishin MASAI (b. 1932, age 78), Teruya SHOKI (b. 1934, age 75), Fujio FUMOTO (b. 1950, age 59)
Gusuku	Hisayo MINE (b. 1929, age 81), Masu NARAI (b. 1931, age 78), Chiyoko CHISAKA (b. 1932, age 78), Teruyo MAIJIMA (b. 1939, age 70), Seki TANAKA (b. 1927, age 83)
Kamikatsutsu	Sumi MORI (b. 1931, age 78), Ikuko HIRO (b. 1935, age 75), Eri NISHIOKA (b. 1981, age 29), Motoko TAMOTSU (b. 1936, age 73), Kuninobu MURAKAMI (b. 1925, age 85), Toyonishi TOMI (b. 1924, age 85), Yoshisato SUKENA (b. 1930, age 79), Aijima SUMI (b. 1933, age 76), Katsuichi OTOMO (b. 1936, age 73), Yuichiro MAEJIMA (b. 1938, age 72), Mitsunori NISHIHARA (b. 1950, age 60), Tsunenori IKUSHIMA (b. 1960, age 50)
Sakamine	Ankuro SATO (b. 1924, age 86), Keitaro HANABUSA (b. 1931, age 79), Hideto KIKU (b. 1932, age 78), Susumu MORIOKA (b. 1933, age 77), Mieko MATSUDA (b. 1925, age 84), Yukiko TAIOKA (b. 1933, age 76), Mie IWAMATSU (b. 1936, age 74)
Wan	Masako KIHARA (b. 1932, age 78), Minako KURODA (b. 1932, age 78), Tsuzuku

NAKAYAMA (b. 1930, age 80), Susumu IWATA (b. 1953, age 57)

Nakasato Chitoe MINEKURA (b. 1932, age 78), Akiyo TAIRA (b. 1939, age 71), Masako FUKUSHIMA (b. 1949, age 60), Yoshihiko KURAMOTO (b. 1934, age 75), Kiyoshi TOKIMOTO (b. 1940, age 70), Naotada NOMA (b. 1942, age 68), Yonezo MATSUMURA (b. 1942, age 68), Akio NOMA (b. 1946, age 64), Kiyoji TOKUDA (b. 1957, age 53), Kazuma KUNO (b. 1931, age 79), Kaoru MEGUMI (b. 1939, age 71)

Araki Yone MOTOI (b. 1927, age 83), Miyae FUJII (b. 1928, age 82), Saiko SAKUI (b. 1928, age 82), Eiko MASU (b. 1930, age 79), Toyonobu KIKU (b. 1922, age 88), Hisayoshi SAKUI (b. 1928, age 82), Yoichi NOBORI (b. 1934, age 75), Morio IMAI (b. 1945, age 65)

3 Events

The following events were also held during the survey period detailed above.

3.1 Kikai Town Education and Culture Symposium

Kikai Town Education and Culture Symposium

Date and time: Tuesday, September 14, 18:30–19:45

Location: Kikai Town Office

Topic: ‘Characteristics of the Kikaijima dialect’

Panelists: Hirotake MATSUMOTO (former professor at Chiba University)

Shigehisa KARIMATA (professor at the University of the Ryukyus)

Thomas PELLARD (JSPS international research fellow)

Yuto NIINAGA (JSPS research fellow)

Chairperson: Nobuko KIBE (NINJAL)

3.2 Wan Area Class for the Elderly

Wan Area Class for the Elderly

Date and time: Saturday, September 11, 14:00–16:00

Location: Kikai Town Central Community Center

Topic: ‘About the Kikaijima dialect’

Lecturer: Nobuko KIBE (NINJAL)

3.3 Kikai High School Career Advancement Guidance

Kikai High School Career Advancement Guidance

Date and time: Monday, September 13, 15:20–16:10

Location: Kikai High School

Lecturers: Mikio GIRIKO; Manami HIRAYAMA; Hiromi SHIGENO

3. Overview of the Kikaijima Dialects

The Phonemes of the Kikaijima Dialects

Nobuko Kibe

1 Introduction

The dialects on Kikaijima are made up of those from the northern and southern areas, and these two areas have quite different characteristics. For example, the northern dialects have seven vowels (/i/, /ĩ/, /u/, /e/, /ẽ/, /o/, and /a/), while the southern dialects have five (/i/, /u/, /e/, /o/, and /a/). Moreover, *hana* ‘flower’ is pronounced as [pana] (or [ɸana]) and [hana] in the northern and southern dialects respectively. Considering the difference, Nakamoto and Nakamatsu (1984) define Northern Kikaijima as a Northern Amami dialect, along with the Amamiōshima and Tokunoshima dialects, and Southern Kikaijima as a Southern Amami dialect, along with the Okinoerabujima and Yoronjima dialects.

This section provides a broad overview of the phonemes and phonetics of nine sites (Onotsu, Shitōke, Shiomichi, Aden, Kamikatetsu, Sakamine, Wan, Nakasato, and Araki) based on the research data of these Kikaijima dialects, taken from elicitation in September 2010.

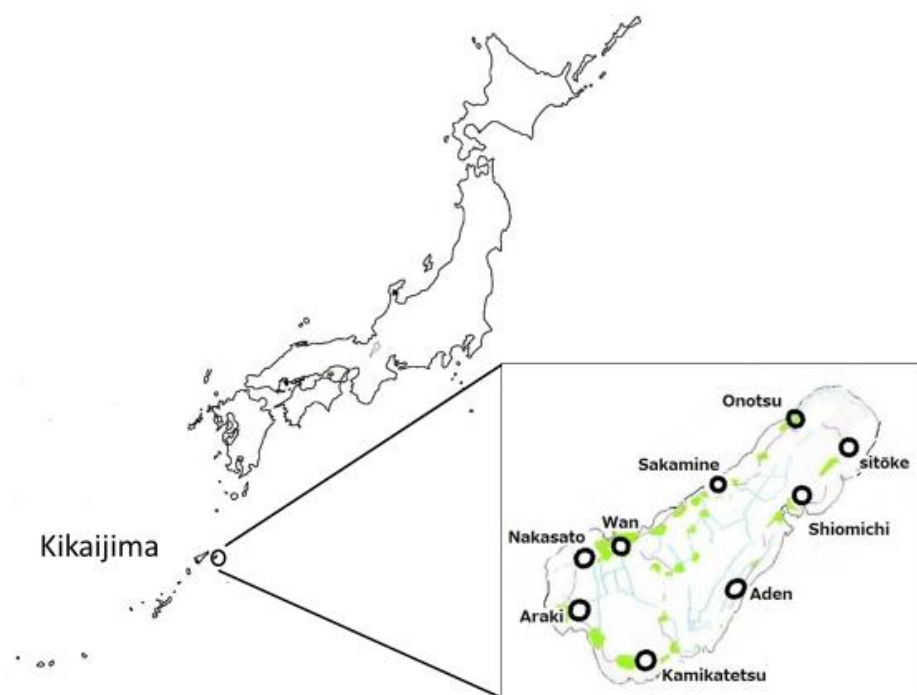


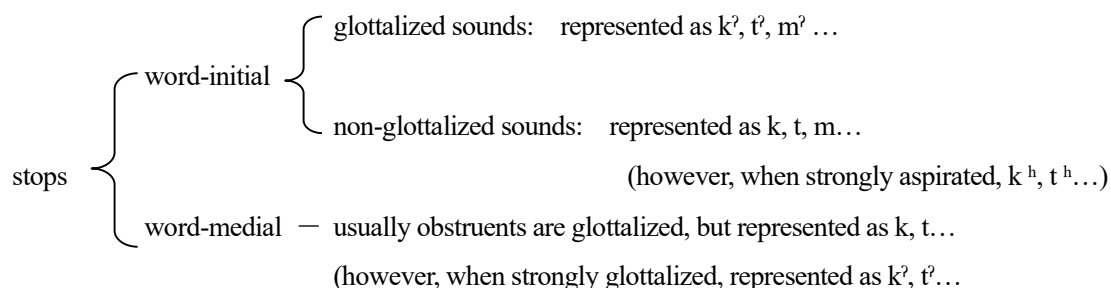
Figure 1 Map of Kikaijima island

2 About the Notation

In this paper we will look at the phonemic characteristics, with examples, of the Kikaijima dialects, but first the notation used will be defined here. The data are described using the International Phonetic Alphabet (IPA).

The following are important points. The details and variations of each sound as well as the phonological interpretation are explained in each section.

- [1] Conventionally, the vowels of Kikaijima dialect are described as [i], [i̯], [u], [e], [ɛ̃], [o], and [a], but [ɪ] is used instead of [i̯] in this paper. This is because central vowels in words like ‘eye’, ‘hand’, and ‘root’, are not really “central”, so we consider the sound to be the lax vowel [ɪ].
 - [2] When vowels come at the beginning of a word, a glottal stop usually appears immediately before them. This is represented as [ʔ] (e.g. [ʔa], [ʔi]). However, glottal stops might be only weakly pronounced at the beginning of a word. In this case, the vowels are represented as [a] or [i], where [ʔ] is omitted.
 - [3] Obstruents (stops and affricates) in word-initial position are either glottalized (unaspirated) or non-glottalized (aspirated). Nasals such as [m] may also be glottalized. Glottalization is represented with the auxiliary symbol [ʔ] to the upper right of consonants (e.g. [kʔ], [tʔ], or [mʔ]), while non-glottalization is represented without the symbol (i.e. [k], [t], or [m]). Since non-glottalization is accompanied by a degree of aspiration, some researchers use the auxiliary symbol [h], but it is complicating to write all non-glottalized obstruents with [h]. As non-glottalization can be distinguished from glottalization, by the presence or absence of [ʔ], non-glottalization will be represented without [h] and the symbol [h] is added to the upper right (e.g. [k^h] and [t^h]) only when aspiration is strong.
 - [4] Word-medially, there is no distinction between glottalized and non-glottalized consonants, and usually only the glottalized versions are used. Therefore, although the auxiliary symbol [ʔ] should be added to any stops in the middle of a word, this symbol is omitted in order to avoid complication. The auxiliary symbol is added only when glottalization is strong. As a result, stops in the middle of a word are represented with or without the symbol, but they are not phonologically distinctive.
- [3] and [4] are summarized in the following figure.



- [5] The following symbols are used to represent the tone contours: “[” (rise in pitch), and “]” (fall in pitch).
 Additionally, the following notations are used when we get no answers or multiple answers.
- [6] “—” indicates an item which was not asked due to lack of time, while “NR” indicates an item which was asked but not answered.
- [7] When we get multiple answers or variations in the word form, word forms are separated by “/” when they are taken from the same speaker, and by “//” when they come from different speakers. In case of a regional difference, forms are separated with “,”.
- [8] Item numbers of examples are the same as those of the “Basic Vocabulary 1” in the materials. As for the examples taken from “Basic Vocabulary 2”, “2-” is added to the front of the number (e.g. 2-11).

3 Kikaijima Dialect Vowels

3.1 Earlier Research

In previous research it is noted that Northern Kikaijima has 6 or 7 vowels, and South Kikaijima has 5 vowels. According to Nakamoto (1976), this vowel system was formed as follows: first, Nakamoto (1976) explains that the vowel system in Ryukyu dialects originally had 5 vowels (*i, *u, *e, *o, and *a). Then, the vowel sequence [au] merged to become [ɔ:], which triggered the change [o] > [u]. In parallel to this, the front vowel sequence [ai] merged into [ɛ:], which triggered the change [e] > [ë] > [ĩ]. Subsequently, [ɔ:] and [ɛ:] become established as [o:] and [e:] so that six vowel system ([i], [ĩ], [u], [e], [o], and [a]) is formed. Additionally, in the Northern Amami dialects the vowel sequence [ae] changed to [ë] resulting in the seven vowel system. Later, in Southern Amami the central vowels were lost: [ĩ] and [ë] merged into [i] and [e] respectively, and thus the five vowel system ([i], [u], [e], [o], and [a]) was formed (see Figure 1).

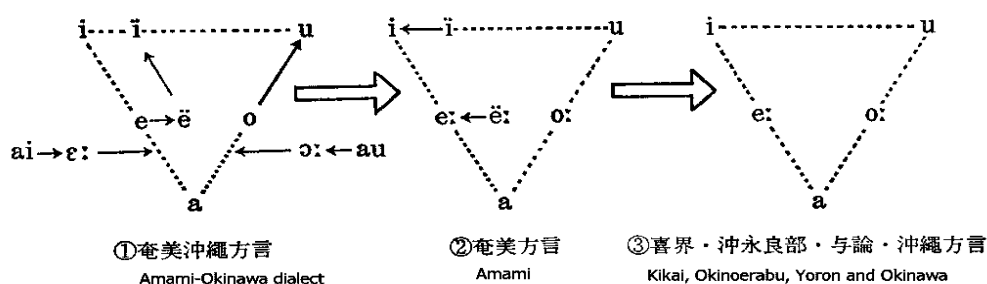


Figure2 Vowel changes in Amami/Okinawa dialects (from Nakamoto 1976)

3.2 Characteristics of Vowels

The number of vowels is respectively 7 and 5 in Northern and Southern Kikaijima. But, as explained in section 2, central vowels in ‘eye’, ‘hand’, and ‘root’ are not really “central”. Therefore, [ɪ] is used to represent this sound. Moreover, even in the same area, pronunciation of vowels might depend on the immediately preceding consonant. The following describes the different kinds of vowels ((1) high vowels, (2) mid vowels, (3) low vowels), comparing the vowels of the nine sites.

(1) High Vowels

Three high vowels ([i], [ɪ], and [u]) are reported in the Northern Kikaijima dialects of Onotsu and Shitōke, while elsewhere has only two ([i] and [u]). First, words which have [i] in both Northern and Southern dialects are listed in Tables 1.1 - 1.5.

[i], listed here, corresponds to / i / in the Tokyo dialect. However, Shitōke has variation where [ɪ] appears after the bilabial [m], such as in ‘fruit’ and ‘net’ in Table 1.1. Also, [i] in ‘sweat’ and ‘wind’ in Table 1.5 corresponds to / e / in the Tokyo dialect (shaded part).

Table 1.1 [i]

number word point	7	6	101	118	162	131	177
	<i>sun</i>	<i>fruit</i>	<i>ear</i>	<i>net</i>	<i>miso</i>	<i>wave</i>	<i>sea</i>
Onotsu	[pi]	[mi]:	mi[mi]	a[mi]	mi[su]	na[mi]	ʔu[mi]
Shitōke	ti[da]	[mi]:	mi[mi]	ʔa[mi]	mi[su]	na[mi]	[ʔu]mi
Shiomichi	[ti]da	mi[:]	mi[mi]	a[mi]	mi[su]	na[mi]	[ʔu]mi
Sakamine	[pi]:	[mi]:	mi[mi]	ʔa[mi]	mi[su]	na[mi]	[ʔu]mi
Aden	[ti]da	mi[:]	mi[mi]	a[mi]	mi[su]	na[mi]	[ʔu]mi
Kamatetsu	çi	na[ri]	mi[mi]	ʔa[mi]	mi[su]	na[mi]	[ʔu]mi
Wan	--	mi[:]	mi[mi]	ʔa[mi]	mi[su]	na[mi]	[ʔu]mi
Nakasato	çi: / [çi]:	mi[:]	mi[mi]	ʔa[mi]	mi[su]	na[mi]	[ʔu]mi
Araki	çi:	mi[:]	mi[mi]	a[mi]	mi[su]	na[mi]	[u]mi

Table 1.2 [i]

number word point	83	48	199	2	66	76
	<i>paper</i>	<i>neck</i>	<i>Japanese sock</i>	<i>blood</i>	<i>road</i>	<i>bee</i>
Onotsu	[ha]bi	[nu]bu[i]	ta[bi]	[te'i]:	[mi]tei	[pa]tei
Shitōke	ha[bi]	[k'u]bi	[ta]bi	[tei]: / [tei:]	[mi]tei	[pa]tei
Shiomichi	ha[bi]	k'u[bi]	[ta]bi	te'i[:]	mi[tei]	pa[tei]

Sakamine	ha[bi	kʰu[bi	[ta]bi	tei[:	--	--
Aden	ha[bi	nu[bi]:	[ta]bi	tei[:	mi[tei	pʰa[tei
Kamikatetsu	ha[bi	kʰu[bi	[tʰa]bi	tei[:	mi[tei	[ha]tei[:
Wan	--	kʰu[bi	[tʰa]bi	teʰi[:	mi[tei	--
Nakasato	ha[bi	kʰu[bi	[tʰa]bi	teʰi[:	mi[tei	[ha]tei[:
Araki	ha[bi	kʰu[bi	ta[bi	tei[:	mi[tei	[ha]tei[:

Table 1.3 [i]

number word point	16	36	153	38	64
	<i>load</i>	<i>crab</i>	<i>goblin</i>	<i>ant</i>	<i>nail</i>
Onotsu	[nʲi]mu[tsu	ga[nʲi]:	ʔu[nʲi	[a]:[nʲi]:	[kʰu]nʲi
Shitōke	nʲi[:	ga[nʲi]:	[ʔu]nʲi	[ʔa]:[nʲi]:	kʰu[nʲi
Shiomichi	nʲi[:	ga[nʲi]:	ʔu[nʲi	[a]:[nʲi]:	kʰu[nʲi
Sakamine	nʲi[:	ga[nʲi]:	ʔu[nʲi	[ʔa]:[nʲi]:	kʰu[nʲi
Aden	--	[gai]N	u[nʲi	[a]:[i:]	kʰu[gi
Kamikatetsu	nʲi[:	ga[i]:	ʔu[nʲi	ʔa[i	kʰu[gi
Wan	nʲi[: / nʲi[mu]tu	ga[nʲi]:	o[nʲi	ʔa[nʲi	--
Nakasato	nʲi[:	ga[nʲi]:	ʔu[nʲi	a[nʲi	kʰu[nʲi
Araki	nʲi[:	ga[nʲi]:	o[nʲi	a[nʲi	ku[gi / ku[nʲi

Table 1.4 [i]

number word point	49	125	32	252
	<i>wound</i>	<i>time</i>	<i>right</i>	<i>rabbit</i>
Onotsu	[kʰi]zu	[tu]ki	nʲi[nʲi]:	[u]sa[gi
Shitōke	[kʰi]zu	tu[ki	[mi]nʲi	[ʔu]sa[nʲi
Shiomichi	kʰi[zu	NR	[mi]gi	u[sa]gi
Sakamine	kʰi[dzu	tʰu[ki	[mi]gi	--
Aden	tei[du	tu[ki	[mi]gi	ʔu[sa]gi
Kamikatetsu	tei[du	[du]tei[:	[mi]gi	ʔu[sa]gi
Wan	tei[du	NR	[mi]gi	u[sa]gi
Nakasato	tei[zu	--	mi[gi	[ʔusagi
Araki	ki[zu	tu[ki	mi[gi	u[sa]gi

Table 1.5 [i]

number word point	161	31	197	96	75
	<i>soup</i>	<i>lower back</i>	<i>sweat</i>	<i>elbow</i>	<i>wind</i>
Onotsu	ei[ru	[hu]ei	a[ei	[pi]zi / [ϕi]zi	[ha]zi
Shitōke	ei[ru	[hu]ei	ʔa[ei	pi[zi	[ha]zi

Shiomichi	ei[ru	hu[ei	a[ei	pi[zi	ha[di
Sakamine	ei[ru	hu[ei	?a[ei	pi[dzi	--
Aden	ei[ru	hu[ei	?a[ei	çi[zi	ha[di
Kamikatetsu	ei[ru	[φu]ei	?a[ei	çi[zi	ha[di
Wan	ei[ru	hu[ei	?a[ei	çi[zi	--
Nakasato	ei[ru	φu[ei / hu[ei	?a[se	çi[zi	ha[di
Araki	ei[ru	φu[ei	a[ei	çi[zi	ha[zi

Next words which have [ɪ] in Onotsu and Shitōke in Northern Kikaijima, but [i] in the other areas, are listed.

Table 2.1 [ɪ, i]

number word point	14	12	203	114	122
	<i>fart</i>	<i>eye</i>	<i>rain</i>	<i>bean</i>	<i>jar</i>
Onotsu	pi[: / φi[:	mi[:	a[mi	ma[mi	ha[mi
Shitōke	pi[:	mi[:	?a[mi	ma[mi	ha[mi
Shiomichi	pi[:	mi[:	a[mi	ma[mi	[ha]mi
Sakamine	φi[:	mi[:	?a[mi	ma[mi	[ha]mi
Aden	pi[: / φi[:	mi[:	a[mi	ma[mi	[ha]mi
Kamikatetsu	çi[:	mi[:	?a[mi	ma[mi	ha[mi
Wan	çi[:	mi[:	?a[mi	ma[mi	[ha]mi
Nakasato	çi[:	mi[:	?a[mi	ma[mi / ma[mi	[ha]mi
Araki	çi[:	mi[:	a[mi	ma[mi / ma[me	[ha]mi

Table 2.2 [ɪ, i]

number word point	11	233	73	259	247	148
	<i>hand</i>	<i>front</i>	<i>brush</i>	<i>centipede</i>	<i>compassion</i>	<i>injury</i>
Onotsu	ti[:	[u]mu[ti	pu[di	[mu]ka[zi	[na]sa[kɪ	kɪ[ga
Shitōke	ti[:	[u]mu[ti	[φu]dɪ	[mu]ka[dɪ	[na]sa[kɪ	kɪ[ga
Shiomichi	ti[:	[u]mu[ti	pu[di / φu[di	mu[ka]di	na[sɔ]ki	ki[ga
Sakamine	ti[:	[?u]mu[ti	--	nu[ka]de	--	kɪ[ga
Aden	ti[:	[?u]mu[ti	φu[di	[a]mi[da]:	NR	--
Kamikatetsu	ti[:	[?u]mu[ti	φu[di	mu[ka]de	na[sɔ]ki	k ^{hi} [ga
Wan	t ^h i[:	[?u]mu[ti	φu[de	mu[ka]di	NR	--
Nakasato	t ^h i[:	[?u]mu[ti	φu[di	[mu]ka[di	--	ki[ga / kɪ[ga
Araki	ti[:	[u]mu[ti	φu[di	mu[ka]de	--	ke[ga

Table 2.3 [ɪ, i]

number word point	24	89	102	105	165	188
	<i>root</i>	<i>chest</i>	<i>bone</i>	<i>shin</i>	<i>boat</i>	<i>seed</i>
Onotsu	ni[:]	[mu]ni	pu[nɪ] / φu[nɪ]	su[nɪ]	pu[nɪ]	ta[nɪ]
Shitōke	ni[:]	[mu]ni	pu[nɪ]:	su[nɪ]	φu[nɪ]	ta[nɪ]
Shiomichi	[hin] pi[ni]:	mu[nɪ]	φu[nɪ]:	[muke]zu[ne]	[φu]ni	ta[nɪ]
Sakamine	ni[:] / [mu]tu	mu[nɪ]	[pʰu]ni	[su]ni	[pʰu]ni	tʰa[nɪ]
Aden	ni[:]	mu[nɪ]	φu[nɪ]	su[nɪ]	[φu]ni	ta[nɪ]
Kamikatetsu	[ni]mu[tu]	mu[nɪ]	[φu]ni	su[nɪ]	φu[nɪ]	tʰa[nɪ]
Wan	ni[:]	mu[nɪ]	[φu]ni	su[ne]	[φu]ni	tʰa[nɪ]
Nakasato	nimutu	mu[nɪ]	[φu]ni	su[nɪ]	[φu]ni	ta[nɪ]
Araki	mu[tu]	mu[ne]	[φu]ni	su[ne]	[φu]ni	ta[ne]

[ɪ] in Onotsu and Shitōke corresponds to /e/ in the Tokyo dialect. As explained above, the vowel is often written as [i] in earlier reports, but [ɪ] in Kikaijima dialect is not really central. This vowel is a lax vowel [ɪ], while [i] in Tables 1.1 - 1.5 is a tensed vowel. From the words surveyed in our fieldwork, the following words can be given as minimal pairs ([i] and [ɪ]) in the Onotsu dialect:

mi: 'fruit' : mi: 'eye'
 ami 'net' : ami 'rain'
 pi: 'day' : pi: 'fart'
 (there is a difference between short and long vowels)

As for Shitōke, the front high vowel becomes [ɪ] when it follows [m], as explained above, so it is difficult to find minimal pairs. Instead, we can list pairs like the following:

pi: 'fart' : piru 'daytime'
 ʔumi 'sea' : ʔami 'rain'
 nami 'wave' : mami 'bean'

In Shiomichi, Aden, Kamikatetsu, and Sakamine (Central Kikaijima), [ɪ] is rare, and what is pronounced in Onotsu and Shitōke as [i] and [ɪ] is pronounced as [i]. Therefore, Tokyo Japanese *mi* and *me* (and *ami* and *ame*) become homophones and are not distinguished.

			'net'	'rain'
Onotsu, Shitōke	i	ɪ	ʔami	ʔami
Shiomichi, Aden, Kamikatetsu, and Sakamine	i	i	ʔami	ʔami

[i] in Nakasato (Southern Kikaijima) corresponds to [i] in Onotsu and Shitōke, and [ɪ] corresponds to [i] or [ɪ]. Like ‘bean’ in Table 2.1 and ‘injury’ in Table 2.2, the same words are pronounced with both [i] and [ɪ], so [i] and [ɪ] in ‘bean’ and ‘injury’ should be considered as variants, and the two vowels do not contrast phonemically. On the other hand, [i] in words like ‘net’ is very stable in Nakasato and does not have a variant [ɪ]. Therefore, there are two variations in Nakasato: either stable [i], or variable [i] and [ɪ]. However, after the consonant [n] only [ɪ] shows up (e.g. ‘chest’, ‘bone’, ‘shin’, ‘ship’, and ‘seed’). This will be explained later in this section.

			‘net’	‘bean’	‘ship’
Onotsu	i	ɪ	ami	mami	puni
Nakasato	i	i / ɪ	?ami	mami / mami	ɸuni

[ɪ] in Onotsu and Shitōke is pronounced as [i] or [e] in Wan and Araki (Central Kikaijima). [e] might be due to the influence of Standard Japanese, but the sound is not found in the other villages, so we can consider this as a special feature of Wan and Araki. Also, [ɪ] appears when it immediately follows [n]. [ɪ] after [n] will be explained later in this chapter, along with [ɪ] in Nakasato.

			‘net’	‘bean’	‘ship’
Onotsu	i	ɪ	ami	mami	puni
Araki	i	i / ɪ / e	ami	mami / mame	ɸuni

The front high vowels in the Kikaijima dialects are summarized as follows:

		‘net’	‘bean’	‘ship’
Tokyo	i e	ami	mame	ɸune
Onotsu, Shitōke	i ɪ	ami	mami	ɸuni
Shiomichi, Aden, Kamikatetsu, Sakamine	i i	?ami	mami	ɸuni
Nakasato	i i / ɪ	?ami	mami / mami	ɸuni
Wan, Araki	i i / ɪ / e	ami	mami / mame	ɸuni

Let us move on to [i] and [ɪ] after the consonant [n]. As explained above, [ɪ] in Onotsu and Shitōke appears as [i] ~ [ɪ] in Nakasato, and as [i] ~ [e] in Wan and Araki, but only [ɪ] appears after [n] in Nakasato, Wan, and Araki. Therefore, as in Onotsu and Shitōke, we can consider that both [i] and [ɪ] appear after [n], in Nakasato, Wan, and Araki.

	<i>‘load’</i>	<i>‘crab’</i>	<i>‘goblin’</i>		<i>‘root’</i>	<i>‘chest’</i>	<i>‘ship’</i>
Onotsu	n̄inutsu	gan̄i:	?un̄i	:	ni:	muni	puni
Nakasato	n̄i:	gan̄i:	?un̄i	:	ni mutu	muni	ɸuni

Wan	n̥i:	gan̥i:	on̥i	:	ni:	muni	ɸuni
Araki	n̥i:	gan̥i:	on̥i	:	(mutu)	mune	ɸuni

The consonant [n] before the vowel [i] is palatalized and becomes [n̥] in all the dialects. Therefore, [n̥i] and [ni] are distinguished, not only by the difference in vowel quality, but also by the presence or absence of palatalization on the consonant.

Regarding [n] palatalization, even in Shiomichi, Aden, Kamikatetsu, and Sakamine which do not have the distinction between [i] and [ɪ], the *ns* in ‘load’ and ‘root’ are distinguished due to palatalization.

	‘load’	‘crab’	‘goblin’	‘root’	‘chest’	‘ship’
Shiomichi	n̥i:	gan̥i:	ʔun̥i	:	(hin pin̥i:)	muni ɸuni:
Aden	--	(gain)	un̥i	:	ni: / nimutu	muni ɸu[ni]
Kamikatetsu	n̥i:	(gai:)	ʔun̥i	:	nimutu	muni ɸuni
Sakamine	n̥i:	gan̥i:	ʔun̥i	:	ni:	muni p ^h uni

Moreover, the speakers are very conscious of the pronunciation distinction between *ni* and *ne*. When investigators pronounced ‘root’ with a slightly palatalized *n*, the speakers did not think that it was pronounced correctly. Also, Iwakura (1941:18) describes in “the language of Aden in Sōmachi village and surrounds” that [ni] transcribed as *nei* is different from [n̥i] in ‘load’.

The above can be summarized as follows:

	<i>‘load’, ‘crab’, ‘goblin’</i> etc.	<i>‘root’, ‘chest’, ‘ship’</i> etc.
Onotsu, Shitōke	n̥i	ni
Shiomichi, Aden, Kamikatetsu, Sakamine	n̥i	ni
Nakasato, Wan, Araki	n̥i	ni

With regard to Onotsu and Shitōke, since two vowels [i] and [ɪ] appear regardless of the consonants which immediately precede them, the distinction between [n̥i] and [ni] in large part due to the different vowels. On the other hand, there is only one front high vowel ([i]) after any consonant in Shiomichi, Aden, Kamikatetsu, and Sakamine. Therefore, the distinction between [n̥i] and [ni] relies on the presence or absence of the consonantal palatalization (i.e [n̥] and [n]).

In Nakasato, Wan, and Araki (Central Kikaijima), it can be argued that the distinction between [n̥i] and [ni] is a distinction between two vowels, or alternatively it is a contrast between the presence or absence of palatalization. But in Nakasato, [ɪ], although not stable, appears even after other consonants. Therefore, it might be better to consider the difference between [n̥i] and [ni] to be related to the difference of vowels. On the other hand, [ɪ] does

not appear after consonants except *n* in Wan and Araki. Because of this, it is better to consider the distinction between [nʲi] and [nɪ] to be due to the presence and absence of [n] the palatalization, instead of introducing another vowel into the inventory of this dialect.

As for the *n*-palatalization in Southern Kikaijima, Ōno (2002) has pointed it out that it can be assumed that this pronunciation contrast (shown below) is due to the presence or absence of the consonant palatalization, rather than actual vowel quality.

/ nʲi /	: ni: ‘load’	niku ‘meat’	kupi ‘nail’	
/ ni /	: ni: ‘root’	hani ‘metal’	muni ‘chest’	(Ōno 2002: 6)

Historically, the following process seems to have occurred.

- (1) As in Onotsu and Shitōke, the system has a contrast between / i / and / ɪ / after any consonant.
- (2) As in Nakasato, the change *ɪ* > *i* has been proceeding so that *ɪ* is not completely merged into *i*, and [ɪ] as well as [i] are used (but only [ɪ] appears after / n /).
- (3) As in Wan and Araki, the change *ɪ* > *i* has progressed further, so *ɪ* is merged into *i*, except after / n /.
- (4) The change *ɪ* > *i* has occurred even after / n / so that *ɪ* is completely merged into / i /, as in Shiomichi, Aden, Kamikatetsu, and Sakamine. After / n /, the presence or absence of palatalization ([nʲ] and [n]) reflects the difference between *i and *ɪ.

Next, the following step is assumed.

- (5) *ɪ* is completely merged into / i / so that there is no distinction between *ɪ and *i, even after / n /.

Let us now move on to discuss the high back vowel [u]. [u] in the Kikaijima dialects corresponds to / u / and / o / in the Tokyo dialect. [o] might appear in some areas (shaded in Table 3.2) but this seems to be due to influence from Standard Japanese. [wu] or [gu] correspond to *wo (shaded in Table 3.3.)

Table 3.1 [u]

number word point	40	86	133	177	59	89
	<i>cattle</i>	<i>song</i>	<i>horse</i>	<i>sea</i>	<i>insect</i>	<i>chest</i>
Onotsu	[ʔu]ei	[ʔu]ta	u[ma	ʔu[mi	[mu]ei	[mu]nɪ
Shitōke	[ʔu]ei	[ʔu]ta	ʔu[ma	[ʔu]mi	[mu]ei	[mu]nɪ
Shiomichi	u[ei	ʔu[ta	ʔu[ma	[ʔu]mi	mu[ei	mu[ni
Sakamine	ʔu[ei	ʔu[ta	[mʷa	[ʔu]mi	--	mu[ni

Aden	u[ei]	u[ta]	[m'a]	[ʔu]mi	mu[ei]	mu[ni]
Kamikatetsu	ʔu[ei]	ʔu[ta]	[m'a]	[ʔu]mi	mu[ei]	mu[ni]
Wan	ʔu[ei]	ʔu[ta]	[m'a]	[ʔu]mi	mu[ei]	mu[ni]
Nakasato	ʔu[ei]	ʔu[ta]	[maʔ]	[ʔu]mi	mu[ei]	mu[ni]
Araki	u[ei]	u[ta]	[m'a]	[u]mi	mu[ei]	mu[ne]

Table 3.2 [u]

number word point	85	112	8	151	194	100	31	115
	<i>sound</i>	<i>parent</i>	<i>seaweed</i>	<i>thing</i>	<i>thigh</i>	<i>liver</i>	<i>lower back</i>	<i>rice</i>
Onotsu	[ʔu]tu	[tu]zitu	[mu]:	mu[nu]	mu[mu]	k'i[mu]	[hu]ei	hu[mi]
Shitōke	[ʔu]tu	ʔu[ja]	[mu]:	[mu]N	mu[mu]	k'i[mu]	[hu]ei	hu[mi]
Shiomichi	u[tu]	ʔu[ja]	mu[:]	mu[N]	mu[mu]	te'i[mu]	hu[ei]	hu[mi]
Sakamine	ʔu[tu]	u[ja]	mu[:]	mu[nu]	mu[mu]	tei[mu]	φu[ei]	φu[mi]
Aden	u[tu]	--	mo[:]	NR	--	tei[mu]	φu[ei]	φu[mi]
Kamikatetsu	ʔu[tu]	ʔu[ja]	--	mu[N]	mu[mu]	tei[mu]	φu[ei]	φu[mi]
Wan	ʔu[tu]	u[ja]	mu[:]	--	mu[mu]	--	φu[ei]	hu[mi]
Nakasato	ʔu[tu]	ʔu[ja]	--	mu[N]	mu[mu]	te'i[mu]	φu[ei] / hu[ei]	φu[mi] / φu[mi]
Araki	o[to]	u[ja]	mo[:]	mu[N]	tei[mu]	ku[mu]	φu[ei]	φu[mi]

Table 3.3 [u]

number word point	34	38	36	33	175
	<i>husband</i>	<i>woman</i>	<i>aunt</i>	<i>uncle</i>	<i>the day before yesterday</i>
Onotsu	[u]tu	[u]na[ŋu]	u[ba]:	u[dzi]:	ʔut[t'i]:
Shitōke	[u]tu	[u]na[ŋu]	[ʔu]ba[kki]:, [ʔu]ba	[ʔu]N[muɸi]:	[wu]t[ti]:
Shiomichi	wu[t'u]	[wu]na[gu]	[ʔa]N[ma]: / ʔa[ni]:	[k'i]N[k'a]:	wut[t'i]: / [wu]t[ti]:
Sakamine	gu[tu]	[gu]na[ŋu]	ʔu[ba]:	ʔu[zi]:	[gu]t[t'i]:
Aden	gu[tu]	[gu]na[u]	gu[ba]	gu[dzi]	--
Kamikatetsu	ʔu[tu]	[wu]na[u]	wu[ba]	ʔu[dzi]	ʔut[ti]:
Wan	wu[tu]	[wu]na[gu]	wu[ba]:	wu[dzi]:	wut[t'i]:
Nakasato	ʔu[tu]	[ʔu]na[gu]	ʔo[ba]: / ʔu[ba]	ʔu[dzi]:	ʔut[t'i]:
Araki	ʔu[tu]	[ʔu]na[uqu]	ʔo[ba]:	ʔu[dzi]:	--

(2) Mid Vowels

Three mid vowels [e], [ë], and [o] are reported in Onotsu and Shitōke (Northern Kikaijima), but the other areas have two mid vowels ([e] and [o]). They mostly appear as long vowels which derive from the merger of vowel

sequences. Examples of [e] and [ẽ] are listed in Tables 4 and 5.

Table 4 [e]

number word point	47	58	2-40	104	185	91
	<i>alcoholic beverage</i>	<i>bamboo</i>	<i>sibling</i>	<i>arm</i>	<i>seedling</i>	<i>jaw</i>
Onotsu	[se]:	[de]:	[k'io]:[de]:	u[di	ne[:	[ʔu]tunje[:
Shitōke	[se]:	[de]:	--	[gu]te[:	ne[:	[ʔa]gu
Shiomichi	se[: / ee[:	de[:	[eo]:[de]:	[gu]te[:	ne[:	ʔa[gu
Sakamine	se[:	de[:	[so]:[de]:	ʔu[di	ne[:	ʔa[gu
Aden	se[:	de[:	[so]:[de]:	ti[:	ne[:	[u]tu[je]:
Kamikatetsu	se[:	de[:	[so]:[de]:	ʔu[di / [gu]te[:	ne[:	[ʔa]gu
Wan	se[:	de[:	[so]:[de]:	ʔu[di	na[e	ʔa[gu
Nakasato	se[: / ee[:	de[:	[so]:[de]:	[gu]te[:	--	ʔa[gu
Araki	ee[:	de[:	[so]:[de]:	u[de / [gu]te[:	na[e	a[go

Table 5 [ẽ]

number word point	68	202	210	2-156
	<i>fly</i>	<i>front</i>	<i>forehead</i>	<i>southerly wind</i>
Onotsu	[pẽ]:	mẽ[:	[mẽ]:[tea]:	[ɸe:niei
Shitōke	[ɸẽ]: / [pẽ]:	mẽ[:	[mẽ]:[tei]:	ɸẽ[: / [ɸẽ]nka[dzi
Shiomichi	he[:	[me]:	[mettei]: / / [me]:[tei]:	p ^h e[:
Sakamine	pe[:	[me]:	[mi]k[ko]:	[pe]:
Aden	pe[: / ɸe[:	[me]:	--	[ɸe]:
Kamikatetsu	he[:	[me]:	mit[tee]:	[he]:
Wan	he[:	[me]:	[mittee]:	[hen]ka[di]:
Nakasato	he[:	[me]:	mit[tee]:	[hẽ]:
Araki	he[:	[me]:	mit[tee]:	--

[k] in ‘*alcohol beverage*’ and ‘*bamboo*’ in Table 4 became [x], and the friction of [x] weakened, giving rise to a vowel sequence (*sake > *saxe > *sae > *sẽ: > se:, *dake > *daxe > *dae > *dẽ: > de:). Also, [gute:] ‘*arm*’ derives from *gotai ‘*body*’, [ʔutunje:] ‘*palate*’) derives from *otonjai, and [ɸe:] and [ɸẽ:] ‘*fly*’ come from *pae. All of these come from *ae and *ai. The origin of the word for ‘*forehead*’ is not clear, but might be *maehitai* (< ‘front’ + ‘forehead’).

In Onotsu and Shitōke, [ẽ:] tends to appear when it follows [p], [m], and [ɸ] (shaded in Table 5), and [e:] tends to show up in other situation (Table 4).

Next, [o] appears in the following words. They mostly appear as long vowels, which are the result of mergers

of consecutive vowels such as *au and *ao (e.g. ‘octopus’: *tako > *taxo > *tao > to:), or Chinese loanwords.

Table 6.1 [o]

number word point	213	245	123	137
	<i>mold</i>	<i>broom</i>	<i>pole</i>	<i>octopus</i>
Onotsu	[ho]:[zi]	[ho]:[ki]	[so]:de[: (polebamboo)	to[:
Shitōke	[ho]:[zi]	[po]:[ki]	[de]: (bamboo)	to[:
Shiomichi	[ho]:[zi]	[φo]:[tei]	[so]:[de]: / de[:	to[:
Sakamine	ho[:]zi	[po]:tei	sa[o	to[:
Aden	ho[:]zi	po[:]tei / ho[:]tei	de[:	to[:
Kamikatetsu	[ho]:[zi]	ho[:]tei	de[:	tho[:
Wan	[ho]:d̥zi	ho[:]tei	[so]:[de]:	--
Nakasato	[ho]:zi	ho[:]tei	--	to[: / [to:
Araki	[ho]:zi / ho[:]zi	ho[:]tei	de[:	to[:

Table 6.2 [o]

number word point	2-40	2-45	2-83
	<i>sibling</i>	<i>relative</i>	<i>gate</i>
Onotsu	[kio]:[de]:	[φa]ro:[dzi]:	d̥zo[:
Shitōke	--	[ha]ro:[dzi]:	d̥zo[:
Shiomichi	[eo]:[de]:	p ^h a[ro]:dzi	[dzo:
Sakamine	[so]:[de]:	pa[ro]:[zi]:	[dzo]:
Aden	[so]:[de]:	[φa]ro:[dzi	[dzo]nku[tei]: / [dzo]:
Kamikatetsu	[so]:[de]:	[haro]:[dzi]: / [so:de]N[tea]:	[dzo]:
Wan	[so]:[de]:	[haro]:[dzi]:	[dzo]:
Nakasato	[so]:[de]:	[haro]:[dzi]:	[dzo]:
Araki	[so]:[de]:	ha[ro]:[dzi]:	[dzo]:

(3) Low Vowel

All dialects have the low vowel [a]. Examples are listed in Table 7.

Table 7 [a]

number word point	9	10	37	42	70	128
	<i>leaf</i>	<i>name</i>	<i>rice porridge</i>	<i>metal</i>	<i>nose</i>	<i>mountain</i>
Onotsu	[pa]:	[na]:	ka[i]:	[ka]ne	[pa]na	ja[ma
Shitōke	[pa]:	[na]:	ka[i]:	[ha]ni	[pa]na	ja[ma

Shiomichi	pa[:	na[:	ka[i	NR	pa[na	ja[ma
Sakamine	pa[: / φa[:	na[:	ka[ju	ha[ni / xa[ni	--	ja[ma
Aden	pa[:	na[:	ka[i	ha[ni	p ^h a[na	ja[ma
Kamikatetsu	ha[:	na[:	[k ^h a]i[:	ha[ni	ha[na	ja[ma
Wan	ha[:	[na]ma[i	k ^h a[i	ha[nɪ	ha[na	ja[ma
Nakasato	ha[:	na[:	k ^h a[i / k ^h a[ju	ha[nɪ	ha[na	ja[ma
Araki	ha[:	[na]ma[i	[ka]i[:	ha[ni / ha[nɪ	ha[na	ja[ma

3.3 Inventory of Vowel Phonemes in the Kikaijima Dialects

The inventory of vowel phonemes in each Kikaijima dialect is as follows.

short vowels

Onotsu, Shitōke	Nakasato	Shiomichi, Aden, Kamikatetsu, Sakamine, Wan, Araki
i ɪ u	i (i / ɪ) u	i u
a	a	a

long vowels

Onotsu, Shitōke	Nakasato	Shiomichi, Aden, Kamikatetsu, Sakamine, Wan, Araki
i ɪ: u:	i: (i: / ɪ:) u:	i: u:
e: ě: o:	e: o:	e: o:
a:	a:	a:

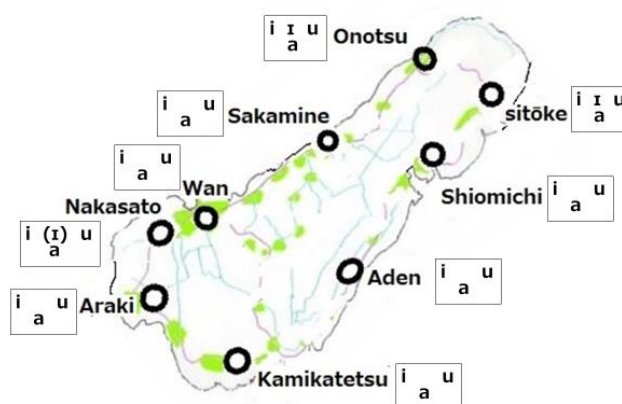


Figure 3 Inventory of vowel phonemes in each Kikaijima dialect

4 Kikaijima Dialect Consonants

4.1 Bilabials

(4) Bilabial Stops and Fricatives p, b and ϕ

The Kikaijima dialects have two bilabial stops [p] and [b], and a bilabial fricative, [ɸ]. [p] and [ɸ] precede vowels [a], [i], [ɪ], [u], [e], [ẽ], and [o]. Examples are listed in Tables 8.1 - 8.4.

Table 8.1 [p, ɸ]

number word	9	13	33	69	7	72
point	<i>leaf</i>	<i>tooth</i>	<i>feather</i>	<i>box</i>	<i>sun</i>	<i>beard</i>
Onotsu	[pa]:	pa[:]	[pa]nɪ	[pa]ku	[pi]	[pi]nɪ
Shitōke	[pa]:	pa[:]	[pa]n̄i	pa[ku]	ti[da]	[pi]n̄i / [pi]ŋi
Shiomichi	pa[:]	pa[:]	pa[ni] / pa[n̄i]	pa[ku]	[ti]da	pi[n̄i]
Sakamine	pa[:] / ɸa[:]	pa[:] / ɸa[:]	pa[ni]	--	[pi]:	pi[ni]
Aden	pa[:]	pa[:]	pa[ni]	p ^h a[ku]	[ti]da	p ^h i[gi]:
Kamatetsu	ha[:]	ha[:]	ha[ni]	ha[ku]	çi	çi[gi]
Wan	ha[:]	ha[:]	ha[nɪ]	--	--	--
Nakasato	ha[:]	ha[:]	ha[n̄i]	ha[ku]	çi[:] / [çi]:	çi[n̄i] / ɸi[ŋɪ]
Araki	ha[:]	[ha:	ha[ni] / hanɪ	ha[ku]	çi[:]	çi[nɪ]

Table 8.2 [p, ɸ]

number word	96	249	14	166	68	245
point	<i>elbow</i>	<i>left</i>	<i>fart</i>	<i>spatula</i>	<i>fly</i>	<i>broom</i>
Onotsu	[pi]zi / [ɸi]zi	[pi]za[i]	pi[:] / ɸi[:]	he[ra]	[pẽ]:	[ho]:[ki]
Shitōke	pi[zi]	pi[da]i	pi[:]	pi[ra] / ɸi[ra]	[ɸẽ]: / [pẽ]:	[po]:[ki]
Shiomichi	pi[zi]	pi[da]i	pi[:]	NR	he[:]	[ɸo]:[tei]
Sakamine	pi[d̥zi]	pi[za]i	ɸi[:]	[pi]ra	pe[:]	[po:]tei
Aden	çi[zi]	ɸi[da]i	pi[:] / ɸi[:]	[pi]ra	pe[:] / ɸe[:]	po[:]:tei / ho[:]:tei
Kamatetsu	çi[zi]	çi[da]ri	çi[:]	NR	he[:]	ho[:]:tei
Wan	çi[zi]	çi[da]ri	çi[:]	sa[zi(是)]	he[:]	ho[:]:tei
Nakasato	çi[zi]	çi[da]ri	çi[:]	çi[ra]	he[:]	ho[:]:tei
Araki	çi[zi]	çi[da]ri	çi[:]	NR	he[:]	ho[:]:tei

Table 8.3 [p, ɸ]

number word point	73	95	165	227	146
	<i>brush</i>	<i>winter</i>	<i>boat</i>	<i>bag</i>	<i>joint</i>
Onotsu	pu[di]	[p ³ u]ju	pu[nɪ]	puk[ku] / ɸuk[ku]	ɸu[ei]
Shitōke	[ɸu]di	[ɸu]ju	ɸu[nɪ]	ɸuk[ku]	[pu]ei
Shiomichi	pu[di] / ɸu[di]	ɸu[ju]	[ɸu]ni	[ɸuk]ku	bu[ei] / pu[ei]
Sakamine	--	pu[ju]	[p ^h u]ni	[puk]ku	pu[ei]
Aden	ɸu[di]	ɸu[ju]	[ɸu]ni	[ɸuk]ku	--
Kamikatetsu	ɸu[di]	ɸu[ju]	ɸu[nɪ]	[ɸuk]ku	[bu]eɨ
Wan	ɸu[de]	ɸu[ju]	[ɸu]ni	[ɸuk]ku	--
Nakasato	ɸu[di]	ɸu[ju]	[ɸu]ni	[ɸuk]ku / ɸuk[ku]	ɸu[ei] / bu[ei] (古 shape ?)
Araki	ɸu[di]	ɸu[ju]	[ɸu]ni	[ɸuk]ku	ɸu[ei]

Table 8.4 [p, ɸ]

number word point	4	15	54	81	102
	<i>sail</i>	<i>ear of grain</i>	<i>star</i>	<i>navel</i>	<i>bone</i>
Onotsu	[ɸu]:	[pu]: / [ɸu]:	[p ^h u]ei	[pu]su	pu[nɪ] / ɸu[nɪ]
Shitōke	ɸu[:]	ɸu[:]	[ɸu]ei / [pu]ei	[pu]su / [ɸu]su	pu[nɪ]:
Shiomichi	ɸu[:]	[i]ninomi[:]	hu[ei]	pu[su]	ɸu[nɪ]:
Sakamine	pu[:] / ɸu[:]	pu[:] / ɸu[:]	--	pu[su]	[p ^h u]ni
Aden	ɸu[:]	ɸu[:]	ɸu[ei]	ɸu[su]	ɸu[nɪ]
Kamikatetsu	ɸu[:] / [ɸu]:	ɸu[:]	ɸu[ei]	ɸu[su]	[ɸu]ni
Wan	ɸu[:]	ɸu[:]	ho[ei]	ɸu[su]	[ɸu]ni
Nakasato	ɸu[:]	ɸu[:]	ɸu[ei]	ɸu[su]	[ɸu]ni
Araki	ho[:]	ho[:]	ɸu[ei]	ɸi[su]	[ɸu]ni

The areas where [p] is reported are Onotsu and Shitōke (Northern Kikaijima), Shiomichi, Sakamine, and Aden (Central Kikaijima) (shaded in the table), while [h] appears in Kamikatetsu, Wan, Nakasato, and Araki (Southern Kikaijima). The degree of closure of [p] in Northern Kikaijima is very weak and it is often pronounced as the bilabial fricative [ɸ]. Moreover, when being followed by the vowel [u], especially when the [u] corresponds to Tokyo dialect /o/, [ɸ] shows up more frequently than [p] does, even in Northern Kikaijima (‘sail’, ‘ear of grain’, ‘star’, ‘navel’, and ‘bone’ in Table 8.4).

In Southern Kikaijima, [h], [ç], and [ɸ] appear as allophones of /h/, where [h] precedes [a], [u], and [o], [ç] appears before [i], and [ɸ] appears before [u]. In Araki, ‘canvas’ and ‘spike’ appear as *ho*. This may be due to the influence of Standard Japanese.

Next, [b] rarely appears in word-initial position, usually being limited to word-medial position. [b] appears at the beginning of the word [bibiza:] ‘earthworm’ in Onotsu, Shiomichi, Sakamine, and Wan, but this is due to

historical change from [m]. Word-medial [b] corresponds to [b] in the Tokyo dialect. [b] precedes [a], [i], [ɪ], and [u]. Examples are listed in table 9.

Table 9 [b]

number word point	253	98	106	2-43	191
	<i>earthworm</i>	<i>tongue</i>	<i>finger</i>	<i>child</i>	<i>grain</i>
Onotsu	[bi]biza[ra]:	su[ba	[ju]bi	[wa]ra[bɪ / [wa]ra[b ^{wi} i	NR
Shitōke	[mi]mi[za]:	su[ba	ju[bi	[wa]ra[bɪ	[tsu]bu
Shiomichi	[mi]mi[za]: / [bi]bi[da]:	su[ba	ju[bi	wa[ra]bi	tʰu[bu
Sakamine	[bi]bi[za]:	su[ba	ju[bi	wa[ra]bi	tsʰu[bu
Aden	[mi]mi[da]:	su[ba	ju[bi	wa[ra]bi	--
Kamikatetsu	[mi]mi[da]:	su[ba	ju[bi	--	tʰu[da]: / tʰu[da]:
Wan	[bibi]da[ra]:	su[ba	ju[bi	wa[ra]bi	tu[bu / tu[da]:
Nakasato	[mimi]nda[ja]:	su[ba	ju[bi	wa[ra]bi	--
Araki	[mi]mi[za]:	su[ba	ju[bi	wa[ra]bi	tsu[bu]: / tsu[bu

(5) Bilabial Nasal m

The bilabial nasal [m] corresponds to Tokyo dialect [m]. It precedes the vowels [a], [i], [ɪ], [u], [e], [ɛ] and [o], and there is almost no difference among areas. Examples are listed in Tables 10.1 - 10.2. The word for 'horse' has a glottalized nasal [mʰ] (shaded in the table). It can be considered that [maʔ] in Nakasato is the result of the word-initial glottal stop being pronounced at the end of a word.

Table 10.1 [m]

number word point	109	114	129	132	101	118
	<i>crotch</i>	<i>bean</i>	<i>island</i>	<i>shore</i>	<i>ear</i>	<i>net</i>
Onotsu	ma[ta	ma[mɪ	ei[ma	pa[ma	mi[mi	a[mi
Shitōke	ma[ta	ma[mɪ	ei[ma	pa[ma	mi[mi	?a[mɪ
Shiomichi	ma[ta	ma[mi	ei[ma	[pa]ma	mi[mi	a[mi
Sakamine	ma[ta	ma[mi	ei[ma	[pa]ma	mi[mi	?a[mi
Aden	ma[ta	ma[mi	ei[ma	[pa]ma	mi[mi	a[mi
Kamikatetsu	ma[ta	ma[mi	ei[ma	ha[ma	mi[mi	?a[mi
Wan	ma[ta	ma[mi	ei[ma	[ha]ma	mi[mi	?a[mi
Nakasato	ma[ta	ma[mi / ma[mɪ	ei[ma	ha[ma	mi[mi	?a[mi
Araki	ma[ta	ma[mi / ma[me	ei[ma	[ha]ma	mi[mi	a[mi

Table 10.2 [m]

number word point	59	194	202	8	133
	<i>insect</i>	<i>thigh</i>	<i>forward</i>	<i>seaweed</i>	<i>horse</i>
Onotsu	[mu]ei	mu[mu	mẽ[:	[mu]:	u[ma
Shitōke	[mu]ei	mu[mu	mẽ[:	[mu]:	ʔu[ma
Shiomichi	mu[ei	mu[mu / at[te]:	[me]:	mu[:	ʔu[ma
Sakamine	--	mu[mu	[me]:	mu[:	[m ^ʔ a
Aden	mu[ei	--	[me]:	mo[:	[m ^ʔ a
Kamikatetsu	mu[ei	mu[mu / at[te]:	[me]:	NR	[m ^ʔ a
Wan	mu[ei	mu[mu	[me]:	mu[:	[m ^ʔ a
Nakasato	mu[ei	mu[mu	[me]:	--	[maʔ
Araki	mu[ei	mɔ[mɔ / mo[mo	[me]:	mo[:	[m ^ʔ a

4.2 Alveolars

(6) Alveolar Stops t t^ʔ d

Kikaijima dialects have the alveolar stops [t], [t^ʔ], and [d]. [t] precedes the vowels [a], [i], [ɪ], [u], [e], and [o]. Examples are listed in Table 11.1.

Table 11.1 [t]

number word point	21	86	11	233	60	85	257	137
	<i>rice paddy</i>	<i>song</i>	<i>hand</i>	<i>front</i>	<i>bird</i>	<i>sound</i>	<i>field</i>	<i>octopus</i>
Onotsu	ta[:	[ʔu]ta	ti[:	[u]mu[ti	[tu]i	[ʔu]tu	[pa]te[:	to[:
Shitōke	ta[:	[ʔu]ta	ti[:	[u]mu[ti	[tu]i	[ʔu]tu	[pa]te[:	to[:
Shiomichi	t ^h a[:	ʔu[ta	ti[:	[u]mu[ti	tu[i	u[tu	pa[te]:	to[:
Sakamine	t ^h a[:	ʔu[ta	ti[:	[ʔu]mu[ti	tu[i	ʔu[tu	pa[te]:	to[:
Aden	ta[:	u[ta	ti[:	[ʔu]mu[ti	tu[i	u[tu	pa[te]:	to[:
Kamikatetsu	t ^h a[:	ʔu[ta	ti[:	[ʔu]mu[ti	t ^h u[ri	ʔu[tu	ha[te]:	t ^h o[:
Wan	t ^h a[:	ʔu[ta	t ^h i[:	[ʔu]mu[ti	t ^h u[ri	ʔu[tu	ha[te]:	NR
Nakasato	t ^h a[:	ʔu[ta	t ^h i[:	[ʔu]mu[ti / [ʔumuti	t ^h u[i	ʔu[tu	ha[te]:	to[: / [to:
Araki	t ^h a[:	u[ta	ti[:	[u]mu[ti	tu[ri / o[ri	o[to	ha[te]:	to[:

[ta] in Kikaijima dialects corresponds to Tokyo Japanese *ta*, [ti] (Northern) and [ti] (Southern) to *te*, and [tu] to *tsu* and *to*. *te*] and [to] are derived from vowel sequences (*tae and *tao), and appear with long vowels. As will be explained below, since Tokyo dialect [tɕi] in corresponds to [tɕi] in Kikaijima, ‘*hand*’ (Tokyo dialect *te*) and ‘*blood*’ (Tokyo dialect [tɕi] / ti /) are respectively pronounced as [ti:] and [tɕi:] in Northern, or as [ti:] and [tɕi:] in

Southern Kikaijima. Similarly, since the syllable which corresponds to Tokyo dialect [tsu] is pronounced as [tʰu] or [tsʰu] in Kikaijima, the first moras of ‘bird’ (Tokyo dialect *tori*) and ‘face’ (Tokyo dialect *tsura*) are distinguished as [tu] and [tʰu] (or [tu] and [tsʰu]). However the glottalization for [tʰu] is weak in some areas. In this case, the [tu] in ‘bird’ and the [tu] in ‘face’ are pronounced almost identically. (Please refer to the section on the affricate *ts* for more detail.).

The glottalized [tʰ] precedes the vowels [a], [i], and [u]. [tʰu], for example in ‘face’ and ‘rope’, is pronounced as [tsʰu], or [tu] (due to weak glottalization of [tʰu]), depending on the area. The relationship between [tu] in ‘bird’ and [tʰu] in ‘face’ is the same as above. [tʰa] and [tʰi] appear in words such as ‘one’, ‘two’ and ‘two people’. These words originally had a [pi (φi)] or [pu (φu)] at the beginning of a word, but when these dropped out the *t* of the following syllable was glottalized.

Table 11.2 [tʰ]

number word point	99	121	2-15	2-178	2-180	2-189
	<i>face</i>	<i>rope</i>	<i>knee</i>	<i>one</i>	<i>two</i>	<i>two people</i>
Onotsu	tsʰu[ra	tu[na	tsu[bu]ei	--	--	--
Shitōke	teu[ra	tsʰu[na	[teu]bu[ei	[tʰi]teu	[tʰa:]teu	[tʰa]i
Shiomichi	tu[ra	tʰu[na	[tʰu]bu[ei	[tʰi]tu	[tʰa:]tu	[tʰai
Sakamine	tsu[ra	tsʰu[na / tu[na	[tsu]bu[ei	[tʰi]tsu	[tʰa:]tsu	tʰa[i
Aden	tu[ra	tʰu[na	[tʰu]bu[ei	--	--	--
Kamikatetsu	tʰu[ra	tʰu[na	[tʰu]bu[ei	[tʰi]tu	[tʰa:]tu	tʰa[ri
Wan	tu[ra	tsu[na / tu[na	[tʰu]bu[ei	[tʰi]tu	[tʰa:]tu	tʰa[ri
Nakasato	tʰu[ra	na[wa	[tʰu]bu[ei	[tʰi]tu	[tʰa:]tʰu	tʰa[i
Araki	tsu[ra	tsu[na	[tsu]bu[ei / [tsubuei	[tʰi]tsu	[tʰa:]tsu	tʰa[ri

[d] corresponds to [d] in Tokyo Japanese. It precedes the vowels [a], [i], [ɪ], [u], and [e]. Examples are listed in Table 12. [d] usually does not occur word-initially, but ‘bamboo’ is pronounced as [de:] in all areas. To compare with the Tokyo dialect, [da:] in Northern Kikaijima dialects corresponds to [da] in Tokyo dialect, [di] (Northern) or [di] (Southern) correspond to [de], and [du] corresponds to [do]. Tokyo dialect [z] corresponds to [d] in Central and Southern Kikaijima, which will be explained in the next section.

Table 12 [d]

number word point	46	212	55	73	178	217	58
	<i>branch</i>	<i>drool</i>	<i>sleeve</i>	<i>brush</i>	<i>corner</i>	<i>dance</i>	<i>bamboo</i>
Onotsu	[ju]da	ju[da]i	[su]di	pu[di	[ka]du	u[du]i	[de:]
Shitōke	[ji]da /	ju[da]i	[su]di	[φu]di	[ka]du	ʔu[du]i	[de:]

	[ju]da						
Shiomichi	ju[da	[ju]da[i	su[di	pu[di / ɸu[di	ka[du	[wu]du[i	de[.
Sakamine	ji[da	[ju]da[i	--	--	ha[du	[gu]du[i	de[.
Aden	ju[da	[ju]da[i	su[di	ɸu[di	ka[du	[gu]du[i	de[.
Kamikatetsu	ju[da	[ju]da[ri	su[di	ɸu[di	k ^h a[du	[ʔu]du[ri	de[.
Wan	ju[da	[ju]da[ri	su[di	ɸu[de	k ^h a[du	[wu]du[ri	de[.
Nakasato	ji[da / ju[da	[ju]da[ri	su[di	ɸu[di	k ^h a[du / su[mi(隅)	[ʔu]du[i	de[.
Araki	ju[da	[ju]da[ri	su[di	ɸu[di	ka[du	[u]du[ri	de[.

(7) Alveolar Fricatives s z

The Kikaijima dialects have the alveolar fricatives [s] and [z]. [s] corresponds to Tokyo dialect [s]. It precedes [a], [u], [e], and [o]. When the following vowel is [i], s is pronounced as the back alveolar fricative [ɕ]. Examples are listed in Tables 13.1 and 13.2.

Table 13.1 [s]

number word point	45	168	2-60	27	200	55	47
	<i>dish</i>	<i>bamboo hat</i>	<i>Japanese clog</i>	<i>nest</i>	<i>soot</i>	<i>sleeve</i>	<i>alcoholic beverage</i>
Onotsu	[sa]ra	ha[sa	ʔas[sa]:	su[:	su[su	[su]di	[se]:
Shitōke	[sa]ra	ha[sa	[ʔa]ssa[:	su[:	su[su	[su]di	[se]:
Shiomichi	sa[ra	ha[sa	ʔaɕ[ea]:	su[:	[su]su	su[di	se[: / ɕe[:
Sakamine	sa[ra	ha[sa	[ʔa]s[sa]:	su[:	[su]su	--	se[:
Aden	sa[ra	ha[sa	ʔas[sa	su[:	--	su[di	se[:
Kamikatetsu	sa[ra / su:]da[ra	ha[sa	ʔas[sa	[su]:	su[su	su[di	se[:
Wan	[so]:[da]ra	ha[sa	ʔas[sa	su[:	[su]su	su[di	se[:
Nakasato	sa[ra / [sara	ha[sa	ʔa[ssa	su[:	su[su	su[di	se[: / ɕe[:
Araki	sa[ra	ka[sa	ʔas[sa]	su[:	su[su	su[di	ɕe[:

Table 13.2 [s], [ɕ]

number word point	123	2-40	129	161	40	197
	<i>pole</i>	<i>sibling</i>	<i>island</i>	<i>soup</i>	<i>cattle</i>	<i>sweat</i>
Onotsu	[so]:de[:	[kio]:[de]:	ei[ma	ei[ru	[ʔu]ei	a[ei
Shitōke	[de]:(bamboo)	ji[:ri / [ʔu]tu[dza	ei[ma	ei[ru	[ʔu]ei	ʔa[ei
Shiomichi	[so]:[de]: / de[:	[eo]:[de]:	ei[ma	ei[ru	u[ei	a[ei
Sakamine	sa[o	[so]:[de]:	ei[ma	ei[ru	ʔu[ei	ʔa[ei
Aden	de[:	[so]:[de]:	ei[ma	ei[ru	u[ei	ʔa[ei

Kamikatetsu	de[: / [de]:[ma]:	[so]:[de]:	ei[ma	ei[ru	ʔu[ei	ʔa[ei
Wan	[so]:[de]:	[so]:[de]:	ei[ma	ei[ru	ʔu[ei	ʔa[ei
Nakasato	--	[so]:[de]:	ei[ma	ei[ru	ʔu[ei	ʔa[se
Araki	de[:	[so]:[de]:	ei[ma	ei[ru	u[ei	a[ei

[s] does not display much dialectal variation. However, in Shiomichi, /sa/, /se/, and /so/ tend to be pronounced as [ea], [ee], and [eo] (shaded in the table). In comparison to the Tokyo dialect, *ase* ‘sweat’ in Table 13.2 might be assumed to become [ʔasi] in Northern and [ʔasi] in Southern Kikaijima dialects, but in fact this word is pronounced as [ʔaei]. Additionally, according to Gengo-chirigaku Teirei Kenkyūkai (1983), this word is pronounced as [ʔaʃi] in Nagamine, [ʔasi] in Sōmachi and Nakaguma, and [ʔasi] and [ʔaʃi] in Ikeji (however, these notations might reflect different transcription styles of researchers (p.7)).

Next, [z] corresponds to Tokyo dialect /z/. It precedes [a], [i], and [u]. z is pronounced before [i] as the postalveolars [z] - [dʒ]. Examples are listed in Tables 14.1 - 14.2.

Table 14.1 [z]

number word point	67	2-29	2-90	52	49	2-168	43
	<i>smell</i>	<i>mole</i>	<i>night fishing</i>	<i>water</i>	<i>wound</i>	<i>last year</i>	<i>groove</i>
Onotsu	[ha]za	[ʔa]za	ʔi[za]i	[mi]zu	[kʰi]zu	hu[dzu	mi[zu]:
Shitōke	[ha]za	[ʔa]dza	i[dza]i	mi[dzu	[kʰi]zu	hu[dzu	mi[zu]:
Shiomichi	NR	ʔa[da	[ʔi]da[ri	mi[du	kʰi[zu	hu[du / / ɸu[du	mi[zu]:
Sakamine	--	a[za	[ʔi]za[i	--	kʰi[dzu	ɸu[zu / [dzu	mi[zu]:
Aden	ha[da	ʔa[da	[ʔi]da[i	mi[du	tei[du	--	mi[zu]:
Kamikatetsu	ha[da	ʔa[za	[ʔi]da[ri	mi[du	tei[du	ɸu[du	mi[zu]:
Wan	--	ʔa[da	[ʔi]da[ri	mi[du	tei[du	hu[du	mi[zu]:
Nakasato	ha[da	a[da	[ʔi]da[i	mi[zu / mi[du	tei[zu	ɸu[du	mi[zu]:
Araki	ha[da	ʔa[za	[ʔi]za[ri	mi[zu	ki[zu	ɸu[zu	mi[zu]:

Table 14.2 [z], [ʒ]

number word point	2-134	96	2-50	213	2-140	75
	<i>mallet</i>	<i>elbow</i>	<i>wife</i>	<i>mold</i>	<i>meal tray</i>	<i>wind</i>
Onotsu	[ʔa]zu[mu	[pi]zi / [ɸi]zi	[tʰu]zi	[ho]:[zi	[dzi]N	[ha]zi
Shitōke	[ʔa]dzu[mu	pi[zi	tʰu[dzi	[ho]:[zi	dzi[nu	[ha]zi
Shiomichi	ʔa[dzu]mu	pi[zi	tʰu[dzi	ho[:]zi	dzi[N	ha[di
Sakamine	ʔa[zu]mu	pi[dzi	tu[dzi	ho[:]zi	dzi[N / [dzi]N	--
Aden	--	çi[zi	tʰu[dzi	[ho]:[zi	--	ha[di
Kamikatetsu	ʔa[di]mu / [jamatu]ʔa[di]mu	çi[zi	tʰu[dzi	[ho]:[zi	dzi[N	ha[di
Wan	ʔa[du]mu	çi[zi	tʰu[dzi	[ho:]dzi	dzi[N	--

Nakasato	ʔa[du]mu	çi[zi]	ʰu[dzi]	[ho:]zi	dzi[N]	ha[di]
Araki	ʔa[dzu]mu / jama[tu]a[dzu]mu	çi[zi]	tu[dzi]	[ho:]zi ho[:]zi	/ dzi[N]	ha[zi]

z shows much dialectal variation. By and large, *z* is often pronounced as [z] or [dz] in Onotsu, Sakamine, and Araki, the back alveolars [z] ~ [dz] in Shitōke, and [d] in Shiomichi, Aden, Kamikatetsu, Wan, and Nakasato (shaded in the table). However, in ‘groove’ in Table 14.1 it is pronounced as [z] or [z]. As a result, Tokyo dialect [da] and [za] merge into [da] in Shiomichi, Aden, Kamikatetsu, Wan, and Nakasato, while [do], [zu], and [zo] merge into [du]. For example, [da] in [juda] ‘branch’ and [judari] ‘droll’ (from *da) in Table 12 is the same [da] as in [kada] ‘smell’, [ʔada] ‘mole’, and [idari] ‘night fishing’ (from *za). Also, [du] in [kadu] ‘corner’, and [wuduri] or [ʔuduri] ‘dance’ (from *do) in Table 12 is the same as [du] in [midu] ‘water’, [teidu] ‘wound’, and [ʔudu / hudu] ‘last year’ (from *du, *zu, and *zo respectively) in Table 14.

In addition, *kaze ‘wind’ has become [hadi] in these areas ([hazi] in others), and the [di] here is the same [di] in [sudi] (*sode ‘sleeve’) and [ʔudi] (*pude ‘brush’). Due to this, it can be assumed that the change *z > *d preceded the vowel alternation *e > *i > *i in Shiomichi, Aden, Kamikatetsu, Wan, and Nakasato.

‘brush’: *pude > *ʔude > ʔudi

‘wind’: *kaze > *haze > *hade > hadi

(if the vowel change had preceded this, the order of changes would have been *kaze > *haze > *haze > hazi and so [hadi] would not have arisen.)

Also, although the beginning of the word ‘meal tray’ in Table 14.2 is derived from *ze, it is not pronounced as [*din] but as [dzin] in Shiomichi, Aden, Kamikatetsu, Wan, and Nakasato. This might be due to the position of a word (i.e. word-initial), but it is also possible that this word was imported into the Kikaijima dialect after the *z* > *d* change.

(8) Alveolar Affricates tsʔ (ts), tɕʔ (tɕ)

The Kikaijima dialects have the alveolar fricatives tsʔ, ts and tɕʔ, tɕ. tsʔ, ts appear before the vowel [u], and correspond to [ts] in the Tokyo dialect. Examples are listed in Table 15.1.

There is a big difference in the pronunciation of tsʔ, ts among dialects. It is commonly pronounced as [tsʔu] in Onotsu and Shitōke (Northern Kikaijima), Sakamine (Central Kikaijima) and Araki (Southern Kikaijima), but as [tʰu] in Wan and Nakasato (Southern Kikaijima). [tsʔu] and [tʰu] might appear in free variation in the same area. Also, a sound between [tsʔu] and [tʰu] is reported. There are also pronunciations where the degree of glottalization is weak.

Table 15.1 [tʰ (ts)]

number word	99	121	141	183	219
point	<i>face</i>	<i>rope</i>	<i>horn</i>	<i>pine</i>	<i>skipjack tuna</i>
Onotsu	tʰu[ra	tu[na	tsu[nu	ma[tsu	ka[tsu]:
Shitōke	tɕu[ra	tʰu[na	tʰu[nu	ma[tʰu	ka[tsu]:
Shiomichi	tu[ra	tʰu[na	tu[nu	[ma]tu	[ka]tsu[o
Sakamine	tsu[ra	tʰu[na / tu[na	tsu[nu	[ma]tɕu	[kʰa]tsu[:
Aden	tu[ra	tʰu[na	tʰu[nu	--	ka[tsu]o
Kamikatetsu	tʰu[ra	tʰu[na	tʰu[nu	[ma]tsu	[kʰa]tu[:
Wan	tu[ra	tsu[na / tu[na	--	[ma]tu / ma]tsu	[kʰa]tu[: / kʰa]tsu[:
Nakasato	tʰu[ra	na[wa	tʰu[nu	ma[tu	[katso
Araki	tsu[ra	tsu[na	tsunu	[ma]tsu	ka[tsuo

As explained in (6) for *t*, ‘bird’ is pronounced as [turi] or [tui] in the Kikaijima dialects. The [tu] is the non-glottalized [tu], and it does not alternate with [tsu]. In this regard, [tʰu] and [tʰu] are distinguished in ‘face’ ([tʰura] and [tʰura]). However, if the [tʰu] glottalization weakens (shaded in 15.2), it is difficult to distinguish between [tu] in ‘face’ and ‘bird’.

Table 15.2 ‘face’ and ‘bird’

number word	99	121	141	60
point	<i>face</i>	<i>rope</i>	<i>horn</i>	<i>bird</i>
Onotsu	tʰu[ra	tu[na	tsu[nu	[tu]i
Shitōke	tɕu[ra	tʰu[na	tʰu[nu	[tu]i
Shiomichi	tu[ra	tʰu[na	tu[nu	tu[i
Sakamine	tsu[ra	tʰu[na / tu[na	tsu[nu	tu[i
Aden	tu[ra	tʰu[na	tʰu[nu	tu[i
Kamikatetsu	tʰu[ra	tʰu[na	tʰu[nu	tʰu[ri
Wan	tu[ra	tsu[na / tu[na	--	tʰu[ri
Nakasato	tʰu[ra	na[wa	tʰu[nu	tʰu[i
Araki	tsu[ra	tsu[na	tsunu	tu[ri / to[ri

tɕ, *tɕ* appears before the vowel [i], and corresponds to [tɕ] in the Tokyo dialect. In some areas, it also corresponds to Tokyo dialect [k(i)]. Examples are ‘wound’, ‘liver’, ‘breath’, ‘broom’ in Table 15.3 (shaded in the table). [tɕi] corresponds to Tokyo dialect [ki] in Shiomichi, Sakamine, Aden, Kamikatetsu, Wan, and Nakasato (Central and Southern Kikaijima), while in Onotsu and Shitōke, [kʰi] corresponds to Tokyo dialect [ki].

Table 15.3 [tɛ]

number word	2	66	119	49	100	158	245
point	<i>blood</i>	<i>road</i>	<i>bowl</i>	<i>wound</i>	<i>liver</i>	<i>breath</i>	<i>broom</i>
Onotsu	[tɛʔi]:	[mi]tei	pa[tei	[kʔi]zu	kʔi[mu	ʔi[ki	[ho]:[ki
Shitōke	[tei]: / [tɛi:	[mi]tei	[pa]tei	[kʔi]zu	kʔi[mu	ʔi[ki	[po]:[ki
Shiomichi	tɛʔi[:	mi[tei	pa[tei	kʔi[zu	tɛʔi[mu	[ʔi]tei	po[:]tei
Sakamine	tei[:	--	[pa]tei	kʔi[dzu	tei[mu	[ʔi]tei	po[:]tei
Aden	tei[:	mi[tei	[ha]tei	tei[du	tei[mu	[ʔi]tei	po[:]tei
Kamikatetsu	tei[:	mi[tei	ha[tei	tei[du	tei[mu	[ʔi]tei	ho[:]tei
Wan	tɛʔi[:	mi[tei	[ha]tei	tei[du	--	[ʔi]tei	ho[:]tei
Nakasato	tɛʔi: / [tɛʔi:	mi[tei	ha[tei / [ha]tei	tei[zu	tɛʔi[mu	[ʔi]tei	ho[:]tei
Araki	[a:]tei[: / tei[:	mi[tei	ha[tei	ki[zu	tei[mu	[ʔi]ki / [ʔi]tei	ho[:]tei

[a], [u], [o] can follow [tɛ]. Examples are listed in Table 15.4. *t* in ‘tomorrow’ and ‘person’ is palatalized into [tea] and [teu] in the environment *Xi+tV* (where *X* and *V* are any consonant and vowel), while *kʔ* becomes [tɛ] in ‘children’ and ‘cucumber’. [teo] in ‘knife’ is perhaps a heavily Japanized pronunciation.

Table 15.4 [tɛ]

number word	235	2-44	92	172	246	148
point	<i>tomorrow</i>	<i>children</i>	<i>person</i>	<i>thread</i>	<i>cucumber</i>	<i>knife</i>
Onotsu	a[tea	[kʔa]N[kia]: / [wa]rabin[kia]:	[tsʔu	i[tu / [i]tsu[:	NR	[ɸo]:[tea]:
Shitōke	ʔa[tea	[kʔa]N[tea]: / [wa]rabin[tea]:	[tɛʔu	[ʔi]tu	kʔi[u]i	[ho]:[teu]: / [ho]:[tea]:
Shiomichi	a[tea	[kʔa]N[tea]: / [wa]rabin[tea]:	[tɛʔu	i[teu: / i[tsu:	[tei]u[i	ha[ta]na
Sakamine	ʔa[tea	[kʔa]N[tɛʔa]: / [warabi]N[tɛʔa]:	[tɛʔu	ʔi[tu]:	--	[pʰo]:[teo]: / ha[ta]na
Aden	a[tea	[kʔa]N[tea]: / [wa]rabin[tea]:	[tɛʔu	i[teu]:	[tɛʔi]u[i	--
Kamikatetsu	ʔa[tɛʔa	[kʔa]N[tea]:	tɛʔu	ʔi[teu]:	kʔu[:ri	ha[ta]na
Wan	ʔa[tea	[kʔa]N[tea]: / [warabi]N[tea]:	tɛʔu	ʔi[teu]:	[tɛʔu]:[ri	[ho]:[teo]:
Nakasato	ʔa[tea	[kʔa]N[tea]: / [warabi]N[tea]:	[tɛʔuʔ	ʔi[teu]:	[teu]:[ri	ha[ta]na
Araki	a[tea	[kʔa]N[tea]: / [warabi]N[tea]:	teuʔ	i[teu]:	[kʔu:ri / kʔu[:ri	ha[ta]na

The alveolar sounds in the Kikaijima dialects are summarized in Tables 16.1 and 16.2. First, in Onotsu and Shitōke (Northern), there is a distinction between [tɛʔi] and [kʔi] for the first mora of ‘blood’ and ‘liver’, but both are pronounced as [tei] in the other areas so that there is no distinction. Also, the first mora of ‘face’ is pronounced

as [tʰu] in Onotsu, Shitōke, Sakamine, and Araki, but as [tʰu] in Shiomichi, Aden, Kamikatetsu, Wan, and Nakasato. Next, in Shiomichi, Aden, Kamikatetsu, Wan, and Nakasato, there is no distinction between [d] and [z], with [z] merged into [d]. This is very different from the other dialects. In Sakamine (Central), the first mora of both ‘*blood*’ and ‘*liver*’ is pronounced as [tei], like other dialects such as Shiomichi. But like Onotsu, Shitōke, and Araki, the first mora of ‘*face*’ is pronounced as [tʰu] and there is a distinction between [d] and [z]. Therefore, Sakamine and Araki are grouped together here.

Table 16.1

Onotsu, Shitōke	ta	tɪ	teʰi	kʰi	tu	tʰu	sa	ɛi	su
Shiomichi, Aden, Kamikatetsu, Wan, Nakasato	ta	ti	teʰi, tei		tu	tʰu	sa	ɛi	su
Sakamine, Araki	ta	ti	teʰi, tei		tu	tʰu	sa	ɛi	su

Table 16.2

Onotsu	da	dɪ	du	zu / dzu	za	zi	
Shitōke	da	dɪ	du	zu / zu / dzu / dzu	za / dza	zi / dzi	
Shiomichi, Aden, Kamikatetsu, Wan, Nakasato	da	di	du		da	di	zi / dzi
Sakamine, Araki	da	di	du	zu / dzu	za	zi / dzi	

(9) Alveolar Nasal n

The Kikaijima dialects have the alveolar nasal *n*, which corresponds to [n] in the Tokyo dialect. Vowels which follow are [a], [i], [ɪ], [u], and [e]. Examples are listed in Tables 17.1 and 17.2.

n is palatalized as [nʲ] before the vowel [i]. The range and phonological interpretation of [nʲi] and [nɪ] are explained in the section on vowels. [a] and [u] may follow [nʲ] (Table 17.3). As for ‘*spiral shell*’ and ‘*yesterday*’, it seems that *n* is palatalized in the environment *Xi+nV*, and ‘*straw*’ is the result of historical changes such as *muɲiɰwara > munʲiɰwara > munʲnʲara*.

Table 17.1 [n]

number word point	10	70	116	140	248	185
	<i>name</i>	<i>nose</i>	<i>rice bran</i>	<i>flea</i>	<i>life</i>	<i>seedling</i>
Onotsu	[na]:	[pa]na	nu[ka	nu[mi	[ʔi]nu[tei	ne[:

Shitōke	[na]:	[pa]na	nu[ka	nu[mi	[ʔi]nu[tei	ne[:
Shiomichi	na[:	pa[na	nu[ka	[nu]mi	i[nu]tei	ne[:
Sakamine	na[:	--	nu[ka	[nu]mi	ʔi[nu]tei	ne[:
Aden	na[:	p ^h a[na	nu[ka	[nu]mi	i[nu]tei	ne[:
Kamikatetsu	na[:	ha[na	nu[ka	[nu]mi	ʔi[nu]teiy	ne[:
Wan	[na]ma[i	ha[na	nu[ka	[nu]mi	ʔi[nu]tei	na[e
Nakasato	na[:	ha[na	--	[nu]mi	ʔi[nu]tei	--
Araki	[na]ma[i	ha[na	nu[ka	nu[mi	i[no]tei	na[e

Table 17.2 [n]

number word point	16	36	153	24	89	102
	<i>load</i>	<i>crab</i>	<i>goblin</i>	<i>root</i>	<i>chest</i>	<i>bone</i>
Onotsu	[n ⁱ]mu[tsu	ga[n ⁱ]:	ʔu[n ⁱ	ni[:	[mu]ni	pu[ni / ɸu[ni
Shitōke	n ⁱ [:	ga[n ⁱ]:	[ʔu]n ⁱ	ni[:	[mu]ni	pu[ni]:
Shiomichi	n ⁱ [:	ga[n ⁱ]:	ʔu[n ⁱ	[hin] pi[n ⁱ]: (beard of tree)	mu[ni	ɸu[ni]:
Sakamine	n ⁱ [:	ga[n ⁱ]:	ʔu[n ⁱ	ni[: / [mu]tu	mu[ni	[p ^h u]ni
Aden	--	[gai]N	u[n ⁱ	ni[:	mu[ni	ɸu[ni
Kamikatetsu	n ⁱ [:	ga[i]:	ʔu[n ⁱ	[ni]mu[tu	mu[ni	[ɸu]ni
Wan	n ⁱ [:	ga[n ⁱ]:	o[n ⁱ	ni[:	mu[ni	[ɸu]ni
Nakasato	n ⁱ [:	ga[n ⁱ]:	ʔu[n ⁱ	nimutu	mu[ni	[ɸu]ni
Araki	n ⁱ [:	ga[n ⁱ]:	o[n ⁱ	mu[tu	mu[ne	[ɸu]ni

Table 17.3 [n]

number word point	136	2.162	2.101	234
	<i>spiral shell</i>	<i>now</i>	<i>straw</i>	<i>yesterday</i>
Onotsu	NR	n ^a [ma	[mu]Nn ^a [ra]:	ki[n ^u]:
Shitōke	[ʔa]ma[n ^a]:	n ^a [ma	[mu]Nn ^a [ra]:	k ^ʔ i[n ^u]:
Shiomichi	mi[n ^a	[n ^a]ma	[mu]Nn ^a [ra]:	tei[n ^u]:
Sakamine	mi[n ^a	[n ^a]ma	[mun]n ^a [ra]:	tei[n ^u]:
Aden	--	--	[mu]Nn ^a [ra]:	tei[ju]:
Kamikatetsu	mi[ja	[na]ma	[mun]n ^a [ra]:	tei[ju]:
Wan	--	[n ^a]ma	[mun]n ^a [ra]:	te ^ʔ i[n ^u]:
Nakasato	mi[n ^a	[n ^a]ma	[mun]n ^a [ra]:	[tei]n ^u :
Araki	mi[n ^a	[n ^a]ma	mu[gi]wa[ra]	te ^ʔ i[n ^u]:

(10) Alveolar Flap *r*

The Kikaijima dialects have the alveolar flap *r*. Vowels which follow are [a], [i], [u], [e], and [o]. It does not appear in word-initial position. Examples are listed below.

Table 18.1 [r]

number word point	45	99	218	126	152	256
	<i>dish</i>	<i>face</i>	<i>chain</i>	<i>night</i>	<i>color</i>	<i>wash tub</i>
Onotsu	[sa]ra	ts ^ʰ u[ra	[k ^ʰ usari / [k ^ʰ u]sa[ri	ju[ru	ʔi[ru	[ta]re[:
Shitōke	[sa]ra	teu[ra	k ^ʰ u[sa]ri	ju[ru	ʔi[ru	ta[re]:
Shiomichi	sa[ra	tu[ra	[k ^ʰ u]sa[ri	ju[ru	i[ru	ta[re]:
Sakamine	sa[ra	tsu[ra	[ku]sa[i	ju[ru	ʔi[ru	ta[re]:
Aden	sa[ra	tu[ra	k ^ʰ u[sa]ri	ju[ru	i[ru	[bin]da[re]:
Kamikatetsu	sa[ra	t ^ʰ u[ra	NR	ju[ru	ʔi[ru	th ^h a[re]:
Wan	[so]:[da]ra	tu[ra	NR	ju[ru	--	th ^h a[re]:
Nakasato	sa[ra / [sara	t ^ʰ u[ra	[kusari	ju[ru	ʔi[ru	ta[re]:
Araki	sa[ra	tsu[ra	(k ^ʰ u[sa]ri)	juru	i[ru	ta[re]:

Table 18.2 [r]

number word point	2-45	2-22
	<i>relative</i>	<i>fist</i>
Onotsu	[ɸa]ro:[dzi]:	[tekk ^ʰ o]:
Shitōke	[ha]ro:[dzi]:	[th ^h ɪ]kko[:
Shiomichi	p ^h a[ro]:dzi / [p ^h aro:dzi]N[tea]:	[th ^h ɪ]ku[ro]:
Sakamine	pa[ro]:[zi]: (sg.) / pa[rozi]N[te ^ʰ a]: (pl.)	[th ^h ik]ko:
Aden	[ɸa]ro:[dzi	th ^h ik[ko: / k ^ʰ a[ɸa
Kamikatetsu	[haro]:[dzi]: / [so:de]N[tea]:	th ^h ik[ko]:
Wan	[haro]:[dzi]:	th ^h ik[ko]:
Nakasato	[haro]:[dzi]:	th ^h ik[ko]:
Araki	ha[ro]:[dzi]:	[th ^h ɪ]kku[ro]:

4.3 Velars

(11) Velars k $k^?$ g η

There are two kinds of velar sounds: the stops k , $k^?$, and g , and the nasal η .

k and $k^?$ precede the vowels [a], [i], [ɪ], [u], [e], [ẽ], and [o]. Examples are listed in Tables 19.1 - 19.4. As explained in (8), in Northern Kikaijima the first mora of ‘wound’ and ‘liver’ is glottalized ([kʔi]), but is pronounced as [tei] in Central and Southern Kikaijima. As a result, in Northern dialects, the first mora of ‘wound’ and ‘liver’ ([kʔi]) is distinguished from the first mora of ‘injury’ ([kɪ]), while [tei] is distinguished from [ki] in Central and Southern Kikaijima. Along with the change [kɪ] > [ki] in ‘injury’, the consonant of [kʔi] in ‘wound’ and ‘liver’ is changed into the palatal [tɕ] in Central and Southern Kikaijima.

Onotsu, Shitōke	$k^?i$ (‘wound’)	:	$kɪ$ (‘injury’)
(*	$k^?i$ (‘wound’)	:	ki (‘injury’)
Central / Southern	$tɕi$ (‘wound’)	:	ki (‘injury’)

The first mora of ‘nail’ and ‘cloud’, which is [ku] in the Tokyo dialect, and the first mora of ‘calendar’ and ‘voice’ ([ko] in Tokyo Japanese) appear as [kʔu] (glottalized) and [ku] (non-glottalized) in all dialects (Table 19.3).

Table 19.1 [k]

number word point	37	90	224	229	116	117
	<i>rice</i> <i>porridge</i>	<i>model</i>	<i>roof tile</i>	<i>mirror</i>	<i>rice bran</i>	<i>grave</i>
Onotsu	ka[i]:	[ka]ta	ka[wa]ra	[ka]ga[mi]	nu[ka]	[pa]ka
Shitōke	ka[i]:	[ka]ta	[ka]wa[ra]	[ka]ga[mi]	nu[ka]	[pa]ka
Shiomichi	ka[i]	ka[ta]	ka[wa]ra	[ka]ga[mi]	nu[ka]	pa[ka / [pa]kan[me]:
Sakamine	ka[ju]	ka[ta]	--	[ka]ga[mi]	nu[ka]	pa[ka / φa[ka]
Aden	ka[i]	ka[ta]	ka[wa]ra	[ka]ga[mi]	nu[ka]	φa[ka]
Kamikatetsu	[kʰa]i:	ka[ta]	ka[wa]ra	[kʰa]ga[mi]	nu[ka]	ha[ka]
Wan	kʰa[i]	--	kʰa[wa]ra	[kʰa]ga[mi]	nu[ka]	ha[ka]
Nakasato	kʰa[i / kʰa[ju]	kʰa[ta]	[kawara]	[ha]ga[mi / [kaqami]	--	ha[ka]
Araki	[ka]i:	ka[ta]	ka[wa]ra	ka[ga]mi	nu[ka]	ha[ka]

Table 19.2 [k]

number word point	78	49	125	158	148	247
	<i>fog</i>	<i>wound</i>	<i>time</i>	<i>breath</i>	<i>injury</i>	<i>compassion</i>
Onotsu	[kʔiri / ka[su]mi	[kʔi]zu	[tu]ki	ʔi[ki]	kɪ[ga]	[na]sa[kɪ]
Shitōke	mu[ja]	[kʔi]zu	tu[ki]	ʔi[ki]	kɪ[ga]	[na]sa[kɪ]

Shiomichi	mu[ja	kʰi[zu	NR	[ʔi]tei	ki[ga	na[sa]ki
Sakamine	--	kʰi[dzu	tʰu[ki	[ʔi]tei	ki[ga	--
Aden	--	tei[du	tu[ki	[ʔi]tei	--	NR
Kamikatetsu	kʰi[ri	tei[du	[du]tei[.	[ʔi]tei	kʰi[ga	na[sa]ki
Wan	kʰi[ri	tei[du	NR	[ʔi]tei	--	NR
Nakasato	[mu]ja	tei[zu	--	[ʔi]tei	ki[ga / kɪ[ga	--
Araki	kʰi[ri	ki[zu	tu[ki	[ʔi]ki / [ʔi]tei	ke[ga	--

Table 19.3 [k]

number word	64	130	174	225	196	241
point	<i>nail</i>	<i>cloud</i>	<i>deep inside</i>	<i>calendar</i>	<i>voice</i>	<i>cousin</i>
Onotsu	[kʰu]nʰi	kʰu[mu	u[ku	[ku]ju[mi	ku[i	[i]tu[ku
Shitōke	kʰu[nʰi	kʰu[mu	[ʔu]kʰu	[ku]ju[mi	ku[i	[ʔi]tu[ku
Shiomichi	kʰu[nʰi	kʰu[mu	[ʔu]ku	[ku]ju[mi	[ku]i	[i]tu[ku
Sakamine	kʰu[nʰi	kʰu[mu	NR	[kʰu]ju[mi	[kʰu]i	--
Aden	kʰu[gi	kʰu[mu	[ʔu]ku	[ku]ju[mi	[ku]i	--
Kamikatetsu	kʰu[gi	kʰu[mo	[oku	[kʰu]ju[mi	[kʰu]i	[ʔi]tu[ku
Wan	--	kʰu[mu	NR	[kʰu]ju[mi	[kʰu]i	[ʔi]tu[ku
Nakasato	kʰu[nʰi	kʰu[mu	[ʔu]ku	[ku]ju[mi / [ɸu]ju[mi	[kʰu]i	[ʔi]tu[ku / ʔi[tu]ku
Araki	ku[gi / ku[n]i	kʰu[mu	--	[ku]ju[mi	ku[i	(i[to]ko)

[k] and [kʰ] can be pronounced as [kʷ] (labiovelarized) and palatalized [kʲ] (shaded in Table 19.4). ‘squid’, ‘yesterday’, and ‘cucumber’ show that [k] is palatalized in the environment $Xi+kV$.

Table 19.4 [k]

number word	232	30	28	176	246
point	<i>hand drum</i>	<i>hoe</i>	<i>squid</i>	<i>today</i>	<i>cucumber</i>
Onotsu	NR	[kʷe]:	[ʔi]kʰa	kʰu[.	NR
Shitōke	[te]:[ko]:	[kʷe]:	[ʔi]ka	kʰu[.	kʰi[u]i
Shiomichi	[te]:[ko: / / [ta]i[ko]:	[kʰe]:	i[ka	[eu]:	[tei]u[i
Sakamine	--	[kʰe]:	ʔi[ka	[su]:	--
Aden	--	ke[.	[i]ka	[su]:	[teʰi]u[i
Kamikatetsu	[te]:[ko]:	kʰe[.	ʔi[ka	[su]:	kʰu[.]ri
Wan	--	[kʰe]: / [kʰe]:	ʔi[ka	[su]:	[teʰu]:[ri
Nakasato	--	[kʰe]:	ʔi[ka	[su]:	[teu]:[ri
Araki	--	[kʷe]:	i[ka	[su]:	[kʰu:ri / kʰu[.]ri

As for *g* and *ŋ*, *g* basically appears in word-initial position, and *ŋ* appears in word-medial position. Word-initial *g* is common in names of animals and plants such as ‘*crab*’, ‘*crow*’, and ‘*miscanthus*’, as shown in Table 20.1.

ŋ is relatively stable in Northern Kikaijima, but *g* shows up instead in Central and Southern Kikaijima, except in ‘*dog*’ (<inu+kwa) (*ŋ* is shaded in the table). In word-medial position, *g* and *ŋ* are often in free variation, which reveals nasal degeneration. Also, when *ŋ* precedes [i], the mora is pronounced as [n^hi] and [ni] in some areas (e.g. [pin^hi] and [çini] ‘*beard*’, and [n^hini:] ‘*right*’ in Table 20.2, [k^huni] ‘*nail*’ in Table 19.3, and [mun^hniara:] ‘*straw*’ in Table 17.3).

Table 20.1 [g], [ŋ]

number word point	36	184	229	148	135	
	<i>crab</i>	<i>crow</i>	<i>miscanthus</i>	<i>mirror</i>	<i>injury</i>	<i>dog</i>
Onotsu	ga[nʰi]:	[ga]ra[sa]:	ga[ja]	[ka]ga[mi]	ki[ga]	[i]N[ŋa]:
Shitōke	ga[nʰi]:	[ga]ra[sa]:	ga[ja]	[ka]ga[mi]	ki[ga]	[ʔi]N[ŋa]:
Shiomichi	ga[nʰi]:	[ga]ra[sa]:	ga[ja]	[ka]ga[mi]	ki[ga]	[i]N[ŋa]:
Sakamine	ga[nʰi]:	[ga]ra[sa]:	ga[ja]	[ka]ga[mi]	ki[ga]	[ʔi]N[ŋa]:
Aden	[gai]N	[ga]ra[sa]:	--	[ka]ga[mi]	--	i[nu
Kamikatetsu	ga[i]:	[ga]ra[sa]:	ga[ja]	[kʰa]ga[mi]	kʰi[ga]	[ʔi]N[ŋa]:
Wan	ga[nʰi]:	[ga]ra[sa]:	ga[ja]	[kʰa]ga[mi]	--	[ʔi]N[ŋa]:
Nakasato	ga[nʰi]:	[ga]ra[sa]:	ga[ja]	[ha]ga[mi] / [kagami	ki[ga] / ki[ga]	[ʔi]N[ŋa]:
Araki	ga[nʰi]:	[ga]ra[sa]:	ga[ja]	ka[ga]mi	ke[ga]	[i]N[ŋʷa]:

Table 20.2 [g], [ŋ]

number word point	32	72	252	251	111	91
	<i>right</i>	<i>beard</i>	<i>rabbit</i>	<i>freshwater eel</i>	<i>dirt</i>	<i>jaw</i>
Onotsu	n ^h i[n ^h i]:	[pi]ni	[u]sa[gi]	[ʔu]na[ŋa]:	[p ^h i]ngu	[ʔu]tuŋe:
Shitōke	[mi]ŋi	[pi]n ^h i / [pi]ŋi	[ʔu]sa[ŋi]	[ʔu]na[ŋi]	[pin]ŋu:	[ʔa]gu
Shiomichi	[mi]gi	pi[n ^h i]	u[sa]gi	u[na]gi	[pi]N[gu] / [fi]N[gu]	ʔa[gu]
Sakamine	[mi]gi	pi[ni]	--	--	[pi]N[du]	ʔa[gu]
Aden	[mi]gi	p ^h i[gi]:	ʔu[sa]gi	[ʔu]na[gi]	[pi]N[gu]	[u]tu[je]:
Kamikatetsu	[mi]gi	çi[gi]	ʔu[sa]gi	ʔu[na]gi	[çi]N[gu]:	[ʔa]gu
Wan	[mi]gi	--	u[sa]gi	NR	[çi]N[gu]	ʔa[gu]
Nakasato	mi[gi]	çi[n ^h i] / fi[ŋi]	[ʔu]sagi	[ʔu]nagi	[çi]N[gu]:	ʔa[gu]
Araki	mi[gi]	çi[ni]	u[sa]gi	u[na]gi	[çi]N[gu]	a[go]

4.4 Glottals

(12) Glottal Stop ʔ

When a vowel is in word-initial position, it is usually preceded by a glottal stop [ʔ]. However, glottal stops might be weakly pronounced. Examples are listed below.

Table 21 [ʔ]

number word point	260	28	29	40	85
	<i>yawn</i>	<i>squid</i>	<i>shrimp</i>	<i>cattle</i>	<i>sound</i>
Onotsu	[ʔa]ku[bi]	[ʔi]kʲa	[ʔɪ]bi	[ʔu]ei	[ʔu]tu
Shitōke	ʔa[ku]bi	[ʔi]ka	[ʔɪ]bi	[ʔu]ei	[ʔu]tu
Shiomichi	a[ku]bi	i[ka]	ʔi[bi]	u[ei]	u[tu]
Sakamine	ʔa[ku]bi	ʔi[ka]	ʔi[bi]	ʔu[ei]	ʔu[tu]
Aden	ʔa[ku]bi	[i]ka	i[bi]	u[ei]	u[tu]
Kamikatetsu	[ʔa]ku[bi]	ʔi[ka]	ʔi[bi]	ʔu[ei]	ʔu[tu]
Sakamine	ʔa[ku]bi	ʔi[ka]	ʔi[bi]	ʔu[ei]	ʔu[tu]
Wan	ʔa[ku]bi	ʔi[ka]	ʔi[bi]	ʔu[ei]	ʔu[tu]
Nakasato	[akubi] / [a]ku[bi]	ʔi[ka]	ʔi[bi]	ʔu[ei]	ʔu[tu]
Araki	a[ku]bi	i[ka]	e[bi]	u[ei]	o[to]

(13) Glottal Fricative h

Southern Kikaijima *h* is explained in (1) so will not be dealt with here. In this section, only words which have [h] in the Northern dialects are examined.

The glottal fricative *h* appears only in word-initial position. There are cases where it is assumed to have arisen in word-medial position historically (e.g. ‘*alcoholic beverage*’: *sake > *saxe > *sae > *së: > se: etc), but in the modern languages such instances of [h] or [x] are rare. Vowels which follow *h* are [a], [i], [u], and [o]. When the following vowel is [i], *h* can become [ç], and when the following vowel is [u], *h* can become [ɸ]. However the difference between [hi] and [çi], or [hu] and [ɸu] is very subtle so it is difficult to distinguish the two. We were unable to clarify the difference in our survey due to lack of data. This should be investigated in future research.

Table 22.1 [h]

number word point	157	169	75	83	122	67
	<i>shoulder</i>	<i>sickle</i>	<i>wind</i>	<i>paper</i>	<i>jar</i>	<i>smell</i>
Onotsu	ha[ta]	ha[ma]	[ha]zi	[ha]bi	ha[mɪ]	[ha]za

Shitōke	ha[ta	ha[ma	[ha]zi	ha[bi	ha[mɪ	[ha]za
Shiomichi	ha[ta	ha[ma	ha[di	ha[bi	[ha]mi	NR
Sakamine	ha[ta	ha[ma	--	ha[bi	[ha]mi	--
Aden	ha[ta	ha[ma	ha[di	ha[bi	[ha]mi	ha[da
Kamikatetsu	ha[ta	ha[ma	ha[di	ha[bi	ha[mi	ha[da
Wan	ha[ta	ha[ma	--	--	[ha]mi	--
Nakasato	ha[ta	ha[ma	ha[di	ha[bi	[ha]mi	[nʲu:]i / [nʲi]ju[i] / ha[da
Araki	ha[ta	ha[ma	ha[zi	ha[bi	[ha]mi	ha[da

Table 22.2 [h]

number word point	168	42	87	138	103	178
	<i>bamboo</i> <i>hat</i>	<i>metal</i>	<i>fence</i>	<i>turtle</i>	<i>skin</i>	<i>corner</i>
Onotsu	ha[sa	[ka]ne	[ha]ki	ha[mɪ	ha[:	[ka]du
Shitōke	ha[sa	[ha]nɪ	ha[kʰi	[ka]mɪ	ka[wa	[ka]du
Shiomichi	ha[sa	NR	NR	ka[me / [ha]mi	ka[wa	ka[du
Sakamine	ha[sa	ha[ni / xa[ni	[ʔi]eiga[tei	[ka]mi[ŋa]:	kʰa[wa	ha[du
Aden	ha[sa	ha[ni	[so]n[na]tei	[ha]mi[:	ka[wa	ka[du
Kamikatetsu	ha[sa	ha[ni	NR	[ha]mi	kʰa[wa	kʰa[du
Wan	ha[sa	ha[nɪ	NR	[ha]mi[:	kʰa[wa	kʰa[du
Nakasato	ha[sa	ha[nɪ	[ʔi]ei[ga]tei	[ha]mi[:	ka[wa	kʰa[du / su[mɪ
Araki	ka[sa	ha[ni / ha[nɪ	ka[ki]ne	ka[mi / ka[me	ka[wa	ka[du

Table 22.3 [h]

number word point	22	1	31	115	213
	<i>tree</i>	<i>hair</i>	<i>lower back</i>	<i>rice</i>	<i>mold</i>
Onotsu	hɪ[:	[çi]:	[hu]ei	hu[mɪ	[ho]:[zi
Shitōke	çi[:	[çi]:	[hu]ei	hu[mɪ	[ho]:[zi
Shiomichi	hi[:	pi[nʲi / [ha]çcia[ŋi]:	hu[ei	hu[mi	ho[:]zi
Sakamine	hi[:	ke[: / [has]sa[gi]:	hu[ei	hu[mi	ho[:]zi
Aden	çi[:	çi[:	hu[ei	hu[mi	[ho]:[zi
Kamikatetsu	çi[:	çi[gi]:	[φu]ei	φu[mi	[ho]:[zi
Wan	çi[:	çi[nʲi	hu[ei	hu[mi	[ho:]dʒi
Nakasato	çi[:	[has]sa[ŋi]: / [has]sa[nɪ]:	φu[ei / hu[ei	φu[mi / φu[mɪ	[ho:]zi
Araki	çi[:	çi[nɪ / çi[ŋi	φu[ei	φu[mi	[ho:]zi / ho[:]zi

The above *h* corresponds to the *k* in [ka], [ke], and [ko] in the Tokyo dialect. *ki* is pronounced as [kʰi] (Northern Kikaijima) and [tei] (Southern Kikaijima) rather than *hi*, and *ku* is pronounced as [kʰu], instead of [hu]. However, ‘tree’ (Tokyo Japanese *ki*) becomes [hi:], [hi:], and [ç:i], not [kʰi] or [tei] (Table 22.3). Due to this, the Proto Kikaijima form for ‘tree’ should be considered to be *ke, not *ki. Kamimura (1955, 1998) points out that in Old Japanese ‘tree’ may have been pronounced as *ke*, since in Amamiōshima, ‘tree’ (Tokyo Japanese *ki*) and ‘hair’ (Tokyo Japanese *ke*) are homophonous.

However, the consonant which corresponds to Tokyo dialect [ka], [ke], and [ko] is not always pronounced as *h*. For example, ‘skin’ and ‘corner’ in Table 22-2 are pronounced with [k] more than [h], (shaded). Additionally, the words in Table 22.4 and 22.5 are pronounced with [k] in all areas. It is necessary to use comparison with other Ryukyu dialects to determine which words tend to appear with [h] and which with [k].

Table 22.4 Tolyo dialect [ka] : Kikaijima dialect [k]

number word	37	90	220	219	224	229
point	<i>rice</i> <i>porridge</i>	<i>model</i>	<i>shape</i>	<i>skipjack tuna</i>	<i>roof tile</i>	<i>mirror</i>
Onotsu	ka[i]:	[ka]ta	[ka]ta(model)	ka[tsu]:	ka[wa]ra	[ka]ga[mi]
Shitōke	ka[i]:	[ka]ta	ka[ta]tei	ka[tsu]:	[ka]wa[ra]	[ka]ga[mi]
Shiomichi	ka[i]	ka[ta]	[ka]ta[tei]	[ka]tsu[o]	ka[wa]ra	[ka]ga[mi]
Sakamine	ka[ju]	ka[ta]	--	[kʰa]tsu[:]	--	[ka]ga[mi]
Aden	ka[i]	ka[ta]	--	ka[tsu]o	ka[wa]ra	[ka]ga[mi]
Kamikatetsu	[kʰa]i[:]	ka[ta]	[kʰa]ta[tei]	[kʰa]tu[:]	ka[wa]ra	[kʰa]ga[mi]
Wan	kʰa[i]	--	[kʰa]ta[tei]	[kʰa]tu[:] / [kʰa]tsu[:]	kʰa[wa]ra	[kʰa]ga[mi]
Nakasato	kʰa[i] / kʰa[ju]	kʰa[ta]	[ka]ta[tei] / [katatei]	[katsuo]	[kawara]	[ha]ga[mi] / [kagami]
Araki	[ka]i[:]	ka[ta]	[ka]ta[tei]	ka[tsuo]	ka[wa]ra	ka[ga]mi

Table 22.5 Tolyo dialect [ka] : Kikaijima dialect [k]

number word	148	196	205	225	18
point	<i>injury</i>	<i>voice</i>	<i>heart</i>	<i>calendar</i>	<i>powder</i>
Onotsu	ku[ga]	ku[i]	NR	[ku]ju[mi]	[me]ri[ken]ko
Shitōke	ku[ga]	ku[i]	[ku]ku[ru]	[ku]ju[mi]	ku[:]
Shiomichi	ki[ga]	[ku]i	NR	[ku]ju[mi]	kʰu[na]
Sakamine	ku[ga]	[kʰu]i	[kʰu]ku[ru]	[kʰu]ju[mi]	[kʰu]:
Aden	--	[ku]i	tei[mu]	[ku]ju[mi]	--
Kamikatetsu	kʰi[ga]	[kʰu]i	[kʰu]ku[ru]	[kʰu]ju[mi]	[kʰu]:

Wan	--	[k ^h u]i	[ku]ku[ru]	[k ^h u]ju[mi]	k ^h u[na]
Nakasato	ki[ga] / kɪ[ga]	[k ^h u]i	[ku]ku[ru] / [kukuru]	[ku]ju[mi] / [ɸu]ju[mi]	k ^h u[ː]
Araki		ku[i]	NR	[ku]ju[mi]	ko[na]

The relationship of *p*, *ɸ*, *h*, and *k* is summarized in Table 22-6 ([h] and [ç] are shaded). *h* occurs more in Kamikatetsu, Wan, Nakasato, and Araki (Central and Southern Kikaijima), compared with Onotsu and Shitōke (Northern Kikaijima), Shiomichi, Sakamine, and Aden (Central Kikaijima). The fact that the first mora of ‘wound’ becomes [kʔi] or [tei], and that of ‘cloud’ becomes [kʔ] was explained in (11).

Table 22.6 [h] and [k]

	<i>tooth</i>	<i>shoulder</i>	<i>elbow</i>	<i>fart</i>	<i>tree</i>	<i>wound</i>	<i>boat</i>	<i>bone</i>	<i>rice</i>	<i>cloud</i>
Onotsu	pa	ha	pi	pi / ɸi	hi	kʔi	pu		hu	kʔu
Shitōke	pa	ha	pi	pɪ	çi	kʔi	ɸu	pu	hu	kʔu
Shiomichi	pa	ha	pi		hi	kʔi	ɸu		hu	kʔu
Sakamine	pa	ha	pi	ɸi	hi	kʔi	pu		hu	kʔu
Aden	pa	ha	çi	pi / ɸi	çi	tei	ɸu		hu	kʔu
Kamikatetsu	ha		çi			tei	ɸu			kʔu
Wan	ha		çi			tei	ɸu		hu	kʔu
Nakasato	ha		çi			tei	ɸu			kʔu
Araki	ha		çi			ki	ɸu			kʔu

4.5 Approximants

The Kikaijima dialects have the approximants *w* and *j*.

w might appear as the velar approximant [u] and the palatal approximant [ɥ]. Vowels which follow are [a], [i], [ɪ], [u], and [e]. *wa* corresponds to Tokyo dialect [wa]. *wi*, *wɪ*, and *we* result from the merging of consecutive vowels such as *wai, *ui, *ui, and most instances appear with long vowels (e.g. ‘tub’: *oke > *oxe > *oe > ui > ui > wi:, ‘above’: *ue > ui > wi: > wi:, and ‘celebration’: *juwai > iwe:). As explained in (1), *wu* derives from [wo] (shaded in Table 23.3).

Table 23.1 [w]

number word point	110	186	224	103	182
	<i>belly</i>	<i>straw</i>	<i>roof tile</i>	<i>skin</i>	<i>foxtail millet</i>
Onotsu	wa[ta	wa[ra	ka[wa]ra	ha[ː	a[wa

Shitōke	wa[ta	wa[ra	[ka]wa[ra	ka[wa	ʔa[wa
Shiomichi	wa[ta	wa[ra	ka[wa]ra	ka[wa	a[wa
Sakamine	wa[ta	wa[ra	--	k ^h a[wa	ʔa[wa
Aden	wa[ta	--	ka[wa]ra	ka[wa	[a]wa
Kamikatetsu	wa[ta	wa[ra / [wa]ra	ka[wa]ra	k ^h a[wa	ʔa[wa
Wan	wa[ta	wa[ra	k ^h a[wa]ra	k ^h a[wa	ʔa[wa
Nakasato	wa[ta	wa[ra	[kawara	ka[wa	ʔa[wa
Araki	wa[ta	wa[ra	ka[wa]ra	ka[wa	a[wa

Table 23.2 [w]

number word point	201	2-32	207	2-102
	<i>tub</i>	<i>tub, niece</i>	<i>above</i>	<i>celebration</i>
Onotsu	u[ɪ	(w)u[ik]k ^w a	[u]ɪ	[ju]:[we]:
Shitōke	u[ɪ	u[i]k[ka, uik[ka	[wɪ]:	[ju]we:
Shiomichi	ta[re:(wash tub) // [wi]:	[ma]ta[be]:	wi:	[ju:]je:
Sakamine	NR	[wik]ka	[uɪ]:	[ju:]je:
Aden	[u]i / [wi]:	wi[:k]k ² a	[wi	[ju:]je:
Kamikatetsu	NR	βik[ka	qi:	[ju:]we:
Wan	NR	[mi]:[ik]ka (tubniece)	[uɪ]:	[ju:]je:
Nakasato	t ^h a[ru	mi[:]kka	ui:	[jui]je:
Araki	u[ki	mik[k ^w a	wi:	[ju:]je: / ju[:]je:

Table 23.3 (=Table 3.3) [w]

number word point	34	38	36	33	175
	<i>husband</i>	<i>woman</i>	<i>aunt</i>	<i>uncle</i>	<i>the day before yesterday</i>
Onotsu	[u]tu	[u]na[ɲu	u[ba]:	u[dzi]:	ʔut[tʰi]:
Shitōke	[u]tu	[u]na[ɲu	[ʔu]ba[kkɪ](:), [ʔu]ba	[ʔu]n[muɰi]:	[wu]t[tʰi]:
Shiomichi	wu[tʰu	[wu]na[gu	[ʔa]n[ma]: / ʔa[ni]:	[kʰi]n[kʰa]:	wut[tʰi]: / [wu]t[tʰi]:
Sakamine	gu[tu	[gu]na[ɲu	ʔu[ba]:	ʔu[zi]:	[gu]t[tʰi]:
Aden	gu[tu	[gu]na[u	gu[ba	gu[dzi	--
Kamikatetsu	ʔu[tu	[wu]na[u	wu[ba	ʔu[dzi	ʔut[tʰi]:
Wan	wu[tu	[wu]na[gu	wu[ba]:	wu[dzi]:	wut[tʰi]:
Nakasato	ʔu[tu	[ʔu]na[gu	ʔo[ba]: / ʔu[ba	ʔu[dzi]:	ʔut[tʰi]:
Araki	ʔu[tu	[ʔu]na[uɰu	ʔo[ba]:	ʔu[dzi]:	--

j precedes the vowels [a], [i], [ɪ], and [u]. *ja* corresponds to Tokyo dialect [ja], and *ju* corresponds to [ju] and [jo]. *ji* and *ji* correspond to Classical Japanese [je] (*‘handle’* and *‘branch’* in Table 24-2.)

Table 24-1 [j]

number word point	2-80	128	184	112	78
	<i>house</i>	<i>mountain</i>	<i>miscanthus</i>	<i>parent</i>	<i>fog</i>
Onotsu	[ja:	ja[ma	ga[ja	[tu]zitu	[kʰiri / ka[su]mi
Shitōke	ja[:	ja[ma	ga[ja	ʔu[ja	mu[ja
Shiomichi	ja[:	ja[ma	ga[ja	ʔu[ja	mu[ja
Sakamine	ja[:	ja[ma	ga[ja	u[ja	--
Aden	[ja:	ja[ma	--	--	--
Kamikatetsu	ja[:	ja[ma	ga[ja	ʔu[ja	kʰi[ri
Wan	ja[:	ja[ma	ga[ja	u[ja	kʰi[ri
Nakasato	ja[:	ja[ma	ga[ja	ʔu[ja	[mu]ja
Araki	ja[: / [ja:	ja[ma	ga[ja	u[ja	kʰi[ri / mo[ja / mu[ja

Table 24.2 [j]

number word point	5	46	17	126	95	41
	<i>handle</i>	<i>branch</i>	<i>hot water</i>	<i>night</i>	<i>winter</i>	<i>fish</i>
Onotsu	[ji]:	[ju]da	ju[:	ju[ru	[pʰu]ju	[ʔi]ju
Shitōke	[ji]:	[ji]da / [ju]da	ju[:	ju[ru	[ɸu]ju	[ʔi]u
Shiomichi	ji[:	ju[da	ju[:	ju[ru	ɸu[ju	ʔi[ju
Sakamine	je[:	ji[da	ju[:	ju[ru	pu[ju	ʔi[ju
Aden	ji[:	ju[da	ju[:	ju[ru	ɸu[ju	i[ju
Kamikatetsu	ji[:	ju[da	ju[:	ju[ru	ɸu[ju	ju
Wan	NR	ju[da	ju[:	ju[ru	ɸu[ju	ʔi[ju
Nakasato	--	ji[da / ju[da	ju[:	ju[ru	ɸu[ju	ʔi[ju
Araki	ji[:	ju[da	ju[:	juru	ɸu[ju	i[ju

4.6 Inventory of Consonant Phonemes in the Kikaijima Dialects

To conclude, the inventory of consonant phonemes for the nine sites is given below. [] indicates allophones, and () indicates that the sound is rare.

(1) Onotsu and Shitōke (Northern Kikaijima)

plosive	p[p / φ] b	t t' d	k k' g	ʔ
nasal	m	n[n / nʲ]	ŋ	
affricate		ts' tɕ		
fricative		s[s / ɕ] z[z / ɗ / ʒ / ɗʒ]		h
flap		r		
approximant		j	w	

(2) Sakamine (Central Kikaijima)

plosive	p[p / φ] b	t t' d	k k' g	ʔ
nasal	m	n nʲ	ŋ	
affricate		ts'[ts' / ts] tɕ		
fricative		s[s / ɕ] z[z / ɗ / ʒ / ɗʒ]		h
flap		r		
approximant		j	w	

(3) Wan (Central Kikaijima)

plosive	(p) b	t t' d	k k' g	ʔ
nasal	m	n nʲ	ŋ	
affricate		(ts) tɕ		
fricative		s[s / ɕ] z[z / ɗ]		h[h / ɕ / φ]
flap		r		
approximant		j	w	

(4) Nakasato (Central Kikaijima)

plosive	(p) b	t t' d	k k' g	ʔ
nasal	m	n[n / nʲ]	ŋ	
affricate		tɕ'[tɕ' / tɕ]		
fricative		s[s / ɕ] (z) z[z / ɗ]		h[h / ɕ / φ]
flap		r		

approximant		j		w
-------------	--	---	--	---

(5) Shiomichi and Aden (Southern Kikaijima)

plosive	p[p / ɸ] b	t tʔ d	k kʔ g ?
nasal	m	n nʲ	ŋ
affricate		ɬɕ	
fricative		s[s / ɕ] z[z / d͡z]	h
flap		r	
approximant		j	w

(6) Kamikatetsu (Southern Kikaijima)

plosive	(p) b	t tʔ d	k kʔ g ?
nasal	m	n nʲ	ŋ
affricate		ɬɕ	
fricative		s[s / ɕ] z[z / d͡z]	h[h / ɕ / ɸ]
flap		r	
approximant		j	w

(7) Araki (Southern Kikaijima)

plosive	(p) b	t tʔ d	k kʔ g ?
nasal	m	n nʲ	ŋ
affricate		ɬɕ ɬɕʰ	
fricative		s[s / ɕ] z[z / d͡z / ʒ / d͡ʒ]	h[h / ɕ / ɸ]
flap		r	
approximant		j	w

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Accentuation in Southern and Central Kikaijima

Haruo Kubozono

1 Introduction

This paper provides a broad overview of the accent systems of six villages (Wan, Nakasato, Kamikatetsu, Aden, Sakamine, and Shiomichi) in the Southern and Central Kikaijima regions, based on the joint research carried out in September 2010. The first part of this paper provides an analysis of the accent system of the two communities of Wan and Nakasato, referring to earlier research (Uwano 2000, 2002a). In the second part, the accent systems of the other villages are described and analyzed in comparison to the system of these two villages. For the Northern dialect (Onotsu), readers are referred to Uwano (2002a,b).

2 Nakasato and Wan Dialects

2.1 Previous Research

The accentuation of the Wan dialect on Kikaijima has been analyzed by Uwano (2000, 2002a). According to him, the Wan dialect has only two accent classes, regardless of the word length, like the Kagoshima and Nagasaki dialects. However, because the lexical items in the two accent classes do not match with those of the two accent classes (Types A and B) in Kagoshima and Nagasaki, Uwano uses α and β to represent the two accent classes in Kikaijima. Thus, the Wan dialect can be described as having a two-pattern accent system consisting of α -type and β -type.

According to Uwano (2000, 2002a), in the Wan dialect, the basic unit to which tones are assigned is the mora, not the syllable. In this respect, the Wan dialect is basically the same as the Nagasaki and Koshikijima (Kagoshima Prefecture) dialects, and different from the Kagoshima dialect, whose basic unit is the syllable (Sakaguchi 2001; Kamimura 1937, 1941; Hirayama 1951; Kibe 2000; Kubozono 2010, 2011, 2012).

In terms of the difference between the α -type and the β -type, the α -type defines its tonal pattern in every *bunsetsu*, or the basic syntactic unit consisting of a content word with or without one or more grammatical particles. This is a feature shared by the Kagoshima and Nagasaki dialects. More specifically, the α -type in the Wan dialect assigns a Low tone on the penultimate mora in every *bunsetsu*. Therefore, for nouns pronounced in isolation, the penultimate mora of the noun becomes low, while the other moras become high. For nouns followed by a particle, the penultimate mora of the whole phrase becomes low.

On the other hand, the β -type tonal patterns are defined within each word, rather than each *bunsetsu*, with the pitch rising at the penultimate mora in the domain. In other words, the tone pattern is fixed with the word as its domain, as in the Tokyo dialect. However, regardless of word length, the antepenultimate mora becomes low, and the next mora becomes high. The two types are given schematically below (\bigcirc represents a mora in a noun, and \triangle a mora in a particle).

(1) a. α -type: $\bigcirc\bar{\bigcirc}$, $\bar{\bigcirc}\bar{\bigcirc}\bar{\bigcirc}$, $\bar{\bigcirc}\bar{\bigcirc}\bar{\bigcirc}\bar{\bigcirc}$, $\bar{\bigcirc}\bar{\bigcirc}\bar{\bigcirc}\bar{\bigcirc}\bar{\bigcirc}\triangle$, $\bar{\bigcirc}\bar{\bigcirc}\bar{\bigcirc}\bar{\bigcirc}\triangle\triangle$

(Lexical items: midu ‘water’, tui ‘bird’, hana ‘nose’, gama ‘cave’, hibusji ‘smoke’, udui ‘dance’, hasami ‘scissors’, kaNnari ‘thunder’, aRtucji ‘dawn’...)

b. β -type: $\bar{\bigcirc}\bar{\bigcirc}\bar{\bigcirc}\bar{\bigcirc}$, $\bar{\bigcirc}\bar{\bigcirc}\bar{\bigcirc}\bar{\bigcirc}\triangle$, $\bar{\bigcirc}\bar{\bigcirc}\bar{\bigcirc}\bar{\bigcirc}\triangle\triangle$

(Lexical items: umi ‘sea’, nabi ‘pot’, funi ‘ship’, usu ‘mortar’, hatana ‘sword’, hateR ‘field’, tiNzjoR ‘ceiling’...)

A broad comparison of the two types is given in Table 1. The difference between domains of α -type and β -type is that the former has characteristics of what Hayata (1999) calls ‘word tone’, while the latter has characteristics of ‘word accent’, which means that the system is a hybrid one with the feature of word tone (as in the Kagoshima dialect) and that of word accent (as in the Tokyo dialect).

Table 1

	Tone Bearing Unit	Domain	
α -type	mora	<i>bunsetsu</i>	penultimate mora low
β -type		word	penultimate mora high

Table 2 is a classification of dialects which have two-pattern accent systems, based on the tone bearing unit.¹ The difference in tone bearing unit is not directly related to the distinction between word tone and word accent, explained above.

Table 2

Syllabic	Kagoshima, (Koshikijima)
Moraic	Nagasaki, Koshikijima, Kikaijima-Wan

¹ Koshikijima (Teuchi dialect) assigns tones to syllables at the beginning of words, and to moras at the end of words (Kubozono 2010, 2011, 2012).

Returning to the Wan dialect, Uwano (2000, 2002a) proposes the following phonological interpretation of the two tonal patterns listed in (1).

- (2) a. α -type: only the penultimate mora in the *bunsetsu* is low (unaccented type)
- b. β -type: the penultimate mora in the word has a raising kernel

This analysis assumes, on the one hand, that the location of the rise in pitch is significant in the β -type where the penultimate mora (the second to last mora) is specified as bearing an accent kernel (raising kernel). In the α -type, on the other hand, pitch rise is not significant although it is present, but it is the lowering of the penultimate mora which is considered to be the significant feature.

2.2 Survey

In the current joint research, we gathered accent data from two informants in Wan village, and two informants in Nakasato village, located to the south of Wan. The data used in this paper was collected by the author from two middle-aged male speakers (one in each village).²

In the survey, we had the informants read out bare nouns and their *bunsetsu* forms both in isolation and in sentences. The *bunsetsu* forms consist of nouns followed by the particles *ga* (nominative case), *kara* ‘from’, *made* ‘until’, *karamo* ‘even from’, and *mademo* ‘even till’, while the sentence forms consist of a word or *bunsetsu* followed by another *bunsetsu* (i.e. a conjunctive form). The speakers were asked to read the items (words/*bunsetsu* forms) twice, and we noted the pronunciations on paper while recording them using a digital recorder. The same methodology was used in the other villages to be described below.

2.3 α -type

2.3.1 Results

First, two-mora nouns will be discussed. The symbols in the upper right corner of the items, ① and ③, indicate that they belong to the first and the third classes of Kindaichi’s classified vocabulary known as *ruibetsu goi*. Class 1 of two-mora nouns corresponds to A-type nouns in the Kagoshima and Nagasaki dialects, and class 3 to B-type noun.

- (3) *midu* ‘water’^①, *tui* ‘bird’^①, *hana* ‘nose’^①, *gama* ‘cave’;
jama ‘mountain’^③, *pana* ‘flower’^③, *mami* ‘bean’;
muni ‘wheat’

² The informant in Nakasato village is Kiyoji Tokuta (age 53, born May 1953) and the informant in Wan village is Susumu Iwata (age 57, born January 1953).

These words have the following tonal patterns. “.” indicates words/phrases pronounced in isolation, and “...” indicates conjunctive forms.³

- (4) Isolation Forms: $\overline{\text{○○.}}$ $\overline{\text{○○ga.}}$ $\overline{\text{○○mo.}}$ $\overline{\text{○○kara.}}$ $\overline{\text{○○made.}}$
 $\overline{\text{○○karamo.}}$ $\overline{\text{○○mademo.}}$
 Conjunctive Forms: $\overline{\text{○○ga...}}$ $\overline{\text{○○kara...}}$ $\overline{\text{○○made...}}$
 $\overline{\text{○○karamo...}}$ $\overline{\text{○○mademo...}}$

For three-mora nouns, the accentuation of the following words was investigated. ^④ indicates class 4 of Kindaichi’s classified vocabulary. Class 1 of three-mora nouns belong to A-type and class 4 to B-type in Kagoshima and Nagasaki.

- (5) *hibuei* ‘smoke’^①, *udui* ‘dance’, *katatei* ‘form’^①;
hasami ‘scissors’^④, *hagami* ‘mirror’^④, *kujumi* ‘calendar’^④

These words have the following tonal patterns

- (6) Isolation Forms: $\overline{\text{○○○.}}$ $\overline{\text{○○○ga.}}$ $\overline{\text{○○○mo.}}$ $\overline{\text{○○○kara.}}$ $\overline{\text{○○○made.}}$
 $\overline{\text{○○○karamo.}}$ $\overline{\text{○○○mademo.}}$
 Conjunctive Forms: $\overline{\text{○○○ga...}}$ $\overline{\text{○○○kara...}}$ $\overline{\text{○○○karamo...}}$

Examples of nouns with four moras are *kannari* ‘thunder’ and *a:tutei* ‘dawn’. These words have the following tonal pattern.

- (7) Isolation Forms: $\overline{\text{○○○○.}}$ $\overline{\text{○○○○ga.}}$ $\overline{\text{○○○○mo.}}$ $\overline{\text{○○○○kara.}}$
 $\overline{\text{○○○○made.}}$ $\overline{\text{○○○○karamo.}}$ $\overline{\text{○○○○mademo.}}$
 Conjunctive Forms: $\overline{\text{○○○○ga...}}$ $\overline{\text{○○○○kara...}}$ $\overline{\text{○○○○karamo...}}$

2.3.2 Analysis

The results in (4), (6), and (7) accord with the description in Uwano (2000, 2002a). That is, the penultimate mora becomes low and the other moras become high with each bunsetsu. Moreover,

³ In earlier research conducted by Uwano, the tonal patterns of conjunctive forms differ slightly between the Wan and Nakasato dialects (Uwano 2000). We were not able to confirm this in this survey due to insufficient data.

there is no difference between forms pronounced in isolation and conjunctive forms.

Unlike the β -type, which will be explained shortly below, the final mora of the isolation forms does not become low. This mora is invariably high, both in isolation and conjunctive forms.

Analyzing this within the framework of Autosegmental Phonology, proposed by Goldsmith (1976) and Haraguchi (1977), the basic melody of the α -type can be considered to be HLH, which is assigned on a moraic basis from right to left, with the bunsetsu as its domain. When a bunsetsu has more than four moras, the leftmost H tone spreads from right to left. “]” represents the right edge of the domain.

$$(8) \quad \dots \mu \quad \mu \quad \mu \quad \mu]_{\text{bunsetsu}}$$

$$\quad \quad \backslash \quad | \quad | \quad |$$

$$\quad \quad \text{H L H}$$

It should be emphasized here that this system does not allow tonal patterns such as $\bigcirc\bigcirc\bigcirc$ and $\bigcirc\bigcirc\bigcirc$. As analyzed in Uwano (2000, 2002a), as discussed in (2a) above, only the penultimate mora in the bunsetsu domain becomes low, with all the moras before it becoming high. Informants consistently rejected tonal patterns like *hanaga* ‘nose-NOM’ or *kata \bar{t} ei* ‘form’, since the mora before the penultimate mora needs to be high. In other words, their tonal patterns have to be $\bigcirc\bigcirc\bigcirc$.

2.4 β -type

2.4.1 Results

For β -type nouns, the accentuation of the following words was analyzed. These words belong to B-type in the Kagoshima and Nagasaki dialects (e.g. *umi* ‘sea’ is pronounced as ‘ $\bar{u}mi$ ’ in both dialects).

- (9) a. two-mora nouns
 umi ‘sea’^④, *nabi* ‘pot’, *huni* ‘ship’, *usu* ‘mortar’^④, *tida* ‘sun’
 b. three-mora nouns
 hatana ‘sword’^④, *hate:* ‘field’^④
 c. four-mora nouns
 meerabi ‘young girl’, *tinzo:* ‘ceiling’, *kamakiri* ‘praying mantis’,
 murasaki ‘purple’

These words show the following tonal patterns. “~” indicates that the words permit two or more

patterns depending on the word, utterance, or speaker. The result is the same as given in the descriptions in Uwano (2000, 2002a).

(10) a. two-mora nouns

Isolation Forms: $\overline{\text{O}}\overline{\text{O}}.$ $\overline{\text{O}}\overline{\text{O}}\text{ga}.$ $\overline{\text{O}}\overline{\text{O}}\text{mo}.$ $\overline{\text{O}}\overline{\text{O}}\text{kara}.$ $\overline{\text{O}}\overline{\text{O}}\text{made}.$
 $\overline{\text{O}}\overline{\text{O}}\text{karamo}.$ $\overline{\text{O}}\overline{\text{O}}\text{mademo}.$

Conjunctive Forms: $\overline{\text{O}}\overline{\text{O}}\text{ga}....$ $\overline{\text{O}}\overline{\text{O}}\text{kara}...$ $\overline{\text{O}}\overline{\text{O}}\text{karamo}...$

b. three-mora nouns

Isolation Forms: $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}.$ $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\text{ga}.$ $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\text{mo}.$ $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\text{kara}.$ $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\text{made}.$
 $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\text{karamo}.$ $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\text{mademo}.$

Conjunctive Forms: $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\text{ga}...$ $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\text{kara}...$ $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\text{karamo}...$

c. four-mora nouns

Isolation Forms: $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}.$ $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\text{ga}$ ($\sim\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\text{ga}$) $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\text{mo}.$
 $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\text{kara}.$ $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\text{made}.$ $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\text{karamo}.$ $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\text{mademo}.$

Conjunctive Forms: $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\text{ga}...$ $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\text{kara}...$ $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\text{karamo}...$

2.4.2 Analysis

Unlike the α -type, the β -type has different tonal patterns for forms pronounced in isolation and conjunctive forms. What the two have in common is that the antepenultimate mora in the word (not the bunsetsu) becomes low, and a pitch rise occurs between this and the following mora. When a word has fewer than three moras, the word is pronounced high from the beginning of the word (i.e. from the penultimate mora).

As for the conjunctive forms, only the antepenultimate mora becomes low, and all other moras, including particles, become high. For two-mora nouns, the entire bunsetsu is high (e.g. $\overline{\text{u}}\overline{\text{m}}\overline{\text{i}}\overline{\text{k}}\overline{\text{a}}\overline{\text{r}}\overline{\text{a}}$...). In the case of isolation forms, in contrast, in addition to the antepenultimate mora, the last mora of the bunsetsu becomes low. When a two-mora noun is pronounced in isolation, the tonal pattern becomes $\overline{\text{O}}\overline{\text{O}}$ (e.g. $\overline{\text{u}}\overline{\text{m}}\overline{\text{i}}$. ‘sea’). In this way, the isolation forms are distinguished from the conjunctive forms in terms of the pitch of the last mora in the bunsetsu.

Considering the final low tone in isolation forms as a boundary tone which marks the end of a sentence, it follows that the β -type pattern fundamentally has low on the antepenultimate mora and high on the penultimate mora, as claimed by Uwano (2000, 2002a). In isolation forms, the sentence-final low tone is simply superimposed on this lexical pattern. Thus, two-mora nouns are pronounced in isolation as $\overline{\text{O}}\overline{\text{O}}$ (e.g. $\overline{\text{u}}\overline{\text{m}}\overline{\text{i}}$. ‘sea’), simply because the lexical accent pattern with a high penultimate mora combines with the low tone marking the end of a bunsetsu.

In Autosegmental Phonology, we can analyze this observation in the following way. The β -type

has HLH as a basic melody, as with the α -type, but the melody is associated from the end of the *word*, not from the end of the *bunsetsu*. Moreover, the final mora needs to be hidden from the domain to which the melody is associated by making the final mora phonologically invisible. In other words, HLH is assigned to the word from right to left, with the last mora excluded. This is schematized in (11), where $\langle \mu \rangle$ indicates the mora which is phonologically invisible. The concept of “phonological invisibility” may seem ad hoc, but it is useful for the analyses of the accent systems of other villages, too (Kamikatetsu, Aden, Shiomichi), so generality seems not to be lost. Also, as analyzed above, while the tonal pattern is assigned to the *bunsetsu* for the α -type, the word is the relevant domain for β -type. It is very interesting that these kinds of combination can be found in one and the same system. This will become important when comparing these villages with the surrounding villages later in section 3.

$$(11) \quad \dots \mu \quad \mu \quad \mu \quad \mu \langle \mu \rangle]_{\text{word}} \mu \quad \mu$$

$$\quad \quad \quad \backslash \quad | \quad | \quad | \quad /$$

$$\quad \quad \quad \text{H L H}$$

As for the analysis in (11), it should also be emphasized that the basic melody is not LH. As explained above, the β -type involves a pitch rise between the antepenultimate and the penultimate moras, but it has other characteristics, too. If the pitch rise were the only significant feature, LLH (conjunctive forms) and LLHL (isolation forms) as well as HLHH (conjunctive forms) and HLHL (isolation forms) should be allowable for four-mora nouns, but this is not the case. For example, *meerabi*. (‘young girl’, in isolation) is pronounced $\overline{\text{meerabi}}$., not $\overline{\text{meerabi}}$. by informants. Unless the H tone on the pre-antepenultimate mora is a sentential tone (for example a boundary tone), this should be explained as a feature of the word. This is one reason that HLH is defined as the basic melody in (11). Moreover, assuming this basic melody allows us to reveal a commonality between the α -type and the β -type.

2.5 Other Findings

In addition to the above, the following is also observed in Wan and Nakasato.

2.5.1 One-Mora Nouns

One-mora nouns have no accentual distinctions, all of them having the tonal pattern for the α -type.

$$(12) \quad \textit{tei}: \text{‘blood’}^{\textcircled{1}}, \textit{ha}: \text{‘tooth’}, \textit{se}: \text{‘alcohol’}, \textit{ha}: \text{‘water well’}; \textit{mi}: \text{‘eye’}^{\textcircled{3}}, \textit{hi}: \text{‘tree’}^{\textcircled{3}},$$

ja: ‘house’

○○. ○○ga. ○○ga... ○○kara. ○○karamo.

The α -type vs. β -type distinction is lost here, but it is not clear why this change has taken place in the direction of the α -type, rather than the β -type. It should not be problematic either phonetically or phonologically for the words in (12) to have the same tonal pattern as β -type two-mora nouns.

As shown in (12), one-mora nouns are pronounced with a long vowel, whether or not they occur with a particle, making them the same length as two-mora nouns. This is a phonological lengthening from one mora to two moras, which is different from vowel lengthening in interrogative sentences, which we will see in section 2.5.3 below. Lengthening of vowels in interrogative sentences is a phonetic phenomenon that takes place after the tonal pattern is determined, but lengthening of one-mora nouns in (12) gives the entire word two moras which have the same tonal patterns as two-mora nouns. In other words, the vowel lengthening happens phonologically before the tonal pattern is fixed. Alternatively, these words may be listed in the lexicon as two-mora nouns in the first place.

2.5.2 Accentuation of Initialisms

In addition to the basic words, we also investigated loanwords and initialisms, and found that all such words belong to the β -type. The tonal patterns of the forms in isolation are listed in (13).

- (13) $\overline{\text{taN}}\overline{\text{ba}}\overline{\text{riN}}$ ‘tambourine’, $\overline{\text{cho}}\overline{\text{ko}}\overline{\text{re}}\overline{\text{eto}}$ ‘chocolate’, $\overline{\text{tee}}\overline{\text{pure}}\overline{\text{ko}}\overline{\text{oda}}\overline{\text{a}}$ ‘tape recorder’,
 $\overline{\text{pi}}\overline{\text{ia}}\overline{\text{aru}}$ (PR), $\overline{\text{jee}}\overline{\text{a}}\overline{\text{aru}}$ (JR), $\overline{\text{shi}}\overline{\text{it}}\overline{\text{ii}}$ (CT), $\overline{\text{efu}}\overline{\text{bi}}\overline{\text{iai}}$ (FBI), $\overline{\text{pi}}\overline{\text{iti}}\overline{\text{iee}}$ (PTA),
 $\overline{\text{wai}}\overline{\text{em}}\overline{\text{ushi}}\overline{\text{iee}}$ (YMCA)

As shown in (13), the antepenultimate mora is low and the penultimate mora is high. In addition, the isolation forms are affected by the boundary tone to make the mora at the end of the bunsetsu low. Also, tones are assigned on the basis of moras, not syllables, which is the same as words of Japanese origin. In this respect, loanwords and initialisms differ from those in the Koshikijima dialect, where both syllables and moras are relevant. The tonal patterns in Koshikijima are listed in (14). They are A-type words in Koshikijima (cf. Note 1. See Kubozono 2010, 2011, 2012 for details).

- (14) $\overline{\text{taN}}\overline{\text{ba}}\overline{\text{riN}}$, $\overline{\text{cho}}\overline{\text{ko}}\overline{\text{re}}\overline{\text{eto}}$, $\overline{\text{tee}}\overline{\text{pure}}\overline{\text{ko}}\overline{\text{oda}}\overline{\text{a}}$, $\overline{\text{pi}}\overline{\text{ia}}\overline{\text{aru}}$, $\overline{\text{jee}}\overline{\text{a}}\overline{\text{aru}}$, $\overline{\text{shi}}\overline{\text{it}}\overline{\text{ii}}$, $\overline{\text{efu}}\overline{\text{bi}}\overline{\text{iai}}$,
 $\overline{\text{pi}}\overline{\text{iti}}\overline{\text{iee}}$, $\overline{\text{wai}}\overline{\text{em}}\overline{\text{ushi}}\overline{\text{iee}}$

Notice that loanwords in Wan and Nakasato belong to the β -type. Considering the fact that β -type words in section 2.4 are pronounced with the B-type pattern in the Kagoshima and Nagasaki dialects, this is an interesting finding. Basically, loanwords in Kagoshima, Nagasaki, and Koshikijima dialects are pronounced as A-type. Also, native Japanese words with the A-type pattern in these dialects correspond to the α -type in Kikaijima Wan and Nakasato dialects (sections 2.3 and 2.4). Given this regular correspondence between dialects, it is expected that loanwords in the Wan and Nakasato dialects would exhibit the α -type pattern, but in fact they belong to the β -type. Why is this?

A common feature shared by the A-type pattern in the Kagoshima dialect and the β -type in the Wan and Nakasato dialects is that the end of the word (the end of the word in the isolation forms in Wan and Nakasato) is pronounced low. Pitch patterns of *chokorēto* ‘chocolate’ are listed below. Tonal patterns actually differ among dialects, but they commonly show a low tone at the end of the word. This feature is shared by loanwords in Tokyo and Kinki dialects as well.

- | | |
|----------------------------|-------------------|
| (15) Kagoshima dialect: | <u>chokoreeto</u> |
| Nagasaki dialect: | <u>chokoreeto</u> |
| Koshikijima dialect: | <u>chokoreeto</u> |
| Wan and Nakasato dialects: | <u>chokoreeto</u> |
| Tokyo dialect: | <u>chokoreeto</u> |
| Kinki dialects: | <u>chokoreeto</u> |

If loanwords were assigned the other tonal pattern (B-type in Kagoshima dialect, α -type in Wan and Nakasato, unaccented in Tokyo and Kinki dialects), the end of a word would be pronounced high, as in (16).

- | | |
|----------------------------|--|
| (16) Kagoshima dialect: | * <u>chokoreeto</u> |
| Nagasaki dialect: | * <u>chokoreeto</u> |
| Koshikijima dialect: | * <u>chokoreeto</u> |
| Wan and Nakasato dialects: | * <u>chokoreeto</u> |
| Tokyo dialect: | * <u>chokoreeto</u> |
| Kinki dialects: | * <u>chokoreeto</u> (high beginning, unaccented) |
| | ~* <u>chokoreeto</u> (low beginning, unaccented) |

The fact that loanwords including initialisms are pronounced with the tonal pattern in (15), not

in (16), squares well with the tonal patterns of English words as they are pronounced in isolation. In English, words in isolation are pronounced with a fall in pitch so that the end of a word is always low. For example, the three-syllable word ‘chócolate’ has an accent (stress) on the first syllable, and it is pronounced low from the second syllable. The pronunciation of loanwords in Japanese dialects in (15) can be analyzed as the result of preserving the phonetic feature (auditory impression) of English in Japanese (Kubozono 2006, 2007).

One might question here that β -type words in Kikaijima Wan and Nakasato dialects end in a low tone in isolation forms, but not in the conjunctive forms. For example, the conjunctive form of ‘chocolate’ is *chokoreeto*, which may look identical to the α -type in (16), in that the end of the word is not low. In fact, in terms of the distinction between conjunctive forms and isolation forms of β -type words, only words in the isolation form are pronounced with a low word-final mora. Assuming that the tonal pattern of English is borrowed (preserved), this raises a question of why the resultant borrowed pattern is based on the isolation forms, not the conjunctive forms.

However, we should not ignore the fact that isolation forms are not only non-conjunctive forms (nothing is connected to them), but they also indicate the utterance of the word alone. The fall in pitch at the end of a β -type word might not be a feature of the word (accent), but it does not change the fact that words end in a low tone when uttered in isolation as a declarative sentence. Considering that a fall in pitch at the end of a word is shared by utterances of words in isolation in both English and Japanese, the pattern in (15) can be explained without problem.

Incidentally, a fall in pitch at the end of a word in a single utterance or word is not specific to just the “word” in English. As is well known, English has a stress accent, not pitch accent. Basically, only stress patterns are lexically specified, and the pitch patterns (high and low, rising, falling, etc.) are determined at the utterance level of a sentence (intonation). Therefore, the characteristic of low pitch at the end of a word like ‘chocolate’ is not a characteristic of the word accent in English, but is instead a prosodic feature of the declarative sentence. When borrowing words, the tonal pattern of the utterance of the word in isolation is borrowed, regardless of whether it is the characteristics of the word or the prosodic feature of the sentence in the source language.

2.5.3 Intonation of Interrogative Sentences

Let us next discuss prosodic features of interrogative sentences in relation to word accent.⁴ As in the Kagoshima dialect (Kibe 2010) and Koshikijima dialect (Kubozono 2011b), interrogative sentences in Wan and Nakasato are signaled by the pitch fall at the end of the sentence. Interrogative sentences in these dialects have the sentence-ending particle *na* as in the Kagoshima

⁴ This is based on the observation of Nakasato dialect speakers.

dialect, but the vowel in the particle is lengthened in actual utterances so that it is pronounced as *naa* with two moras. The actual tonal patterns can be represented as follows. The left-hand member of each pair is the isolation form, and the right-hand member is the interrogative sentence.

- (17) a. α -type: $\overline{\text{gama}}$ ‘cave’ $\overline{\text{gama}}\overline{\text{naa}}?$
 $\overline{\text{hana}}$ ‘nose’ $\overline{\text{hana}}\overline{\text{naa}}?$
 $\overline{\text{hibuei}}$ ‘smoke’ $\overline{\text{hibuei}}\overline{\text{naa}}?$
 b. β -type $\overline{\text{umi}}$ ‘sea’ $\overline{\text{umi}}\overline{\text{naa}}?$
 $\overline{\text{hatana}}$ ‘sword’ $\overline{\text{hatanana}}?$ ($\sim \overline{\text{hatananaa}}?$)

Two points are worth special attention here. First, the sentence-ending particle *na* is included into the domain of tone assignment as the preceding element, similar to case particles such as *ga*. For example, since the particle *na(a)* is attached to the preceding element *hana* (‘nose’), the tonal pattern of *hana* changes. In contrast, case particles and sentence-ending particles behave differently in the Kagoshima dialect, where the sentence-ending particle *na* is not included into the domain of tone assignment. For this reason, it does not change the tonal pattern of the preceding element (examples are given in (18)). Putting it differently, the sentence-ending particle *na(a)* is not included in the same *bunsetsu* as the preceding element in the Kagoshima dialect, but is included in the Wan and Nakasato dialects.

- (18) $\overline{\text{hana}}$. (*hana* ‘nose’) $\overline{\text{hanana}}?$ $\overline{\text{hananaa}}?$ (cf. $\overline{\text{hanaga}}$, $\overline{\text{hanakara}}$)
 $\overline{\text{hana}}$. (*hana* ‘flower’) $\overline{\text{hanana}}?$ $\overline{\text{hananaa}}?$ (cf. $\overline{\text{hanaga}}$, $\overline{\text{hanakara}}$)

Another interesting point about (17) concerns the relationship between the vowel lengthening process of the sentence-ending particle *na* and the tonal pattern. The tone pattern of $\overline{\text{gama}}\overline{\text{naa}}?$ is the same as that of $\overline{\text{gamaga}}$ ‘cave-NOM’ where a one-mora particle is attached to *gama*, but it is not the same as the tonal pattern where a two-mora particle is attached, like $\overline{\text{gamakara}}$. Moreover, the tonal pattern of $\overline{\text{hibuei}}\overline{\text{naa}}?$ is the same as that of $\overline{\text{hibueiga}}$ where a one-mora particle is attached to *hibuei* ‘smoke’, but different from forms with a two-mora particle ($\overline{\text{hibueikara}}$). If the tones were assigned after the vowel at the end of nouns is lengthened, the tone of $\overline{\text{gama}}\overline{\text{naa}}?$ or $\overline{\text{hibuei}}\overline{\text{naa}}?$ could not be explained. The tone of the interrogative sentences can be explained only if we posit the following process.

- (19) Basic Form $\overline{\text{gama}}+\overline{\text{na}}$ $\overline{\text{hibuei}}+\overline{\text{na}}$

Assign tonal pattern (α -type)	$\overline{\text{gama}}\overline{\text{na}}$	$\overline{\text{hibu}}\overline{\text{e}}\overline{\text{ina}}$
Vowel Lengthening	$\overline{\text{gama}}\overline{\text{naa}}$	$\overline{\text{hibu}}\overline{\text{e}}\overline{\text{inaa}}$
Isolation form (question)	$\overline{\text{gama}}\overline{\text{naa}}$	$\overline{\text{hibu}}\overline{\text{e}}\overline{\text{inaa}}$

The interrogative form of β -type nouns (17b) can be analyzed similarly.

(21) Basic Form	$\text{umi}+\text{na}$
Assign tonal pattern (β -type)	$\overline{\text{umi}}\overline{\text{na}}$
Vowel Lengthening	$\overline{\text{umi}}\overline{\text{naa}}$
Isolation form (question)	$\overline{\text{umi}}\overline{\text{naa}}$

This analysis shows that the sentence-ending particle *na* is lengthened phonetically, not phonologically. In this regard, it is different from the lengthening of one-mora nouns discussed in section 2.5.1.

3 Accentuation in Sakamine Village

Thus far we have presented an overview of the accent system of the Wan and Nakasato dialects. From this section we will extend our range to other villages in Southern and Central Kikaijima and investigate the similarities and differences among the villages. We will start with Sakamine village, which is around 5 km north of Wan and Nakasato villages. This village is located midway between Wan/Nakasato villages and the northern dialect village of Onotsu, and the accentuation is also somewhat different from that of Wan and Nakasato. The data is taken from one elderly speaker⁵ by the author. Due to time constraints, many items (especially the tone of conjunctive forms) could not be asked.

3.1 Results

In terms of having a mora-based two-pattern accent system, Sakamine is the same as Wan and Nakasato. This is a common feature among the villages where the research reported here was conducted.

As for the actual tonal pattern of the α -type and β -type, α -type is not exactly the same as that of Wan and Nakasato. That is, with the bunsetsu as the domain, the tonal pattern of the final three moras is HLH (only the penultimate mora is low). Also like Wan and Nakasato, the isolation and

⁵ Keitaro Hayabusa (age 79; born February 1931)

conjunctive forms have the same pattern in the α -type. The end of the bunsetsu in the isolation forms shows a pitch fall, as in Wan and Nakasato. Moreover, one-mora nouns are categorized into the α -type, and undergo vowel lengthening to behave as two-mora nouns in terms of accentuation.

On the other hand, the tonal pattern of the β -type is clearly different from that of Wan and Nakasato villages. The tonal pattern of two-mora nouns (*umi* ‘sea’, *nabi* ‘pot’, *punI* ‘ship’, *usu* ‘mortar’, and *tida* ‘sun’) are as follows:

- (21) Isolation Forms: $\overline{\text{O}}\overline{\text{O}}.$ $\overline{\text{O}}\overline{\text{O}}\overline{\text{ga}}$. $\overline{\text{O}}\overline{\text{O}}\overline{\text{mo}}$. $\overline{\text{O}}\overline{\text{O}}\overline{\text{kara}} \sim \overline{\text{O}}\overline{\text{O}}\overline{\text{kara}}.$ ⁶ $\overline{\text{O}}\overline{\text{O}}\overline{\text{made}}$.
 $\overline{\text{O}}\overline{\text{O}}\overline{\text{karamo}} \sim \overline{\text{O}}\overline{\text{O}}\overline{\text{karamo}}$. $\overline{\text{O}}\overline{\text{O}}\overline{\text{mademo}} \sim \overline{\text{O}}\overline{\text{O}}\overline{\text{mademo}}$.
 Conjunctive Forms: $\overline{\text{O}}\overline{\text{O}}\overline{\text{ga}}\dots$

(22) and (23) show the tonal patterns of three-mora and four-mora nouns, respectively. The former has words like *hatana* ‘sword’, *pateR* ‘field’, *gamaku* (= *gama no oku*) ‘rib’, and the latter has words like *paNmeR* (‘food stuff’), *meRrabi* ‘young girl’, *tINzjoR* ‘ceiling’, and *asagoR* ‘morning glory’.

- (22) Isolation Forms: $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}.$ $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{ga}} \sim \overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{ga}}$. $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{mo}}$.
 $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{kara}} \sim \overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{kara}}$. $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{made}}$.
 $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{karamo}} \sim \overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{karamo}}$.
 $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{mademo}} \sim \overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{mademo}}$.
 Conjunctive Forms: $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{ga}}\dots \sim \overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{ga}}\dots$

- (23) Isolation Forms: $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}.$ $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{ga}} \sim \overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{ga}}$. $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{mo}}$.
 $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{kara}} \sim \overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{kara}}$.
 $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{made}} \sim \overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{made}}$.
 $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{karamo}} \sim \overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{karamo}} \sim \overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{karamo}}$.
 $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{mademo}} \sim \overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{mademo}}$.
 Conjunctive Forms: $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{ga}}\dots$ $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{made}}\dots$ $\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{O}}\overline{\text{mademo}}\dots$

In (21)-(23), the difference between the isolation forms and the conjunctive forms is the same as that of Wan and Nakasato: the final mora in the isolation form is low, but the conjunctive forms become high until the end of the bunsetsu. What is worth special attention concerns the position of the rise in pitch: the rise at the penultimate mora in the word domain is not as significant as in

⁶ The pattern of HLHL may be interpreted as a result of the noun and the particle pronounced in two separate bunsetsu (to emphasize the particle).

Nakasato and Wan, and the rise seems to occur more frequently at the penultimate mora in the bunsetsu domain. In other words, pitch generally rises between the antepenultimate and the penultimate moras in each bunsetsu. In addition, while the low tone before the pitch rise is assigned only to one mora in most cases in Wan and Nakasato, it is often associated with two or three moras in Sakamine.⁷ In this respect, there is quite a lot of variation between words or between utterances.

3.2 Analysis

The following table summarizes the difference between Wan/Nakasato and Sakamine β -type patterns.

Table 3

[illegible]

The Wan/Nakamine and Sakamine dialects share the feature “pitch rise at penultimate mora”, but the domain of tone assignment is different. For the former dialects, the pitch rises at the penultimate mora in the word (noun), but for the latter, the pitch rises at the penultimate mora with the bunsetsu as its domain. Focusing on the locus of the rise, the dialects can be compared as in (24) (‘]’ indicates the right edge of the domain).

(24) β -type

Wan/Nakasato	$\overline{\circ}\overline{\circ}\overline{\circ}]$.	$\overline{\circ}\overline{\circ}\overline{\circ}]ga$.	$\overline{\circ}\overline{\circ}\overline{\circ}]kara$.	$\overline{\circ}\overline{\circ}\overline{\circ}]karamo$.
Sakamine	$\overline{\circ}\overline{\circ}\overline{\circ}]$.	$\overline{\circ}\overline{\circ}\overline{\circ}ga]$.	$\overline{\circ}\overline{\circ}\overline{\circ}kara]$.	$\overline{\circ}\overline{\circ}\overline{\circ}karamo]$.

⁷ For example, the tonal pattern for “three-mora noun + one-mora particle” is $\circ\circ\bar{\circ}ga.$, not $\bar{\circ}\bar{\circ}\bar{\circ}ga.$. Even for “four-mora nouns + one-mora particle”, the $\bar{\circ}\bar{\circ}\bar{\circ}\bar{\circ}ga.$ pattern was not observed.

If this interpretation is correct, the domain of tone assignment in the Sakamine dialect is changing from “word” to “bunsetsu” even for the β -type, to match with the α -type. That is, whereas the word-tone-like α -type and word-accent-like β -type co-exist in Wan and Nasakato, the system in Sakamine is more simplified, with both α -type and β -type having word-tone-like characteristics.

4 Accentuation in Kamikatetsu, Aden, and Shiomichi villages

Let us move on to the villages on the east coast. Our research was conducted in Kamikatetsu village which is located at the south end of the island, in Aden which is 5 km away from Kamikatetsu to the northeast, and in Shiomichi which is 5 km northeast of Aden. These villages have almost the same system and tonal patterns, so they are discussed together in one section. The data described and analyzed in the paper are taken from one speaker for each village.⁸

These three villages are the same as Wan, Nakasato, and Sakamine in that they have a two-pattern accent system where moras, not syllables, are used as the basic unit. But the actual tonal patterns differ from those of Wan and Nakasato: the tonal pattern for β -type is the same as that of Wan and Nakasato, but that of the α -type is different. This is discussed in the following sections.

4.1 α -type

First, two-mora nouns (*midu* ‘water’, *turi* ‘bird’, *hana* ‘nose’, *gama* ‘cave’, *jama* ‘mountain’, *mami* ‘bean’, *pana* ‘flower’, *mungi* ‘wheat’) have the following tonal patterns. Standard Japanese particles *ga* and *mo* become *nu* and *mu*, but the Standard Japanese forms are used below.

- (25) Isolation Form: $\text{○○}.$ $\text{○○}\overline{\text{ga}}.$ $\text{○○}\overline{\text{mo}}.$ $\text{○○}\overline{\text{kara}}.$ $\text{○○}\overline{\text{made}}.$ $\text{○○}\overline{\text{karamo}}.$
 $\text{○○}\overline{\text{mademo}}.$
 Conjunctive Form: $\text{○○}\overline{\text{ga}}\dots$

The following is the tonal pattern of nouns of three to five moras. There are five three-mora nouns (*hibuēi* ‘smoke’, *udui* ‘dance’, *katatēi* ‘form’, *hasami* ‘scissors’, *hagami* ‘mirror’, *kujumi* ‘calendar’), one four-mora noun (*a:tutēi* ‘dawn’), and one five-mora noun (*hanna:ri* ‘thunder’) in our data.

⁸ The Kamikatetsu speaker is Katsuichi Ōtomo (age 73, born December 1936). The Aden speaker is Fujio Fumoto (age 59, born November 1950). The Shiomichi speaker is Teruo Fujiwara (age 67, born June 1943).

- (26) Isolation Form: $\overline{\text{○○○}}$. $\overline{\text{○○○ga}}$ ($\sim\overline{\text{○○○ga}}$) . $\overline{\text{○○○mo}}$. $\overline{\text{○○○kara}}$.
 $\overline{\text{○○○made}}$ ($\sim\overline{\text{○○○made}}$) $\overline{\text{○○○karamo}}$ ($\sim\overline{\text{○○○karamo}}$)
 $\overline{\text{○○○mademo}}$.
 Conjunctive Form: $\overline{\text{○○○ga...}}$ [$\overline{\text{○○○kara...}}$ $\overline{\text{○○○made...}}$ $\overline{\text{○○○karamo...}}$]⁹
- (27) Isolation Form: $\overline{\text{○○○○}}$. $\overline{\text{○○○○ga}}$. $\overline{\text{○○○○}}$. $\overline{\text{○○○○kara}}$.
 $\overline{\text{○○○○made}}$. $\overline{\text{○○○○karamo}}$. $\overline{\text{○○○○mademo}}$.
 Conjunctive Form: $\overline{\text{○○○○ga...}}$
 [$\overline{\text{○○○○kara...}}$ $\overline{\text{○○○○made...}}$ $\overline{\text{○○○○karamo...}}$]
- (28) Isolation Form: $\overline{\text{○○○○○○}}$. $\overline{\text{○○○○○○ga}}$. ($\sim\overline{\text{○○○○○○ga}}$) $\overline{\text{○○○○○○mo}}$.
 $\overline{\text{○○○○○○kara}}$. $\overline{\text{○○○○○○made}}$. $\overline{\text{○○○○○○karamo}}$.
 $\overline{\text{○○○○○○mademo}}$.
 Conjunctive Form: $\overline{\text{○○○○○○ga...}}$
 [$\overline{\text{○○○○○○kara...}}$ $\overline{\text{○○○○○○made...}}$ $\overline{\text{○○○○○○karamo...}}$]

It seems that, like the α -type in Wan and Nakasato, the bunsetsu is the domain for the assignment of the $\overline{\text{○○○}}$ and $\overline{\text{○○○○}}$ tonal patterns. For example, the tonal patterns of the isolation form of a noun and noun+one-mora particle are the same as those of Wan and Nakasato, with each bunsetsu showing HLH in final position. However, this generalization fails to hold when the particle is two or more moras in length. In this case, the final mora of the noun (i.e. word) becomes low, instead of the penultimate mora in the bunsetsu. In other words, in Kamikatetsu, Aden, and Shiomichi, the pitch rise immediately after the noun is phonologically important. (The row labelled “Kamikatetsu” covers forms in Kamikatetsu, Aden and Shiomichi.)

- (29) Wan/Nakasato $\overline{\text{○○○ga}}$. $\overline{\text{○○○kara}}$. $\overline{\text{○○○karamo}}$.
 Kamikatetsu $\overline{\text{○○○ga}}$. $\overline{\text{○○○kara}}$ $\sim\overline{\text{○○○kara}}$. $\overline{\text{○○○karamu}}$.

The basic melody of Kamikatetsu can be analyzed to be HLH. The difference from Wan and Nakasato lies in the domain of tone assignment. In Kamikatetsu, Aden, and Shiomichi, [noun + the first mora of particle], rather than the entire bunsetsu, is the domain for assignment of the HLH melody from right to left. Additionally, L may be assigned to more than one mora (] indicates the right edge of the domain).

⁹ Patterns in [] in (26)-(28) are not based on the collected data, but are forms assumed from the collected data of other words.

- (30) Wan/Nakasato $\overline{\circ}\overline{\circ}\overline{\circ}]$. $\overline{\circ}\overline{\circ}\overline{\circ}\overline{\circ}ga]$. $\overline{\circ}\overline{\circ}\overline{\circ}\overline{\circ}kara]$. $\overline{\circ}\overline{\circ}\overline{\circ}\overline{\circ}karamo]$.
 Kamikatetsu $\overline{\circ}\overline{\circ}\overline{\circ}]$. $\overline{\circ}\overline{\circ}\overline{\circ}\overline{\circ}ga]$. $\overline{\circ}\overline{\circ}\overline{\circ}\overline{\circ}ka]ra$. $\overline{\circ}\overline{\circ}\overline{\circ}\overline{\circ}ka]ramu$.

Analyzing the tonal pattern in Kamikatetsu, Aden, and Shiomichi as in (8) reveals a picture in (31).^{10,11} As in (8), the leftmost H tone spreads to the left in long words/phrases, i.e. to the beginning of the bunsetsu, and the rightmost H tone spreads to the right, i.e. to the end of the bunsetsu. $\langle \mu \dots \mu \rangle$ means that moras after the second mora of a particle are phonologically invisible. For bunsetsu lacking a particle, the HLH melody is assigned from the final mora of the noun.

- (31) $\dots \mu \mu \mu \mu]_{\text{word} + \mu}] \langle \mu \dots \mu \rangle$
 $\quad \quad \quad \backslash \quad | \quad | \quad /$
 $\quad \quad \quad H \quad L \quad H$

Finally, there is no distinction between α -type and β -type for one-mora nouns in Kamikatetsu, Aden, and Shiomichi. One-mora nouns belong to the α -type, and behave the same as two-mora nouns.

4.2 β -type

The β -type pattern in Kamikatetsu, Aden, and Shiomichi is the same as that of Nakasato and Wan, with the pitch rising on the penultimate mora of nouns.¹² However, for “three-mora noun+particle” forms, the rise is not as obvious at the penultimate mora as in Nakasato and Wan, and sometimes the antepenultimate mora seems to be H or M(id). Moreover, for *usu-kara*, *usu-made*, *tida-kara* etc., HMML is heard alongside HHHL. Similarly, for *gamaku-made*, ...HMML

¹⁰ Relating to (31), unlike the α -type in Wan and Nakasato, it appears that the α -type pattern differs between isolation and conjunctive forms in Kamikatetsu. For noun+2-mora particle and noun+3-mora particle forms, the conjunctive form is pronounced high until the end of the particle, while the final mora of a particle is pronounced low in the isolation form. In contrast, in Wan and Nakasato, the isolation form does not end in a low tone. This dialectal difference arises because the α -type in Wan and Nakasato has LH at the end of a bunsetsu, with H always assigned to one mora, which cannot be low even in the isolation form. On the other hand, in the α -type in Kamikatetsu, Aden, and Shiomichi, the H of LH spreads to multiple moras at the end of a bunsetsu, so the HLH basic melody can be readily assigned while the mora at the end of the bunsetsu (marking the end of the sentence) is pronounced low.

¹¹ To use the concept of the accent kernel, the final mora of the noun can be analyzed as having a raising kernel (to make the next mora high).

¹² If treating it in the same way as α -type, it is possible to analyze it as having a raising kernel on the antepenultimate mora of words (nouns).

is heard alongside ...HHH. The tonal patterns for two-, three-, and four-mora nouns are listed in the isolation and conjunctive forms in (32) – (34).

(32) Isolation Form: $\overline{\text{○○}}$. $\overline{\text{○○ga}}$. $\overline{\text{○○mo}}$. $\overline{\text{○○kara}}$. $\overline{\text{○○made}}$.
 $\overline{\text{○○karamo}}$. $\overline{\text{○○mademo}}$.

Conjunctive Form: $\overline{\text{○○ga...}}$ ($\overline{\text{○○kara...}}$ $\overline{\text{○○karamo...}}$)

(33) Isolation Form: $\overline{\text{○○○}}$. $\overline{\text{○○○ga}}$ ($\sim\overline{\text{○○○○ga}} \sim\text{MHHL}$) $\overline{\text{○○○mo}}$.
 $\overline{\text{○○○kara}}$. ($\sim\text{gamakukara LHMML}$). $\overline{\text{○○○made}}$.
 $\overline{\text{○○○karamo}}$. $\overline{\text{○○○mademo}}$.

Conjunctive Form: $\overline{\text{○○○ga...}}$ ($\sim\overline{\text{○○○○ga...}} \sim\text{MHHH...}$)

(34) Isolation Form: $\overline{\text{○○○○}}$. $\overline{\text{○○○○ga}}$ ($\sim\overline{\text{○○○○○ga}}$) $\overline{\text{○○○○mo}}$.
 $\overline{\text{○○○○kara}}$. $\overline{\text{○○○○made}}$. $\overline{\text{○○○○karamo}}$. $\overline{\text{○○○○mademo}}$.

Conjunctive Form: $\overline{\text{○○○○ga...}}$ $\overline{\text{○○○○kara...}}$ $\overline{\text{○○○○karamo...}}$

5 Summary

5.1 Comparison among the Villages

Based on the discussion above, the following table shows the similarities and differences among the villages/dialects for each accent pattern. The tonal pattern in Wan and Nakasato is represented as A (α -type) and X (β -type), and the similarities and the differences are specified. The meanings of A, B, X, Y are given in (35).

Table 4 α -type and β -type for each dialect

	Sakamine	Wan	Nakasato	Kamikatetsu	Aden	Shiomichi
α -type	A	A	A	B	B	B
β -type	Y	X	X	X	X	X

(35) A: The bunsetsu is the domain whose final three moras are HLH.

B: [word+ first mora of particle] is the domain (not bunsetsu) and ends with HLH.

X: The word is the domain in which pitch rises at the penultimate mora.

(the final mora of the word is invisible, and the moras before that have HLH)

Y: The bunsetsu is the domain in which pitch rises at the penultimate mora.

(the final mora of the sentence is invisible, and the moras before that have HLH)

5.2 Discussion

The following four features are shared by all dialects.

- (36) a. two-pattern accent system
 b. the basic melody for both α - and β -types is HLH
 c. the basic melody is assigned on a moraic basis.
 d. the basic melody is assigned from the right edge of word or phrase

In contrast, the dialects differ in the domain to which the basic melody is assigned. The difference basically derives from whether the melody is assigned to the word or to the bunsetsu. According to Hayata's (1999) classification, the former is word-accent-like, and the latter, word-tone-like.

In some dialects, a difference in domain is observed between α -type and β -type. For example, Wan and Nakasato have the bunsetsu (i.e. word-tone-like) as the domain for α -type nouns, and the word (i.e. word-accent-like) as the domain for the β -type. The following table summarizes the difference among dialects from this point of view. The time notation in the table is the direction from the center of the island (12 is north, and 6 is south), to provide a broad overview of the geographical connection.

Table 5 Classification According to the Domain HLH Melody assignment

	Sakamine	Wan	Nakasato	Kamikatetsu	Aden	Shiomichi
location (o'clock)	10	8	8	6	4	2
α -type	bunsetsu			word + 1 μ		
β -type	bunsetsu	word				

Considering the difference among villages (dialects) as a historical change that took place in the whole of Kikaijima, it can be assumed that a diachronic change affected the accentual domain. It can be said that the nature of the accent has been changing between the word-accent-like type and the word-tone-like type. The following are three logically possible scenarios.

- (37) a. Change from a bunsetsu-based (word tone) system to a word-based
 (word accent) system
 b. Change from a word-based (word accent) system to a bunsetsu-based

- (word tone) system
- c. Change from a hybrid system involving both the word (word accent) and the bunsetsu (word tone) to a unified system

(37a) assumes that the original system is that of Sakamine, which changed into that of Wan and Nakasato, and eventually became that of Kamikatetsu, Aden, and Shiomichi. This interpretation assumes that the β -type changed before the α -type did. It also implies that the oldest system is retained in Sakamine village.

On the other hand, (37b) implies changes in the opposite direction: the current word-based system in Kamikatetsu represents the oldest system, which has changed into that of Wan and Nakasato, and eventually into the bunsetsu-based system of Sakamine. Under this view, the current system in Kamikatetsu has changed towards a bunsetsu-based system to the extent that its α -type is defined in the domain of “word+1 mora” rather than the word itself. This means that α -type is ahead of β -type in tonal change.

(37c) is a hypothesis that combines the above processes. It posits the current hybrid system of Wan and Nakasato as the original system where the domain is different for α -type and β -type, and assumes that two changes occurred to resolve the mixed characteristics. In Sakamine village, the original system changed to a uniformly bunsetsu-based system, whereas in Kamikatetsu, Aden and Shiomichi, it changed to a uniformly word-based system. Although logically possible, this analysis poses a basic question of why the original system was a hybrid one in the first place.

In the absence of relevant data, it is difficult at this point to determine which hypothesis is correct. It may be possible to answer this question if we pursue research in the direction outlined in the next section.

5.3 Remaining issues

This study has uncovered many questions for future work. Needless to say, we need to elicit data from more speakers, and from each speaker we must elicit more data. In addition to this, further investigation is required for the following four topics. First, it is important to make a more rigid phonological analysis for each village. More specifically, it is necessary to clarify which part of each tonal pattern is distinctive, with special attention to the type of the kernel (raising, ascending, and lowering kernels) (Hattori 1973; Uwano 1999).¹³ Second, the accent rules for compound words need to be examined. Understanding the compound accent rules for each village

¹³ For example, when the tonal pattern L_1HL_2 is observed in 3-mora words, the following four interpretations are possible: (i) the H mora carries a ascending kernel; (ii) the L_1 mora carries a raising kernel; (iii) H carries a lowering kernel; and (iv) L_2 carries a descending kernel (Uwano 1999).

as well as the similarities and differences among the villages might give us important clues as to the historical changes that took place in Kikaijima.

The third question concerns the comparison of the accent systems of the Northern dialects of Onotsu and Shitōke and those of the Southern/Central areas which were analyzed in the paper. This will be essential if we want to explain the differences between the Southern and Central dialects shown in Tables 4 and 5. Lastly, it will also be important to examine phonological features other than word accent, especially the relationship between segmental features (vowels and consonants) and the accent system. There is no intrinsic relationship a priori between the distribution of accent systems and segmental features, but it might give us a good clue when we consider the subclassification of dialects and the historical changes discussed in the previous section that took place in the accent systems of Kikaijima.

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The Case Systems of the Kikaijima Dialects

Kayoko Shimoji

1 Introduction

As in Modern Standard Japanese, case forms in the Kikaijima dialects are formed agglutinatively by suffixing case particles to nouns (stems). In this paper, I give an outline of the case systems of the different localities of Kikaijima based on the results obtained by the groups covering ‘grammar’ in the joint survey of September 9–15, 2010¹. The ‘grammar’ groups surveyed the following five areas: Onotsu, Shitooke, Kamikatetsu, Nakasato, and Araki. In the following, I will give the case forms of each of the areas as well as their basic usages and attempt a comparison between them. The numbers assigned to each of the examples correspond to those in the *Grammar Data* section of the *Kikaijima Dialect Survey Data* chapter of this report. Unless otherwise noted, the dialect transcriptions and Standard Japanese model sentences are the same as those in the *Kikaijima Dialect Survey Data* chapter, as well.

2 Case forms in the Kikaijima dialects

2.1 Onotsu

In the Onotsu dialect, the following 11 case forms and 2 peripheral forms have been identified.

2.1.1 The *-ŋa*-case²

(1) It is used to express the subject of the action, change of state, or state referred to by the predicate. It can appear not only in main clauses, but also in subordinate clauses (6811, 3111).

1811 maεεirusun tuŋa, {sura/tin}joba tudui. ‘A pure white bird is flying in the sky.’

1711 kinju:ja kju:jukka hazŋa tsusataja:. ‘Yesterday, the wind was stronger (it was windier) than today.’

5311 φuzu ?itukuŋa teu:gakko:nu εinse:nji natan{tei/do:}. ‘Last year, my cousin became a junior high school teacher.’

1911 ?an jamanje: ?inoεicŋa ?unti:do:. ‘I heard that there are wild boars on that mountain.’

6811 ?ieasamaŋa k?uritanu suijoba numiba no:juddo. ‘You should get well if you take the medicine the doctor gave you.’

3111 nimotsuŋa ?ubussatannati, t’aizi mutteando:. ‘The luggage was heavy, so the two of us carried it together.’

The focus-marking usage in interrogative sentences with question words and sentences answering them known as ‘exhaustive listing’ is observed, as well.

- 0611 ɕʌrɪŋa da:(nu) hasajo. ‘Which is your bamboo hat?’
 0711 ɸunu hasaŋa wa: munɕa. ‘That bamboo hat is mine.’
 0211 daŋa {h/ɸ}ate:kai ʔiki. ‘You go to the field.’ (imperative)
 0313 ʔin, hate:kae: waŋa ʔikiui. ‘Yes, I will go to the field.’

(2) It is used to express the object of emotions and abilities.

- 3413 mago:ja kʷaeiŋa suki. ‘My grandchild likes sweets.’
 4011 wano: to:nu saeimiŋa kanbusa(ja:). ‘I want to eat octopus sashimi.’
 5411 ʔituko: jeigonu honŋa jumi dikiundo:. ‘My cousin can read English books.’³

2.1.2 The -nu-case

(1) It is used to form an adnominal modifier of the noun phrase following it and express attributes of or things related to that noun phrase. Except for certain personal pronouns (see 2.1.3), there are no restrictions on nouns (noun phrases) taking the -nu-case.

- 1613 ʔitukunu ʔuduŋa janpija:nɪ ɸutei ʔai. ‘My cousin’s bedding is airing on the roof.’
 4111 daja ɸun ʔijunu na:joba eitɕunja. ‘Do you know the name of this fish?’
 7011 miteidzi gakko:nu einse:nɪ ʔo:tando:. ‘I ran into my teacher from school (my school teacher) on the street.’
 6514 ju:we:nu {duke:/dukinje:} ʔanma:gari ʔudutan do:. ‘At the time of (during) the celebration, even grandmother danced.’

Use of the -nu-case in phrases of the form ‘NP1-nu NP2’ is the norm; the usage corresponding to the formal noun-like -no seen in Modern Standard Japanese (e.g. *Sore-wa watashi-no da*. ‘That is mine.’), taking the form ‘NP1-nu’, appears to be mostly unacceptable⁴. In the following examples, I provide a literal translation of the example sentences in parentheses.

- 0511 ɸunu kama: taro:nu munna. ‘Is that sickle Taro’s (Taro’s thing; Taro’s one)?’
 0913 hure: ʔuttu:nu munkamu eirira:. ‘That may be my brother’s (my brother’s thing; my brother’s one).’
 6312 hunu einbuno ki:nu mun dza. kinju:nu muno: huri{dza/do:}. ‘That newspaper is today’s (today’s thing; today’s one). This is yesterday’s (that is yesterday’s thing; yesterday’s one).’

(2) It is used to mark the subject of the main clause. Presently, the *-ŋa-* and *-nu-* cases appear to be in the process of functional differentiation (nominative case and genitive case) in the Onotsu dialect; depending on the speaker, fluctuation between the two forms is observed (1411, 1511, etc.).

- 1411 {mitɛiŋa ɕirusaija:/mitɛinu ʔubisaja:}. ‘The road is wide (what a wide road)!’
 1413 mitɛinu ɕu:sa:nu:kka. ‘The road is wide (what a wide road)!’
 3313 ʔokina:n̄ie: mittasanu kʷaɕinu ʔai. ‘There are unique sweets in Okinawa (Okinawa has unique sweets).’
 1511 ʔa, ʔami{ŋa/nu} ʔutittea. ‘Ah, rain has started to fall (it has started to rain).’

-nu is also used with subjects in subordinate clauses, but here, too, fluctuation between it and *-ŋa* is observed (cf. 6413).

- 2211 ʔanu mi:nu ʔubisanu ʔirunu ɕirusanu jinŋa: tarukaja:. ‘Who could that person whose eyes are large and whose skin is white (large-eyed, light-skinned person) be?’
 6411 ʔaminu ʔujunte:, ʔanmaja ja:zi terebibakkai miteundo:. ‘On days when rain falls (rainy days), grandmother just watches TV at home.’
 Cf. 6413 ʔamiŋa hujun pe: ʔanmaja ja:zi terebibe: miteui. ‘On days when rain falls (rainy days), grandmother just watches TV at home.’

2.1.3 The -Ø-case

(1) It is used to express the direct object of the action referred to by the predicate. The same usage is also observed for the *-jo:ba-* case discussed in 2.1.4; in the Onotsu dialect it more often appears in that form, so fluctuation is observed, as well.

- 6212 wano: kin̄u:ja ɕinbun jomanti. ‘I did not read the newspaper yesterday.’
 3713 ʔazija ʔasakara ʔumikai ʔiju tunn̄ja ʔizi. ‘Grandfather went to the sea to catch fish (to fish) in the morning.’
 7112 nu: ho:ro:ka. ‘What shall I buy?’
 4114 daja {ʔun/ʔunu} ʔiunu namai ɕitteun n̄ja. ‘Do you know the name of this fish?’
 3714 ʔadzija ʔasakara ʔumik(?)ai {ʔiu/ʔiujo:ba} tunn̄ja {ʔidzi/ʔidzan do:}. ‘Grandfather went to the sea to catch fish (to fish) in the morning.’

(2) It is used to express a location involved in an action (locative nouns). In this usage, too, using the *-jo:ba-* case is the norm; not many examples with the *-Ø-* case were observed.

- 1211 ku:ko: ʔariba ʔumanu {mitɛi ʔikijo:/mitɛioba ʔizi tabo:ri}. ‘Go along this road for the airport.’

(3) Among personal pronouns, first and second person pronouns (singular) take the $-\emptyset$ -case instead of the $-nu$ -case to form adnominal modifiers⁵. As is the case with adnominal modifiers formed with the $-nu$ -case, a usage corresponding to the formal noun-like $-no$ has not been observed for the $-\emptyset$ -case (0711, 0811; a literal translation is provided in parentheses).

- 0411 wa: kʷwe:ja dʒa:nʲi ʔai. ‘Where is my hoe?’
 0711 ϕ unu hasaʒa wa: mundʒa. ‘That bamboo hat is mine (my thing; my one).’
 4611 wanna: ja:nu ʔazija se:mu tabakumu numan(do:). ‘Our family’s (our) grandfather neither drinks nor smokes.’
 0613 zurija da: hasa do:. ‘Which is your bamboo hat?’
 0811 ϕ unu ϕ urueike: da: munna. ‘Is that *furoshiki* yours (your thing; your one)?’

It appears that depending on the speaker, the $-nu$ -case is sometimes used instead of the $-\emptyset$ -case, as well.

- Cf. 0413 wannu ϕ e:ja za:nʲi ʔakka. ‘Where is my hoe?’
 0611 dʒurija da:(nu) hasajo. ‘Which is your bamboo hat?’

In addition, one example in which the $-\emptyset$ -case form of a temporal noun forms an adnominal modifier was observed.

- 6311 ϕ UN einbuno: ki:u:(nu) mundʒa. kinju: muno: ϕ uriza. ‘That newspaper is today’s (today’s thing; today’s one). This is yesterday’s (that is yesterday’s thing; yesterday’s one).’

2.1.4 The $-jo:ba$ -case⁶

(1) It is used to express the direct object of the action referred to by the predicate. As noted above, the $-jo:ba$ -case is used more often than the $-\emptyset$ -case in the Onotsu dialect.

- 3613 mago:ja manzu:jo:ba ha:be: kamʲUN. ‘My grandchild eats only the skin (of) manju.’
 7214 kazukonutu tʲitsu ʔassa:jo:ba hanakonʲimu ho:ti {kuriro:/kuriranba ja:}. ‘Let me buy the same geta as Kazuko’s for Hanako, as well.’
 3011 dʒi:ro:, kun nimutsuoba hakkiti ja:gari ʔizi kuriri. ‘Jiro, please carry this luggage to the house.’
 4111 daja ϕ UN ʔijunu na:jo:ba eitteunja. ‘Do you know the name of this fish?’

(2) It is used to express a location involved in an action (locative nouns). As is the case with the direct object usage of (1), using this form is the norm.

- 1813 maeeiru ssUN tuija tinto:jo:ba tudui. ‘A pure white bird is flying in the sky.’
 1313 miteinu manna:jo:ba ʔattee: ʔikan do:. ‘You must not walk in the middle of the road.’

1213 çiko:zo:kara ?ariba human miteijo:ba ?iki jo:. ‘Go along this road for the airport.’

2.1.5 The *-ni*-case⁷

(1) It is used to express the indirect object, such as the recipient of an action or a reference point.

7011 miteidzi gakkō:nu einse:ni ?o:tando:. ‘I ran into my teacher from school (my school teacher) on the street.’

5614 φunu jumēt’a: tudziniibē: {kikatei/kikatean} do:. ‘I only told that story to my wife.’

3811 φuma: zumini teikasannati ?ijuna ?umasando:. ‘This place is close to the sea, so the fish tastes good.’

7411 hanako: tsurana okka:ni ju: niteuija:. ‘Hanako looks a lot like her mother.’

The *-ni*-case is also used to express the agent in passive and causative sentences.

6111 dairo:ja azini butirattan(tei). ‘Jiro was scolded by (his) grandfather.’

5713 tuzini ji:jo:ba tsukurasi. ‘I will have my wife cook dinner.’

(2) It is used to express a location involved in an action or state or the time at which an action or state arises.

1613 ?itukunu ?uduŋa janpija:ni φutei ?ai. ‘My cousin’s bedding is airing on top of (on) the roof.’

2311 mago:ŋa φuzukara to:kjo:ni ?un. ‘My grandchild has been in Tokyo since last year.’

3511 pakunu na:ni mandzu:ŋa ?ikutsu ?antei {?umujui/?umui}. ‘How many *manju* do you think there are on the inside of (in) the box?’

1111 çiko:ke: φittei:ni ?ikkaieika nendo:. ‘There is only one flight on a day (per day).’

2511 hateigatsunje:⁸ mudutte kunteagisan(ŋa). ‘It appears he will come back in August.’

(3) It is used to express the result of a change of state.

5314 φuzu ?itukuna teu:gakkō:nu einse:ni {natan do:/nati}. ‘Last year, my cousin became a junior high school teacher.’

In addition, there were cases in which *-ni* was used to express the purpose of a motion event in the Onotsu dialect. Seeing, however, that a form into which *-ja* seems to have merged (*tunn’a*: ‘(in order) to get’), which is probably the original purposive verb form, was also observed often, and that there is fluctuation between the two, I consider this usage of *-ni* to have arisen by analogy with Modern Standard Japanese *-ni*.

3712 ʔazi:ja kʔanmakara ʔumini {ʔiju/ʔijuwo} {tuini/tunɲa} {ʔidzi/ʔidzando:}. ‘Grandfather went to the sea to catch fish (to fish) in the morning.’

Cf. 2611 ʔokka:ja ʔatea to:kio:kai musukonʔi ʔo:nnja ʔikʔuntɛi. ‘The mother will go to Tokyo to see her son tomorrow.’

2.1.6 The -zi-case⁹

(1) It is used to express tools and means.

1011 ʔokinawanʔi ʔunɪzi ʔikʔujukka ʔiko:kizi ʔizan ho:ŋa jutasando:. ‘Rather than going by ship, you should go to Okinawa by plane.’

3111 niimotsuŋa ʔubussatannati, tʔaizi mutteando:. ‘The luggage was heavy, so we carried it as a pair (the two of us carried it together).’

3211 ʔUN ʔuwagje: kono ʔaida ʔokina:dzi nʔisenendzi ho:tando:. ‘I bought this jacket in Okinawa the other day with (for) 2000 yen.’

(2) It is used to express constituent elements such as materials and ingredients.

5813 uto: de:zi so:ʔijo:ba tsukuti. ‘My husband made a basket with (out of) bamboo.’

(3) It is used to express the location at which an action or state arises (locative nouns).

2813 jozimadi jekizi matteuri jo:. ‘Wait at the station until four o’clock.’

7011 mitɛdzi gakko:nu ɛinse:nʔi ʔo:tando:. ‘I ran into my school teacher on the street.’

3211 ʔUN ʔuwagje: kono ʔaida ʔokina:dzi nʔisenendzi ho:tando:. ‘I bought this jacket in Okinawa the other day for 2000 yen.’

(4) It is used to express a cause. In this usage, fluctuation is observed between the -zi-case form of the noun *jamai* or *jami* ‘illness’ and the continuative form (*jadi*) of the verb *jamjui* ‘to be ill’, but it appears that the latter is used more often. There was only one Standard Japanese model sentence for this kind of example, so further investigation is required.

6613 hanako: kinʔu:kara jamaizi nʔittui. ‘Hanako has been in bed since yesterday due to illness (has been ill in bed since yesterday).’

6614 hanako: kinʔu:kara {jadi/jamidzi} nittun do:. ‘Hanako {has been in bed since yesterday, as she is ill/has been in bed since yesterday due to illness} (has been ill in bed since yesterday).’

2.1.7 The -kai-case

It is used to express the goal of a motion event.

- 0211 daja {h/ɸ}ate:**kai** ?iki. ‘You go to the field.’ (imperative)
 3713 ?azija ?asakara ?um**kai** ?iju tunnja ?izi. ‘Grandfather went to the sea to fish in the morning.’

2.1.8 The *-tu*-case

(1) It is used to express the comitative participant in a reciprocal action.

- 5911 ɕziro:ja ?uttu:nu saburo:tu cikkitan(do:). ‘Jiro quarreled with his brother Saburo.’

(2) It is used to express an object with which a reciprocal relationship holds.

- 5111 kadi: nɪbbjʊn{daki/bakkai} ?ariba ?inna:nkja maja:**tu** {?ieɕoza/tʰittsuza:}. ‘If you only eat and sleep, you will be the same as dogs and cats (no different from dogs and cats).’
 7214 kazukonutu tʰitsu ?assa:jo:ba hanakonjimu ho:ti {kuriro:/kuriranba ja:}. ‘Let me buy the same *geta* as Kazuko’s for Hanako, as well.’

2.1.9 The *-kara*-case

(1) It is used to express the starting point of an eventuality, such as the departure point of a motion event or the inception time of an action or state.

- 2411 mago:ja ?itsu to:kjo:**kara** mudujukka. ‘When will our grandchild come back from Tokyo?’
 2311 mago:ja ɸuzuk**kara** to:kjo:nɪ ?un. ‘My grandchild has been in Tokyo since last year.’
 3713 ?azija ?asak**kara** ?umikai ?iju tunnja ?izi. ‘Grandfather went to the sea to fish from (in) the morning.’

(2) It is used to express materials. It could not be confirmed whether there is a distinction between this usage and the use of the *-zi*-case to express materials and the like, so further investigation is required.

- 4411 se:ja ɸum**kara** {tsukujui/tsukku su}. ‘Sake is made from rice.’

2.1.10 The *-gari/-madi*-case

It is used to express the limit to which an action or state extends. Two forms, *-gari* and *-madi*, are observed; the latter would seem to be the newer form¹⁰. Although they are completely different forms, I put them under the same header as old and new forms with nearly the same function. Incidentally, 2711 and 2713 are examples of compound adnominal case forms.

- 3011 ɕziro:, kun nimutsuoba hakkiti ja:**gari** ?izi kuriri. ‘Jiro, please carry this luggage (up) to the house.’

- 2811 jozi{made:/gari} ?ekizi matteuri. ‘Wait at the station until four o’clock.’ (*made*: < *ma**di* ‘TERMINATIVE’ + *-ja* ‘TOPIC’)
- 2711 ?o:sakakara to:kio:garinu kieateino: k’ansakaja:. ‘How much might the train fare from Osaka to Tokyo be?’
- 2713 ?o:sakakara to:kio:madinu kieateino: k’ansakaja:. ‘How much might the train fare from Osaka to Tokyo be?’

2.1.11 The *-garin’i/-madin’i*-case

It is used to express the time by which an action will take or has taken place. Here, too, two forms are observed: *-garin’i* and *-madin’i*. Their treatment follows that of the forms in 2.1.10.

- 2911 qozigarin’i muduranba naranmun. ‘I have to be home by five o’clock.’
- 2913 qozimadin’i muduranba nara:. ‘I have to be home by five o’clock.’

2.1.12 The case periphery (or: peripheral cases)

Here, I list the forms corresponding to Modern Standard Japanese *-yori* ‘than’ and its quotative marker *-to*.

2.1.12.1 *-jukka*

It is used to express a standard of comparison.

- 1711 kin’u:ja k’u:jukka haziŋa tsusataja:. ‘Yesterday, it was windier than today.’
- 3913 ?ijujukka n’ikunu ho:ŋa ta:sa. ‘Meat is more expensive than fish.’

2.1.12.2 *-tei*

It is used to express the content of speech or thought.

- 3511 pakunu na:n’i mandzu:ŋa ?ikutsu ?antei {?umujui/?umui}. ‘How many *manju* do you think that there are (think there are) in the box?’

2.2 Shitooke

In the Shitooke dialect, the following 11 case forms and 2 peripheral forms have been identified.

2.2.1 The *-ŋa*-case

(1) It is used to express the subject of the action, change of state, or state referred to by the predicate. In this usage, *-ŋa*-nouns can also appear in subordinate clauses (6831, 3132).

- 1831 eiru tuŋa tin tudi uija:. ‘A pure white bird is flying in the sky.’
- 1531 ?ari, ?amiŋa {?utittean/?utittei}. ‘Ah, rain has started to fall (it has started to rain).’

- 5331 ϕ uzuo: η itukuna teu:gakko:nu einse:nji {nat'a/natan}. 'Last year, my cousin became a junior high school teacher.'
- 1931 η an jaman'je: η inueieina unti:{do:/na}. 'I heard that there are wild boars on that mountain.'
- 6831 η ieana kurita{N/nu} kusui numiba no:juro:. 'You should get well if you take the medicine the doctor gave you.'
- 3132 nimotsuna η ubusatatannati t'aidzi {muttean/muttea}. 'The luggage was heavy, so the two of us carried it together.'

The usage known as 'exhaustive listing' is observed, as well.

- 0232 da(:)na pate:kai { η iki/ η iki}. 'You go to the field.' (imperative)
- 0331 n:, ϕ akkai wana η ikun{kara/na}. 'Yes, I will go to the field.'
- 0631 diruna da: hasajo:. 'Which is your bamboo hat?'
- 0731 η un hasana wa: {munu/mun}. 'That bamboo hat is mine.'

(2) It is used to express the object of emotions and abilities.

- 3432 mago:ja k^waei/ kaei sukidza. 'My grandchild likes sweets.'
- 4033 wano: to:nu saeimiga kanbusai. 'I want to eat octopus sashimi.'
- 5431 η ituko: je:gonu honna j'umi η usui. 'My cousin can read English books.'¹¹

2.2.2 The -nu-case

(1) It is used to form an adnominal modifier of the noun phrase following it and express attributes of or things related to that noun phrase. Except for first and second person pronouns (see 2.2.3), there are no restrictions on nouns (noun phrases) taking the -nu-case.

- 1632 η itukunu η udu η a janpira:nu wi:ni hutei η ai. 'My cousin's bedding is airing on the roof.'
- 5931 ϕ iro:ja η uttu:nu saburo:tu {eikkit'a/eikkiti}. 'Jiro quarreled with his brother Saburo.'
- 4133 daja η un η ijunu na:ja eitteunn'a. 'Do you know the name of this fish?'
- 3531 η un ϕ akunu na:nji (mandzu:na) η ikutsu η antei η umuju{i/N}. 'How many *manju* do you think there are on the inside of (in) the box?'
- 7031 miteizi gakko:nu einse:nji { η o:ti/ η o:tan}. 'I ran into my teacher from school (my school teacher) on the street.'

Use of the -nu-case in phrases of the form 'NP1-nu NP2' is the norm, as in the other dialects; the usage corresponding to the formal noun-like -no of Modern Standard Japanese is hardly accepted at all¹². In the following examples, I provide a literal translation of the example sentences in parentheses.

- 0531 ?un hama: taro:nu hamakaja:. ‘Is that sickle Taro’s (Taro’s sickle)?’
 0932 ?ure: ?uttu:nu munkamo wakara:. (D) ‘That may be my brother’s (could be my brother’s thing; my brother’s one).’
 6333 ?un einbunja ku:nu mun za. kinju:nu muno: ?uri za. ‘That newspaper is today’s (today’s thing; today’s one). This is yesterday’s (that is yesterday’s thing; yesterday’s one).’

(2) It is used to mark the subject of the main clause. It appears that in the Shitooke dialect, the *-ya-* and *-nu-*cases have presently become almost completely functionally differentiated into the nominative and the genitive case, respectively, and that the use of *-nu* with the subject of the main clause is restricted to agreement with exclamatory forms (wavy underline in 1431) and the like. This usage, however, can be considered to be in decline (cf. 1432).

- 1431 miteinu {φ/p}irusaja:. ‘The road is wide (what a wide road)!’
 Cf. 1432 miteina pirusaja:. ‘The road is wide (what a wide road)!’

-nu is often used with subjects in subordinate clauses. Comparison with examples 6831 and 3132 in 2.2.1, however, shows that *-nu* is merely used here as an equivalent of the *-no* in the Standard Japanese model sentence; there is in fact no longer an alternation with *-ya*.

- 2232 ?anu mi:nu ?ubisan ?irunu eirusan jinŋa: tarukai. (D) ‘Who could that person whose eyes are large and whose skin is white (large-eyed, light-skinned person) be?’
 6433 ?aminu hujun {p/φ}inje: ?anmaja ja:zi terebibe: miteun. ‘On days when rain falls (rainy days), grandmother just watches TV at home.’

2.2.3 The -Ø-case

(1) It is used to express the direct object of the action referred to by the predicate. The same usage is also observed for the *-ba-*case, discussed in 2.2.4, but it appears that the use of the *-Ø-*case is the norm in the Shitooke dialect¹³.

- 6831 ?ieŋa kurita{n/nu} kusui numba no:juro:. ‘You should get well if you take the medicine the doctor gave you.’
 6233 wano: kinju:ja einbun jumantan. ‘I did not read the newspaper yesterday.’
 3731 ?azi:ja kʔanmakara ?umikai ?iju tunja ?idzan. ‘Grandfather went to the sea to catch fish (to fish) in the morning.’
 6731 hanako: ?okkannji mun kamatei {mura:tan/mura:ti}. ‘Hanako had her mother feed her meals.’
 5733 tuzinji ju:ban {tɛ/tɕ}ukkasun. ‘I will have my wife cook dinner.’
 7131 nu: ho:jukkaja:. ‘What shall I buy?’

(2) It is used to express a location involved in an action (locative nouns). As was the case with direct objects in (1), the same usage is also observed for the *-ba*-case.

1331 miteinu manna: ?attee: ?ikando:. ‘You must not walk in the middle of the road.’

1831 eiru tuija tin tudi uija:. ‘A pure white bird is flying in the sky.’

(3) Among personal pronouns, first and second person pronouns (singular) take the \emptyset -case instead of the *-nu*-case to form adnominal modifiers¹⁴. As is the case with adnominal modifiers formed with the *-nu*-case, a usage corresponding to the formal noun-like *-no* has not been observed for the \emptyset -case (0731, 0831; a literal translation is provided in parentheses).

0431 wa: kwē:ja {ɕa:nji ?akka (B)/ɕa:kaina (A)}. ‘Where is my hoe?’

0731 ?un hasaja wa: {munu/mun}. ‘That bamboo hat is mine (my thing; my one).’

4631 wanna: ?azija se:mu tabakumu numan(do:). ‘Our grandfather neither drinks nor smokes.’

2431 (wanna:) magu:ja ?itsu to:kjo:kara {mudujukka /mudut?i kjukka}. ‘When will our grandchild come back from Tokyo?’

0631 diruŋa da: hasajo:. ‘Which is your bamboo hat?’

0831 ?un ɸurueike: da: munna. ‘Is that *furoshiki* yours (your thing; your one)?’

It appears that human proper nouns—that is, personal names—take the \emptyset -case when forming an adnominal modifier, as well. We have only one example, and no examples with third person pronouns, so further investigation is required.

7233 kazuko muntu jin munnu ?assa:ba hanakonjimu ho:ti kurijun. ‘Let me buy the same *geta* as Kazuko’s (Kazuko’s things; Kazuko’s ones) for Hanako, as well.’

It appears that depending on the speaker, the *-nu*-case is sometimes used instead of the \emptyset -case, as well. Incidentally, the examples below were uttered in response to the same Standard Japanese model sentences as those that were observed in the Onotsu dialect (see 0413 and 0611 in 2.1.3).

Cf. 0432 wannu kwe:ja ɕa:nji ?ai. (D) ‘Where is my hoe?’

0632 diruŋa da:nu kasaka. (D) ‘Which is your bamboo hat?’

2.2.4 The *-ba*-case

(1) It is used to express the direct object of the action referred to by the predicate¹⁵. As noted above, however, using the \emptyset -case is the norm in this usage.

3631 mago:ja mandzu:ba {hawa/ha:} be: kamjun. ‘My grandchild eats only the skin (of) manju.’

7233 kazuko muntu jin munnu ?assa:ba hanakonjimu ho:ti kurijun. ‘Let me buy the same *geta* as Kazuko’s for Hanako, as well.’

5831 uto: {de:de:/de:zi} maqu:(ba) {tsukut'a/tsukuti}. ‘My husband made a basket out of bamboo.’

4131 daja: ?un ?ijunu na:(ba) eitteunja. ‘Do you know the name of this fish?’

(2) It is used to express a location involved in an action (locative nouns). As is the case with the direct object usage, it appears that the use of the -Ø-case is predominant in this usage.

1832 {mae:iru:/e:ru:} tui(:)ŋa tinto:ba tudui. ‘A pure white bird is flying in the sky.’

1332 miteinu manna:ba ?attee: ?ikan. (C) ‘You must not walk in the middle of the road.’

1231 ?iko:ɕo:kæ: {?un/?uma} mitei(ba) {?iki/?ikiba jutasan}. ‘Go along this road for the airport.’

Incidentally, we have one example in which *-juba* is used instead of *-ba*, but I consider this an incidental use due to influence from neighboring dialects such as that of Onotsu.

Cf. 7231 kazukotu jin ?assa:(juba) hanakon'imu ho:ti kuriro:. ‘Let me buy the same geta as Kazuko’s for Hanako, as well.’

2.2.5 The *-n'i*-case

(1) It is used to express the indirect object, such as the recipient of an action or a reference point.

7033 miteizi gakkō:nu einse:n'i {?o:tan/?o:ti}. ‘I ran into my teacher from school (my school teacher) on the street.’

5631 ?un panase: tuzin'ibē: k'ikatean. ‘I only told that story to my wife.’

3833 ?uma: ?umin'i teikasankara ?ijuga ?umasan. ‘This place is close to the sea, so the fish tastes good.’

7431 hanako: suraŋa ?okkann'i ju: {n'iteui/n'iteun}. ‘Hanako looks a lot like her mother.’

The *-n'i*-case is also used to express the agent in passive and causative sentences.

5731 tuzin'i ju:ban(ba) {tsukuratean/tsukurasun/tsukkasun}. ‘I will have my wife cook dinner.’

6033 saburo:ja ziro:n'i bo:zi ?utattan. ‘Saburo was hit by Jiro with a stick.’

(2) It is used to express a location involved in an action or state or the time at which an action or state arises.

1631 ?itukunu ?uduŋa janpira:n'i {ɸuteen/ɸutei ?an}. ‘My cousin’s bedding is airing on top of (on) the roof.’

2331 magu:ja ɸuzukara to:kjo:n'i ui. ‘My grandchild has been in Tokyo since last year.’

- 3531 ʔUN ɸakunu na:nʲi (mandzu:ŋa) ʔikutsu ʔantei ʔumuju{i/N}. ‘How many *manju* do you think there are on the inside of (in) the box?’
- 1131 ɕiko:kʲe: ɸittei:nʲi ʔikkaieika nendo:. ‘There is only one flight on a day (per day).’
- 2531 hateigatsunʲie:¹⁶ mudutʲi kʲUN {nessui/nessun}. ‘It appears he will come back in August.’

(3) It is used to express the result of a change of state.

- 5331 ɸuzʊo: ʔitukuŋa teu:gakko:nu einse:nʲi {natʲa/natan}. ‘Last year, my cousin became a junior high school teacher.’

Incidentally, unlike Onotsu dialect *-nʲi* and Modern Standard Japanese *-ni*, *-nʲi* is not used to express the purpose of a motion event in the Shitooke dialect.

- Cf. 3731 ʔazi:ja kʲanmakara ʔumikai ʔiju tunja ʔidʒan. ‘Grandfather went to the sea to catch fish (to fish) in the morning.’
- 6931 ʔokkano: ʔiteibakai ho:i mun einʲia {ʔizan/ʔizi}. ‘Mother went to the market to buy some groceries.’

2.2.6 The *-zi*-case¹⁷

(1) It is used to express tools and means.

- 1031 {ʔokinawa/naɸa}nʲie ɸunʲi^{zi} ʔikʲUN jukkamu ɕiko:kʲi^{zi} ʔizan ho:ŋa jutasaija:. ‘Rather than going by ship, you should go to Okinawa by plane.’
- 3131 nʲi:ŋa {ʔubussati:/ʔubussatannati} tʲai^{zi} {muttean(do:)/muttei}. ‘The luggage was heavy, so we carried it as a pair (the two of us carried it together).’
- 3231 ʔUN ʔkino: ɸunnaŋe: ʔokinawazi nʲisenendʲi {ho:tando:/ho:tittean}. ‘I bought this jacket in Okinawa the other day with (for) 2000 yen.’

(2) It is used to express constituent elements such as materials and ingredients.

- 5833 uto: de:zi kago: {tsutta/tsuttean}. ‘My husband made a basket with (out of) bamboo.’

(3) It is used to express the location at which an action or state arises (locative nouns).

- 2832 jodzimate jekidʲi matteuri. ‘Wait at the station until four o’clock.’
- 7033 mitci^{zi} gakko:nu einse:nʲi {ʔo:tan/ʔo:ti}. ‘I ran into my school teacher on the street.’
- 3231 ʔUN ʔkino: ɸunnaŋe: ʔokinawazi nʲisenendʲi {ho:tando:/ho:tittean}. ‘I bought this jacket in Okinawa the other day for 2000 yen.’

(4) Its use to express a cause was observed, as well. It appears that in the Shitooke dialect, too, the use of the continuative form of the verb *jamjui* ‘to be ill’ is more natural than the use of the *-zi-* case form of a noun, in this case *bʲo:ki* ‘illness’ (cf. 6631).

6633 hanako: kinʲu:kara bʲo:ki~~zi~~ nittu{i/N}. ‘Hanako has been in bed since yesterday due to illness (has been ill in bed since yesterday).’

Cf. 6631 hanako: kinʲu:kara jadi nittui. ‘Hanako has been in bed since yesterday, as she is ill (has been ill in bed since yesterday).’

Aside from the *-zi-* case examples given above, the forms *-de* and *-nti* were observed as well, but seeing how no similar forms are observed in the other dialects, I consider these to be most probably idiosyncratic uses.

5831 uto: {de:de:/de:zi} magu:(ba) {tsukutʰa/tsukuti}. ‘My husband made a basket with (out of) bamboo.’

6431 {ʔamɪɸui nʲe:/ʔaminu ɸujun pinʲe:} ʔanma:ja {ja:ɗi/ja:nti} terebi{bë:/bakkai} miteun. ‘On rainy days, grandmother just watches TV at home.’

2.2.7 The *-kai-* case

It is used to express the goal of a motion event.

0232 da(:)ŋa pate:kai {ʔiki/ʔiki}. ‘You go to the field.’ (imperative)

3731 ʔazi:ja kʰanmakara ʔumikai ʔiju tunja ʔidzan. ‘Grandfather went to the sea to fish in the morning.’

2.2.8 The *-tu-* case

(1) It is used to express the comitative participant in a reciprocal action.

5933 ziro:ja ʔuttu:nu saburo:tu eikkitan. ‘Jiro quarreled with his brother Saburo.’

(2) It is used to express an object with which a reciprocal relationship holds.

5131 kadi: nʲippunde: ʔariba ʔinŋa:ja maja:tu {tʰitsu/jin} mun. ‘If you only eat and sleep, you will be the same as dogs and cats (no different from dogs and cats).’

7233 kazuko muntu jin munnu ʔassa:ba hanakonʲimu ho:ti kurijun. ‘Let me buy the same *geta* as Kazuko’s (as Kazuko’s things; as Kazuko’s ones) for Hanako, as well.’

2.2.9 The *-kara-* case

(1) It is used to express the starting point of an eventuality, such as the departure point of a motion event or the inception time of an action or state.

- 2431 (wanna:) magu:ja ?itsu to:kjo:kara {mudujukka/mudut?i kiukka}. ‘When will our grandchild come back from Tokyo?’
- 2331 magu:ja φuzukara to:kjo:nji ui. ‘My grandchild has been in Tokyo since last year.’
- 3731 ?azi:ja k?anmakara ?umikai ?iju tunja ?idzan. ‘Grandfather went to the sea to fish from (in) the morning.’

(2) Its use to express materials was observed, as well. Depending on the speaker, however, the *-zi-* case is used for this (cf. 4433); it appears that there is no usage distinction like those that are observed between English ‘of’ and ‘from’ and the Modern Standard Japanese *-de-* and *-kara-* cases.

- 4431 se:ja φumikara tsukkusu(do:). ‘Sake is made from rice.’
- Cf. 4433 se:ja φumizi tsukkui. ‘Sake is made from rice (with rice.)’

2.2.10 The *-madi-*case

It is used to express the limit to which an action or state extends. Incidentally, 2731 is an example of a compound adnominal case form.

- 3031 dziro:, ?un n?imutsu: ja:madi hatamiti ?izi kuri. ‘Jiro, please carry this luggage (up) to the house.’
- 2831 jozimade: jekizi matteuri. ‘Wait at the station until four o’clock.’ (*made:* < *madi* ‘TERMINATIVE’ + *-ja* ‘TOPIC’)
- 2731 ?o:sakakara to:kjo:madinu kieateino: te?ansakaja:. ‘How much might the train fare from Osaka to Tokyo be?’

2.2.11 The *-madin/i-*case

It is used to express the time by which an action will take or has taken place.

- 2932 godzimadini muduranba {nara:/naran}. ‘I have to be home by five o’clock.’

2.2.12 The case periphery (or: peripheral cases)

Here, I list the forms corresponding to Modern Standard Japanese *-yori* ‘than’ and its quotative marker *-to*.

2.2.12.1 *-jukka(mu)*

It is used to express a standard of comparison.

- 1731 kinju:ja kiu:jukka(mu) haziŋa {tsusanatitŋan/tsusanatitŋeja:/tsukunati}. ‘Yesterday, it was windier than today.’
- 3933 ?ijujukkamu n?ikunu ho:ga ta:sa{n/i}. ‘Meat is more expensive than fish.’

2.2.12.2 -*tei*

It is used to express the content of speech or thought. It appears that depending on the speaker, the form *-teu* is used, as well (3532).

3531 ?UN φakunu na:nji (mandzu:ŋa) ?ikutsu ?antei ?umuju{i/N}. ‘How many *manju* do you think that there are (think there are) in the box?’

3532 hakunu na:nji mandzu:ŋa teansa {?antei ?umujui (D)/?anteu ?umujukka (C)}. ‘How many *manju* do you think that there are (think there are) in the box?’

2.3 Kamikatetsu

In the Kamikatetsu dialect, the following 13 case forms and 2 peripheral forms have been identified.

2.3.1 The *-ŋa*-case

Suffixation of this particle to a demonstrative pronoun to express the subject of the state referred to by the predicate has been observed. Unlike in the other dialects, it can be surmised that what are known as the nominative and genitive cases have been merging into the *-nu*-case in the Kamikatetsu dialect, but example 2153 below shows that the distinction between the *-nu*- and *-ŋa*-cases is marginally retained depending on noun type.

2153 ?anŋa jakubaza. ‘That is the town office.’ (identical to 2151 in the *Kikaijima Dialect Survey Data* chapter)

Furthermore, a number of examples showing fluctuation between *-nu* and *-ŋa* were observed. In the case of human nouns one might think of this as the vestiges of the awareness of an alternation, but as there are also many examples with common nouns, it is likely that this usage has arisen by analogy with that of Standard Japanese in both cases.

5353 kudo: ?ituku{nu/ga} teu:gakko:nu einse:nji natan. ‘Last year, my cousin became a junior high school teacher.’

6852 ?iea{ŋa/nu} kuritan kusuri numiba: {no:rin/no:rikkamu} do:. ‘You should get well if you take the medicine the doctor gave you.’

1853 eiru turi:ga tinto:oba tubun. ‘A pure white bird is flying in the sky.’ (cf. 1851 in 2.3.2)

In addition, examples were observed in which *-ŋa* is suffixed to a question word or a noun functioning as the answer to an interrogative sentence in the usage known as ‘exhaustive listing’. Incidentally, forms to which the particle *-ja* seems to have been suffixed were observed in this usage more often than *-nu*, to which I will return in 2.3.2.

0653 dunŋa da: hasa jo. ‘Which is your bamboo hat?’

0753 ʔun hasaga wa: mun. ‘That bamboo hat is mine.’

2.3.2 The -nu-case

(1) It is used to express the subject of the action, change of state, or state referred to by the predicate. As noted above, the -ŋa-case has been falling into disuse in the Kamikatetsu dialect, and the -nu-case is now the main exponent of this function. There are therefore no restrictions on nouns (noun phrases) taking the -nu-case, except for certain personal pronouns. In addition, -nu-nouns can also appear in subordinate clauses in this usage (6851, 3151).

1551 nama, ʔaminu {ʔurentei:/ʔurentean}. ‘Ah, rain has started to fall (it has started to rain).’

1851 eirudurinu tinto:(oba) {tubo:ri/tubo:ndo:}. ‘A pure white bird is flying in the sky.’

1453 miteinu ʕirusarija:. ‘The road is wide (what a wide road)!’

1751 kiju: ɕu:juri hadinu {ʔɕusari/ʔɕusatando:}. ‘Yesterday, the wind was stronger (it was windier) than today.’

1953 ʔan jamajeno: ʔinocicinu ʔunbe:za. ‘I heard that there are wild boars on that mountain.’

6851 ʔieanu kuritan kueŋje: numiba: no:ʔukkamu wakarando:. ‘You should get well if you take the medicine the doctor gave you.’

3151 nimitunu ʔubussa munnare: tʔarje: mutɕe:ɕan(do:). ‘The luggage was heavy, so the two of us carried it together.’

Although the usage known as ‘exhaustive listing’ has been observed as well, the -nu-case was only used with first person pronouns in this survey; otherwise, forms into which the particle -ja has merged were used¹⁸ (cf. 0651, 0751).

0353 ʔi:, hate:kate: wannu ʔika. ‘Yes, I will go to the field.’

Cf. 0651 diruo: da: {munnu haɕana/muno: haɕa}. ‘Which is your bamboo hat?’

0751 ʔun {haɕa:/hasa:} wa: mundo:. ‘That bamboo hat is mine.’

(2) It is used to form an adnominal modifier of the noun phrase following it and express attributes of or things related to that noun phrase. Except for first and second person pronouns (see 2.3.3), there are no restrictions on nouns (noun phrases) taking the -nu-case.

1653 ʔitukunu ʔudo: janinu {ʔuwe:/wi:en} ʔusen an. ‘My cousin’s bedding is airing on the roof.’

5952 ɕi:ro:ja ʔuttunu saburo:tu ɕitteitan do:. ‘Jiro quarreled with his brother Saburo.’

4152 da: ʔun junu na: ɕironnʔa:. ‘Do you know the name of this fish?’

3551 hakunu nakae: mandzu:nu ɕansa ʔakka wakaran{ka:/na:}. ‘How many manju do you think there are on the inside of (in) the box?’

- 7051 mitteje: gakko:nu einnee: {tu/e} o:tʔan(do:). ‘I ran into my teacher from school (my school teacher) on the street.’

Use of the *-nu*-case in phrases of the form ‘NP1-*nu* NP2’ is the norm; a usage corresponding to the formal noun-like *-no* of Modern Standard Japanese was not observed. In the following examples, I provide a literal translation of the example sentences in parentheses.

- 0553 ʔun kama: taro:nu munnaʔ. ‘Is that sickle Taro’s (Taro’s thing; Taro’s one)?’
- 0953 ʔure: ʔuttunu munkamu eirira:. ‘That may be my brother’s (my brother’s thing; my brother’s one).’
- 6353 ʔun einbuno: su:nu mun za. dzijo:nu muno: ʔuriza. ‘That newspaper is today’s (today’s thing; today’s one). This is yesterday’s (that is yesterday’s thing; yesterday’s one).’
- 7251 kazukonu muntu tʔitumun assa:(o:ba) hanakoemu ho:e kuririjo:. ‘Let me buy the same geta as Kazuko’s (Kazuko’s things; Kazuko’s ones) for Hanako, as well.’

(3) It is used to express the object of emotions and abilities.

- 4052 wano: to:nu sasuminu {kanbusan/kanbusarija:}. ‘I want to eat octopus sashimi.’
- 3453 mago: kʔaeinu sutein do:. ‘My grandchild likes sweets.’
- 5453 ʔituko: je:gonu honnu juminein. ‘My cousin can read English books.’¹⁹

2.3.3 The -Ø-case

(1) It is used to express the direct object of the action referred to by the predicate. The same usage is also observed for the *-o:ba*-case discussed in 2.3.4; it appears that they are used about equally often. For example, in other sentences uttered in response to the same Standard Japanese model sentences as those of 7252, 3653, and 5753 below, forms with the *-o:ba*-case were observed.

- 6853 ʔisanu kuritan kusuri numiba {no:rikkaja:/no:riro:}. ‘You should get well if you take the medicine the doctor gave you.’
- 7252 kadzukotu ninmunnu ʔassa: hanakojenmu {ho:okaja/ho:o:ja}. ‘Let me buy the same geta as Kazuko’s for Hanako, as well.’
- 6251 wano: kiju:ja einbun mirantʔando:. ‘I did not read the newspaper yesterday.’
- 3653 mago: manzu: kawadake kamin. ‘My grandchild eats only the skin (of) manju.’
- 5753 tuze:n ji: {tukkata/tukkaein}. ‘I will have my wife cook dinner.’
- 7153 nu: ho:ka(ja:). ‘What shall I buy?’

(2) It is used to express a location involved in an action (locative nouns). As was the case with direct objects in (1), the same usage is also observed for the *-o:ba*-case.

- 1253 ɕiko:zo:katee: ʔUN mitei tu:re:ki (jo:). ‘Go along this road for the airport.’
 1353 miteinu mannaka ʔatteiba ʔikan (do:). ‘You must not walk in the middle of the road.’

(3) Among personal pronouns, first and second person singular pronouns take the -Ø-case to form adnominal modifiers. Incidentally, the first person plural could not be identified in this survey. As is the case with adnominal modifiers formed with the -*nu*-case, a usage corresponding to the formal noun-like -*no* has not been observed for the -Ø-case (0751, 0853; a literal translation is provided in parentheses).

- 0453 wa: ke:ja za:nji ʔari joʔ. ‘Where is my hoe?’
 0751 ʔUN {haea:/hasa:} wa: mundo:. ‘That bamboo hat is mine (my thing; my one).’
 0653 dunja da: hasa jo. ‘Which is your bamboo hat?’
 0853 ʔUN ʔusukki(:)ja da: munna. ‘Is that *furoshiki* yours (your thing; your one)?’

The use of a -*nu*-case form was, however, also observed, albeit in only one example (cf. 0451). In addition, an example in which a -Ø-case form expresses the subject of a state was observed (cf. 3952).

- Cf. 0451 {wanUN/wannu} kʔe:ja dza:nji {ʔarijo/ʔando:}. ‘Where is my hoe?’
 3952 ʔju:jori nikudu²⁰ takasa(do:). ‘Meat is more expensive than fish.’

2.3.4 The -*o:ba*-case²¹

(1) It is used to express the direct object of the action referred to by the predicate²². As noted above, it is used alongside -Ø-case forms.

- 3751 ʔazi:ja kʔanmakara {ʔumikatei/ʔumije:} jʔu:o:ba tunja ʔizando:. ‘Grandfather went to the sea to catch fish (to fish) in the morning.’
 5851 utyo: de:e: kagooba tʔukutʔando:. ‘My husband made a basket out of bamboo.’
 5752 tudzien ji:jo:ba {tsukkatei/tukka ein}. ‘I will have my wife cook dinner.’
 7251 kazukonu muntu tʔitumUN assa:(o:ba) hanakoemu ho:e: kuririjo:. ‘Let me buy the same geta as Kazuko’s for Hanako, as well.’
 3651 mago: mandzu:(o:ba) wʔabe:daki kamindo:. ‘My grandchild eats only the skin (of) manju.’

(2) It is used to express a location involved in an action (locative nouns). Unlike the direct object usage, we do not have many examples.

- 1853 eiru turi:ga tinto:oba tubUN. ‘A pure white bird is flying in the sky.’

2.3.5 The *-en*-case²³

(1) It is used to express the indirect object, such as the recipient of an action or a reference point.

- 7252 kadzuotu ninmunnu ?assa: hanakojenmu {ho:okaja/ho:o:ja} ‘Let me buy the same *geta* as Kazuko’s for Hanako, as well.’
- 5653 ?un hanase: {tuzen/tuzien}daki kicatean. ‘I only told that story to my wife.’
- 5651 ?un hanaje: tuzidakie: teikateando:. ‘I only told that story to my wife.’
- 3853 ?uma:ja ?umi~~j~~en teikasan munen junu masan. ‘This place is close to the sea, so the fish tastes good.’
- 7452 hanako: t?uranu ?okkan~~j~~e: ju: {ni:jo:ri/ni:o:ri} ja:. ‘Hanako looks a lot like her mother.’
(?okkan~~j~~e: < ?okkan + e:)

The *-en*-case is also used to express the agent in passive and causative sentences.

- 6051 eaburo:ja d~~j~~iro:e: {bo:/gu~~j~~i:}e: ?ut?at?an. ‘Saburo was hit by Jiro with a stick.’
- 6751 hanako: ?anma:e: munoba kamae: murat?ando:. ‘Hanako had her mother feed her meals.’
- 5752 tudzien ji:jo:ba {tsukkatei/tukka ein}. ‘I will have my wife cook dinner.’

(2) It is used to express a location involved in an action or state or the time at which an action or state arises.

- 1653 ?itukunu ?udo: janinu {?uwe:/wi:en} ?usen an. ‘My cousin’s bedding is airing on top of (on) the roof.’
- 2353 mago:nu ?udukara to:kio:~~j~~en ?un. ‘My grandchild has been in Tokyo since last year.’
- 3551 hakunu nakae: mandzu:nu eansa ?akka wakaran {ka:/na:}. ‘How many *manju* do you think there are on the inside of (in) the box?’
- 1953 ?an jamajeno: ?inoeieinu ?unbe:za. ‘I heard that there are wild boars on that mountain.’
- 1151 ?iko:k~~j~~e: citte~~j~~i:e: ?ikkaieika ne:ran(do:). ‘There is only one flight on a day (per day).’

(3) It is used to express the location at which an action or state arises (locative nouns).

- 2851 jozimade: jek~~j~~e: mateo:rijo:. ‘Wait at the station until four o’clock.’
- 7052 mite~~j~~e: gakko:nu einse:tu o:tando:. ‘I ran into my school teacher on the street.’
- 3251 ?un ?uwage: nanma ?okinawae: n~~j~~ieenjen~~j~~e: ho:tando:. ‘I bought this jacket in Okinawa the other day for 2000 yen.’

(4) It is used to express tools and means.

- 1051 ?okinawan~~j~~e: ?un~~j~~e: ?ik~~j~~unjuri ciko:k~~j~~e: ?izan ho:ŋa jutasando:. ‘Rather than going by ship, you should go to Okinawa by plane.’

3151 niimutunu ?ubussa munnare: tʰarie: mutee:ɖan(do:). ‘The luggage was heavy, so we carried it as a pair (the two of us carried it together).’

6052 saburo:{wa/ja} ɖʒiro:ni guei:{de/hen/jen} ?utattan do:. ‘Saburo was hit by Jiro with a stick.’

(5) It is used to express constituent elements such as materials and ingredients.

5851 utʰo: de:e: kagooba tʰukutʰando:. ‘My husband made a basket with (out of) bamboo.’

(6) Its use to express a cause was observed, as well. In the Kamikatetsu dialect, too, an example with the continuative form of the verb *jamjui* ‘to be ill’ was observed in addition to an example with the *-eN*-case form of the noun *jamai* ‘illness’ (cf. 6653).

6651 hanako: kiju:kara jamaie: nʲinbondo:. ‘Hanako has been in bed since yesterday due to illness (has been ill in bed since yesterday).’

Cf. 6653 hanako: su:kara jamen nʲinbun. ‘Hanako has been in bed since yesterday, as she is ill (has been ill in bed since yesterday).’

(7) It is used to express the goal of a motion event.

0351 n:, hate:{je/e} wannu ?ikin. ‘Yes, I will go to the field.’

3752 ?adzi:ja kʰanmakara {umikatei/umi:je:} ?ju: tunnʲa ?idza(do:). ‘Grandfather went to the sea to fish in the morning.’

In each of the usages of the *-eN*-case given above, it overlaps with other cases: with the *-nʲi*-case in regard to usages (1) indirect object and (2) location or time of an event (2.3.6), with the *-zen*-case in regard to usage (3) location at which an event takes place (2.3.8), with the *-sen*-case in regard to usages (4) tool or means, (5) constituent elements, and (6) cause (2.3.7), and with the *-katei*-case in regard to usage (7) goal (2.3.9).

2.3.6 The *-nʲi*-case

(1) It is used to express the indirect object, such as the recipient of an action or a reference point. The same usage is observed for the *-eN*-case ((1) in 2.3.5)²⁴.

7253 kazukonu muntu jinmun getao hanakonʲimu ho:en turaso:. ‘Let me buy the same *geta* as Kazuko’s for Hanako, as well.’

3852 ?uma:ja umini teikasannati ?junu {?masando:/umasando:}. ‘This place is close to the sea, so the fish tastes good.’

7451 hanako: ?anma:{e:/nʲi} tura: tʰitumundo:. ‘Hanako looks a lot like her mother.’

The *-ni*-case is also used to express the agent in passive and causative sentences.

- 6053 saburo:wa ziro:{ni/eN} bo:sen ?utattan. ‘Saburo was hit by Jiro with a stick.’
 6752 hanako: {?okka:/?okkan}ni mun{woba/jobā} kamasarondo:. ‘Hanako had her mother feed her meals.’

(2) It is used to express a location involved in an action or state or the time at which an action or state arises. The *-en*-case is used to express these, as well ((2) in 2.3.5).

- 1651 ?itukunu {?utuNnu/?udunu} jʔançira:(nu) {ui:ni/ui:e} φuea:ri. ‘My cousin’s bedding is airing on top of (on) the roof.’
 2351 mago: φudukara to:kio:{je:/ni} undo:. ‘My grandchild has been in Tokyo since last year.’
 2551 hateigatsunje: muduren eikkamu wakarando:te:. ‘It appears he will come back in August.’

(3) It is used to express the result of a change of state. This usage is not observed for the *-en*-case. An example with a *-Ø*-case form, however, was observed (cf. 5332), but as the total number of examples is itself small, further investigation is required.

- 5351 φudu ?itukunu teu:gakko:nu einse:ni natando:. ‘Last year, my cousin became a junior high school teacher.’
 Cf. 5352 hudu: ?itokōja teu:gakko:nu einse: natan(do:). ‘Last year, my cousin became a junior high school teacher.’

Incidentally, in the Kamikatetsu dialect, too, *-ni* is not used to express the purpose of a motion event, nor is *-en*²⁵.

- Cf. 3751 ?azi:ja kʔanmakara {?umikatei/?umje:} jʔu:o:ba tunja ?izando:. ‘Grandfather went to the sea to catch fish (to fish) in the morning.’
 6952 ?okka:ja wankatei mun ho:ija ?idzan do:. ‘Mother went to the market to buy some groceries.’
 2651 ?anma:ja ?atea to:kjo:katei jinŋankʔannari ?o:ija ?i{te/k}indo:. ‘The mother will go to Tokyo to see her son tomorrow.’

2.3.7 The *-sen*-case²⁶

(1) It is used to express tools and means²⁷. The same usage is observed for the *-en*-case ((4) in 2.3.5).

- 3153 niimotsunu {?ubussaren/?ubusattan munen} ?tarisen muttean. ‘The luggage was heavy, so we carried it as a pair (the two of us carried it together).’
 6053 saburo:wa ziro: {ni/eN} bo:sen ?utattan. ‘Saburo was hit by Jiro with a stick.’

3251 ϕ un ?uwa ϕ e: nanma ?okinawae: n ϕ eenj ϕ enee: ho:tando:. ‘I bought this jacket in Okinawa the other day with (for) 2000 yen.’

(2) It is used to express constituent elements such as materials and ingredients. In this use, too, it overlaps with the *-en*-case ((5) in 2.3.5).

5852 utto: de:he: so:bi tukutando:. ‘My husband made a basket with (out of) bamboo.’

(3) It is used to express a cause. Like the two usages above, this usage is also observed for the *-en*-case ((6) in 2.3.5).

6652 hanako: teiju:kara jamai{sen/se:} ninbon do:. ‘Hanako has been in bed since yesterday due to illness (has been ill in bed since yesterday).’

2.3.8 The *-zen*-case

It is used to express the location at which an action or state arises (locative nouns). The same usage is observed for the *-en*-case ((3) in 2.3.5).

2853 jozimadi jeki{je/zen} mateo:ri jo:. ‘Wait at the station until four o’clock.’

7053 miteizen gakko:nu einse:tu ?o:ta. ‘I ran into my school teacher on the street.’

3253 ?un ?uwa ϕ e: nanma:ta ?okinawazen n ϕ isenenzen ko:tan. ‘I bought this jacket in Okinawa the other day for 2000 yen.’ (also see note 27)

Fluctuation among three cases was observed for the following example; namely, the *-zen*-case, the *-n ϕ i*-case, and the *-en*-case. It can be inferred from this that when locative nouns take these case forms, their grammatical meanings are quite close to each other.

3353 ?okinawa{zeno:/n ϕ e/n ϕ o:/jeno:} {middasan/mindasan} k’aeinu ?an. ‘There are unique sweets in Okinawa (Okinawa has unique sweets).’

2.3.9 The *-kat ϕ i*-case

It is used to express the goal of a motion event. The same usage is observed for the *-en*-case ((7) in 2.3.5).

0251 da: {hate:kat ϕ i/hate:n ϕ i} {?ikijo:/?ikinja}. ‘You go to the field.’ (imperative)

0353 ?i:, hate:kat ϕ e: wannu ?ika. ‘Yes, I will go to the field.’

3753 zi:sano: kanmakara ?umikati ju tunnja ?izan. ‘Grandfather went to the sea to fish in the morning.’

In example 0251 above, the *-ni*-case was used, as well. No other examples were observed in which the *-ni*-case was used to express a goal, but it would seem that if, for example, *hatake-e* ‘field-ALLATIVE’ were changed to *hatake-ni* ‘field-LOCATIVE’ in the Standard Japanese model sentence, more examples would be observed.

2.3.10 The *-tu*-case

(1) It is used to express the comitative participant in a reciprocal action.

5951 *ɕziro:ja ʔuttunu saburo:tu eitʔeitʔan(do:)*. ‘Jiro quarreled with his brother Saburo.’

7051 *mitteje: gakko:nu eĩnee:{tu/e} o:tʔan(do:)*. ‘I ran into my teacher from school (my school teacher) on the street.’

(2) It is used to express an object with which a reciprocal relationship holds.

5153 *kamen nʔinbidaki nariba ʔinŋa:ja quɕu:tu {jinmun/ʔissu} za*. ‘If you only eat and sleep, you will be the same as dogs and cats (no different from dogs and cats).’

7251 *kazukonu muntu tʔitumun assa:(o:ba) hanakoemu ho:e: kuririjo:.* ‘Let me buy the same geta as Kazuko’s (as Kazuko’s things; as Kazuko’s ones) for Hanako, as well.’

2.3.11 The *-kara*-case

(1) It is used to express the starting point of an eventuality, such as the departure point of a motion event or the inception time of an action or state.

2453 *mago: ʔitu to:kʔo:kara mudurikka*. ‘When will our grandchild come back from Tokyo?’

2353 *mago:nu ʔudukara to:kʔo:jen ʔun*. ‘My grandchild has been in Tokyo since last year.’

3751 *ʔazi:ja kʔanmakara {ʔumikatei/ʔumie:} jʔu:o:ba tunja ʔizando:.* ‘Grandfather went to the sea to fish from (in) the morning.’

(2) Its use to express materials was observed, as well. Further investigation is required regarding whether there is a distinction between this usage and the use of the *-sen-* and *-en-* cases to express materials and the like.

4451 *ee:ja ʔumikara tukurindo:.* ‘Sake is made from rice.’

(3) Its use to express a location involved in an action (in the example below: a location that is passed through) was also observed, albeit in only one example. This usage of the *-kara*-case is observed throughout the Ryukyuan languages; this shows that it is also retained in the Kamikatetsu dialect.

- 1351 miteinu mannakakara: ?atteiba ?ikando:. ‘You must not walk in the middle (from the middle) of the road.’

2.3.12 The *-madi*-case

It is used to express the limit to which an action or state extends. Incidentally, 2753 is an example of a compound adnominal case form.

- 3053 ziro, ?un n?imoto: ja:madi hann?ijen izenkuri. ‘Jiro, please carry this luggage (up) to the house.’
- 2851 jozimade: jek?e: mateo:rijo:. ‘Wait at the station until four o’clock.’ (*made*: < *madi* ‘TERMINATIVE’ + *-ja* ‘TOPIC’)
- 2753 ?o:sakakara to:k?o:madinu kisateino: sansakaja:. ‘How much might the train fare from Osaka to Tokyo be?’

2.3.13 The *-madin?i*-case

It is used to express the time by which an action will take or has taken place. This usage is also observed for the *-madi*-case, but as there are few examples of either, further investigation is required.

- 2951 gozimadin?i: mudura:ba narando:. ‘I have to be home by five o’clock.’
- Cf. 2953 gozimadi mudura:ba naran. ‘I have to be home by five o’clock.’

2.3.14 The case periphery (or: peripheral cases)

Here, I list the forms corresponding to Modern Standard Japanese *-yori* ‘than’ and its quotative marker *-to*.

2.3.14.1 *-jurimu/-jukkamu*

It is used to express a standard of comparison.

- 1751 kiju: eu:juri hadinu {?teusari/?teusatando:}. ‘Yesterday, it was windier than today.’
- 3951 {?u:jukamu/?u:jurimu} n?ikunu {ho:nu/ho:na} takaeando:. ‘Meat is more expensive than fish.’

2.3.14.2 *-ten*

It is used to express the content of speech or thought.

- 3553 hakonu nakajeno: manzu:nu {?ik?ut?u/sansa} ?anten ?umi:rijo. ‘How many *manju* do you think that there are (think there are) in the box?’

2.4 Nakasato

In the Nakasato dialect, the following 11 case forms and 2 peripheral forms have been identified.

2.4.1 The *-ŋa*-case

(1) It is used to express the subject of the action, change of state, or state referred to by the predicate. In this usage, *-ŋa*-nouns can also appear in subordinate clauses (6873, 3171).

- 1871 {eiruduri:ŋa/maeeiru: tuŋa} tinto:(oba) {tuduija:/tuduso:ja:}. ‘A pure white bird is flying in the sky.’
- 1573 ?a, ?amiŋa ?utittei:. ‘Ah, rain has started to fall (it has started to rain).’
- 5371 ?udu ?itukuŋa teu:gakko:nu eiŋse:nji nat’ando:. ‘Last year, my cousin became a junior high school teacher.’
- 1971 ?an jaman’je: inueeiŋa ?un nessuija:. ‘I heard that there are wild boars on that mountain.’
- 6873 ?isaŋa kuritan kusui numiba no:juro:. ‘You should get well if you take the medicine the doctor gave you.’
- 3171 nji:ŋa ?ubussatankara t’aizi mutteando:. ‘The luggage was heavy, so the two of us carried it together.’

The usage known as ‘exhaustive listing’ is observed, as well.

- 0271 daŋa hate:gatei ?iki. ‘You go to the field.’ (imperative)
- 0373 ?in, hate:gatee: waŋa ?iteui. ‘Yes, I will go to the field.’
- 0671 dinŋa da: hasajo:. ‘Which is your bamboo hat?’
- 0771 ?un hasaŋa wa: mundza. ‘That bamboo hat is mine.’

(2) It is used to express the object of emotions and abilities. Examples with the *-ba*-case were not observed in this dialect.

- 3471 maŋa:ja k’aeŋa suteundo:. ‘My grandchild likes sweets.’
- 4071 wano: to:nu saeimiŋa {kanbusai (A)/kanbusaja: (B)}. ‘I want to eat octopus sashimi.’
- 5473 ?ituko: je:gonu honŋa jun’unsui. ‘My cousin can read English books.’

2.4.2 The *-nu*-case

(1) It is used to form an adnominal modifier of the noun phrase following it and express attributes of or things related to that noun phrase. As in the other dialects, aside from the Kamikatetsu dialect, there are no restrictions on nouns (noun phrases) taking the *-nu*-case except for first and second person pronouns (see 2.4.3).

- 1672 ?itokonu hutunŋa janinu i:nji hutean do:. ‘My cousin’s bedding is airing on the roof.’

- 5973 ɕi:ro:ja ʔuttunu saburo:tu ɕittteiti. ‘Jiro quarreled with his brother Saburo.’
 4171 da:(ja) ʔuN ʔiju:nu na: ɕitteun {ja/nja}. ‘Do you know the name of this fish?’
 3571 hakun na:nɲe: manzu:ŋa sansa ʔantei ʔumujuijo. ‘How many manju do you think there are
 on the inside of (in) the box?’
 7073 miteizi gakko:nu ɕinse:nɲi ʔo:tʔi. ‘I ran into my teacher from school (my school teacher)
 on the street.’

While use of the *-nu*-case in phrases of the form ‘NP1-*nu* NP2’ is the norm in the Nakasato dialect, too, a significant number of instances corresponding to the formal noun-like *-no* of Modern Standard Japanese were observed, as well (cf. 0571, 0973, 6371). In the following examples, I provide a literal translation of the example sentences in parentheses.

- 0572 ʔuN hama: taro:nu mun na. ‘Is that sickle Taro’s (Taro’s thing; Taro’s one)?’
 0973 ʔure: ʔuttu:nu munkamu wakara:. ‘That may be my brother’s (could be my brother’s thing;
my brother’s one).’
 6373 ʔuN ɕinbuno: su:nu mun do:. teinju:nu muno: ʔuri do:. ‘That newspaper is today’s (today’s
thing; today’s one). This is yesterday’s (that is yesterday’s thing; yesterday’s one).’
 Cf. 0571 ʔuN hama: {taro:nu {na/ka}/taro:suna/taro:nu munna}. ‘Is that sickle Taro’s?’
 0973 ʔure: ʔuttu:nu kamu wakara:. ‘That may be my brother’s.’
 6371 ʔuN ɕinbuno: su:nuda, kinju:nu muno: ʔuriza. ‘That newspaper is today’s. This is
 yesterday’s.’

(2) It is used to mark the subject of the main clause. It appears that the functional differentiation of the *-ŋa*- and *-nu*-cases into the nominative and the genitive case, respectively, is in quite an advanced stage in the Nakasato dialect, too, and that the use of *-nu* with the subject of the main clause is restricted to agreement with exclamatory forms (wavy underline in 1472; cf. 1471) and the like, as was seen in the Shitooke dialect. At the same time, however, combinations of the *-ŋa*-case and exclamatory forms were also observed (cf. 1473), so the use of the *-nu*-case to mark the subject has almost completely disappeared.

- 1472 miteinu ɕirusa ja:. ‘The road is wide (what a wide road)!’
 Cf. 1471 miteiŋa ɕirusaija:. ‘The road is wide (what a wide road)!’
 1473 miteiŋa ɕirusa ja:. ‘The road is wide (what a wide road)!’

-nu, too, is quite frequently used with subjects in subordinate clauses. *-nu* is merely used here as an equivalent of the *-no* in the Standard Japanese model sentence, however; there is in fact no longer an alternation with *-ŋa* as regards their use for the nominative case.

- 2272 ?AN mi:nu ?ubisan ?irunu eirusan ?inŋaja taru{jo/kai}. ‘Who could that person whose eyes are large and whose skin is white (large-eyed, light-skinned person) be?’
- 6473 ?aminu hujun he: {?anma/?ani:}ja ja:zi terebibe: miteui. ‘On days when rain falls (rainy days), grandmother just watches TV at home.’

2.4.3 The -Ø-case

(1) It is used to express the direct object of the action referred to by the predicate. The same usage is also observed for the *-jo:ba*-case discussed in 2.4.4; it is used alongside the -Ø-case.

- 6873 ?isaŋa kuritan kusui numiba no:juro:. ‘You should get well if you take the medicine the doctor gave you.’
- 6273 wano: teinju:ja einbun jumanti. ‘I did not read the newspaper yesterday.’
- 3771 ?azi:ja k?amakara {?umje:/?umigatei} ?iju tɯŋja ?izan. ‘Grandfather went to the sea to catch fish (to fish) in the morning.’
- 3672 mago:ja mandzu: ha:daki kan’ui. ‘My grandchild eats only the skin (of) manju.’
- 7171 nu: ho:jukka. ‘What shall I buy?’

Although there is fluctuation between it and the *-ŋa*-case, examples in which an -Ø-case form expresses the object of an emotion were also observed.

- 4073 wano: to:nu {saeimŋa/saeimidu/saeimi} kanbusa(i). ‘I want to eat octopus sashimi.’

(2) It is used to express a location involved in an action (locative nouns). As was the case with direct objects in (1), the same usage is also observed for the *-o:ba*-case; they are used alongside one another.

- 1373 mitein manna: ?attee: ?ikan do:. ‘You must not walk in the middle of the road.’

(3) Among personal pronouns, first and second person pronouns (singular) take the -Ø-case instead of the *-nu*-case to form adnominal modifiers. As is the case with adnominal modifiers formed with the *-nu*-case, a usage corresponding to the formal noun-like *-no* has not been observed for the -Ø-case (0771, 0873; a literal translation is provided in parentheses).

- 0473 wa: ke:ja za:n’idu ?aru. ‘Where is my hoe?’
- 0771 ?un hasaŋa wa: munza. ‘That bamboo hat is mine (my thing; my one).’
- 4673 wanna: ?azi:ja se:mu tabakumu numa:. ‘Our grandfather neither drinks nor smokes.’
- 0671 diŋa da: hasajo:. ‘Which is your bamboo hat?’
- 0873 ?un hurueike: da: mun na. ‘Is that *furoshiki* yours (your thing; your one)?’

An example was observed in which a human proper noun (a personal name) takes the $-\emptyset$ -case to form an adnominal modifier, as well. As was the case with the Shitooke dialect, we have only one example, and no examples with third person pronouns, so further investigation is required.

7271 {kazukonutu/kazuko assa:tu} {jin mun/t²itu ?assa:}o:ba hanakonjimu ho:ti {tura so:/kuriro:}. ‘Let me buy the same *geta* ({same things; same ones/same *geta*}) as Kazuko’s ({as Kazuko’s/as Kazuko’s *geta*}) for Hanako, as well.’

It appears that depending on the speaker, the $-nu$ -case is sometimes used instead of the $-\emptyset$ -case, as well.

Cf. 0472 wannu k²e:ja dza:ni. {?assu jo:/?akkai}. ‘Where is my hoe?’

2.4.4 The $-jo:ba$ -case²⁸

(1) It is used to express the direct object of the action referred to by the predicate.

3671 maŋa:ja mandzu:o:ba ha:dakidu kan’ui. ‘My grandchild eats only the skin (of) manju.’

7273 kazukonu muntu titu geta(jo:ba) hanakonjimu ho:ti turaso:. ‘Let me buy the same geta as Kazuko’s for Hanako, as well.’

5873 uto: de:zi kaqujo:ba {t²ukuti/t²ukutan}. ‘My husband made a basket out of bamboo.’

6773 hanako: ?okkannji gohanjo:ba kamatei mura(t)t²i. ‘Hanako had her mother feed her meals.’

(2) It is used to express a location involved in an action (locative nouns). As is the case with the direct object usage, it appears that the use of the $-\emptyset$ -case is predominant in this usage.

1873 maæiru: tuiŋa sorajo:ba tudui. ‘A pure white bird is flying in the sky.’

1273 çiko:zo: nariba ?un miteijo:ba ?iki jo:. ‘Go along this road for the airport.’

1371 miteinu manna:(o:ba) ?attæ: ?ikan(do:). ‘You must not walk in the middle of the road.’

2.4.5 The $-n/i$ -case

(1) It is used to express the indirect object, such as the recipient of an action or a reference point.

7073 miteizi gakkono: einse:n/i ?o:t²i. ‘I ran into my teacher from school (my school teacher) on the street.’

5671 ?un hanasje: tuzin/ibe:i teikate(a)n. ‘I only told that story to my wife.’

3873 ?uma: ?umin/i teikasangara ?ijuŋa masai. ‘This place is close to the sea, so the fish tastes good.’

7471 hanako: t²uraŋa ?okkann/i ju: niiteuija:. ‘Hanako looks a lot like her mother.’

The $-n/i$ -case is also used to express the agent in passive and causative sentences.

- 5771 tuzinⁿⁱ ji:(o:ba) tʰukurasui. ‘I will have my wife cook dinner.’
 6073 saburo:ja dziro:ni butto:zi ʔutatti. ‘Saburo was hit by Jiro with a stick.’

(2) It is used to express a location involved in an action or state or the time at which an action or state arises.

- 1671 ʔitukunu ʔuduŋa ʔjançira:ni {ʔutei ʔai/ʔuteai}. ‘My cousin’s bedding is airing on top of (on) the roof.’
 2373 mago:ŋa hudukara to:kjo:ni ʔui. ‘My grandchild has been in Tokyo since last year.’
 3572 hakun na:ni mandzu:ŋa ʔikutu ʔantei ʔumujukko. ‘How many *manju* do you think there are on the inside of (in) the box?’
 1173 çiko:ke: çittei:ni ʔikkaieika ne:. ‘There is only one flight on a day (per day).’
 2571 hateigatsun^{je}: muduti sun nessuija:. ‘It appears he will come back in August.’

(3) It is used to express the result of a change of state.

- 5371 ʔudu ʔitukuŋa teu:gakko:nu çinse:ni natʰando:. ‘Last year, my cousin became a junior high school teacher.’

Incidentally, in the Nakasato dialect, too, *-ni* is not used to express the purpose of a motion event.

- Cf. 3771 ʔazi:ja kʰamakara {ʔumi^{je}:/ʔumigatei} ʔiju tuinja ʔizan. ‘Grandfather went to the sea to catch fish (to fish) in the morning.’
 6973 ʔokkano: ʔiteibagatei çina ho:inn^a ʔizi. ‘Mother went to the market to buy some groceries.’

2.4.6 The *-zi*-case²⁹

(1) It is used to express tools and means.

- 1073 ʔokina: {n^{je}:/gatei} hun^{ji}zi ʔiteukkamu çiko:kizi ʔizan ho:ŋa juta(s)sai. ‘Rather than going by ship, you should go to Okinawa by plane.’
 3171 ni:ŋa ʔubussatankara tʰai^{zi} mutteando:. ‘The luggage was heavy, so we carried it as a pair (the two of us carried it together).’
 3273 ʔun ʔuwage: nʰanma ʔokina:zi nʰisenen^{zi} ho:ti. ‘I bought this jacket in Okinawa the other day with (for) 2000 yen.’

(2) It is used to express constituent elements such as materials and ingredients.

- 5871 uto: de:zi so:çinkʰa:(o) tʰukutʰan. ‘My husband made a basket with (out of) bamboo.’

(3) It is used to express the location at which an action or state arises (locative nouns).

- 2871 jozimadi jekizi matteuri:jo:. ‘Wait at the station until four o’clock.’
 7073 miteizi gakko:nu e:inse:nji ?o:t’i. ‘I ran into my school teacher on the street.’
 3273 ?UN ?uwage: njanma ?okina:zi n’isenenzi ho:ti. ‘I bought this jacket in Okinawa the other day for 2000 yen.’

(4) It is used to express a cause. Like in the other dialects, both the *-zi*-case form of the noun *jamai* ‘illness’ and the continuative form of the verb *jamjui* ‘to be ill’ were observed (cf. 6671).

- 6673 hanako: teinju:kara jamaizi nittui. ‘Hanako has been in bed since yesterday due to illness (has been ill in bed since yesterday).’

Cf. 6671 hanako: teinju:kara jadi nittui. ‘Hanako has been in bed since yesterday, as she is ill (has been ill in bed since yesterday).’

2.4.7 The *-gatei*-case

It is used to express the goal of a motion event.

- 0271 dana hate:gatei ?iki. ‘You go to the field.’ (imperative)
 3773 ?azi:ja k’amakkara ?umigatei ?iju {tuinnja/tunnja} {?izan/?izi}. ‘Grandfather went to the sea to fish in the morning.’

2.4.8 The *-tu*-case

(1) It is used to express the comitative participant in a reciprocal action.

- 5971 dži:ro: ?uttunu saburo:tu eitteit’a(N). ‘Jiro quarreled with his brother Saburo.’

(2) It is used to express an object with which a reciprocal relationship holds.

- 5171 kadi nittun dakinariba: ?inna:ja guru:tu {?issu/t’itu} za:. ‘If you only eat and sleep, you will be the same as dogs and cats (no different from dogs and cats).’
 7273 kazukonu muntu titu geta(jo:ba) hanakonimu ho:ti turaso:. ‘Let me buy the same geta as Kazuko’s (as Kazuko’s things; as Kazuko’s ones) for Hanako, as well.’

2.4.9 The *-kara*-case

(1) It is used to express the starting point of an eventuality, such as the departure point of a motion event or the inception time of an action or state.

- 2471 mapaja:itu to:kjo:kara {mudujukka/mudujusujo:}. ‘When will our grandchild come back from Tokyo?’
 2372 mago:na hudukara to:kjo:ni ?ui. ‘My grandchild has been in Tokyo since last year.’

- 3771 ʔazi:ja kʔamakara {ʔumiɛ:/ʔumigatei} ʔiju tɯɲja ʔizan. ‘Grandfather went to the sea to fish from (in) the morning.’

(2) It is used to express materials. Depending on the speaker, however, the *-zi*-case is used for this (cf. 4471); it appears that there is no usage distinction like those that are observed between English ‘of’ and ‘from’ and the Modern Standard Japanese *-de-* and *-kara-*cases.

- 4473 se:ja ʔumikara tʔukujusu do:. ‘Sake is made from rice.’

Cf. 4471 se:ja ʔumizi {tʔukujui (A)/tʔukujusudo: (B)}. ‘Sake is made from rice (with rice).’

2.4.10 The *-madi*-case

It is used to express the limit to which an action or state extends. Incidentally, 2772 is an example of a compound adnominal case form.

- 3073 ɕi:ro:, ʔUN nʔimutsu jo:ba ja:madi hatamiti ʔizikuri. ‘Jiro, please carry this luggage (up) to the house.’
- 2871 jozimadi jekizi matteurijo:. ‘Wait at the station until four o’clock.’
- 2772 ʔo:sakakara to:kjo:madinu kieateino: sansakai. ‘How much might the train fare from Osaka to Tokyo be?’

2.4.11 The *-madinʔi*-case

It is used to express the time by which an action will take or has taken place.

- 2971 gozimadinʔe: muduranba: narando:. ‘I have to be home by five o’clock.’

2.4.12 The case periphery (or: peripheral cases)

Here, I list the forms corresponding to Modern Standard Japanese *-yori* ‘than’ and its quotative marker *-to*.

2.4.12.1 *-kkamu*

It is used to express a standard of comparison.

- 1773 teinʔu:ja su:kkamu hadiŋa teusatti. ‘Yesterday, it was windier than today.’
- 3971 ʔiju:kkamu nʔikunu ho:ŋa ta:sai. ‘Meat is more expensive than fish.’
- 1072 ʔokina:gatee: {huni/humi}ɕi ʔiteukkamu ɕiko:kiɕi ʔiɕan ho:ŋa jutasari. ‘Rather than going by ship, you should go to Okinawa by plane.’

2.4.12.2 *-tei*

It is used to express the content of speech or thought.

- 3571 hakun na:nje: manzu:ŋa sansa ʔantei ʔumujuio. ‘How many *manju* do you think that there are (think there are) in the box?’

2.5 Araki

In the Araki dialect, the following 11 case forms and 2 peripheral forms have been identified.

2.5.1 The -*ŋa*-case

(1) It is used to express the subject of the action, change of state, or state referred to by the predicate. In this usage, -*ŋa*-nouns can also appear in subordinate clauses (6892, 3191).

- 1892 {eiru/maeērunu} turiŋa tinto: {tuduī/tudun do:}. ‘A pure white bird is flying in the sky.’
 1591 ʔage: ʔamiŋa ʔutittei:. ‘Ah, rain has started to fall (it has started to rain).’
 5392 huzu ʔitukunŋa teu:ŋakko:nu eĩnee:nji natan do:. ‘Last year, my cousin became a junior high school teacher.’
 1991 ʔan jamanje: ʔinuseiŋa ʔunti:sa. ‘I heard that there are wild boars on that mountain.’
 6892 ʔieaŋa kuritan kusuri numiba: no:rundaro:. ‘You should get well if you take the medicine the doctor gave you.’
 3191 nji:ŋa ʔubussatankanni tʔarizi {muttei/mutteando:}. ‘The luggage was heavy, so the two of us carried it together.’

The usage known as ‘exhaustive listing’ is observed, as well.

- 0291 daŋa hate:katei iki. ‘You go to the field.’ (imperative)
 0391 ʔin, hate:teje: waŋa ʔiteui. ‘Yes, I will go to the field.’
 0692 dinŋa da: hasa jo:. ‘Which is your bamboo hat?’
 0792 ʔun hasaŋa wa: mun do:. ‘That bamboo hat is mine.’

(2) It is used to express the object of emotions and abilities.

- 3492 maŋa:ja kʔaeiŋa suki do:. ‘My grandchild likes sweets.’
 4093 wano: to:nu saeimiŋa kanbusai. ‘I want to eat octopus sashimi.’
 5493 ʔituko: je:gonu {honŋa jumi:su/hondu {jumi:/jumi: sui}}. ‘My cousin can read English books.’

2.5.2 The -*nu*-case

(1) It is used to form an adnominal modifier of the noun phrase following it and express attributes of or things related to that noun phrase. As in the other dialects, aside from the Kamikatetsu dialect,

there are no restrictions on nouns (noun phrases) taking the *-nu*-case except for first and second person pronouns (see 2.5.3).

- 1691 ʔitukunu ʔudu jaŋcira:nʝi ɸutei ʔai. ‘My cousin’s bedding is airing on the roof.’
 5993 ɖziro:ja ʔuttunu saburo:tu ɕittɕeiti. ‘Jiro quarreled with his brother Saburo.’
 4193 da: ʔUN junu namae ɕittɕunnʝa. ‘Do you know the name of this fish?’
 3592 hʷakun nakanʝi manzu:ŋa ʔikutsu ʔantei ʔuma:innʝa. ‘How many *manju* do you think there are on the inside of (in) the box?’
 7092 miteizi gakko:nu ɕinee:nʝi ʔo:tando:. ‘I ran into my teacher from school (my school teacher) on the street.’

Use of the *-nu*-case in phrases of the form ‘NP1-*nu* NP2’ is the norm in the Araki dialect, too; a usage corresponding to the formal noun-like *-no* of Modern Standard Japanese was not observed in this survey. In the following examples, I provide a literal translation of the example sentences in parentheses.

- 0591 ʔUN hama: taro:nu munna. ‘Is that sickle Taro’s (Taro’s thing; Taro’s one)?’
 0991 ʔure: ʔuttu:nu munkamu {wakaran/ɕiriran/ɕirira:}. ‘That may be my brother’s (could be my brother’s thing; my brother’s one).’
 6392 ʔUN ɕinbunno: su:nu mundo: teinju:nu muno: ʔuri do:. ‘That newspaper is today’s (today’s thing; today’s one). This is yesterday’s (that is yesterday’s thing; yesterday’s one).’

(2) It is used to mark the subject of the main clause. The functional differentiation of the *-ŋa*- and *-nu*-cases into the nominative and the genitive case, respectively, can be considered to be in quite an advanced stage in the Araki dialect, too; it appears that the use of *-nu* with the subject of the main clause is restricted to agreement with exclamatory forms (wavy underline in 1491) and the like.

- 1491 miteiŋa ɕirusaija:./miteinu ɕirusaja:. ‘The road is wide (what a wide road)!’

-nu is used more often with subjects in subordinate clauses than with subjects in main clauses. Examples in which the *-ŋa*-case is used even though the Standard Japanese model sentence has (*ame*)-*no* ‘(rain)-NOMINATIVE/GENITIVE’ were also observed (cf. 6492), however; it can therefore be said that the use of the *-nu*-case as the nominative case is in fact in decline.

- 2291 ʔAN mi:nu uɸusan irunu ɕirusan jinŋa: tarukai. ‘Who could that person whose eyes are large and whose skin is white (large-eyed, light-skinned person) be?’
 6493 ʔaminu ɸurun he: ʔanmaja ja:zi terebiba:ri miteui. ‘On days when rain falls (rainy days), grandmother just watches TV at home.’

Cf. 6492 ʔamiŋa hurun ɕi:ja ʔanmaja ja:zi terebibakkai mitsun do:. ‘On days when rain falls (rainy days), grandmother just watches TV at home.’

2.5.3 The -Ø-case

(1) Unlike in the other dialects, the unprompted use of the -Ø-case as the nominative case, expressing the subject of the action, change of state, or state referred to by the predicate, was observed in the Araki dialect. For example, in the sentence uttered by another speaker in response to the same Standard Japanese model sentence as that of 1691, too, the part corresponding to *futon-ga* ‘bedding-NOMINATIVE’ was observed with the -Ø-case (see 1692 in the *Kikaijima Dialect Survey Data* chapter). Moreover, 0292 exemplifies the usage known as ‘exhaustive listing’.

1492 ʔun mitei ɕirukamuja:. ‘The road is wide (what a wide road)!’

1691 ʔitukunu ʔudu jaŋɕira:nɿ ɸutei ʔai. ‘My cousin’s bedding is airing on the roof.’

0292 da: hate:kanɿ ʔiki. ‘You go to the field.’ (imperative)

(2) It is used to express the direct object of the action referred to by the predicate.

6892 ʔieaŋa kuritan kusuri numiba: no:rundaro:. ‘You should get well if you take the medicine the doctor gave you.’

3791 ʔazi:ja kʔamakara ʔumikanɿ jʔu turinja {ʔizi/ʔizando:}. ‘Grandfather went to the sea to catch fish (to fish) in the morning.’

3692 maŋa:ja manzu: kawadaki kamin do:. ‘My grandchild eats only the skin (of) manju.’

5892 uto: de:zi kaqu tsukutan do:. ‘My husband made a basket out of bamboo.’

7293 kazukonu muntu titsu munnu ʔassa hanakonʼimu ho:ti kuriro:. ‘Let me buy the same geta as Kazuko’s for Hanako, as well.’

7192 nu: ho:o:ka. ‘What shall I buy?’

Its use to express the object of emotions and abilities was observed, as well.

3491 maŋo:ja {kʔwaeɲa suki/kʔwaeɲi suteun} do:. ‘My grandchild likes sweets.’

5492 ʔituko: jeigonu hon juminsun do:. ‘My cousin can read English books.’

(3) It is used to express a location involved in an action (locative nouns). As is the case with the direct object usage of (2), the same usage is observed for the -jo:ba-case discussed in 2.5.4, but the -Ø-case is the main exponent of both functions.

1291 ku:ko: nariba {ʔun/ɸun} mitei ʔikijo:. ‘Go along this road for the airport.’

1392 miteinu manna: ʔakkiba ʔikan do:. ‘You must not walk in the middle of the road.’

1891 {eirusan tʔuriŋa/eiruduriŋa} tinto: tudui. ‘A pure white bird is flying in the sky.’

(4) Among personal pronouns, first and second person singular³⁰ pronouns take the *-Ø*-case to form adnominal modifiers. As is the case with adnominal modifiers formed with the *-nu*-case, a usage corresponding to the formal noun-like *-no* has not been observed for the *-Ø*-case (0792, 0892; a literal translation is provided in parentheses).

0491 wa: kʷwe:ja dʒa:nʒi {aŋ/ai}. ‘Where is my hoe?’

0792 ʔUN kasa: wa: mundo:. ‘That bamboo hat is mine (my thing; my one).’

0691 diruŋa da: {kasa/hasa}. ‘Which is your bamboo hat?’

0892 ʔUN ʔutsukki:ja da: munna. ‘Is that *furoshiki* yours (your thing; your one)?’

An example was observed in which a human proper noun (a personal name) takes the *-Ø*-case to form an adnominal modifier, as well. Again, we have no examples with third person pronouns, so further investigation is required.

0592 ʔUN hama: taro: munna. ‘Is that sickle Taro’s (Taro’s thing; Taro’s one)?’

2.5.4 The *-jo:ba*-case³¹

(1) It is used to express the direct object of the action referred to by the predicate.

5893 ʔuto: de:zi kaqujo:ba tsukut(?)i. ‘My husband made a basket out of bamboo.’

5793 tuzinʒi ji:{jo:ba/wo:ba} {tsukuraci/tsukurasui}. ‘I will have my wife cook dinner.’

As noted in 2.5.3, the *-Ø*-case is the main case used for expressing the direct object in the Araki dialect; regarding the two examples above, too, sentences uttered in response to the same Standard Japanese model sentence were observed in which the parts corresponding to *kago-o* ‘basket-ACCUSATIVE’ and *yūhan-o* ‘dinner-ACCUSATIVE’ were *-Ø*-case forms. In other words, it can be said that the *-jo:ba*-case in its direct object usage is, so to speak, a secondary form. This is also borne out by the fact that as shown below, a significant number of examples without the form *-jo:ba* were observed.

Cf. 4191 da: ʔUN jʔunu namaeba eitʔeunja. ‘Do you know the name of this fish?’

3091 dʒi:ro:, ʔUN nʒimutsuo ja:maɸi hatamiti {ʔizi kuriri/mutei ʔizi kuriri}. ‘Jiro, please carry this luggage to the house.’

6893 ʔisaŋa kuritan kusurio numiba {no:ʔUN dʒaro:/no:ruso: aranka (ja:)}. ‘You should get well if you take the medicine the doctor gave you.’

6292 wano: teinʒu:ja einbunno: jumantan do:.. ‘I did not read the newspaper yesterday.’

(2) It is used to express a location involved in an action (locative nouns). This usage, too, is observed mainly with the *-Ø*-case.

1391 miteinu manna:(oba) ?attee: ?ikan. ‘You must not walk in the middle of the road.’

2.5.5 The *-ni*-case

(1) It is used to express the indirect object, such as the recipient of an action or a reference point.

7093 miteizi gakko:nu einse:ni ?o:ti. ‘I ran into my teacher from school (my school teacher) on the street.’

5692 ?un hanace: tuzin'idaki {teikatean/hanatean} do:. ‘I only told that story to my wife.’

3893 ?uma:ja ?umin'ni teikasankaran'i juŋa {masai/masari}. ‘This place is close to the sea, so the fish tastes good.’

7492 hanako: suraŋa ?anman'ni ju niitsun do:. ‘Hanako looks a lot like her mother.’

The *-ni*-case is also used to express the agent in passive and causative sentences.

5792 tuzin'ni ji:ja tsukurasun do:. ‘I will have my wife cook dinner.’

6093 saburo:ja dziro:ni butto:zi ?utatti. ‘Saburo was hit by Jiro with a stick.’

(2) It is used to express a location involved in an action or state or the time at which an action or state arises.

1691 ?itukunu ?udu jan'eira:ni ?utei ?ai. ‘My cousin’s bedding is airing on top of (on) the roof.’

2391 maŋo:ŋa ?uzukara to:kjo:ni ui. ‘My grandchild has been in Tokyo since last year.’

3591 hakunu {naka/na:}ni mandzu:ŋa ?ikutsu ?antei ?umuinja. ‘How many *manju* do you think there are on the inside of (in) the box?’

1192 ?iko:kija çittei:ni ?ikkaieika {ne:ran/tuban}do:. ‘There is only one flight on a day (per day).’

2591 hateiqatsun'je muduti sunti:do:. ‘It appears he will come back in August.’

(3) It is used to express the result of a change of state.

5392 huzu ?itukuŋa teu:ŋakko:nu einsee:ni natan do:. ‘Last year, my cousin became a junior high school teacher.’

Incidentally, in the Araki dialect, too, *-ni* is not used to express the purpose of a motion event.

Cf. 3792 ?azi:ja k(?)anmakara ?umizi ju {tunn'a/turi:n'a} ?izan do:. ‘Grandfather went to the sea to catch fish (to fish) in the morning.’

6993 ?okkanno: {?iteiba/mieija}ni mun ho:inn'a ?izi. ‘Mother went to the market to buy some groceries.’

2.5.6 The -zi-case

(1) It is used to express tools and means.

- 1092 ʔokina: kanje: hunizi ʔizan jurimu ciko:kizi ʔizan ho:ŋa jutasan do:. ‘Rather than going by ship, you should go to Okinawa by plane.’
- 3191 ni:ŋa ʔubussatankannji tʔarizi {muttei/mutteando:}. ‘The luggage was heavy, so we carried it as a pair (the two of us carried it together).’
- 3292 ʔun ʔuwaŋe: njanma ʔokina:zi nʔicenenzi {ho:tan/ho:tasu} do:. ‘I bought this jacket in Okinawa the other day with (for) 2000 yen.’

(2) It is used to express constituent elements such as materials and ingredients.

- 5892 uto: de:zi kagu tsukutan do:. ‘My husband made a basket with (out of) bamboo.’

(3) It is used to express the location at which an action or state arises (locative nouns).

- 2891 jozimadi jekizi matteuri(jo):. ‘Wait at the station until four o’clock.’
- 7092 miteizi gakko:nu eince:nji ʔo:tando:. ‘I ran into my school teacher on the street.’
- 3291 ʔun ʔuwaŋe: ʔune:da ʔokinawazi nʔicenenzi {ho:tasudo:/ho:tando:}. ‘I bought this jacket in Okinawa the other day for 2000 yen.’

In the following example, the -zi-case is used to express the location at which an action takes place by modifying not ‘went’, but ‘to catch fish’.

- 3792 ʔazi:ja k(?)anmakara ʔumizi ju {tunnja/turi:nja} ʔizan do:. ‘Grandfather went to the sea to fish (went to catch fish at sea) in the morning.’

(4) It is used to express a cause. Only an example with the -zi-case form of the noun *bjo:ki* ‘illness’ was identified in this survey; the continuative form of the verb *jamjui* ‘to be ill’ was not observed.

- 6692 hanako: teinju:kara bjo:kizi nittun do:. ‘Hanako has been in bed since yesterday due to illness (has been ill in bed since yesterday).’

2.5.7 The -kanji-case³²

It is used to express the goal of a motion event. In addition, an example was observed in which it is used to express the purpose of a motion event (6992).

- 3791 ʔazi:ja kʔamakara ʔumikanji jʔu turinja {ʔizi/ʔizando:}. ‘Grandfather went to the sea to fish in the morning.’
- 0292 da: hate:kanji ʔiki. ‘You go to the field.’ (imperative)
- 0392 ʔun, hate:kanje: waŋa ʔitsundo:. ‘Yes, I will go to the field.’

- 6992 ʔanmaja ʔiteibakanji {kaimunkanji/ho:imun ei:nja} ʔizan do:. ‘Mother went to the market {for groceries/to buy some groceries}.’

2.5.8 The *-tu*-case

(1) It is used to express the comitative participant in a reciprocal action.

- 5992 ziro:ja ʔuttunu saburo:tu eitteitando:. ‘Jiro quarreled with his brother Saburo.’

(2) It is used to express an object with which a reciprocal relationship holds.

- 5192 kadi ninbindaki nariba ʔin^waja guru:tu ʔonnazi do:. ‘If you only eat and sleep, you will be the same as dogs and cats (no different from dogs and cats).’
- 7292 kazukonu muntu ʔonnazi ʔassa hanakonjimu ho:ti kuriro:. ‘Let me buy the same *geta* as Kazuko’s (as Kazuko’s things; as Kazuko’s ones) for Hanako, as well.’

2.5.9 The *-kara*-case

(1) It is used to express the starting point of an eventuality, such as the departure point of a motion event or the inception time of an action or state.

- 2491 maŋo:ja ʔitsu to:kio:kara mudujusujo:. ‘When will our grandchild come back from Tokyo?’
- 2391 maŋo:ŋa ɸuzukara to:kio:nji ui. ‘My grandchild has been in Tokyo since last year.’
- 3793 ʔazi:ja k^ʔamak^kkara ʔumi:katei ju tunnia ʔizi. ‘Grandfather went to the sea to fish from (in) the morning.’

(2) It is used to express materials. Further investigation is required regarding whether there is a distinction between this usage and the use of the *-zi*-case to express materials and the like.

- 4492 ɛe:ja humikara tsukurusudo:. ‘Sake is made from rice.’

2.5.10 The *-madi*-case

It is used to express the limit to which an action or state extends. Incidentally, 2791 is an example of a compound adnominal case form.

- 3092 ziro:, ʔun nⁱimotsuo ja:madi hatamiti ʔizi kuri. ‘Jiro, please carry this luggage (up) to the house.’
- 2891 jozimadi jekizi matteuri(jo):. ‘Wait at the station until four o’clock.’
- 2791 ʔo:sakakara to:kio:madinu kieateinno: sansa bakkai {kai/ka:ruk^kkai}. ‘How much might the train fare from Osaka to Tokyo be?’

2.5.11 The *-madinji*-case

It is used to express the time by which an action will take or has taken place.

2991 gozimadinji muduranba narando: ‘I have to be home by five o’clock.’

2.5.12 The case periphery (or: peripheral cases)

Here, I list the forms corresponding to Modern Standard Japanese *-yori* ‘than’ and its quotative marker *-to*.

2.5.12.1 *-kamu/-juri(mu)*

It is used to express a standard of comparison. It appears that two different forms are used alongside one another.

1792 teinu:ja {su:kamu/su:jurimu} haziŋa tsu:satan do:. ‘Yesterday, it was windier than today.’

3991 jukamu nŋikunu ho:ŋa {ta:sai/ta:sando:}. ‘Meat is more expensive than fish.’

1092 ŋokina: kanje: hunizi ŋizan jurimu ŋiko:kizi ŋizan ho:ŋa jutasan do:. ‘Rather than going by ship, you should go to Okinawa by plane.’

2.5.12.2 *-tei*

It is used to express the content of speech or thought.

3592 h^wakun nakanji manzu:ŋa ŋikutsu ŋantei ŋuma:innja. ‘How many *manju* do you think that there are (think there are) in the box?’

3 The case systems of the Kikaijima dialects

In the above, I have given a descriptive account of the case forms of the five dialects of Kikaijima. Their case systems are given in the table on the next page. The observations in this paper regarding each of the case forms can be summarized as follows:

1. As regards the *-ŋa-* and *-nu-*cases, the process of their functional differentiation into the nominative and the genitive case, respectively, is in an advanced stage in each of the four dialects other than that of Kamikatetsu. In the Kamikatetsu dialect the nominative and genitive cases have been merging into the *-nu-*case, while the *-ŋa-*case has been falling into disuse.
2. As regards the *-Ø-*case, its main usage in the four dialects other than that of Araki is that of expressing the direct object, but differences between dialects are observed in regard to whether it or the *-jo:ba-*case (including *-o:ba* and *-ba*), which is also used to express the direct object, is used more often. In the Araki dialect the *-Ø-*case covers a wide range of

grammatical meanings; apart from the direct object, its unprompted use to express the subject of an action is observed.

- As regards the cases from *-n'i* to *-kai* (including *-katēi*, *-gatei*, and *-kan'i*), the usages of each of these case forms are nearly the same in the four dialects of Onotsu, Shitooke, Nakasato, and Araki. As for the Kamikatetsu dialect, the usages of the *-n'i*- and *-katēi*-cases are the same as those in the other four dialects. There are two aspects, however, in which the Kamikatetsu dialect case system is observed to differ greatly from the others. Firstly, while the *-zi*-case is used to express tools and means as well as the location at which an action takes place in the other four dialects, these usages have differentiated into the *-seN*-case and the *-zeN*-case, respectively; secondly, it has the *-eN*-case, which has a semantic range covering all the usages of the cases from *-n'i* to *-katēi*. People from the other areas often say about Kamikatetsu that ‘the *yumita* (language) there is different from that of elsewhere’ (Matsumoto 2011); these two features of its case system could be said to be a factor bolstering this view.

		Onotsu	Shitooke	Kamikatetsu		Nakasato	Araki
Nominative		-ŋa	-ŋa	(-ŋa)		-ŋa	-ŋa
Genitive(/nominative)		-nu	-nu	-nu		-nu	-nu
Accusative (/genitive/nominative)		-Ø	-Ø	-Ø		-Ø	-Ø
Accusative		-joːba	-ba	-oːba		-joːba	-joːba
Dative/locative		-nʲi	-nʲi	-eN	-nʲi	-nʲi	-nʲi
Instrumental		-zi	-zi		-seN	-zi	-zi
Locative					-zeN		
Allative		-kai	-kai		-katei	-gatei	-kanʲi
Comitative		-tu	-tu	-tu		-tu	-tu
Ablative		-kara	-kara	-kara		-kara	-kara
Terminative		-gari/-madi	-madi	-madi		-madi	-madi
Limitative		-garinʲi/ -madinʲi	-madinʲi	-madinʲiː		-madinʲi	-madinʲi
Peripheral cases/case periphery	Standard of comparison	-jukka	-jukka(mu)	-jurimu/ -jukkamu		-jukkamu	-kamu/ - juri(mu)
	Quotative	-tei	-tei	-teN		-tei	-tei

Table: case systems of the Kikaijima dialects.

4. As regards the *-kara*-case, in addition to its use to express the starting point of an eventuality, its use to express a location that is passed through was observed, albeit in only one example (Kamikatetsu; example 1351 in 2.3.11). This usage of *-kara* is widely observed throughout the Ryukyuan languages; it remains to be confirmed whether this usage also exists in the other dialects.
5. As regards the terminative and limitative cases, the forms *-gari* and *-garinⁱ* were observed only in the Onotsu dialect. No usage distinction was observed between them on the one hand and *-madi* and *-madinⁱ* on the other; *-gari* and *-garinⁱ* seem to be the older forms. They are nonetheless used often, irrespective of the speaker, and show no sign of falling into disuse.
6. As regards the peripheral cases (standard of comparison, quotative), a certain degree of difference is observed in the forms that are used, but their grammatical functions proved to be completely identical. It is striking, though, that only the Kamikatetsu dialect has a quotative form that differs from those of the other dialects; namely, *-ten*.

There are many aspects that could not be elucidated in this survey. Further field research on the Kikaijima dialects, including those of areas not covered in this survey, is therefore required.

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¹ The grammar survey was conducted using the ‘*General Research for the Study and Conservation of*

Endangered Dialects in Japan Ryukyu Dialect Survey Sheet (prepared by the office of Prof. Shigehisa Karimata at the University of the Ryukyus), a revised version of the ‘*Contrastive Study of Dialect Grammars*’ Survey IV Survey Sheet (National Institute for Japanese Language and Linguistics, 1968). This survey sheet focuses mainly on the investigation of case forms.

² It has also been observed as [ga], with a velar plosive; I use [ŋa] to represent both pronunciations. The same applies to the areas discussed hereafter.

³ It appears that depending on the speaker, the *-jo:ba*-case (the accusative case) is used, as well.

Cf. 5413 ?ituko: jeigonu honjo:ba jumi dikui. ‘My cousin can read English books.’

⁴ A number of examples of the formal noun-like usage of *-nu* were observed. In example 6314 below, it appears that the NP2-noun (*mUN*) can be omitted.

Cf. 6314 φUN einbuno kju:nu (mUN) {do:/dza}. {kinju:nu:/kinju:nu muno:} φuri do:. ‘That newspaper is today’s (today’s (thing); today’s (one)). This is yesterday’s.’

7213 kazukonutu tʔitsu munnu getajo:ba hanakonimu ho:ti huriro:ka. ‘Let me buy the same *geta* as Kazuko’s for Hanako, as well.’

7214 kazukonutu tʔitsu ?assa:jo:ba hanakonimu ho:ti {kuriro:/kuriranba ja:}. ‘Let me buy the same *geta* as Kazuko’s for Hanako, as well.’

⁵ The treatment of these first and second person pronouns as stems with *-Ø*-case particles follows that of those of the Shitooke dialect, in which the same word forms are used. See note 14.

⁶ It has also been observed as [joba], [juba], and the like; I use [jo:ba] to represent all pronunciations. In addition, [oba] and [o:ba], with elision of the [j], have been observed.

⁷ It has also been observed as [ni], without palatalization; I use [nʲi] to represent both pronunciations. I will do likewise with the *-madini*-case below, as well as with the same forms in the other dialects.

⁸ When the particle *-ja* is added to *-ni* for focus, they are pronounced with a diphthong or merge into [nʲe:].

Cf. 3313 ?okina:nʲe: mittasanu kʷaeinu ?ai. ‘There are unique sweets in Okinawa (Okinawa has unique sweets).’

⁹ It has also been observed as [dzi], with an affricate; I use [zi] to represent both pronunciations.

¹⁰ In what are known as focus constructions, too, both *-gari* and *-madi* forms have been observed.

Cf. 6511 juwe:N dukiŋje: ?anma:gari ?udutando:. ‘During the celebration, even grandmother danced.’

6512 ju:wē:nu {tukini/tuke:} ?anmamadi {udutan/?udutan} do:. ‘During the celebration, even grandmother danced.’

¹¹ It appears that depending on the speaker, the *-ba*-case (the accusative case) is used, as well. Incidentally, in the Onotsu dialect, too, sentences uttered in response to this Standard Japanese model sentence with accusative case forms were observed (see note 3).

Cf. 5433 ?ituko: jeigonu honba jum'u: suN. ‘My cousin can read English books.’

¹² Although one example of the formal noun-like usage was identified, it can be surmised to have slipped in from the Standard Japanese model sentence, as *-no* is used instead of *-nu*.

Cf. 0932 ?ure: ?uttu:no kamu {eirera:/eirira:}. (C) ‘That may be my brother’s.’

¹³ Uchima (1978: 113) also makes this observation.

¹⁴ It can be surmised from examples such as 0331 in (1) that the stem of the first person singular pronoun is *wa*. Likewise, Uchima (1978) reports the form *wanna* for the plural. It is therefore also possible to interpret *wa:* and *wanna:* forming adnominal modifiers as forms in which some kind of particle has merged with these stems and vowel lengthening has taken place. In this paper, however, I interpret *wa:*, *wanna:*, and *da:* as variant stems of *wa*, *wanna*, and *da*, respectively, and treat them in this section on the *-Ø*-case for the sake of convenience, considering, among other things, the fact that fluctuation is observed between *da:*—this form has been reported as the second person singular pronoun stem—and the form *da* (see examples 0232, 4133, etc. above; in addition, Uchima (1978) gives both *da:ja* and *daja* as forms corresponding to Standard Japanese *anata-wa* ‘you-TOPIC’), as well as the fact that unlike in the Ishigaki dialect, the elision of the [ŋ] in *-ŋa* cannot be said to be regular in the Shitooke dialect.

¹⁵ Suffixation with the particle *-ja* instead of the *-ba*-case has been observed often, as well.

Cf. 4133 daja ?un ?ijunu na:ja eitteunŋa. ‘Do you know the name of this fish?’

5833 uto: de:zi kago: {tutta/tuttean}. ‘My husband made a basket out of bamboo.’ (*kagu* + *-ja*)

3031 dziro:, ?un n'imutsuo: ja:madi hatamiti ?izi kuri. ‘Jiro, please carry this luggage to the house.’ (*n'imutsu* + *-ja*)

¹⁶ When the particle *-ja* is added to *-n/i* for focus, they are pronounced with a diphthong or merge into [nʲe:] or [ne:].

Cf. 3332 ?okinawanie: mittasan k'wæiŋa ?ai. ‘There are unique sweets in Okinawa (Okinawa has unique sweets).’

6531 ju:we:nu tukine: ?anma:madi {udut'ando:/udut'i}. ‘At the time of (during) the celebration, even grandmother danced.’

¹⁷ Note 9 applies here, as well.

¹⁸ A second person singular example was observed, as well. As in the Shitooke dialect (see note 14), this example, given below, becomes an example of the *-Ø*-case if we treat *da:* as a variant stem of *da*.

Cf. 0253 da: hate:katei {?iki/?iki}. ‘You go to the field.’ (imperative)

¹⁹ Examples in which the *-Ø*-case was used were observed, as well.

Cf. 5452 ?ituko: e:gonu sumutu jumi: {çin/ein}do:. ‘My cousin can read English books.’

²⁰ *-du* is a particle that corresponds to Classical Japanese *-zo*.

²¹ It has also been observed as [jo:ba] and [oba]; I use [o:ba] to represent all three pronunciations.

²² As in the Shitooke dialect (see note 15), suffixation with the particle *-ja* instead of the *-jo:ba*-case

was observed, as well.

Cf. 3051 dʒi:ro: ɸUN nʲimutuo: ja:ma:di hatamʲe: {ʔi:ze: kuri/mutee:ɰen kuri}. ‘Jiro, please carry this luggage to the house.’ (nʲimutsu + -ja)

5853 ʔu(t)to: de:sen kago: {tʰukkatean/tʰukutan}. ‘My husband made a basket out of bamboo.’ (kagu + -ja)

²³ It has also been observed as [e:], [jen], and the like; I use [en] to represent all pronunciations.

²⁴ In the following example, it is probably not a case marking an indirect object, such as the -nʲi-case, that is used, but rather a combination with a formal noun equivalent to Modern Standard Japanese *tokoro*.

Cf. 2651 ʔanma:ja ʔatea to:kjo:katei jinnankʰannari ʔo:ija ʔi{tʰ/k}indo:. ‘The mother will go to Tokyo to see her son tomorrow.’ (with *jinnankʰannari* being the equivalent of Standard Japanese *musuko-no tokoro-ni* ‘to her son(’s place)’; the same holds for 2653 in the *Kikaijima Dialect Survey Data* chapter)

²⁵ At first glance, the following sentence looks like an example of -nʲi being used to express the purpose of a motion event, but the stem noun is a borrowing from Modern Standard Japanese, so it can be considered an instance of simple analogy.

Cf. 6953 ka:teano: miejakatei kaimononʲi ʔizan. ‘Mother went to the market to buy some groceries.’

²⁶ It has also been observed as [ɛe:], [hen], [he:], and the like; I use [sen] to represent all pronunciations.

²⁷ In fact, examples in which tools or means are expressed using cases other than the -sen-case were observed as well, but I consider them incidental uses due to analogy: with the Standard Japanese model sentence in the case of the first of the following examples and with similar usages in the other dialects in the case of the second.

Cf. 3253 ʔUN ʔuwage: nanma:ta ʔokinawazen nʲisenenzen ko:tan. ‘I bought this jacket in Okinawa the other day with (for) 2000 yen.’

1053 ʔokinawakate: hunʲizi ʔiteukkamu ciko:kizi ʔizan ho:nu jutasari. ‘Rather than going by ship, you should go to Okinawa by plane.’

²⁸ [o:ba] has also been observed; I use [jo:ba] to represent both pronunciations.

²⁹ Note 9 applies here, as well.

³⁰ In the sentences uttered in response to Standard Japanese model sentence 46, *Uchi-no jiisan-wa sake-mo tabako-mo nomanai*. ‘My family’s (my) grandfather neither drinks nor smokes,’ only the first person singular and a form corresponding to Standard Japanese *ie-no* ‘house/home-GENITIVE’ were observed, so no first person plural could be identified in this usage (see 4692 and 4693 in the *Kikaijima Dialect Survey Data* chapter).

³¹ Note 28 applies here, as well.

³² Aside from -kanʲi, forms like those in the following examples were observed. Perhaps this is due to influence from neighboring dialects such as that of Araki.

-
- Cf. 0291 daŋa hate:katei iki. ‘You go to the field.’ (imperative)
0391 ?in, hate:teie waŋa ?iteui. ‘Yes, I will go to the field.’

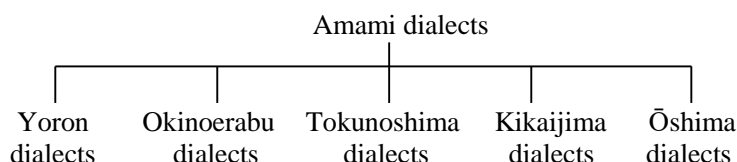
4. Features of the Kikaijima Dialects

On the Phylogenetic Position of the Kikaijima Dialects

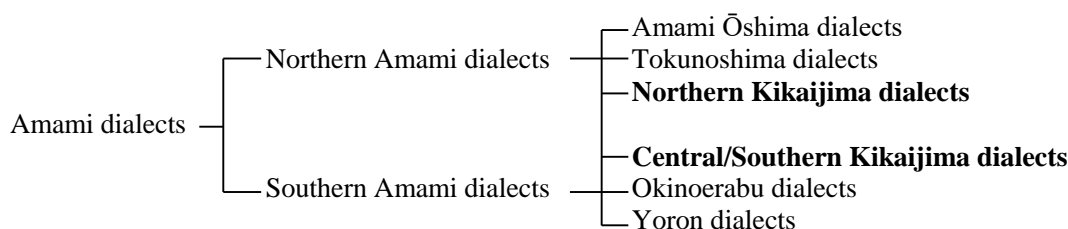
Wayne P. Lawrence

1 Introduction

Nakasone (1961: 20-1) and Hokama (1977: 295; 2000: 325) classify the dialects of the Amami islands as in the following diagram.



If this classification is correct, it would mean that the five sub-groups would have all formed from the Proto Amami language within the space of a relatively short time (a few generations). In contrast, Nakamoto (1981b: 26) claims that the Amami dialect group split firstly into a Northern Amami dialect and a Southern Amami dialect, and these later split up into a number of sub-groups. He claims that a number of the modern Kikaijima dialects belong to the Northern Amami dialect group, and that the remainder belong to the Southern Amami dialect group.



According to this classification, the relationship between the Northern Kikaijima dialects and the Tokunoshima dialects is closer than that between the Northern Kikaijima dialects and the Central/Southern Kikaijima dialects. Also, a form attested in both Northern and Central/Southern Kikaijima dialects, if not a loan, will reconstruct back to Proto Amami. In other words, the most recent common ancestral language linking the Northern Kikaijima dialects and the Central/Southern Kikaijima dialects is Proto Amami. This classification has recently been adopted by Kibe (2004: 9,10) and Kagoshima-chi'iki-bunka-sōzō-jigyō Amami-chiku Jikkō-i'inkai (2010: 7, 8).

Karimata (1999: 40, 45) adds the Northern Okinawan dialects to Nakamoto's (1981b: 26) Southern Amami dialect group to create a dialect group he calls the "Okinoerabu-Yoron-Northern Okinawan dialects", and he adds that "the dialects of the three communities of Onotsu, Shitooke and Sadeku should probably also be included with the other Kikaijima dialects in this sub-group" (p.45). These three dialects are the Northern Kikaijima dialects.

In this paper I argue against Nakamoto's (1981b: 26) classification, and demonstrate that the Northern Kikaijima dialects and the Central/Southern Kikaijima dialects form one dialect group.

2 Innovations in the Kikaijima dialects¹

Lawrence (2006) writes:

¹ This paper uses a simplified phonetic transcription with the following correspondences: tu = [tu], ti = [ti], si = [çi], sj = [ç], ca = [tsa], cja = [tça], aa = [a:].

“Whether or not what are known as the Amami dialects in the traditional classification form one dialect group is beyond the scope of this paper, but the form of the word for ‘jaw’ is suggestive. The Okinawan forms reflect the pronunciation *kakuzu. The Yaeyama dialects appear to be cognate with this same form (Ishigaki *kakuzi*, Hateruma *hakoci*, Yonaguni *kagudi*) so if these are not loans from Okinawan, the Proto Ryukyuan form can be reconstructed as *kakuzu. However the forms attested in the dialects of Amami Ōshima, Tokunoshima, Okinoerabu and Yoron all appear to require the reconstruction of *kakazu (Naze *kaazi*, Ichi in Sumiyō-son *kahazi*, Katoku in Setouchi-chō *k^hahat*, Kametsu on Tokunoshima *kaazi*, Wadomari on Okinoerabu *kaazi*, Yoron *kaazi*). This can be taken as evidence that the dialects of the Amami region form one phylogenetic unit.” (p.115 fn.4)

The Kikaijima dialects do not use forms cognate with *kakazu in the meaning of ‘jaw’, but the following cognate forms can be found.

Onotsu	k ^h aazu	‘mouth’ (pejorative)
Shitooke	k ^h aazu	‘mouth’ (pejorative)
Shiomichi	k ^h aaduccju	‘talkative person’
Sakamine	k ^h aazu	‘saying too much’
Aden	k ^h aadu	‘mouth’ (pejorative) (Iwakura 1977[1941]: 67)
Gusuku	k ^h aazuu	‘over-talkative person’
Wan	k ^h aadu	‘over-talkative’ (pejorative)
Nakasato	k ^h aazuu	‘speaking badly of someone’
Kamikatetsu	k ^h aadu	‘talkative’

Not only do all of the Kikaijima dialects use a word of different provenance with the meaning of ‘jaw’, all of the localities surveyed on this occasion have words derived from *kakazu which have undergone a semantic change and acquired a derogatory nuance. It can be inferred that either the encroachment of another form into the semantic field of ‘jaw’ has caused this semantic shift, or that *kakazu underwent a semantic shift and in order to fill the hole left by this shift a different word came to refer to ‘jaw’. However, the fact that this semantic shift towards a derogatory meaning has taken place right across Kikaijima suggests that this change took place once only, and that the proto language split up after the semantic shift had started.

From the following forms, it can be seen that the Proto Amami form for ‘mandarin orange’ may be reconstructed as *kunebo — Sani in Kasari-chō *k’unugu* (Ryūkyū-hōgen-kenkyū-kurabu 2003: 233; Karimata 2003: 43), Naze central city *k’unigu* ~ *k’unibu* (Terashi 1958: 11), Yamatohama *k’unibu* (Osada & Suyama 1977: 808), Shodon in Setouchi-chō *kuniibu* (Serafim 1984: 100), Asama on Tokunoshima *k’uniN* (Okamura et al. 2006: 27), Serikaku in China-chō, Okinoerabu *kurubu* (NHK 1972: 163), Minagawa in Wadomari-chō, Okinoerabu *kuribu* (Uwano 2005b: 174), Mugiya-higashi on Yoron *kunibu* (Kiku & Takahashi 2005: 189). In contrast, the Kikaijima dialect forms all end in -aa.

Onotsu	k’uniΦaa	
Shitooke	k’uniΦaa	
Shiomichi	k’unip ^h aa	
Sakamine	k’unip ^h aa	
Aden	k’uriΦaa	(Iwakura 1977[1941]: 89)
Gusuku	k’urihaa	
Akaren	k’uriΦaa	
Wan	k’urihaa	
Nakasato	k’unibaa	
Araki	k’uribaa	
Kamikatetsu	k’unihaa	

Of all the Ryukyuan dialects, it appears that it is only the Kikaijima dialects where the form for ‘mandarin orange’ ends in the vowel *a(a)*. And from the fact that the form in ALL Kikaijima dialects ends in -aa, the form *kunipaa can be reconstructed as the Proto Kikaijima form. According to

Nakamoto's (1981b) dialect classification, *kunepaa would be reconstructed alongside *kunebo in Proto Amami, and why the *aa*-ending form remains only in the Kikaijima dialects would remain a mystery.

In some Amami dialects, a form cognate with Standard Japanese *kai* is used for 'shell(fish)' — Kametsu on Tokunoshima *kai* (Hirayama 1986: 160), China-chō on Okinoerabu *kai* 'bivalves (generic term)' (Hirayama 1986: 159), Wadamari in Wadamari-chō, Okinoerabu *hai* 'great green turbin shell' (Kinoe 1987: 154), Mugiya-higashi on Yoron *hai* 'type of giant clam' (Kiku & Takahashi 2005: 412).² On Kikaijima the form *kai* is not used, but the *a(a)*-suffixed form *k^hajaa* is reported from Onotsu, Shitooke, Isaneku, Sakamine, Aden, Gusuku, Kawamine, Kamikatetsu and other dialects (Uwano 1992: 81). This form is not reported for all dialects, but from the fact that it is reported from both Northern Kikaijima dialects and Central/Southern Kikaijima dialects we can conclude that *k^hajaa* probably reconstructs back to Proto Kikaijima. In the Aden dialect there is the word *k^heejusi* 'rough seas around the third month of the lunar calendar (< shell-moving (wind))' (Iwakura 1977[1941]: 77), so we can see here that **kai* has been fossilised inside a compound noun before the suffixation of *-aa*.

In various locations throughout the Amami region a form which can be reconstructed as **cuburu* is used to mean 'head' — En in Tatsugō-chō *c'iburu* (Ryūdai-hōgen-kenkyū-kurabu 1977: 40), Sedome in Tatsugō-chō *ciburu* (Karimata & Uemura 2003: 13), Naze central city *ciburu* (Terashi 1958: 19), Yuwan in Uken-son *ciburu* (Nakamoto 1976: 11), Yadon in Uken-son *t'ibur* (Sakimura 2006: 130), Omo on Tokunoshima *ciburu* 'pumpkin; calabash; head' (Tokutomi 1975: 80), Minagawa in Wadamari-chō, Okinoerabu *ciburu* '(human) head' (Uwano 2006: 12), Mugiya-higashi on Yoron *ciburu* 'head, intelligence' (Kiku & Takahashi 2005: 316). In the Kikaijima dialects, 'head' is *hamaci*, but the Onotsu *t'uburu* 'head' (Sakimura 2006: 121), Shiomichi *cjuburu* 'head (archaic)' and Aden *t'uburu* 'head (derogatory)' (Hattori 1959[1932]: 330) forms can be viewed as remnants of an older word.³

In several Amami dialects, in order to avoid a semantic clash with another form meaning 'head', **cuburu* has undergone a semantic shift in several locations to take on the meaning of 'skull' — Yamatoama *ciburu* 'skull' (Osada & Suyama 1977: 125), Asama on Tokunoshima *cibuuru* 'pumpkin; skull' (Uwano 1977: 14). On Kikaijima the words indicating 'skull' are cognate with **cuburu*, but they are characteristically marked with a word-final *-aa* not seen in this word in other dialects.

Shitooke	cuburaa	'skull'
Sakamine	cuburaa	'skull'
Aden	t'uburaa	'skull'
Wan	t'uburaa	'skull'
Nakasato	t'uburaa	'skull'

The suffixation of *-aa* involved in the change *cuburu* > *cuburaa* and the semantic change of 'head' > 'skull' probably occurred at the same time. The fact that there is no intrinsic necessity for these two changes to occur together (*-aa* does not have the meaning of 'bone', and in dialects such as the Yamatoama dialect the form *ciburu* has come to mean 'skull' without the suffix *-aa*), and the fact that these two changes have taken place in both the northern and the central/southern dialects of Kikaijima, point to the two changes having taken place at the stage of the Proto Kikaijima language.

The verb 'fold up' in most locations in the Amami region takes the form *takub-* — Sani in Kasari-chō *takubjun*, Naze central city *takumjun* ~ *takubjun* (Terashi 1958: 41), Yamatoama *t^hakuburi* (Osada & Suyama 1977: 259), Yuwan in Uken-son *takubjui* (Nakamoto 1976: 59), Minagawa in Wadamari-chō, Okinoerabu *takubin* (Uwano 2006: 4), Mugiya-higashi on Yoron *takubjun* (Kiku &

² Sibata (1984: 178-9) contends that Yamatoama dialect *-go* is also cognate with this *kai*. One possibility is that it is from **kawi* with loss of the final vowel.

³ Nakamoto's (1981b: 42) view is that at the period when the word for 'head' in the Amami Ōshima and Kikaijima dialects was *kamaci*, the **cuburu* form was starting to spread out from Okinawa island. However, it appears that **cuburu* is the old form for 'head' in Kikaijima.

Takahashi 2005: 283).⁴ This *takub-* form also exists on Kikaijima, but in several Kikaijima dialects - *kub-* has changed to *-bb-* or *-nb-*.⁵

Onotsu	tabbi	
Shitooke	tabbjun	(Nakamoto 1978: 53)
Aden	taccjui	(Iwakura 1977[1941]: 142)
Gusuku	tanbin	
Nakasato	takubi	
Kamikatetsu	tanbjui	(Iwakura 1977[1941]: 142)

The Kikaijima forms *tabb-* and *tanb-* can both be considered to reconstruct back to **tabb-*, and from the fact that these forms are found in the northernmost community of Onotsu, the southernmost community of Kamikatetsu, and also the community of Gusuku in the central inland area of the island, we can surmise that this was the Proto Kikaijima form.⁶

The above lexical items are all innovations which are found only on Kikaijima. The following example is also an innovation, but it is also attested outside of Kikaijima.

The word for ‘clogs’ takes the following forms in the Amami dialects — Ashikebu in Naze city *?asizja* (Uwano 1996b: 58), Yamatohama *?asizja* (Osada & Suyama 1977: 250), Yuwan in Uken-son *?asigja* (Nakamoto 1976: 32), Shodon in Setouchi-cho *?asjzjaha* (Karimata 1996: 37), Asama on Tokunoshima *?anzja* (Hirayama 1986: 269), Minagawa in Wadamari-chō, Okinoerabu *?asizja(a)* (Uwano 2005a: 11), Mugiya-higashi on Yoron *asizja* (Kiku & Takahashi 2005: 24). These forms all trace back to **asizja* (< **asidja* < **asida* ‘clogs’). In contrast, the Kikaijima forms exhibit no trace of *-zj-*.

Onotsu	?assaa
Shitooke	?assaa
Shiomichi	?assjaa
Sakamine	?assaa
Aden	?assaa
Akaren	?assa(a)
Wan	?assa
Nakasato	?assa
Araki	?assa
Kamikatetsu	?assa

The form *?ass(j)a(a)* found in the Kikaijima dialects can be considered to derive from **asira*. This **asira* probably derives not from **asizja*, but instead from the older form **asida* via the sound change *d > r*.

The form *?assja* is also attested in the Taira dialect spoken in the eastern part of Kasari-chō, and in the north of the same Kasari-chō (Sani and Kasari communities) the form *?asira* is reported (Uwano 1996a: 249). If the Kikaijima form *?ass(j)a(a)* is related to the *?asira* / *?assja* of Kasari-chō, it is possible that the form has its roots in eastern Kasari-chō (the coast facing Kikaijima) and that Proto

⁴ ‘Fold up’ in Tokunoshima is unrelated *tagur-* — Kametsu *tagurui* (Hirayama 1986: 436), Asama *tagujun* (Uwano 1977: 22), Inokawa *taguri* (Nakamoto 1979: 62). Torishima dialect’s *takuri* (Nakamoto 1981a: 47) is probably related.

⁵ A similar distribution of *-bb-* / *-nb-* is observed in the case of *?abba* / *?anba* ‘oil’ (see Uwano 1992: 137).

⁶ The Nakasato and Aden dialect forms remain problematic. The Aden form *taccjui* probably derives from **takk-* < **takub-*. Perhaps both **takub-* and **tabb-* co-existed in the Proto Kikaijima language.

Kikaijima and Proto Kasari were sister dialects.⁷ However, because clogs are a cultural artefact, the possibility that the form *?assja* or *?asira* entered the island together with the object cannot be excluded.

3 Conclusion

When working out a cladistics classification of languages/dialects, the only tool at our disposal is exclusive shared innovations. For this reason, if an innovation is so common as to be attested in languages or dialects which are not directly related, that innovation loses its value as a determinant of classification. Thus, sound changes such as $p > \Phi > h$, $k > h$, and the merger of the B and C tonal classes, which are found in different sub-groups of the Ryukyuan dialects, cannot contribute to answering the question of whether the Kikaijima dialects constitute a single dialect group or not.

On the other hand, the innovations shared by the Northern and Central/Southern Kikaijima dialects discussed in this paper are highly likely to have occurred only once. In other Ryukyuan dialects *-aa* does not suffix onto forms meaning ‘mandarin orange’, ‘shell’, or ‘head’, and *takub-* does not appear to become *tabb-* / *tanb-*. Given this, it would be too much of a coincidence to believe that these changes occurred independently in both the Northern and the Central/Southern Kikaijima dialects. So if Nakamoto’s (1981b) classification is correct, it would mean that these changes occurred in one or other of the dialect groups and then spread to cover the whole island. However, there are thirty communities and thirty dialects on Kikaijima, so it could be expected that a pre-change form would be attested somewhere on the island. As far as I have been able to ascertain, however, examples of **kaazu* ‘jaw’, **kunibu* ‘mandarin orange’, **asira* ‘clogs’ and **cuburu* ‘skull’ which have not undergone the innovations reported in this paper have not been reported from any locality on the island. If these changes happened at the stage of the Proto Kikaijima language, the lack of the pre-change forms on the island would be explained.

In this paper I have argued that the Kikaijima dialects all form one dialect group, but I have not been able to pinpoint a relationship between this dialect group and any other Amami dialect. If clogs were not a cultural loan, it would be possible to claim that Proto Kikaijima may be a sister language to Proto Kasari, but more detailed investigation is called for. To this end, the compilation of more complete lexical and grammatical materials of the Kikaijima dialects, Kasari-chō dialects, and other dialects of the Amami region are required.

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⁷ In Proto Kasari, ‘sun’ is **tidan*, ending in an innovative *-n* (see Uwano 1996a: 158). As the Proto Kikaijima form for ‘sun’ is **tida*, it can be said that the Kikaijima dialects are not a sub-grouping of the Kasari dialect group.

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Lexical Properties of Onomatopoeias in the Dialects of Kikai Town, Kagoshima Prefecture

Koko Takeda

1 Introduction

The purpose of this paper is to delineate the properties of onomatopoeia in the dialects of Kikai Town, Kagoshima Prefecture. Specifically, I compile a list of onomatopoeias from dialectological reference materials and give an overview of their lexical properties, after which I delineate their actual current usage based on an interview survey in Gusuku, Kikai Town.

While large-scale databases are presently being used to conduct onomatopoeia research on Standard Japanese from many different angles, there are not even word form lists available for dialectological onomatopoeia research. Through compiling a list of onomatopoeias of the Kikai Town dialects based on dialectological reference materials and referring to them while conducting the actual survey, the search for a dialectological onomatopoeia research methodology forms one aspect of this paper.

2 Onomatopoeia in the Kikai Town dialects as seen from dialectological reference materials

2.1 Kikai Town Dialect Onomatopoeia List

First, I will compile a ‘Kikai Town Dialect Onomatopoeia List’¹ comprising onomatopoeias of the Kikai Town dialects extracted from dialectological reference materials and give a global overview of their forms and meanings, as well as of how many forms there are of different types.

As regards the reference materials, I used the following three works²:

¹ *Translator’s note*: the ‘Kikai Town Dialect Onomatopoeia List’ appended to the original Japanese version of this paper has been omitted from this English translation.

² I also referred to the following materials, but as they use Standard Japanese transcription, I did not make use of them.

- Iwakura, Ichiro (comp.). 1943. *Kikaijima Mukashibanashishū*. Sanseido.
- Tabata, Hidekatsu (ed.). 1974. *Amamishotō no Mukashibanashi (Nihon no Mukashibanashi 7)*. Japan Broadcasting Corporation.

- (1) Iwakura, Ichiro. 1941. *Kikaijima Hōgenshū*. Chuokoron-Sha (reprinted in 1977 by Kokushokankokai).
Dialect material collected by the author, born in Aden, Kikai Town in 1904. Compiles mainly Aden dialect material.
- (2) Nakamoto, Masachie. 1978. ‘Kikaijima Shitooke Hōgen no Goi’. *Ryūkyū no Hōgen 4: Amami Kikaijima Shitooke*. Hosei University Institute for Okinawan Studies.
A lexicological report that forms part of a report of a dialectological survey conducted among elderly speakers in Shitooke, Kikai Town.
- (3) Mori, Toyoryo. 1979. *Kikaijima no Hōgenshū*. Self-published.
Dialect material collected by the author, born in Nakama, Kikai Town in 1905. The research site is not specified.

A total of 149 items were extracted from the above works. Considering how the total number of word forms in the above works exceeds 10,000, the proportion of onomatopoeias in the lexicons of the dialects in question is not particularly large. Among the dialect material collections, the number of onomatopoeias in (3) is more than double that in (1), but as this mirrors a tendency in dialect material collections and dialect dictionaries of other areas, it can be considered a reflection of how the recognition of dialect onomatopoeias as word forms has grown through the years.

Based on this list, I will discuss their forms and meanings in the following sections.

2.2 Word form types

The three main word form^{3,4} types found on the ‘Kikai Town Dialect Onomatopoeia List’ are as follows:

- (1) Reduplicative forms (including forms in which final vowel length does not match between the two parts):
Aduna-aduna, bata-bata, bira-bira, bū-bū, buka-buka, bura-bura, buru-buru, chin-chin, dī-dī, doki-doki, don-don, dumu-dumu, duru-duru, dyi-dyi, dyiru-dyiru, futo-futo, futu-futu, fuya-fuya, gadyi-gadyi, gaji-gaji, gara-gara, gata-gata, gē-ge, gē-gē, gon-gon, gudyu-gudyu, gū-gu, guju-guju, gura-gura, gutsu-gutsu, hara-hara, hatchira-hatchira, hīra-hīra,

³ I omitted notation for unaspirated sounds, nasals, and accent; see the source materials for these.

⁴ *Translator’s note:* in the original Japanese version of this paper, onomatopoeias taken from dialectological reference materials are given in the *katakana* transcriptions used in their respective sources, rather than in phonetic notation; in this translation these *katakana* transcriptions are romanized using the Hepburn system, with the following additions: word-initial/word-final ヌ = ʎ; ぢ (as opposed to じ) = dyi; ネイ (specifies non-palatalization of the nasal) = ni; カ° = ɲa.

hīri-hīri, jiru-jiru, jiwa-jiwa, kanya-kanya, kē-kē, kī-kī, kō-kō, kuri-kuri, kusu-kusu, macha-macha, mādui-mādui, mā-mā, mancha-mancha, maya-maya, mucha-mucha, muchāri-muchāri, mudo-mudo, muja-muja, munya-munya, musha-musha, nado-nado, nanbu-nanbu, nī-nī, nyū-nyū, pachi-pachi, pī-pī, sara-sara, sā-sa, sas-sa, seka-seka, sō-so, soyo-soyo, sussagi-sussagi, tacho-tacho, tāri-tāri, teya-teya, tsun-tsun, tsuru-tsuru, tsutcha-tsutcha, turu-turu, ucha-ucha, wē-we, yōgari-yōgari, yoi-yoi, yoi-yōi, yōri-yōri, yudē-yudē, yufu-yufu, yura-yura, zā-za, zā-zā, zura-zura, ŷunya-ŷunya.

(2) Forms ending in *-i*, *-ri*, *-ra*, and the like:

- *-i*: *assai, bittai, chikkai-mekikai, duppui, ēi, gattsui, gattui, gunnai, gurui, mādui-mādui, nyūui, nyūwai, sappai, shikkai, shittaī, suppai, suttai, tsumai, tumui, yurari-yui, yurui, yōi, yoi-yoi, yoi-yōi, zoppui, zuppuui*;
- *-ri*: *hīri-hīri, kuri-kuri, muchāri-muchāri, sanjari, sari?, tāri-tāri, tsuzōri, yōgari-yōgari, yōri, yōri-yōri*;
- *-ra*: *ban-barā, bara, birā, bira-bira, bura, bura-bura, gara-gara, gura-gura, hara-hara, hatchira-hatchira, hīra-hīra, parā, yuras-sara, yura-yura, zura-zura.*

(3) Forms ending in *-to* or *-tu* (adverbial suffix)

Assai-to, bun-tu, dī-dī-tu, gurui-to, kut-to, mā-mā-tu, nī-nī-to, pashi-tu, sappai-to, sā-zā-to, shikkai-to, suhat-to, tsun-to, ugat-to, yat-to, yurui-to.

The above shows that the onomatopoeias of the Kikai Town dialects are similar to those of the dialects of mainland Japan with respect to the abundance of reduplicative forms. There are forms related to nouns and verbs, as well, such as *duru-duru* ‘muddy’, the reduplicated form of the noun *duru* ‘mud’, and *ucha-ucha* ‘cheerful’, the reduplicated form of the verb *ucha* ‘to float; to be cheerful’.

They differ from those of the dialects of mainland Japan in that there are more forms ending in *-i* than forms ending in *-ri* or *-ra*. Forms ending in *-i* can be surmised to be the result of elision of the consonant *-r-*. Incidentally, while there are few reduplicative forms ending in *-i*, almost all forms ending in *-ra* are reduplicative.

Furthermore, compared to those of the dialects of mainland Japan, they are not very high in productivity as constituent elements in verb formation. There are forms to which the form corresponding to Standard Japanese *suru* ‘to do’ has been appended, such as *tsuru-tsuru-shi* and *doki-doki-shi*, but words to which verbal suffixes like *-meku* and *-tsuku* have been appended as is seen in other dialects and Standard Japanese, such as *kira-meku* ‘to glitter; to twinkle’, *zawa-meku* ‘to be noisy; to be astir’, *neba-tsuku* ‘to be sticky’, and *muka-tsuku* ‘to feel sick; to feel disgusted’, have not been identified. On the other hand, forms in which an onomatopoeia is combined with a

noun meaning ‘person’ have been observed, such as *bura-mun* ‘person who wanders around without anything to do; person who lives leisurely without anything to do’ and *kusu-chā* ‘person whose throat makes a gurgling sound; person with asthma’.

2.3 Semantic classification

I classify the items on the ‘Kikai Town Dialect Onomatopoeia List’ into seven semantic categories. The number of words is indicated in parentheses (see table 1 for details)⁵.

(1) Sound	Words expressing animal vocalizations and other noises (onomatopoeia in the narrow sense—36 items).
(2) Motion	Words expressing the movements of objects, people, etc. (39 items).
(3) Bodily sensations	Words expressing a person’s physical state, the state of a person’s stomach, how awake or sleepy a person is, how something feels to the touch, etc. (18 items).
(4) Speed	Words expressing the speed at which something moves (18 items).
(5) Mental states	Words expressing how a person feels (10 items).
(6) Quantity	Words expressing the quantity of something (21 items).
(7) Abstract meanings	Words expressing abstract meanings that do not fit in any of the above categories (e.g. ‘exactly’, ‘much’, ‘steadily’, ‘as if...’, ‘already’, etc.—25 items).

Items classified under (1) sound and (2) motion are the most numerous, followed by items classified under (7) abstract meanings and (6) quantity, but it is not the case that items of one particular category greatly outnumber those of the others. The list contains no words with multiple meanings, nor are there cases in which one meaning is expressed by multiple forms.

⁵ Rather than an attempt at a classification to be used for dialect onomatopoeia in general, this classification is the result of surveying the ‘Kikai Town Dialect Onomatopoeia List’ and observing that the items on it can be broadly classified into these seven categories. In order to grasp the properties of onomatopoeia in the dialects of Japanese, as well as in the Kikai Town dialects as a subset of the dialects of Japanese, a classification that takes comparison with other areas into account is needed. Furthermore, among these categories, (4) speed, (5) mental states, (6) quantity, and (7) abstract meanings contain many items that should seemingly be classified as adverbs. I categorized them in this paper for the sake of making clear semantic distinctions, but there is room for reconsideration regarding this classification.

2.4 Word form types and semantic classification

Table 1 combines the word form types and the semantic classification and gives the total number of items in each grouping.

Table 1. Relationships between word form types A–C and semantic categories (1)–(7).

		93 items	50 items	16 items
		A: Reduplicative forms	B: <i>-i, -ra, -ri</i>	C: <i>-to, -tu</i>
36 items	(1) Sound	● 24	△ 7	— 1
39 items	(2) Motion	● 30	◎ 12	— 0
18 items	(3) Bodily sensations	● 15	◎ 8	— 0
18 items	(4) Speed	● 11	△ 5	△ 3
11 items	(5) Mental states	△ 8	△ 3	— 1
21 items	(6) Quantity	— 2	◎ 8	△ 3
25 items	(7) Abstract meanings	— 3	△ 7	◎ 8

(Legend: ●—numerous, ◎—somewhat numerous, △—somewhat rare, —(nearly) absent

Table 1 shows that word form and meaning are correlated in the onomatopoeias of the Kikai Town dialects. There are many reduplicative forms (A) that express (1) sound, (2) motion, (3) bodily sensations, and (4) speed, but few that express (6) quantity or (7) abstract meanings. Conversely, there are many forms suffixed with *-to* or *-tu* (C) that express (7) abstract meanings, but almost none that express (1) sound, (2) motion, (3) bodily sensations, or (5) mental states. Put differently: concrete meanings tend to be expressed by reduplicative forms, while abstract meanings tend to be expressed by forms suffixed with *-to* or *-tu*.

3 Onomatopoeia in the dialect of Gusuku, Kikai Town

3.1 Approach taken in the interview survey

For the interview survey, I prepared questions aimed at grasping usage distinctions between words, focusing on the parts of the ‘Kikai Town Dialect Onomatopoeia List’ with the largest numbers of items. The number of items was the largest for forms expressing actual sounds and vocalizations, forms expressing manners of movement, and forms used in somewhat abstract senses compared to these. I therefore selected onomatopoeias expressing rain sounds, animal sounds, and

the like, onomatopoeias expressing manners of movement of humans and animals, and onomatopoeias used adverbially to express speed and quantity for the survey.

In lexicological research, and especially in semantic description, it is customary to assume what is called a ‘closed system’ and describe the usage distinctions between the words within that system; in other words, to bound the scope of a lexicon that in principle stretches out unboundedly and elucidate the semantic relationships within it. A number of groups of forms for which usage distinctions regarding similar or adjacent meanings could be expected were selected for this survey from the ‘Kikai Town Dialect Onomatopoeia List’, and the survey was designed to take into account connections with the dialects of the Ryukyus and mainland Japan as well as the ease of conducting it.

The interview survey was conducted by the author at the Gusuku Community Center on September 10, 2010 with two elderly female interviewees born (in 1929 and 1932, respectively) and raised in Gusuku. There were no significant differences between their answers, so I make no distinction between them in this paper. As regards the transcription of the dialect data, that of data from the reference materials is based on that of the respective sources, while a *katakana* transcription as close to the pronunciation as possible forms the basis for the results of the interview survey, with phonetic notation added for the onomatopoeias⁶.

In the following, I discuss the survey results in order.

3.2 Onomatopoeias expressing sounds

Going through the words in the ‘sound’ category of the ‘Kikai Town Dialect Onomatopoeia List’, one finds many words that express individual sounds, which makes it difficult to discover anything resembling some kind of semantic system. Furthermore, in regard to onomatopoeias expressing sounds, loud sounds can be considered marked and soft sounds unmarked; when eliciting onomatopoeias that express rain sounds, an onomatopoeia was used for a loud rain sound, while no onomatopoeias were given for a soft rain sound.

The sound of intense rain is expressed as *zā-zā* [ɕa:ɕa:], as in (1). Non-onomatopoeic expressions such as (2) and (3) were given, as well.

- (1) *Zā-zā* [ɕa:ɕa:] *ame futtuiyā*. ‘It is raining with an intense sound.’
- (2) *Shinkoku-ame futtuiyā*. ‘It is raining heavily.’
- (3) *Ō-ame futtuiyā*. ‘It is raining hard.’

The following non-onomatopoeic form was given for expressing a soft rain:

⁶ *Translator’s note*: the data from the reference materials and the *katakana* transcriptions by the author are again romanized using the Hepburn system with additions; see footnote 3 in section 2.2 for details.

- (4) *Nama-ami futtuyā*. ‘It is raining softly.’

3.3 Onomatopoeias expressing animal vocalizations and other animal sounds

As regards onomatopoeias that express animal sounds, forms like those in (5)–(13) were elicited for the sounds of pigs, horses, cows, cats, dogs, chickens, skylarks, long-tailed roosters, and bush warblers, respectively.

- (5) Pig: *goī-goī* [goi:goi:]
 (6) Horse: *hī* [çi:]
 (7) Cow: *mō* [mo:]
 (8) Cat: *nyā-nyā* [nja:nja:]
 (9) Dog: *wan-wan* [wanwan]
 (10) Chicken: *kū-kū kū-kū* [ku:ku:ku:ku:] (clucking)
 Chicken: *koke-kokkō* [kokekokko:] (crowing to announce the dawn; as in Standard Japanese)
 (11) Skylark: *chitchī* [teittei:]
 (12) Long-tailed rooster: *hē-hē-koi-koi-koi* [he:he:koikoikoi]
 (13) Bush warbler: *honto-ni-kaketa-ka* [hontonikaketaka] (an example of hearing an animal sound as a Japanese phrase)

For flies, an onomatopoeia expressing the sound of their wings was given.

- (14) *Hē-ga bū-bū* [bu:bu:] *sui*. ‘A fly buzzes. = A fly flies while buzzing.’

(15) below is an onomatopoeia for the purring of cats, but it is also used when calling a cat, as in (16).

- (15) By a cat: *guru-guru guru-guru* [guruguru.guruguru] (the purring of cats)

- (16) To a cat: *guru-guru guru-guru* [guruguru.guruguru] (when calling a cat)

Gurū [guru:] is used as a word for ‘cat’⁷. When asked why ‘cat’ is expressed as *gurū* [guru:], the two speakers from Gusuku responded that it originally derives from an onomatopoeia that mimics the purring of cats. It is reportedly used both as a nursery word and as an adult word. We can surmise from this that a contracted form of the onomatopoeia in (15) and (16) became a noun expressing ‘cat’⁸. Speakers (both male) born and raised in Kamikatetsu and Nakasato, in the south of Kikaijima, gave a similar answer.

⁷ In the interview study, *gurū* [guru:] was given without prompting, while *mayā* [maja:] was additionally given after elicitation.

⁸ Iwakura (1941: 101) gives the following: ‘*Gurū*: cat. Synonymous *mayā*.’

As regards its distribution among the dialects of Kikai Town, Masachie Nakamoto (1987: 67) is particularly comprehensive. He states the following regarding the distribution of *gurū* [guru:] in the southwest and its origin (underlined by the author)⁹:

The words for ‘cat’ in the Kikaijima dialects are *mayā* and *gurū*; they are distributed as follows:

maja: Araki, Tekuzuku, Urahara, Kawamine, Keraji, Gamō, Aden, Kadon, Shiramizu, Sōmachi, Shiomichi, Sadeku, Shitooke, Onotsu, Isaneku, Isago, Nagamine, Nakaguma, Nishime, Ōasato, Shimanaka, Sakinai, Nakama, Ikeji.

guru: Araki, Kamikatetsu¹⁰, Sakiyama, Urahara, Sadeku, Takigawa, Gusuku, Yamada, Hasato, Ikeji, Akaren, Wan, Nakasato.

Mayā is distributed around the northern and central parts, while *gurū* is distributed in the southern part, around Wan.

How cats came to be called both *mayā* and *gurū* on Kikaijima is fascinating. *Mayā* is an onomatopoeia deriving from the vocalizations of cats. What kind of word is *gurū*, then? This is an onomatopoeia, as well: it derives from the purring of cats as they comfortably snuggle up to someone. It is fascinating how even though both words are onomatopoeic, they derive from the different sounds of vocalizations and purring.

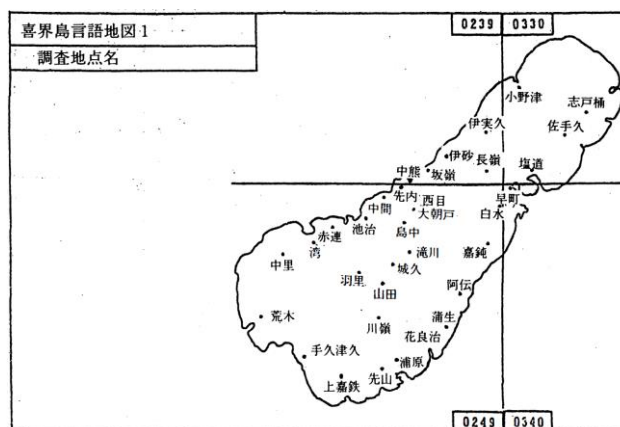


Figure 1. ‘1. Survey site names’

(Nakamoto 1987: 55).

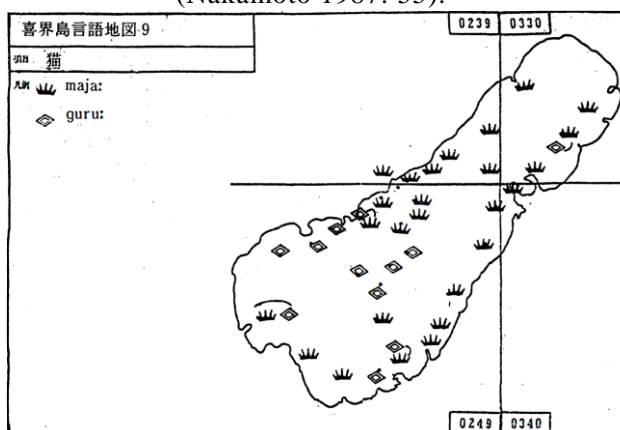


Figure 2. ‘9. “Cat”’ (Nakamoto 1987: 63).

⁹ It could not be confirmed in this survey whether the noun [maja:], expressing ‘cat’, derives from an onomatopoeia for the vocalizations of cats, as Nakamoto (1979, 1981) claims. This is a matter for further research.

¹⁰ Regarding Kamikatetsu, Nakamoto’s (1987) map shows the symbol for *mayā*, while the text gives *gurū*.

Cats are called *mayā* in the dialects of Okinawa, and a peculiar gesture is used when calling one. The hand is extended with the palm upwards, and a finger is erected and repeatedly extended and retracted. The hand is moved exactly like when a Westerner beckons someone. Simultaneously with the hand movement, the cat is called by uttering *kuru-kuru-kuru*. When the cat is then stroked on its throat, it feels at ease and purrs *kuru-kuru*. This *kuru*-call can be surmised to have developed into a word for ‘cat’ on Kikaijima.

Gurū [guru:] is also used on Amami Ōshima. Nakamoto (1981: 144), who uses maps to show its distribution among the dialects of all of the Ryukyus, states: ‘*Gurū* is used on Amami Ōshima and Kikaijima, also as a nursery word. *Gurū* is an onomatopoeia deriving from the purring of cats. It originally developed as a nursery word, but it is also used by adults when calling a cat.’

Other examples of contracted forms of reduplicative onomatopoeias with final vowel lengthening being used as nouns are observed in the Kikai Town dialects, as well. I have gathered likely corresponding pairs of reduplicative forms and nouns taken from Iwakura (1941) in table 2. It can be seen that these nouns express something like ‘a person who is in the state signified by the reduplicative form’.

Table 2. Nouns formed through contraction of reduplicative forms.

Onomatopoeia	Noun
<i>Aduna-aduna</i> —used to describe slowness and sluggishness (Iwakura 1941: 15).	<i>Adunā</i> —term of abuse for a slow-witted person; <i>adusui</i> is used, as well (Iwakura 1941: 15).
<i>Gunnai-gunnai</i> —used to describe the walking of a person with a limp (Iwakura 1941: 101).	<i>Gunnā</i> —used for a person with a limp (Iwakura 1941: 101).
<i>Dyiru-dyiru</i> —used to describe the goggling of eyes and staring (Iwakura 1941: 187).	<i>Mī-dyirū</i> —used for a person with goggling eyes (Iwakura 1941: 187).
<i>Buka-buka</i> —adverb used to describe softness to the touch, e.g. of bedding or earth (Iwakura 1941: 272).	<i>Pukā</i> ¹¹ —Aden dialect nursery word used for a person who is poor at sumo wrestling (Iwakura 1941: 272).
<i>Yōgari-yōgari</i> —used for wobbling and staggering, both of people and of objects (Iwakura 1941: 326).	<i>Yōgarī</i> —used for a person who is thin and fragile (Iwakura 1941: 326).

¹¹ Although *pukā* is given as an Aden dialect nursery word, it seems that this is a misprint for *bukā*.

Likewise, the word *gurū* [guru:] for ‘cat’ can be considered to have come about as a noun meaning ‘an animal that purrs *guru-guru guru-guru* [guruguru.guruguru]’, formed by contraction to the shortest possible form of an onomatopoeic reduplicative form and final vowel lengthening. *Guru* is usually repeated between two and four times when it is used as an onomatopoeia for the purring of cats, but it is not repeated when it is used as a noun for ‘cat’; instead, it undergoes final vowel lengthening to become *gurū* [guru:]. In Standard Japanese, too, onomatopoeias for the vocalizations of animals are sometimes used to refer to the animals themselves, such as *wan-wan* and *chun-chun* for ‘dog’ and ‘sparrow’, respectively; these reduplicative forms are only used as nursery words, however, and they are also not contracted to form nouns such as *wan* or *chun*.

When confirming whether there were similar correspondences for other animals, it turned out that *tū-tū tū-tū* [tu:tu:tu:tu:] is used when calling a chicken¹², while the noun *tū-tū* [tu:tu:] is sometimes used as a nursery word for ‘chicken’¹³.

(17) To a chicken: *tū-tū tū-tū* [tu:tu:tu:tu:] (when calling a chicken)

(18) To children, as a nursery word: *tū-tū* [tu:tu:] (a noun for ‘chicken’)

It appears, however, that *tū-tū* [tu:tu:] does not derive from an onomatopoeia. The onomatopoeia for the vocalizations of chickens is *kū-kū kū-kū* [ku:ku:ku:ku:], which is not used for calling them. In addition, the noun *tui* [tui] was given as an adult word for ‘chicken’, while a noun for ‘chicken’ deriving from the onomatopoeia (such as *kū*) could not be identified.

As regards other animals, it was said that dogs are called by their names, while cows, horses, and pigs are not called at all, so no words were given for calling animals other than cats and chickens. (19), (20), and (21) were given as commands for cows, however¹⁴. This can be surmised to be because calling livestock is in itself giving a command. As for horses, it was said that reins are used to give them commands, so no specific words were given.

(19) To a cow: *tudi* [tudi] (command: ‘go left’)

(20) To a cow: *ʔu* [ʔu] (command: ‘go right’)

(21) To a cow: *fui* [ɸui] (command: ‘go forward’)

¹² Iwakura (1941: 152) gives the following, as well: ‘*Tūtū*: a word used when calling a chicken.’

¹³ Iwakura (1941: 208) gives the following: ‘*Nyūnyū* (nursery word): chicken. Synonymous with *tūtū*.’; this was not confirmed in this survey, however.

¹⁴ Iwakura (1941) gives the following: ‘*Chudi*: left—a word used for giving commands to horses and cows.’ (p. 147), ‘*U*: right—a word used to command a horse or cow into a certain direction’ (p. 40), and ‘*Fui*: a word used to command a horse to go forward’ (p. 232). This more or less coincides with (19)–(21).

I have summarized the above data regarding onomatopoeias for animal vocalizations, words for calling animals, and the like in table 3.

Table 3. Gusuku dialect onomatopoeias for animal vocalizations and the like, as well as words for calling animals and nouns deriving from them.

Word Animal	Onomatopoeias for vocalizations and the like	Words for calling	Nouns deriving from onomatopoeias	
			Nursery word	Adult word
Pig	[goi:goi:]	—	—	—
Horse	[çi:]	—	—	—
Cow	[mo:]	—	—	—
Dog	[wanwan]	— (called by name)	—	—
Cat	[nja:nja:] (vocalization)	—	—	—
	[guruguru.guruguru] (purring)	[guruguru.guruguru]	[guru:]	[guru:]
Chicken	[ku:ku:.ku:ku:]	—	—	—
	—	[tu:tu:.tu:tu:]	[tu:tu:]	—
Skylark	[teittei:]	—	—	—
Long-tailed rooster	[he:he:koikoikoi]	—	—	—
Bush warbler	[hontonikaketaka]	—	—	—
Fly	[bu:bu:] (wing sound)	—	—	—

(‘—’ indicates that no relevant word forms were given.)

From the above, it can be concluded that onomatopoeias for animal vocalizations and the like are not necessarily also used as nouns for animals in the Kikai Town dialects, and that rather, the word for ‘cat’ in particular developed as follows. There is an onomatopoeia that mimics the purring of cats, which came to be used when calling one as a pet. Simultaneously, a common noun used as a nursery word developed from the onomatopoeia by contraction and final vowel lengthening, which eventually also took root as an adult word. It is fascinating how *guru-guru guru-guru* [guruguru.guruguru] is also used as a word for calling cats with the recognition that it derives from an onomatopoeia that mimics an actual sound, as well as how adults use a word that developed

from this onomatopoeia by contraction and final vowel lengthening as a common noun for ‘cat’, and moreover, how this word is shared and distributed over a certain geographical area.

Although it is a word that is widely used by adults, the word *gurū* [guru:] of the Gusuku dialect does have a kind of humorous connotation. When asked about the noun for ‘cat’, the two speakers from Gusuku, Kikai Town cheerfully uttered *gurū* [guru:] with twinkles in their eyes, explaining that while [maja:]¹⁵ is the proper form on Kikaijima, [guru:] is the form used in Gusuku, and that [guru:] is an onomatopoeic alternative for [maja:] with a playful, humorous connotation. It can be surmised that it has this connotation because it is recognized as having derived from an onomatopoeia, even when it is used as an adult word.

3.4 Manners of movement

As regards onomatopoeias that express manners of movement, Nakamoto gives the following in the section ‘Words mimicking [actions of] humans and animals’ of his ‘Vocabulary of the Dialect of Shitooke, Kikaijima’ (Nakamoto 1978: 14), showing that there are usage distinctions between onomatopoeias depending on the subject:

Words that express actions like wandering around:

Human:	manja manja tʃʉnja manja manja sui ‘Someone is wandering around.’
Cow; horse:	matʃa matʃa
Cat; dog:	maja maja maja:ŋa maja maja sui ‘A cat is wandering around.’ ʔiŋŋa: ŋa maja maja sui ‘A dog is wandering around.’
Fish:	mantʃa mantʃa
Bug:	ʔunja ʔunja
Snake:	ʔunja ʔunja
Fly:	bu: bu:

Using the above as a reference, I conducted the survey focusing on onomatopoeias that express the wandering or moving around of humans, cows and horses, dogs and cats, fish, bugs, and flies. The response given was that in Gusuku, *maya-maya* [majamaja] is used for humans, cats, dogs, and fish.

(22) *Anchō maya-maya* [majamaja] *sutcha-ya*. ‘That person is wandering around.’

¹⁵ It appears that *mayā* [maja:] ‘cat’ is unrelated to the onomatopoeia *maya-maya* [majamaja] ‘to wander around; to loiter’. When asked, the speakers said they were not aware of any connection.

(23) *Unu injā maya-maya* [majamaja] *shite atchui-yā*. ‘Our dog is wandering around.’

(24) *Unu gurū maya-maya* [majamaja] *shite atchui-yā*. ‘Our cat is wandering around.’

(25) *An io maya-maya* [majamaja] *sui*. ‘That fish is moving around.’

Turu-turu [turuturu] was also given for humans, as in (26). Rather than for wandering around, however, it is used for stumbling and physical imbalance like that of a drunk person.

(26) *Anchō turu-turu* [turuturu] *sutchi-ya*. ‘That person is stumbling around.’

As stated by Iwakura (1941: 178)—‘*Turu-turu*: the state of being about to fall asleep or wake up.’—and Toyoryo Mori (1979: 196)—‘*Tsuru-tsuru shi*: to be dozing; to sleep lightly; to not be fast asleep.’—sentences like (26) can be used to express how someone is dozing off.

It is used in a similar sense in other dialects, as well. Masahiro Ono (2007: 276) gives the following (underlined by the author):

Tsuru-tsuru: [dialectal] sleeping lightly and briefly. Kinki, Chugoku, and Kyushu regions. Also *tsuru?*. *Itsu-no ma-ni-yara tsuru-tsuru-to nete simōta* ‘Before I knew it, I had dozed off.’ (Kyoto Prefecture); *Tsuru-tsurut-to shitara ichiban-ressha-ga tōtta* ‘As I was dozing, the first train passed by.’ (Shimane Prefecture); *Tsurut-to shita* ‘I took a nap.’ (Hiroshima Prefecture).

The reference to Kyushu is based on entries in Oita Prefecture dialect material collections¹⁶; namely, ‘To sleep only briefly. A nap.’ (Gekkan City Jōhō Ōita & Brass 1992: 103) and ‘To take a nap. = *torot-to suru*.’ (Kamae Town Board of Education 2000: 78). It can be conjectured from this that *turu-turu* [turuturu] in (26) is distributed along a continuum southwards from the Chugoku and Kyushu regions as an onomatopoeia that expresses the unconscious swaying movement resulting from physical imbalance when taking a nap. As this cannot be confirmed from just the descriptions found in dictionaries and dialect material collections, more detailed information regarding its usages in other areas, such as Oita Prefecture and Shimane Prefecture, would seem necessary.

As regards bugs, *ʔujo-ujo* [ʔudʒoudʒo] and *waja-waja* [wadʒawadʒa] were given as onomatopoeias expressing ‘wriggling in a swarm’. Similar forms are used in nearly the same sense in the dialects of mainland Japan, so it appears that these, too, are distributed along a continuum.

(27) *Mushi-ga ʔujo-ujo* [ʔudʒoudʒo] *sundō*. ‘Bugs wriggle around.’ (cf. mainland Japanese *uja-uja*)

(28) *Hē-ga waja-waja* [wadʒawadʒa] *sui*. ‘Flies wriggle around.’ (cf. mainland Japanese *uja-uja*)

¹⁶ The dialectal entries in the dictionary edited by Masahiro Ono (2007) were written by Harumi Mitsui and myself. The reference to the Kyushu region in the entry for *tsuru?* was based on these Oita Prefecture dialect material collections.

3.5 Onomatopoeias used adverbially

It would seem that the meanings of onomatopoeias are most abstract when they are used as adverbs. When expressing sounds, voices, and the like, onomatopoeias can be seen as capturing something concrete in a word form; when adverbial, on the other hand, they can be considered to capture speed, quantity, and the like as abstractions.

I therefore conducted this survey focusing on the words on the aforementioned list meaning ‘hastily’, ‘many’, and ‘exactly’ that appear to derive from onomatopoeias.

Firstly, Iwakura (1941) and Mori (1978) give the following words for ‘hastily’:

- *Bata-bata*: quickly—hastily.
E.g. *Bata-bata aruke* ‘Walk quickly.’ (imperative) Iwakura (1941: 269)
- *Bata-bata*: acting in a busy manner.
Bata-bata atsukyō. ‘Walk quickly.’ (imperative)
Bata-bata seryō. ‘Do it quickly.’ (imperative) Mori (1979: 253)
- *Batamichui*: to make great haste—close to ‘to be flustered’. Also *bataku yui*.
E.g. *Amari batamichi kega suru-na-yo* ‘Don’t hurt yourself hurrying too much.’
Iwakura (1941: 269)

When confirming this by showing the speakers these examples, they responded that these forms are used as follows¹⁷:

- (29) *Bata-bata* [batabata] *shiri-yō*. ‘Do it quickly.’ (imperative)
- (30) *Bata-bata* [batabata] *shiranba*. ‘You must do it quickly.’
- (31) *Bata-bata* [batabata] *shin-na-yō*. ‘Don’t do it hastily.’
- (32) *Anmari batamichi* [batamit̚i] *kega sun-na-yo*. ‘Don’t hurt yourself hurrying too much.’

Although this *bata-bata* [batabata] is also an onomatopoeia that expresses the making of busy noises, it is used here as an onomatopoeia expressing how something is done hastily.

Next, *gaba* [gaba] is used for ‘many’. Similar expressions are *tsumari* and *dunbai*. *Tsumari* is used with a meaning similar to ‘to pack (with/into); to stuff (with/into)’, while *dunbai* is used with a meaning similar to ‘full’.

- (33) *Gaba* [gaba] *kami-yō*. ‘Eat a lot.’ (imperative—to a child)
- (34) *Tsumari* *kami-yō*. ‘Eat a lot.’ (imperative—to a child)

¹⁷ It has been reported that *guru-guru* is used in the Amami region, as well (*Amami no Hōgen Sanpo II*, p. 143; *Amami Hōgen Bunrui Jiten*, p. 205), but it was not observed in this survey.

(35) *Dunbai kami-yō*. ‘Eat a lot.’ (imperative—to a child; in the sense of ‘Eat a bowlful’ or ‘Eat a very large portion’)

When referring to speed, *don-don* [dondon] is used.

(36) *Don-don* [dondon] *kami-yō*. ‘Eat quickly.’ (imperative—to a child)

Lastly, the expression *gatchiri* [gattɕiri] corresponds to ‘exactly; just right’.

(37) *Gatchiri* [gattɕiri] *ichi-jikan kāta*. ‘It took exactly one hour.’

According to Iwakura (1941), *gattui* is used in Aden, also as a postpositive adverb at the end of a sentence, as in *Sā shirō-ka gattui* ‘What shall I do; really...’ In the Gusuku dialect, however, no such usage was identified for *gatchiri*. It can be surmised that there are regional differences within Kikai Town with respect to these grammatical functions. Incidentally, this *gatchiri* would seem to be cognate with southern Kyushu forms such as *gattsui*, *gatchui*, and *gattsuri*.

4 Summary and directions for further research

In the above, I analyzed a Kikai Town dialect onomatopoeia list based on dialectological reference materials with regard to word form types and semantic classification, and I reported on findings from an interview survey on the dialect of Gusuku, Kikai Town regarding uses of onomatopoeia to express sounds and vocalizations, motion, and adverbial meanings. It can be summarized as follows.

In the analysis of the onomatopoeia list based on reference materials, I established among other things that reduplicative forms are abundant, that the onomatopoeias are not very high in productivity as constituent elements in verb formation, that polysemy is not observed, and that words expressing sound and motion are somewhat numerous. In addition, I pointed out that word form and meaning are to a certain degree correlated, as concrete things such as sound, motion, and bodily sensations are often expressed using reduplicative forms, while abstract adverbial meanings are often expressed using forms suffixed with *-to* or *-tu*. In the interview survey I focused on onomatopoeias that express sounds and vocalizations and manners of motion, as well as onomatopoeias that are used adverbially. I pointed out that in regard to onomatopoeias expressing sounds, loud sounds can be considered marked and soft sounds unmarked, and that with respect to onomatopoeias that express sounds such as vocalizations, there are nouns that derive from reduplicative forms by contraction and final vowel lengthening. Furthermore, I discussed onomatopoeias expressing manners of motion and adverbs deriving from onomatopoeias, and I pointed out the possibility of a number of the above onomatopoeias being distributed along a continuum with the dialects of mainland Japan.

The following two matters remain as topics for further research. Having compiled an onomatopoeia list, it has become possible to examine the onomatopoeias of the Kikai Town dialects comprehensively, so I was able to give a global overview of their lexical properties in this paper. Furthermore, this could be utilized in the preparation and analysis stages of the interview survey. Lists of this kind for many more dialects, a database that can be used for comparing dialects and identifying distributions, and the like are required for further research. In addition, there were many items in the interview survey for which I was unable to conduct sufficient elicitation to be able to sketch a partial system. I would like to leave these matters, including survey methodology, for further research.

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5 Kikaijima Dialect Survey Data

Basic Vocabulary Data

In the following, basic vocabulary data of the Kikaijima dialects are presented. Word forms are transcribed using the International Phonetic Alphabet. See the *Phonology of the Kikaijima Dialects* section of chapter 3 for an explanation of the phonetic symbols and a discussion of the phonological and phonetic properties of each of the dialects. In addition, the following notation is used:

- As regards pitch accent, rising pitch is indicated with ‘[’ and falling pitch with ‘]’.
- In cases where a speaker gave multiple word forms, these are separated with ‘/’.
- In cases where responses differed among speakers, the word forms in question are separated with ‘//’ and an uppercase letter indicating the speaker is added after each in parentheses ‘()’.

The researchers responsible for reporting the data of each of the research sites are given in the table below; a final review of the audio data was conducted by Kibe.

Site	Group	Researchers
Onotsu	Basic vocabulary 1	Ogawa, Aoi, Kibe
	Basic vocabulary 2	Lawrence, Nakahara, Hirayama, Takeda
Shitooke	Basic vocabulary 1	Ogawa, Aoi, Kibe
	Basic vocabulary 2	Lawrence, Hirayama, Pellard, Nakahara
Shiomichi	Basic vocabulary 1a	Ogawa, Kawase
	Basic vocabulary 1b	Matsumori, Aoi
	Basic vocabulary 2a	Lawrence, Hirayama, A. Kubozono
	Basic vocabulary 2b	Nakahara, Pellard
Aden	Basic vocabulary 1	Aoi, Ogawa, Kibe, Hirako
	Basic vocabulary 2	Lawrence, Nakahara, Hirayama, Takeda
Kamikatetsu	Basic vocabulary 1	Pellard, Kawase, Ogawa, Aoi
	Basic vocabulary 2	Lawrence, Hirayama, Matsumori, Nakahara
Sakamine	Basic vocabulary 1	Ogawa, Takubo, Pellard, Aoi
	Basic vocabulary 2	Lawrence, Matsumori, Kawase
Wan	Basic vocabulary 1	Kawase, Pellard, Ogawa, Aoi
	Basic vocabulary 2	Lawrence, Nakahara, Matsumori, Mitsui, Hirayama
Nakasato	Basic vocabulary 1	Aoi, Ogawa, Kawase, Pellard
	Basic vocabulary 2	Lawrence, Matsumori, Hirayama
Araki	Basic vocabulary 1	Aoi, Ogawa, Shirata
	Basic vocabulary 2	Pellard, Takubo, Hirayama, Ogino

%DVLF 9RFDEXODU\

	:RUG	\$F	FHQWB2QRWVX	B6KLWR	RNH	B6KLRLPLFKL
1	hair	1	[çi] B	[çi] B	pi[n] (beard) 7 [ha] y [çi] B	
2	blood	1	[Q] B	[Qi] B 7 Qi	B [çi] B Q	
3	cord (esp. of a geta)	1	[pi]mu(cord)	[wu] B	NR	
4	sail; canvas	1	["u]	Bu[	Bu[B "	
5	handle; grip; haft	1	[j] B	[ji] B	ji[B	
6	fruit; nu t	1	[mi] B	[m] B	mi[B	
7	the sun; sunlight; day	2	[pi	ti[da	[ti]da(sun)	
8	seaweed; seagrass; waterweed	2	[mu] B	[mu] B	mu[B	
9	leaf	2	[pa] B	[pa] B	pa[B 7i [pa] B	
10	name	2	[na] B	[na] B	na[B	
11	K D Q G D U P	3	t B	t B	ti[B	
12	eye	3	m B	m B	mi[B	
13	tooth	3?	pa[B	pa[B	pa[B	
14	(break) wind	3	p B 7 [B	p B	pi[B	
15	ear (of a cereal plant)	3	[pu] B 7 "u]	Bu[B "	[i]ninomi[(seed of rice)	
16	load; cargo	3	[n]mu[Qu	n B	n B	
17	hot water	3	ju[B	ju[B	ju[B	
18	powder	3	[me] [ke :]ko(flour)	ku[B	k [n a	
19	field (not cultivated)	3	pa[M()	pa[M	pa[M(field)	
20	fire	3	[u]ma[Qu 7 [h	u[ma] Qu b	u[ma]tu	
21	rice paddy	3	ta[B	ta[B	t [B	
22	tree	3	h B	çi[B	hi[B	
23	greens	3	[na] B	na[B	ja[se] (vegetables) 7 [o] [pa] (vegetables with small	
24	root	3	n B	n B	[mu]tu(base) 7 [hi :] pi[n] B (root hair)	
25	mother's milk; breast	4	Q [çi	B [çi Q	B i[Qi Q	
26	tea		sa[	B a[Q	Ba[B	

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-DW
 5HVHDFK 5HSRUW RQ WKH .L
 \$XJXVW 1DWLRQDO ,QVWLWXWLRQ

	:RUG	\$F	FHQW B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
1	hair	1	ke[B 7has]sa[]i] B	çi[B	çi[]i] B
2	blood	1	Qi[	B i[Q	B i[B Q
3	cord (esp. of a geta)	1	--	--	[ha]na[u(geta strap)
4	sail; canvas	1	pu[B 7 ü[	Bu[	Bu[B 7 "u] B
5	handle; grip; haft	1	je[B	ji[B	ji[B
6	fruit; nu t	1	[mi] B	mi[B	na[M
7	the sun; sunlight; day	2	[pi] B	[ti]da(sun)	çi
8	seaweed; seagrass; waterweed	2	mu[B	mo[B	[a] ɸa[ɸ sea lettuce)
9	leaf	2	pa[B 7 ä[B	pa[B	ha[B
10	name	2	na[B	na[B	na[B
11	K D Q G D U P	3	ti[B	ti[B	ti[B
12	eye	3	mi[B	mi[B	mi[B
13	tooth	3?	pa[B 7 ä[B	pa[B	ha[B
14	(break) wind	3	"i[B	pi[B 7 i[B	çi[B
15	ear (of a cereal plant)	3	pu[B 7 ü[	Bu[	Bu[B "
16	load; cargo	3	n ɸ B	--	n ɸ B
17	hot water	3	ju[B	ju[B	ju[B
18	powder	3	[k ɸ] B	--	[k ɸ] B
19	field (not cultivated)	3	--	--	NR
20	fire	3	ɸ[ma] Qu(by human) 7 çi[B (fire)	u[ma]tu	ɸ[ma]tu
21	rice paddy	3	t ɸ[B	ta[B	t ɸ[B 7i[ɸ za[ɸ archaic)
22	tree	3	hi[B	çi[B	çi[B
23	greens	3	[ɸ] ɸ "a[ɸ green leaves)	NR	NR
24	root	3	ni[B 7mu]tu	ni[B 7i[mu]tu	[ni]mu[tu(root)
25	mother's milk; breast	4	Q i[B	--	Qi[B
26	tea		sa[B	sa[B	[sa] B 7a[B

	:RUG	\$F	FHQW	B:DQ	B1DNDVDWR	B\$UDNL
1	hair	1	çi[n ɔ̃		[has]sa[;i] B ʔhas]sa[n ɤ B	çi[n ɤ ʔi[;i
2	blood	1	Q ɤ̃		B ɤ̃ B ʔQ ɤ̃ B Q	[a ɤ̃Q[i[B ʔQ[i[B
3	cord (esp. of a geta)	1	--		--	--
4	sail; canvas	1	ˈu[		Bu[B	ho[B "
5	handle; grip; haft	1	NR		--	ji[B
6	fruit; nu t	1	mi[B		mi[B	mi[B
7	the sun; sunlight; day	2	--		çi[B ʔçi[B	çi[B
8	seaweed; seagrass; waterweed	2	mu[B		--	mo[B
9	leaf	2	ha[B		ha[B	ha[B
10	name	2	[na]ma[i		na[B	[na]ma[i
11	K D Q G D U P	3	t ɤ̃ B		t ɤ̃ B	ti[B
12	eye	3	mi[B		mi[B	mi[B
13	tooth	3?	ha[B		ha[B	[ha B
14	(break) wind	3	çi[B		çi[B	çi[B
15	ear (of a cereal plant)	3	ˈu[		Bu[B	ho[B "
16	load; cargo	3	n ɤ̃ B ʔn ɤ̃ mu]tu		n ɤ̃ B	n ɤ̃ B
17	hot water	3	ju[B		ju[B	ju[B
18	powder	3	k ɤ̃[n a		k ɤ̃[B	(ko[n a)
19	field (not cultivated)	3	ha[te] ɤ̃field)		ha[M(outside a village)	--
20	fire	3	u[ma]tu		u[ma]tu 7[u]ma[tu	u[ma] Qu 7 çi[B ʔk üa] z
21	rice paddy	3	t ɤ̃[B		t ɤ̃[B	t ɤ̃[B
22	tree	3	çi[B		çi[B	çi[B
23	greens	3	NR		--	na[B
24	root	3	n ɤ̃ B		mu[tu 7 n ɤ̃utu 7 çi[n ɤ̃	mu[tu
25	mother's milk; breast	4	Qi[		B ɤ̃ Q B i[B Q	
26	tea		sa[B		sa[B ʔsa] B	sa[B

*HQHUDO 6WXG\ IRU 5HVHDFK DQGFRQVLGHU DSWR
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO ,QVWLWXWRU\KILRULDS

	:RUG	\$FHQWB2QRWVX	B6KLWR	RNH	B6KLRLPLFKL
27	nest		su[B	su[B	su[B
28	squid	1	[k ɔ̃]	[k ɔ̃ka	[k ɔ̃ka
29	shrimp; prawn; lobster	1	[b]ɸ	[b]ɸ ɸ	[bi](Japanese tiger prawn) 7 [ta]na[]a ɸprawn)
30	hoe		[k üə] ɸ(There is also a bilabial fricative.)	[k üə] B	[k ɐ] B
31	ORZHU EDFN ZDLVW	1	[hu] ỳ	[hu] ỳ	hu[ỳ
32	(the) right (side)		n ɸ ɸ B	[mi] ;i	[mi]]i
33	feather; wing	1	[pa]n ɸ	[pa]n ɸ	pa[ni 7 pa[n ɸ
34	side; sideways	1	[ju]ku	[ju]ku	ju[ku
35	ash	1	[ju]n ɸ	[ju]n ɸ	ju[n ɸ
36	crab	1	]a[n ɸ	Ba[n ɸ	Ba[n ɸ B
37	rice porridge	1	ka[i] B	ka[i] B	ka[i
38	ant	1	[a] ɸ ɸ B	[a] ɸ ɸ B	[a] ɸ ɸ B
39	hill	1	NR	[p ɪ ɸ	mu[M
40	cattle (i.e. cow or bull)	1	[ɸ] ỳ	[ɸ] ỳ	u[ỳ
41	fish	1	[ɸ]ju	[ɸ]ju	[ɸ]ju
42	metal; money	1	[ka]ne	[ha]n ɸ	NR
43	ditch; groove	1	mi[zu] B	mi[zu] B	mi[zu] B 7 mi[zu] [ka] ɸsmall river)
44	sand	1	[su]na	[su]na	su[na
45	plate; dish;	1	[sa] ɸ	[sa] ɸ	sa[ɸ
46	branch	1	[ju]da	[ji]da 7 [ju]da	ju[da
47	sake; alcoholic beverage (in general)	1	[se] B	[se] B	se[B 7 ɐ[B
48	neck	1	[nu]bu[i	[k ɔ̃]bi	k ɔ̃[bi
49	wound	1	[k ɪ]zu	[k ɪ]zu	k ɪ]zu
50	floor	1	[ju]ka	[u]k ɔ̃	ju[k ɔ̃
51	hip; buttock	1	ma[i	[ma]i	[ma]i
52	water	1	[mi]zu	m ɸQu	mi[du
53	bottom edge (of clothing); hem	1	su[so	su[su	su[so (Not used so much)

	:RUG	\$F F H Q W	B 6 D N D P L Q H	B \$ G H Q	B . D P L N D W H W V X
27	nest		su[B	su[B	[su] B
28	squid	1	ħ[ka	[i]ka	ħ[ka
29	shrimp; prawn; lobster	1	ħ[bi	[bi	ħ[bi
30	hoe		[k ɵ] B	ke[B	k ɵ[B
31	OR Z H U E D F N Z D L V W	1	hu[ỳ	hu[ỳ(back)	[ˈu] ỳ
32	(the) right (side)		[mi]]i	[mi]]i	[mi]]i
33	feather; wing	1	pa[ni	pa[ni	ħa[ni
34	side; sideways	1	ju[ku	ju[ku	ju[ku
35	ash	1	pe[B	ju[ni	ju[n ɔ̃
36	crab	1	]a[n ɔ̃ B	[]ai]	]a[i] B
37	rice porridge	1	ka[ju	ka[i	[k ɔ̃]i] B
38	ant	1	[ɭa] ɔ̃ ɔ̃ B	[a] ɔ̃] ɔ̃'i is a nasal vowel.)	ɭa[i
39	hill	1	mu[i	--	ħ[ka
40	cattle (i.e. cow or bull)	1	ħ[ỳ	u[ỳ	ħ[ỳ
41	fish	1	ħ[ju	[ju	ju
42	metal; money	1	ħa[ni 7 xa[ni	ħa[ni	ħa[ni
43	ditch; groove	1	mi[zu] B	mi[zu] B	mi[zu] B
44	sand	1	su[na	su[na	su[na
45	plate; dish;	1	sa[ɭ	sa[ɭ	sa[ɭ 7 [su ɔ̃]da[ɭ
46	branch	1	ji[da	ju[da	ju[da
47	sake; alcoholic beverage (in general)	1	se[B	se[B	se[B
48	neck	1	k ɔ̃[bi	ħu[bi] B	k ɔ̃[bi
49	wound	1	k ɤ̃ Q u	Qi[du	Qi[du
50	floor	1	--	ju[ka	ħ[ta] z[Qi
51	hip; buttock	1	--	[ma]i	[ma] M
52	water	1	--	mi[du	mi[du
53	bottom edge (of clothing); hem	1	--	[su]su	su[su

*HQHUDO 6WXG\ IRU 5HVHDFK DQGFWRQV\U\DSWQ
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO , QVWLWXDWLRQ\KILRWFDS

	:RUG	\$F	FHQW	B:DQ	B1DNDVDWR	B\$UDNL
27	nest		su[B		su[B	su[B
28	squid	1	ħ[ka		ħ[ka	ħ[ka
29	shrimp; prawn; lobster	1	ħ[bi		ħ[bi	e[bi
30	hoe		[k ɵ] B ʔk ɵʔB		[k ɵ] B	[k üɵ] B
31	ORZHU EDFN ZDLVW	1	hu[ý		ˈu[ý 7 hu[ý	ˈu[ý
32	(the) right (side)		[mi]]i		mi[]i	mi[]i
33	feather; wing	1	ha[n ʔ		ha[n ɵ	ha[ni 7 han ʔ
34	side; sideways	1	ju[ku		ju[ku	ju[ku
35	ash	1	ju[n ʔ		ju[n ɵ	ju[n ʔ
36	crab	1	]a[n ɵ		Ba[n ɵ	Ba[n ɵ B]
37	rice porridge	1	k ǣ[i		k ǣ[i 7 k ǣ[ju	[ka]i[B
38	ant	1	ǣ[n ɵ		a[n ɵ	a[n ɵ
39	hill	1	mu[M		mu[i 7 [mui	mo[M
40	cattle (i.e. cow or bull)	1	ħ[ý		ħ[ý	u[ý
41	fish	1	ħ[ju		ħ[ju	[ju
42	metal; money	1	ha[n ʔ		ha[n ʔ	ha[ni 7 ha[n ʔ
43	ditch; groove	1	mi[zu] B		mi[zu] B	mi[zu] B
44	sand	1	su[na		su[na 7 [suna	su[na 7 mi[Qa(dirt)
45	plate; dish;	1	[so] ɵda] ǣ		sa[ǣ 7 [sa ǣ	sa[ǣ
46	branch	1	ju[da		ji[da 7 ju[da	ju[da
47	sake; alcoholic beverage (in general)	1	se[B		se[B 7 ʔ[B ʔse B ʔ ye	Be[B y
48	neck	1	k ǣ[bi		k ǣ[bi	k ǣ[bi 7 nu[di] ɵthroat)
49	wound	1	Qi[du		Qi[zu	ki[zu
50	floor	1	ju[ka		--	ju[ka
51	hip; buttock	1	[ma] M		[ma] M	[m ǣ] M
52	water	1	mi[du		mi[zu 7 mi[du	mi[zu
53	bottom edge (of clothing); hem	1	su[su		su[su	su[su

	: RUG	\$ F F	H Q W B 2 Q R W V X	B 6 K L W R R N H	B 6 K L R P L F K L
54	star; celestial body	1	[p ʔ] y	["u] y 7 [pu] y	hu[y
55	sleeve	1	[su]di	[su]di	su[di
56	hawk	1	[t ʔ]ka	[ta]ka	ʔa[ka
57	shelf; rack	1	[t ʔ]na	[ta]na	ʔa[na
58	bamboo	1	[de] B	[de] B	de[B
59	bug; insect	1	[mu] y	[mu] y	mu[y
60	bird	1	[tu]i	[tu]i	tu[i
61	pot; jar	1	ha[m ʔar)	ha[m ʔ	[ha]mi(jar)
62	nail	1	[Qu]m ʔ	[Qu]m ʔ	tu[mi
63	bottom	1	[su]ku	[su]k ʔ	su[ku
64	nail; spike; peg	1	[k ʔ]n ʔ	k ʔ[n ʔ	k ʔ[n ʔ
65	peach	1	mu[mu] B	[mu]mu	mu[mu
66	road; path; way	1	[mi] Qi	[mi] Qi	mi[Qi
67	smell; scent		[ha]za	[ha] za	NR
68	fly (insect)	1	[pē] B	["ē] B 7 [pē] B	he[B
69	box	1	[pa]ku	pa[ku	pa[ku
70	nose	1	[pa]na	[pa]na	pa[na
71	barnyard millet	1	N R	NR	NR
72	beard; mustache	1	[pi]n ʔ	[pi]n ʔ 7 [pi] ;i	pi[n ʔ
73	brush (for writing or painting)	1	pu[di	["u]d ʔ	pu[di 7 "u[di
74	cloth	1	[k ʔz(cloth)	[k ʔ ʔ	k ʔ ʔ 7 [ta] i[mu] i 7 nu[nu(about Oshima-tsumugi)
75	wind	1	[ha] z	[ha] z	ha[di
76	bee; wasp	1	[pa]Qi	[pa] Qi	pa[Qi
77	taste; flavor	1	[ʔa] z	[ʔa] z	ʔa[z
78	fog	1	[k ʔ ʔ ka[su]mi	mu[ja	mu[ja
79	unhulled rice; paddy	1	[mu]mi 7 [mu]mi]a[M a	mu[m ʔ	mu[mi
80	sieve		[m ʔ "a[ja] B	ju[i	N R
81	navel		[pu]su	[pu]su 7 ["u]su	pu[su
82	shark		[sa]ba(mackerel)	[sa]ba	sa[ba
83	paper	2	[ha]bi	ha[bi	ha[bi
84	summer	2	[na] Qu	[na] Qu	na[tu

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQVLEU-DSDW
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO ,QVWLWXWRUJLWLRQ

	:RUG	\$F	HQW B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
54	star; celestial body	1	--	"u[y	"u[y
55	sleeve	1	--	su[di	su[di
56	hawk	1	ta[ka	ta[ka	t ʔ[ka
57	shelf; rack	1	--	ta[na	t ʔ[na
58	bamboo	1	de[B	de[B	de[B
59	bug; insect	1	--	mu[y	mu[y
60	bird	1	tu[i	tu[i	t ʔ[M
61	pot; jar	1	--	--	[ha]mi(jar)
62	nail	1	--	t ʔ[mi	t ʔ[mi
63	bottom	1	--	su[ku	su[ku
64	nail; spike; peg	1	k ʔ[n Ǿ	k ʔ[]i 7 k ʔ[i(a wooden nail)	k ʔ[]i
65	peach	1	mu[mu	mu[mu	mu[mu
66	road; path; way	1	--	mi[Qi	mi[Qi
67	smell; scent		--	ha[da	ha[da
68	fly (insect)	1	pe[B	pe[B 7 ẽ[B	he[B
69	box	1	--	p ʔ[ku	ha[ku
70	nose	1	--	p ʔ[na	ha[na
71	barnyard millet	1	--	--	NR
72	beard; mustache	1	pi[ni	p ʔ[]i] B	çi[]i
73	brush (for writing or painting)	1	--	"u[di	"u[di
74	cloth	1	--	nu[nu 7 k ɿe	nu[nu
75	wind	1	--	ha[di	ha[di
76	bee; wasp	1	--	p ʔ[Qi	[ha] Qi[B
77	taste; flavor	1	--	--	la[z
78	fog	1	--	--	k ɿ M
79	unhulled rice; paddy	1	--	mu[mi	mu[mi
80	sieve		--	--	[ju]su[M
81	navel		pu[su	"u[su	"u[su
82	shark		sa[ba	--	sa[ba
83	paper	2	ha[bi	ha[bi	ha[bi
84	summer	2	na[Qu	na[Qu	na[Qu

	: RUG	\$ F F H Q W	B : D Q	B 1 D N D V D W R	B \$ U D N L
54	star; celestial body	1	ho[y	"u[y	"u[y
55	sleeve	1	su[di	su[di	su[di
56	hawk	1	NR	t ə[ka 7 [t əka	ta[ka
57	shelf; rack	1	t ə[na	ta[na 7 [tana	ta[na
58	bamboo	1	de[B	de[B	de[B
59	bug; insect	1	mu[y	mu[y	mu[y
60	bird	1	t ə[M	t ə[i	tu[M 7 to[M
61	pot; jar	1	NR	--	--
62	nail	1	t ə[mi	t ə[mi	Qu[mi
63	bottom	1	--	su[ə	su[ku
64	nail; spike; peg	1	--	k ə[n ə	ku[]i 7 ku[;i
65	peach	1	--	mu[mu	mu[mu
66	road; path; way	1	mi[Qi	mi[Qi	mi[Qi
67	smell; scent		--	[n ə] ə 7 [n ə]u[i 7 ha[da	ha[da
68	fly (insect)	1	he[B	he[B	he[B
69	box	1	--	ha[ku	ha[ku
70	nose	1	ha[na	ha[na	ha[na
71	barnyard millet	1	--	--	--
72	beard; mustache	1	--	çi[n ə 7 "i[; ¥	çi[n ¥
73	brush (for writing or painting)	1	"u[de	"u[di	"u[di
74	cloth	1	--	nu[nu	k ə M 7 nu[nu
75	wind	1	--	ha[di	ha[z
76	bee; wasp	1	--	[ha] Qi[B	[ha] Qi[B
77	taste; flavor	1	--	a[Q i	a[z
78	fog	1	k ə M	[mu]ja	k ə M 7 mo[ja 7 mu[ja
79	unhulled rice; paddy	1	--	--	mo[mi
80	sieve		--	ju[i	u[M
81	navel		"u[su	"u[su	çi[su
82	shark		--	sa[ba	sa[ba
83	paper	2	--	ha[bi	ha[bi
84	summer	2	na[tu	na[tu	na[Qu

*HQHUDO 6WXG\ IRU 5HVHDFK DQGFRQVLGHU DSWR
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO ,QVWLWXWRU\WKLRWLDS

	:RUG	\$F	FHQWB2QRWVX	B6KLWR	RNH	B6KLRLPLFKL
85	sound; noise	2	[ɫ]tu	[ɫ]tu	u[tu	
86	song	2	[ɫ]ta	[ɫ]ta	ɫ[ta	
87	fence; hedge	2	[ha]ki	ha[k ɪ	NR	
88	bridge	2	[pa] ʏ	pa[ʏ	pa[ʏ	
89	chest	2	[mu]n ʏ	[mu]n ʏ	mu[ni	
90	model; pattern; mold	2	[ka]ta	[ka]ta	ka[ta	
91	S D O D W H	M D	ʒ ɫtu ;e[B	[ɫ]u	ɫ[]u	
92	person; human being	2	[Q ʊ	[Q ʊ	[Q ʊ	
93	stone	2	[ɫ] ʏ	[ɫ] ʏ	i[ʏ	
94	daytime; noon	2	[p ɪ] M	[pi] M	pi[M	
95	winter	2	[p ʊ]ju	[ʊ]ju	ʊ[ju	
96	elbow	2	[pi] ɹ 7 [ʔ] ɹ	pi[ɹ	pi[ɹ	
97	trip; journey	2	[ta]bi	ta[bi Bstandard C	ta[bi	
98	tongue	3	su[ba	su[ba	su[ba	
99	face	3	Q ʊ [ɫ	Qu[ɫ	tu[ɫ	
100	liver	3	k ɪ mu	k ɪ mu	Q ɪ mu	
101	ear	3	mi[mi	mi[mi	mi[mi	
102	bone	3	pu[n ʏ 7 ʊ[n ʏ	pu[n ʏ B	ʊ[ni]	
103	skin	3	ha[B	ka[wa	ka[wa	
104	arm	3	u[di	[]u]te[B	ti[B 7 ɫ[te] ʔ []u]te[B	
105	V K L Q	3	su[n ʏ	su[n ʏ	[muke]zu[ne(shin) 7 [tu]bu[ʏ	
106	finger; toe	3	[ju]bi	ju[bi	ju[bi	
107	feces	3	sʊ	[ssu	[ssu	
108	height (of the body)	3	[ʊ]du	[pu]du 7 [ʊ]du	ʏ[B	
109	crotch	3	ma[ta	ma[ta	ma[ta	
110	belly	3	wa[ta	wa[ta	wa[ta	
111	dirt (on the skin)	3	[p ɪ] ʔ]u	[p ʏ] ;u B	[pi] ʔ []u ʔ [ʔ] ʔ []u(dirt)	
112	parent	3	[tu] ɹ tu(mother and father)	ɫ[ja	ɫ[ja	

	: RUG	\$ F F H Q W	B 6 D N D P L Q H	B \$ G H Q	B . D P L N D W H W V X
85	sound; noise	2	ɬ[ʈu	u[ʈu	ɬ[ʈu
86	song	2	ɬ[ʈa	u[ʈa	ɬ[ʈa
87	fence; hedge	2	[ɬ] y] a[Qi B stone wall C	[so] i[na] Qi 7 [so] i[n ɬ] Q i(about "Hinpun" (wall))	NR
88	bridge	2	pa[y	ˈa[y	ha[y
89	chest	2	mu[ni	mu[ni	mu[ni
90	model; pattern; mold	2	ka[ʈa	ka[ʈa	ka[ʈa
91	S D O D W H	M D	Za[]u	[u]tu[je] ɬaw)	[ɬa]]u
92	person; human being	2	[Q ʈ	[Q ʈ	Q ʈ
93	stone	2	ɬ[y	i[y	ɬ[y 7 [ɬ] y i[ka ʈ small
94	daytime; noon	2	pi[M	[y] i[ma] B	çi[M
95	winter	2	pu[ju	ˈu[ju	ˈu[ju
96	elbow	2	pi[Q i	çi[z	çi[z
97	trip; journey	2	ta[bi	--	t ɬ[bi
98	tongue	3	su[ba	su[ba	su[ba
99	face	3	Qu[ɬ	tu[ɬ	t ʈ[ɬ
100	liver	3	Qi[mu	Qi[mu	Qi[mu
101	ear	3	mi[mi	mi[mi	mi[mi
102	bone	3	[p ɬ]ni	ˈu[ni	[ˈu]ni
103	skin	3	k ɬ[wa	ka[wa	k ɬ[wa
104	arm	3	ɬ[di	ti[	Bu[di 7 []u]te[B
105	V K L Q	3	[su]ni	su[ni	su[ni
106	finger; toe	3	ju[bi	ju[bi	ju[bi
107	feces	3	[ssu	[ssu	k ʈ[su
108	height (of the body)	3	--	NR	NR
109	crotch	3	ma[ʈa	ma[ʈa	ma[ʈa
110	belly	3	wa[ʈa	wa[ʈa	wa[ʈa
111	dirt (on the skin)	3	[pi] i[du	[pi] i[]u	[çi] i[]u] B
112	parent	3	u[ja	--	ɬ[ja

*HQHUDO 6WXG\ IRU 5HVHDFK DQGFWRQV\ 5HSRUW 5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO ,QVWLWXWLRQ

	:RUG	\$F	FHQW	B:DQ	B1DNDVDWR	B\$UDNL
85	sound; noise	2	tu		tu	to
86	song	2	ta		ta	ta
87	fence; hedge	2	NR		[tu]aQi (stone wall)	(ka[ki]ne)
88	bridge	2	ha[y		ha[y	ha[y
89	chest	2	mu[n ɤ		mu[n ɤ	mu[ne
90	model; pattern; mold	2	--		k a[ta	ka[ta
91	S D O D W H	M D	ta[]u		ta[]u	a[]o
92	person; human being	2	Q ɤ		[Q ɤ	b u b Q
93	stone	2	tu y 7 [tu y]k a (pebble)		tu y	i[y
94	daytime; noon	2	[ma] y '[ma		çi[M7ma y '[ma (archaic) 7 ta[y B(lunch)	çi[M
95	winter	2	"u]ju		"u]ju 7 ha[M(spring) 7 ta[ki (autumn)	"u]ju
96	elbow	2	çi[z		çi[z	çi[z
97	trip; journey	2	t a[bi		ta[bi	([ja]ma[tu "Yamato"(Japan))
98	tongue	3	su[ba		su[ba	su[ba
99	face	3	tu[M		t ɤ[M	Qu[M
100	liver	3	--		Q ɤmu	Qi[mu
101	ear	3	mi[mi		mi[mi	mi[mi
102	bone	3	["u]n ɤ		["u]n ɤ	["u]n ɤ
103	skin	3	k a[wa		ka[wa	ka[wa
104	arm	3	tu[di		[]u]te[B	u[de 7 []u]te[B
105	V K L Q	3	su[ne		su[n ɤ	su[ne
106	finger; toe	3	ju[bi		ju[bi	ju[bi
107	feces	3	[ssu		[su b	[ssu 7 [s su
108	height (of the body)	3	se[B		--	--
109	crotch	3	ma[ta		ma[ta	ma[ta
110	belly	3	wa[ta		wa[ta	wa[ta
111	dirt (on the skin)	3	[çi] '[]u		[çi] '[]u B(dirt)	[çi] '[]u
112	parent	3	u]ja		tu]ja 7 [a] '[ma] B(mother) 7 a[z B(grandfather)	u]ja

	:RUG	\$F	FHQWB2QRWVX	B6KLWR	RNH	B6KLRLPLFKL
113	meat		nɪ̯ku	y̯ y 7 [mi] B	nɪ̯ku/i y̯(archaic)	
114	bean; pea	3	ma[m ʔ	ma[m ʔ	ma[mi	
115	rice	3	hu[m ʔ	hu[m ʔ	hu[mi	
116	ULFH EUDQ	3	nu[ka	nu[ka	nu[ka	
117	grave; tomb	3	[pa]ka	[pa]ka	pa[ka//[pa]ka ʔ[me] B	
118	net; mesh	3	a[mi	la[m ʔ	a[mi	
119	bowl; (flower) pot	3	pa[Qi	[pa] Qi	pa[Qi	
120	URSH FRUG	3	[pi]mu(cord)	Q ʔ[na	hi[mu	
121	WKLFN URSG	3	tu[na	Q ʔ[na	t ʔ[na	
122	MDU	3	ha[m ʔ	ha[m ʔ	u[bi] ʔ/[ha]mi	
123	pole; rod		[so] ʔe[B	[de] B the meaning of bamboo C	[so] ʔde[B ʔde[B	
124	year	3	tu[y̯	[tu] y̯	tu[y̯	
125	time	3	[tu]ki	tu[ki	N R	
126	night		ju[M	ju[M	ju[M	
127	the moon	3	[Qu]kinu[i	Q ʔ[ki	[tu] Qi[nu]i	
128	mountain	3	ja[ma	ja[ma	ja[ma	
129	island	3	y̯[ma	y̯[ma	y̯[ma	
130	cloud	3	k ʔ[mu	k ʔ[mu	k ʔ[mu	
131	wave	3	na[mi	na[mi	na[mi	
132	shore; beach	3	pa[ma	pa[ma	[pa]ma	
133	horse	3	u[ma	la[ma	la[ma	
134	pigeon; dove	3	pa[tu] B	pa[tu] B	pa[tu] B	
135	dog	3	[i] ʔ[;a] B	[ʔ] ʔ[;a] B	[i] ʔ[;a] B	
136	FRQFK		NR	[la]ma[n ʔ] B	mi[n ʔ	
137	octopus		to[B	to[B	to[B	
138	turtle; tortoise		na[m ʔ	[ka]m ʔ	ka[me//[ha]mi	
139	maggot	3	la[z̥	[la] z̥ 7 [la] z̥[mu] y̯	u[z̥ 7 u z̥mu[y̯	
140	flea	3	nu[mi	nu[mi	[nu]mi	
141	KRUQ	3	Qu[nu	Q ʔ[nu	tu[nu	
142	flower	3	pa[na	pa[na	pa[na	
143	grass	3	sə	[ssa	[ssa	

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQVLEU-DWU
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO ,QVWLWXWRU\KILRWLVS

	:RUG	\$F	HQW B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
113	meat		y[y 7 n iku	y[y	y[y
114	bean; pea	3	ma[mi	ma[mi	ma[mi
115	rice	3	hu[mi	hu[mi	u[mi
116	ULFH EUDQ	3	nu[ka	nu[ka	nu[ka
117	grave; tomb	3	pa[ka 7 a[ka	a[ka	ha[ka
118	net; mesh	3	la[mi	a[mi	la[mi
119	bowl; (flower) pot	3	[pa] Qi	[ha] Qi	ha[Qi
120	URSH FRUG	3	na[wa	t u[na	t u[na
121	WKLFN URSD	3	Q u[na 7 tu[na	t u[na	t u[na
122	MDU	3	[ha]mi	[ha]mi	ha[mi
123	pole; rod		sa[o	de[: (fish pole, laundry pole, etc.)	de[Bbamboo) 7 [de] Bma) (fish pole)
124	year	3	t a[y	tu[y	t a[y
125	time	3	t a[ki	tu[ki	[du] Qi[B
126	night		ju[M	ju[M	ju[M
127	the moon	3	Q u[ki 7 [Qu] Qi[nu]i 7 [Qu]ki[nu]i	[tu] Qi[nu]i	[tu] Qu[nu]i
128	mountain	3	ja[ma	ja[ma	a[ma
129	island	3	y[ma	y[ma	y[ma
130	cloud	3	k u[mu	k u[mu	k a[mo
131	wave	3	na[mi	na[mi	na[mi
132	shore; beach	3	[pa]ma	[pa]ma	ha[ma
133	horse	3	[m a	[m a	[m a
134	pigeon; dove	3	pa[tu] B	pa[tu	[ha]tu[B
135	dog	3	[l i[;a] B	i[nu	[l i[;a] B
136	FRQFK		k a[ja] B collective term of shellfish) 7 mi[n a(conch)	--	mi[ja(collective term of shellfish)
137	octopus		to[B	to[B	t a[B
138	turtle; tortoise		[ka]mi[;a] B	[ha]mi[B	[ha]mi
139	maggot	3	u[Q i] 7 [l] zmu[y	u[z]mu[y	[u] z[mu] y
140	flea	3	[nu]mi	[nu]mi	[nu]mi
141	KRUQ	3	Qu[nu	t u[nu	t u[nu
142	flower	3	pa[na	pa[na	ha[na
143	grass	3	[ssa	[ssa	[ssa

	:RUG	\$F	FHQW	B:DQ	B1DNDVDWR	B\$UDNL
113	meat		n iku	n iku	n iku	
114	bean; pea	3	ma[mi	ma[mi 7 ma[m ¥	ma[mi 7 ma[me	
115	rice	3	hu[mi	u[mi 7 u[m	¥u[mi	
116	ULFH EUDQ	3	nu[ka	--	nu[ka	
117	grave; tomb	3	ha[ka	ha[ka	ha[ka	
118	net; mesh	3	la[mi	la[mi	a[mi	
119	bowl; (flower) pot	3	[ha] Qi	ha[Qi 7 [ha] Qi	ha[Qi	
120	URSH FRUG	3	na[wa	--	NR	
121	WKLFN URSG	3	Qu[na 7 tu[na	na[wa (answer for a 'rope')	Qu[na	
122	MDU	3	[ha]mi	[ha]mi	[ha]mi	
123	pole; rod		[so] de] B	--	de[B(bamboo)	
124	year	3	t 8[y	t 8[y (age)	tu[y	
125	time	3	NR	--	tu[ki	
126	night		ju[M	ju[M	ju M	
127	the moon	3	Qu[ki	Qu[ki 7 [tu] Qi[nu]ju	[tu]ki[nu]ju	
128	mountain	3	ja[ma	ja[ma	a[ma	
129	island	3	y[ma	y[ma	y[ma	
130	cloud	3	k u[mu	k u[mu	k u[mu	
131	wave	3	na[mi	na[mi	na[mi	
132	shore; beach	3	[ha]ma	ha[ma	[ha]ma	
133	horse	3	[m a	[ma b	[m a	
134	pigeon; dove	3	[ha]tu[B	[ha]tu[B	[ha]tu[B	
135	dog	3	[i[;a] B	[i[;a] B	[i] i[; a] B	
136	FRQFK		--	mi[n a	mi[n a	
137	octopus		NR	to[B 7 to B	to[B	
138	turtle; tortoise		[ha]mi[B	[ha]mi[B	ka[mi 7 ka[me	
139	maggot	3	--	u[Q i	u[z]mu[y 7 u[z	
140	flea	3	[nu]mi	[nu]mi	nu[mi	
141	KRUQ	3	--	t u[nu	Qunu	
142	flower	3	ha[na	ha[na	ha[na	
143	grass	3	[ssa	[sa b 7 ssa	[ssa	

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-DWU
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO , QVWLWXDWLRQ

	:RUG	\$F	HQWB2QRWVX	B6KLWR	RNH	B6KLRLPLFKL
144	garlic chive	3	n ɸ ɹ	bi[ɹ	bi[ɹ	
145	V Z H H W S R W D		[ha] i[su] B 7 r WR mu(taro)	[pa] i[su] B speaker M)//[pa] i[su] B speaker S)	[pa] i[su] B ʔ(mu(taro)	
146	joint; knob; knuckle	3	u[ʔ	[pu] ʔ	bu[ʔ/pu[ʔ	
147	bubble; foam	3	a[wa	a[wa	[bu]ku/a[wa	
148	injury	3	k ɸ]a	k ɸ]a	ki[]a	
149	hole	3	a[na 7] a[ma	]a[na] B	a[na	
150	(the) back	3	u[ɹ7[ja:]nu[ʔ] B (back of the house)	[hu] ʔ Bback C	[u] ɹ	
151	thing	3	mu[nu	[mu] i	mu[i	
152	color; hue	3	ɹ[ɹ	ɹ[ɹ	i[ɹ	
153	ogre; demon	3	ɹ[n ɹ	[ɹ]n ɹ	ɹ[n ɹ	
154	dream	3	ɹ[mi	ɹ[mi	ɹ[mi	
155	W Z L O O S D W		ha[ta	NR	NR	
156	thing		=151	=151	=151	
157	shoulder	4	ha[ta	ha[ta	ha[ta	
158	breath	4	ɹ[ki	ɹ[ki	[ɹ] Qi	
159	sash; belt	4	[k ɹtsu[b ɸ ʔ]bi	k ɹ Qu]bi	Qi[Qu]bi 7 u[bi	
160	straw rain coat	4	[mi]no	N R	NR	
161	juice; sap; gravy; soup	4	ʔ[ɹ	ʔ[ɹ	ʔ[ɹ	
162	miso; fermented soybean paste	4	mi[su	mi[su	mi[su	
163	mushroom		NR	na[ba] B ʔmi]mu[ja	[mi i]mo ɹa] Bwood ear mushroom)	
164	board; plank; plate; sheet	4	ɹ[ta	ɹ[ta	ɹ[ta	
165	boat; ship	4	pu[n	ɸu[n ɸ	[ɸu]ni"	
166	V S D W X O D	4	he[ɹ	pi[ɹ7 i[ɹ	NR	
167	F K L V H O	4	nu[mi	nu[mi	nu[mi	

	:RUG	\$F	FHQW B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
144	garlic chive	3	n 7 [ni]bi[garlic chive)	[n 7	[ni]bi[ə]
145	V Z H H W S R W D		[pa] i[su] B 7 "a] i[su] B 7 W R u[mu (taro)	[pa] i[su] B 7 "a] i[su] B	[ha] i[su] B 7 u[mu(taro)
146	joint; knob; knuckle	3	pu[y	--	[bu] y Š
147	bubble; foam	3	[bu]ku	[bu]ku	bu[ku
148	injury	3	k Ƴ]a	--	k Ƴ]a
149	hole	3	la[na	a[na	la[na
150	(the) back	3	[bu] 7	[u] 7	bu[7 " u[y(back)
151	thing	3	mu[nu	NR	mu[i
152	color; hue	3	ti[M	i[M	ti[M
153	ogre; demon	3	bu[n 7	u[n 7	bu[n 7
154	dream	3	ti[mi	ti[mi	ti[mi
155	W Z L O O S D W		W 7 U Q	--	--
156	thing		=151	=151	=151
157	shoulder	4	ha[ta	ha[ta	na[ta
158	breath	4	[ti] Qi	[ti] Qi	[ti] Qi
159	sash; belt	4	bu[bi	--	bu[bi 7 tu[tu]bi
160	straw rain coat	4	mi[nu	--	NR
161	juice; sap; gravy; soup	4	y[M	y[M	y[M
162	miso; fermented soybean paste	4	mi[su	mi[su	mi[su
163	mushroom		[mi i]mu[ja] 7 wood ear mushroom)	--	NR
164	board; plank; plate; sheet	4	ti[ta	ti[ta	ti[ta 7 [ti] ta i[ba] 7 plate piece)
165	boat; ship	4	[p 7]ni	[7u]ni	7u[ni
166	V S D W X O D	4	[pi] 7	[pi] 7	NR
167	F K L V H O	4	nu[mi	nu[mi	nu[mi

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-DWQ
 5HVHDFK 5HSRUW RQ WKH .L
 \$XJXVW 1DWLRQDO ,QVWLWXWLRQ

	:RUG	\$F	FHQW	B:DQ	B1DNDVDWR	B\$UDNL
144	garlic chive	3	--		n ɸ ɹ7 bi[ɹ(garlic chive)	n ɸ ɹ7 [nn ɸbi[ɹ B
145	V Z H H W S R W D W R				[ha] i[su] B ʔ[mu(taro)	[ha] i[su] B ʔ[mu(potato)
146	joint; knob; knuckle	3	--		ˈu[ʔ 7 bu[ʔ (archaic?)	ˈu[ʔ
147	bubble; foam	3	--		[ɹ]wabu[ku 7 bu[ku (only for sugar production)	a[ɹbu[ku 7 a[wa]bu[ku
148	injury	3	--		ki[ʔa 7 k ɸ ʔa	ke[ʔa
149	hole	3	--		ɹ[na	a[na
150	(the) back	3	--		ɹ[ɹ	[u] ɹ
151	thing	3	--		mu[i	mu[i
152	color; hue	3	--		ɹ[ɹ	i[ɹ
153	ogre; demon	3	o[n ɹ		ɹ[n ɹ	o[n ɹ
154	dream	3	ɹ[mi		ɹ[mi	mi
155	W Z L O O S D W W H U Q				--	ʔa[ɹ
156	thing		=151		=151	=151
157	shoulder	4	ha[ta		ha[ta	na[ta
158	breath	4	[ɹ Qi		[ɹ Qi	[ɹki 7 [ɹ Qi
159	sash; belt	4	ɹ[bi 7 ɹ[bi 7 [QuQu]bi i[ka] ɹ(waist cord)		ɹ[bi	ɹ[bi
160	straw rain coat	4	NR		--	NR
161	juice; sap; gravy; soup	4	ʔ[ɹ		ʔ[ɹ	ʔ[ɹ
162	miso; fermented soybean paste	4	mi[su		mi[su	mi[su
163	mushroom		NR		[mimi] i ʔu[ʔa] ɹ(wood ear mushroom?)	mimi i[ko] ɹ ɹ(wood ear mushroom)
164	board; plank; plate; sheet	4	ɹ[ta		ɹ[ta	[ta
165	boat; ship	4	[ˈu]n ɸ		[ˈu]n ɸ	[ˈu]n ɸ
166	V S D W X O D	4	sa[ʔ(spoon)		ɸi[ɹ	NR
167	F K L V H O	4	[nu]mi		[nu]mi	nu[mi

	:RUG	\$FFHQWB2QRWVX	B6KLWR	RNH	B6KLRLPLFKL
168	EDPERR KD W XPEUHOOD SDUDVRO	4	ha[sa	ha[sa	ha[sa
169	sickle; scythe	4	ha[ma	ha[ma	ha[ma
170	mortar; millstone	4	u[su	u[su	[u]su
171	needle; pin	4	pa[i	[pa]i	[pa]i
172	thread; string	4	i[tu 7 [i] Qu[B	[i]tu	[Qu B 7 [Qu B
173	outside	4	[su]tu	[su]tu	su[tu
174	(deep) inside		u[ku	[u]k	[u]ku
175	middle; inside	4	na[B	na[B	[na] B
176	today	4	k ō[B	k ō[B	[yu] B
177	sea	4	u[mi	[u]mi	[u]mi
178	FRUQH U	4	[ka]du	[ka]du	ka[du
179	rice plant	4	i[n	ni[n	i[ni b
180	cereal (specif. wheat, barley, rye & oats)	4	mu[n ō	mu[n ō	mu[n ō
181	oriental melon	4	[k ō]u[i(cucumber) 7 [y]bu[i(winter melon) 7 [i]n ō] u[i(bitter melon)	[u] M	NR
182	IR[WDLO PL	4	wa	wa	a[wa
183	pine	4	ma[Qu	ma[Q	[ma]tu
184	JUDVV XVHG WKDWFKLQJ VLOYHU JUDVV	4	ja[ja	ja[ja	ja[ja
185	seedling	4	ne[B	ne[B	ne[B
186	straw (of cereal plants)	4	wa[u	wa[u	wa[u
187	treetop		[hi] !ju[da] treetop)	[çi] !ju[da	su[u] tip of sugar cane)
188	seed	4	ta[n	ta[n	ta[ni
189	sake lees	4	ha[su	ka[su] B	ka[su
190	EHVLG H	4	su[ba	su[ba] B	su[ba

*HQHUDO 6WXG\ IRU 5HVHDFK DQGFWRQV\U-DW
 5HVHDFK 5HSRUW RQ WKH .L
 \$XJXVW 1DWLRQDO ,QVWLWXWLRQ

	:RUG	\$F	FHQW B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
168	EDPERR KD W XPEUHOOD SDUDVRO	4	ha[sa	ha[sa	ha[sa (z)
169	sickle; scythe	4	ha[ma	ha[ma	ha[ma
170	mortar; millstone	4	[ɸ]su	[ɸ]su	ɸ[su
171	needle; pin	4	[pa]i	[pa]i	ha[M
172	thread; string	4	ɸ[tu] B	i[Qu]	Bi[Qu] B
173	outside	4	su[tu	su[tu	su[tu
174	(deep) inside		NR	[ɸ]ku	[oku
175	middle; inside	4	[na] B	[ja] i[na] B (inside of the house)	[ja] i[na] B (inside of the house)
176	today	4	[su] B	[su] B	[su] B
177	sea	4	[ɸ]mi	[ɸ]mi	[ɸ]mi
178	FRUQH U	4	ha[du	ka[du	k a[du
179	rice plant	4	ɸ[ni	[B	NR
180	cereal (specif. wheat, barley, rye & oats)	4	mu[n ɸ	[mu]]i	mu[]i
181	oriental melon	4	ɸ[M	--	ɸ[M
182	IR[WDLO PLDQV	4	ɸ[wa	[a]wa	ɸ[wa
183	pine	4	[ma] Qu	--	[ma] Qu
184	JUDVV XVHG WKDWFKLQJ VLOYHU JUDVV	4	ɸ[ja	--	]a[ja
185	seedling	4	ne[B	ne[B	ne[B
186	straw (of cereal plants)	4	wa[ɸ	--	wa[ɸ7[wa] ɸ
187	treetop		su[da] B	--	su[ɸ] B
188	seed	4	t a[ni	ta[ni	t a[ni
189	sake lees	4	ka[su 7[]u i]n a[ɸ] B Bsugar cane pomaceC	--	k a[su
190	EHVLGH	4	su[ba	--	su[ba] B

	:RUG	\$FHQW	B:DQ	B1DNDVDWR	B\$UDNL
168	EDPERR KD W XPEUHOOD SDUDVRO	4	ha[sa	ha[sa	ka[sa
169	sickle; scythe	4	ha[ma	ha[ma	ha[ma
170	mortar; millstone	4	so[ɸsu	[ɸ]su	[u]su
171	needle; pin	4	[ha] M	[ha]i	[ha] M
172	thread; string	4	ɬ[Qu]	Bi[Qu] B	i[Qu] B b
173	outside	4	su[tu	su[ɬ	su[tu
174	(deep) inside		NR	[ɸ]ku	--
175	middle; inside	4	[na]ka 7[ja] i[na] ɸinside of the house)	[na] B	[na] B
176	today	4	[su] B	[su] B	[su] B
177	sea	4	[ɸ]mi	[ɸ]mi	[u]mi
178	FRUQH U	4	k ɬ[du	k ɬ[du 7 su[mi(corner)	ka[du
179	rice plant	4	ɬ[ne 7 bi[n ɸSpeaker is not sure this word. C	ɬ[n ɸ(There is not on the island.)	in ɸ
180	cereal (specif. wheat, barley, rye & oats)	4	mu[n ɸ	mu[n ɸ	mu[n ɸ
181	oriental melon	4	[ɸ] M	--	NR
182	IR[WDLO PLD	4	ɬ[wa	ɬ[wa	a[wa
183	pine	4	[ma]tu 7[ma] Qu	ma[tu	[ma] Qu
184	JUDVV XVHG WKDWFKLQJ VLOYHU JUDVV	4	]a[ja	]a[ja	]a[ja
185	seedling	4	na[e	--	na[e
186	straw (of cereal plants)	4	wa[ɸ	wa[ɸ	wa[ɸ
187	treetop		[su] ɸ	su[ɸ] B	su[ɸ] B (tip of sugar cane)
188	seed	4	t ɬ[n ɸ	ta[n ɸ	ta[ne
189	sake lees	4	k ɬ[su	ha[su	ka[su 7 ka[su] B
190	EHVLGH	4	su[ba	su[ba	NR

*HQHUDO 6WXG\ IRU 5HVHDFK DQGFWRQV\U\DSW
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO , QVWLWXDWLRQ\KLRWLVS

	: RUG	\$ F	H Q W B 2 Q R W V X	B 6 K L W R R N H	B 6 K L R P L F K L
191	grain (of something); particle	4	NR	[Qu]bu	t ʊ[bu
192	tendon	4	NR	[su] ɹ 7 su[ɹ	[su] ɹ
193	trace; track; remains	4	NR	[ɭa]tu	[a]tu
194	W K L J K	5	mu[mu	mu[mu	mu[mu 7 at[te] B
195	eyebrow	5	[m ɤma[o	ma[ju	[mi ɪ]ma[ju
196	voice	5	ku[i	ku[i	[ku]i
197	sweat	5	a[ʏ	ɭa[ʏ	a[ʏ
198	son-in-law	5	NR	muk[ka	wu[tu(husband)
199	tabi; Japanese sock	5	ta[bi	[ta]bi	[ta]bi
200	V R R W		su[su	su[su	[su]su
201	tub; bucket	5	u[ɤ	u[ɤ	ta[ɭɤub)//[wi] B
202	(in) front (of); forward	5	mē[B	m ɪ[B	[me] B
203	rain	5	a[m	ɤa[m ɤ	a[mi b
204	dew	5	NR	Q ʊ[ju	[tu]ju 7 [Qu]ju
205	mind; heart	5	NR	[ku]ku[ɭ	NR
206	W H F K Q L T X H M R E		ɹt ɤwɛɹa(handling skill)	[t ɤ ɹu[ku	NR
207	up; above; over; top		[u] ɤ	[w ɤ B	wi[B
208	down; below; under; bottom		[ssa ɛ	[sa] B	[ʏ ɤ
209	night		=126	=126	=126
210	forehead		[mē] ɤQa] B	[mē] ɤQi] B	[met Qi] B/[me] ɤQi] B
221	nosebleed	1	pa[na]Qi	pa[na] Qi B	[pana] Qi[B
212	drool	1	ju[da]i	ju[da]i	[ju]da[i
213	koji; fermentation	1	[ho] ɤ ɹ	[ho] ɤ ɹ	ho[ɤ ɹ
214	mark; token	1	ʏ[ɭ ʏ	ʏ[ɭ ʏ	[ʏ] ɭ ʏ

	:RUG	\$F	FHQW	B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
191	grain (of something); particle	4	Q ɯ[bu	--	t ɯ[da] B ʔ ɯ[da] B	
192	tendon	4	[su] ʔ	--	[su] ʔ	
193	trace; track; remains	4	[ɭa]tu	--	[ɭa]tu	
194	W K L J K	5	mu[mu	--	mu[mu ʔ at[te] B	
195	eyebrow	5	ma[ju	--	ma[ju	
196	voice	5	[k ɯ]ji	[ku]ji	[k ɯ]ji	
197	sweat	5	ɭa[ʔ	ɭa[ʔ	ɭa[ʔ	
198	son-in-law	5	NR	--	[m rk]ka	
199	tabi; Japanese sock	5	[ta]bi	[ta]bi	[t ɯ]bi	
200	V R R W		[su]su	--	su[su	
201	tub; bucket	5	NR	[u]ji ʔ [wi] B	NR	
202	(in) front (of); forward	5	[me] B	[me] B	[me] B	
203	rain	5	ɭa[mi	a[mi	ɭa[mi	
204	dew	5	[Qu]ju ʔ [Q ɯ]ju	[Qu]ju	[Qu]ju	
205	mind; heart	5	[k ɯ]ku[M	Qi[mu	[k ɯ]ku[M	
206	W H F K Q L T X H M R E		Z R U N --	--	--	
207	up; above; over; top		[^i B	[wi	vi[B	
208	down; below; under; bottom		[ssa	[ssa	y[mu	
209	night		=126	=126	=126	
210	forehead		[mi]k[ko] B	--	mit[Qe] B	
221	nosebleed	1	[pa]na[Qi] B	[hana] Qi[B ʔ hanaQi	[ha]na[ʔ	
212	drool	1	[ju]da[i	[u]da[i	[ju]da[M	
213	koji; fermentation	1	ho[ʔ ʔ	[ho] ʔ ʔ	[ho] ʔ ʔ	
214	mark; token	1	--	[ʔ] M[ʔ	y[M[ʔ	

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-DWQ
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO , QVWLWXQV&XILFLDS

	: RUG	\$ F	FHQW	B : D Q	B 1 D N D V D W R	B \$ U D N L
191	grain (of something); particle	4	tu[bu 7 tu[da] B <small>small grain</small>)	--	Qu[bu] B 7 Qu[bu]	
192	tendon	4	[su] ž	[su] ž	[su] ž	
193	trace; track; remains	4	[ɭa]tu	[ɭa]tu	[a]tu	
194	W K L J K	5	mu[mu 7 [t ɤ] M7 mu[mu] 'ta[M	mu[mu(no evidence)]	mo [mʔo 7 mʔo[mo	
195	eyebrow	5	ma[ju	ma[ju	ma[ju	
196	voice	5	[k ɤ]i	[k ɤ]i	ku[i	
197	sweat	5	ɭa[y	ɭa[se	a[y	
198	son-in-law	5	NR	[muk]ka(Speaker has hard it, but it is not sure that this word is belong in Nakasato	[mɔk]k ɭa	
199	tabi; Japanese sock	5	[t ɤ]bi	[t ɤ]bi	ta[bi	
200	V R R W		[su]su	su[su	su[su	
201	tub; bucket	5	NR	t ɤ[M	u[ki	
202	(in) front (of); forward	5	[me] B	[me] B	[me] B	
203	rain	5	ɭa[mi	ɭa[mi	a[mi	
204	dew	5	[Q ʊ]ju	Qu[ju	[Qu]ju	
205	mind; heart	5	[ku]ku[M	[ku]ku[M 7 [kuku M	NR	
206	W H F K Q L T X H M R E		Z R U N ti[Q u]ku	--	--	
207	up; above; over; top		[^ i	B i[B	wi[B ^	
208	down; below; under; bottom		[ssa	[sa b	[ssa	
209	night		=126	=126	=126	
210	forehead		[mit Qe] B	mit[Qe] B	mit[Qe] B	
221	nosebleed	1	[ha]na[Q i	ha[na] Qi[B	ha[na] Qi[B	
212	drool	1	[ju]da[M	[ju]da[M	[ju]da[M	
213	koji; fermentation	1	[ho ʔQ i	[ho ʔ ž	[ho ʔ ž 7 ho[ʔ ž	
214	mark; token	1	[y] M[y	[y M y 7 yi[bi (mark ' yme'?)	y[M] y	

	:RUG	\$F	FHQWB2QRWVX	B6KLWR	RNH	B6KLRLPLFKL
215	next-door; beside	1	[k ɲ i] Qu	BLQ D KRXVH QDP	h[ɔ i] zu(neighborhood)	
216	dust	1	[p ɲ i] u	[pu] ɲmu	[ɲu] ɲmu	
217	dancing; dance	1	u[du]i	ɔ[du]i	wu[du]i	
218	chain	1	[k ʊsaM7 [k ʊ]sa[M	k ʊ[sa] M	[k ʊ]sa[M	
219	skipjack tuna	1	ka[Qu] B	ka[Qu] B	[ka] Qu[o	
220	shape; form	1	[ka]ta(form)	ka[ta] Qi	[ka]ta[Qi	
221	lacquer	1	NR	ɔ[M] y	[u] M y	
222	hakama; skirt worn over kimono	4	[pa]ka[ma	[pa]ka[ma	pa[ka]ma	
223	clothing; kimono	1	k ɲ i	[k ɲ]	i[i] Q	
224	roof tile		ka[wa] ɔ	[ka]wa[ɔ	ka[wa] ɔ	
225	calendar	4	[ku]ju[mi	[ku]ju[mi	[ku]ju[mi	
226	V W U D Z E D	J 4	[ta] ɲ ɔ	[ta] ɲ ɔ	[ta ɲ ɔM7 [ka]ma[z Price bale)	
227	bag; sack; pouch	4	puk[ku 7 ɲuk[ku	ɲuk[ku	[ɲuk]ku	
228	V W U D Z P D	W4	mus[su 7 ([y]sa[ku] ɲ	mu[ssu	mu y yu	
229	mirror	4	[ka] ja[mi	[ka] ja[mi	[ka] ja[mi	
230	scissors; shears	4	[pa]sa[mi	[pa]sa[mi	[pa]sa[mi	
231	katana; sword	4	[ha]ta[na 7 [po] ɲQa] B(kitchen knife)	[ka]ta[na	ha[ta]na	
232	K D Q G G U X	P4	NR	[te] ɲko B	[te] ɲko B/[ta]i[ko] B	
233	(the) front	4	[u]mu[t ɲ	[u]mu[t ɲ	[u]mu[ti	
234	yesterday	4	ki[n ɔ] B	k ɲ[n ɔ]	B i[n ɔ] B Q	
235	tomorrow	4	a[Qa	ɔa[Qa	a[Qa	
236	T X D L O	4	[ɲu]m ɲ ɔ B	[ɔ]dda[m ɲ B	u[zu] ɔ	
237	treasure	4	[taka] ɔmu[nu 7 [ta]ka[ɔ	[ta]ka[ɔ	[ta]ka[ɔ	
238	language; word	4	[ju]m ɲa	[ju]m ɲa	[ju]mi[ta	
239	arm		NR	u[di	[ju]te[B	
240	tear(drop)	5	na[da	na[da	[na]mi[da 7 na[da	
241	cousin	5	[i]tu[ku 7 [më k]kwa(niece) 7 [uik]kwa(nephew)	[i]tu[ku	[i]tu[ku	
242	oil	5	ab[ba	ɔb[ba	ab[ba 7 [a] i[ba	

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-DW
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO ,QVWLWXWRU\KILRULDS

	:RUG	\$FHQW B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
215	next-door; beside	1 [Qi i] zu(neighborhood)	ju[ku(side)	[Qi i] zu(neighborhood)
216	dust	1 [pu]ku[M7 [pu] mu(dust etc.)	--	[u] mu
217	dancing; dance	1 []u]du[i	[]u]du[i	[]u]du[M
218	chain	1 [ku]sa[i	k u[s]a]ri	N R
219	skipjack tuna	1 [k a]Qu[B	ka[Qu]o	[k a]tu[B
220	shape; form	1 --	--	[k a]ta[Qi
221	lacquer	1 --	--	--
222	hakama; skirt worn over kimono	4 --	ha[ka]ma	ha[ka]ma
223	clothing; kimono	1 Qi[	i[i(r) Q	Qi[i
224	roof tile	--	ka[wa] M	ka[wa] M
225	calendar	4 [k a]ju[mi	[ku]ju[mi	[k a]ju[mi
226	V W U D Z E D J 4	--	[ta] B M	[t a] B M
227	bag; sack; pouch	4 [puk]ku	[uk]ku	[uk]ku
228	V W U D Z P D W 4	[mus]su	mus[su	mus[su
229	mirror	4 [ka] ja[mi	[ka] ja[mi	[k a] ja[mi
230	scissors; shears	4 [pa]sa[mi	[ha]sa[mi	[ha]sa[mi
231	katana; sword	4 ha[ta]na	ha[ta]na	ha[ta]na
232	K D Q G G U X P 4	--	--	[te] Bko] B
233	(the) front	4 []u]mu[ti	[]u]mu[ti	[]u]mu[ti
234	yesterday	4 Qi[n o]	B i[ju] Q	B i[ju] B Q
235	tomorrow	4 a[Qa	a[Qa	a[Q a
236	T X D L O	4 --	--	[u] i'da[mi] B
237	treasure	4 --	--	ta[ka] mu[i
238	language; word	4 [ju]mi[ta	--	[u]mi[ta
239	arm	--	--	[]u]te[B
240	tear(drop)	5 [na]da	na[da	na[da 7[na]mi[da
241	cousin	5 --	--	[i]tu[ku
242	oil	5 [a] i[ba	[a] i[ba	[a] i[ba

	:RUG	\$F	FHQW	B:DQ	B1DNDVDWR	B\$UDNL
215	next-door; beside	1	[Qi «]Q u		[Qi !]Q u	NR
216	dust	1	["u] ɸmu		["u]ku[M7 ["u]ku[i 7 ["uku M	["u] ɸmu
217	dancing; dance	1	[wu]du[M		[ɸ]du[i	[u]du[M
218	chain	1	NR		[kusa M	(k ɸ[s]a) M
219	skipjack tuna	1	[k ɸ]tu[B 7k ɸ]tsu[B		[ka Quo	ka[Quo
220	shape; form	1	[k ɸ]ta[Qi		[ka]ta[Qi 7 [kata Qi	[ka]ta[Qi
221	lacquer	1	NR		--	--
222	hakama; skirt worn over kimono	4	ha[k]a]ma		[ha]ka[ma 7 [hakama	ha[k]a]ma
223	clothing; kimono	1	Q i[		i[Q	i[! Q
224	roof tile		k ɸ[wa] ɸ		[kawa ɸ	ka[wa] ɸ
225	calendar	4	[k ɸ]ju[mi		[ku]ju[mi 7 ["u]ju[mi	[ku]ju[mi
226	V W U D Z E D J 4	NR			[t ɸ] ɸ ɸ	[ta] ɸ ɸ
227	bag; sack; pouch	4	["uk]ku		["uk]ku 7 "uk[ku	["uk]ku
228	V W U D Z P D W 4	mus[su			mus[su	mus[su
229	mirror	4	[k ɸ]]a[mi		[ha]]a[mi 7 [ka]ami	ka[]a]mi
230	scissors; shears	4	[ha]sa[mi		[ha]sa[mi	ha[s]a]mi
231	katana; sword	4	ha[ta]na		ha[ta]na 7 [ho] ɸQo] B (kitchen knife)	ha[ta]na
232	K D Q G G U X P 4	--			--	--
233	(the) front	4	[ɸ]mu[ti		[ɸ]mu[ti 7 [ɸmuti	[u]mu[ti
234	yesterday	4	Q i[n ɸ] B		[Qi]n ɸ[	B i[n ɸ] B Q
235	tomorrow	4	ɸ[Qa		ɸ[Qa	a[Qa
236	T X D L O	4	[ɸ] !da[mi] B		[ut]ta[mi] B	[u] !da[mi] B
237	treasure	4	--		[taka ɸ	--
238	language; word	4	[ju]mi[ta		[ju]mi[ta	[ju]mi[ta
239	arm		ɸ[di		--	--
240	tear(drop)	5	na[da		na[da	na[da
241	cousin	5	[ɸ]tu[ku		[ɸ]tu[ku 7 b[]tu[ku	(i[to]ko)
242	oil	5	[ɸ] !da 7 [ɸ]bu[ɸBnew C		[ɸ]bu[ɸ	a[bu] ɸ

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF8RQV6U-D5W0
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO ,QVWLWXWLRQ

	:RUG	\$F	HQWB2QRWVX	B6KLWR	RNH	B6KLRLPLFKL
243	pillar; post; column	5	pa[ja	pa[ja	[pa]ja 7["a]ja	
244	pillow	5	mak[ka	mak[ka	mak[ka	
245	broom	5	[ho] ʔki	[po] ʔki	po[ʔQi	
246	F X F X P E H U	5	NR	k ʔu]i	[Qi]u[i	
247	compassion	5	[na]sa[k ʔ	[na]sa[k ʔ	na[s]a]ki	
248	life	5	[ʔnu[Qi	[ʔnu[Qi	i[nu] Qi	
249	(the) left (side)	6	[pi] ʔa[i	pi[da]i	pi[da]i	
250	crow; raven	6	[ʔa] ʔ[s]a B	[ʔa] ʔ[s]a B	[ʔa] ʔ[s]a B	
251	freshwater eel	6	[ʔna[; ʔ] B	[ʔna[;i	u[na]]i	
252	rabbit; hare	6	[u]sa[]i	[ʔsa[;i	u[s]a]]i	
253	earthworm	6	[bi]bi ʔa[ʔ] B	[mi]mi[ʔa] B	[mi]mi[ʔa] B ʔbi]bi[da] B	
254	sucking louse	6	[ʔ]ja[mi	[ʔ] ʔ[m ʔ	[ʔ] ʔ[mi	
255	medicine	7	su[i	k ʔ[su]i	[su]i 7 ku[su]i	
256	(wash)tub	7	[ta] ʔ B	ta[ʔ B	ta[ʔ B	
257	field (cultivated)	7	[pa]te[B	[pa]te[B	pa[te] B	
258	whale	7	k ʔ ʔ ʔa	[k ʔ]d[Q a] B	[ku] ʔ[Q a] B	
259	centipede		[mu]ka[ʔ	[mu]ka[d ʔ	mu[ka]di//[mu]ka[di	
260	yawn		[ʔ]ku[bi	ʔ[ku]bi	a[ku]bi	

	:RUG	\$F	FHQW B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
243	pillar; post; column	5	--	pa[y] 𐌲	ja[ba]ra
244	pillow	5	[ma]k[ka	mak[ka	mak[ka
245	broom	5	po[𐌲Qi	po[𐌲Qi	ho[𐌲Qi
246	F X F X P E H U	5	--	[Q 𐌺u[i	k 𐌳 𐌲 M
247	compassion	5	--	NR	na[sa]ki
248	life	5	𐌺[nu] Qi	i[nu] Qi	𐌺[nu] Qiu Š
249	(the) left (side)	6	pi[𐌵]i	ī[da]i	ci[da] M
250	crow; raven	6	[]a] 𐌺[sa] B	[]a] 𐌺[sa] B	[]a] 𐌺[sa] B
251	freshwater eel	6	--	[𐌺]na[]i	𐌺[na]]i
252	rabbit; hare	6	--	𐌺[sa]]i	𐌺[sa]]i
253	earthworm	6	[bi]bi[𐌵] B	[mi]mi[da] B	[mi]mi[da] B
254	sucking louse	6	y[𐌺]mi	y[𐌺]mi	y[𐌺]mi
255	medicine	7	ku[su]i 7 [ku]su[i	k 𐌺[su]i	k 𐌳[Šu] M
256	(wash)tub	7	ta[𐌺] B	[bi ']da[𐌺] B	t 𐌳[𐌺] B
257	field (cultivated)	7	pa[te] B	pa[te] B	ha[te] B
258	whale	7	[k 𐌺] '[Q a	k 𐌺[𐌵] 𐌲	k 𐌳[']Q a
259	centipede		nu[ka]de	[a]mi[da] B	mu[ka]de
260	yawn		𐌺[ku]bi	𐌺[ku]bi	[𐌺]ku[bi

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-D&W
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO ,QVWLWXWLRQ

	:RUG	\$F	FHQW	B:DQ	B1DNDVDWR	B\$UDNL
243	pillar; post; column	5	ha[y] M		[ha] y[M7[ha y M7[ha]ja	(ha[y] M)
244	pillow	5	mak[ka		mak[ka	mak[ka
245	broom	5	ho[BQi		ho[BQi	ho[BQi
246	F X F X P E H U	5	[Q u] B M		[Qu] B M	[k d B M k d[B M
247	compassion	5	NR		--	--
248	life	5	li[nu] Qi		li[nu] Qi	i[no] Qi
249	(the) left (side)	6	ci[da] M		ci[da] M7[ci da M	ci[da M7 ci[da] M
250	crow; raven	6	[]a] M[sa] B		[]a] M[sa] B	[]a] M[sa] B
251	freshwater eel	6	NR		[lna]i	u[na]]i
252	rabbit; hare	6	u[sa]]i		[lsa]i	u[sa]]i
253	earthworm	6	[bib]da[M] B		[mimi] l da[ja] B	[mi]mi[za] B
254	sucking louse	6	y[M]mi		[y M]mi	--
255	medicine	7	k u[su] M		[kusui	ku[su] M
256	(wash)tub	7	t a[M] B		ta[M] B	ta[M] B
257	field (cultivated)	7	ha[te] B		ha[te] B 7o Ba[M(flat place) 7[la]ta[i](small kitchen	ha[te] B
258	whale	7	[k u :]Q a		ku[z] M	[ku :]Q a 7[ku] l[Q a
259	centipede		mu[ka]di		mu]ka[di	mu[ka]de
260	yawn		la[ku]bi		akubi 7[a]ku[bi	a[ku]bi

	:RUG	B 2 Q R W V X	B 6 K L W R R N H	B 6 K L R P L F K L
1	jaw; chin	[ɬa]Q i[ma] ɬwhole)	[ɬu]t ɬ[;e] B	[ɬa]di[ma] ɬwhole) 7[b u]tu[;e] ɬip)
2	foot; leg	[p ʁaɔ̃	[p ʁaɔ̃	[p ʁaɔ̃
3	head	[ha]ma[Qi	[ha]ma[Qi 7 [ho]:[Qa] B 7 [Qu]bu[ɬ] ɬskull)	[ha]ma[Qi 7 Qu[bu] M u(archaic) 7 [t ɬ]bu[ɬ] B
4	head (temple, cheek)	[bi !]ta	[ɬa]Q ima[ɬtemple) 7 Qu[ɬ(face) 7 [bi] !]ta head(has brains 7 no brains)	[bi] !]ta head(head is good or bad)
5	arm	]u[te] B	[]u]te[B	[]u]te ɬarm is strong)
6	arm	[ɬdi	--	ɬ[di
7	heel	ɬa[du	ɬa[du] y(Š, B)//[ɬa]du[y(B)	[ɬa]du
8	head hair	[has]sa[;(ʉi] B	[ha]ssa[; ʃ B	[ha] y ʃ[;i] B
9	flank	[]a]ma[ku 7 [sa]hu y	[]a]ma[ku	[ɬaba ɬbu[ni] B 7 []a]ma[ku (inside of chest)
10	tongue	su[ba	su[ba 7 [k ɬ] Qi (mouth)	su[ba
11	hip; buttock	ma[i 7 [ma]i[tab]ba	[ma]i 7 [mai]tabu[ni(bulge of hip)	[ma]i
12	shin	su[n	ʔu[ne(A)//su[n ʃB)	[p ʁaɔ̃:ʔ ʁ[ni] B ʃu[ni
13	back (of the body)	[na] ;a[ni 7 [hu] y Š	[na] ;a[n ʔ ʔna]]a[n ʔ 7 [hu] y	hu[y]
14	hair whorl	ma[Qu]Q i	[ma] Qu[] ʔA// [ma] Qu[Q i(B)	[ma]tu[Q i
15	kneecap	Qu[bu] y	[Qu]bu[y	[t ɬ]bu[y
16	forehead	[më] ɬa	[më] ɬQi] B	met[Qi] B
17	calf (of the leg)	Q u[Qu	[k ʁ]kki, k ʁk[ki	N R
18	navel	[ʔu]su	[ʔu]su	p ʁ[su
19	boil (on the skin)	[n ʃbu[tu] B	[n ʃbu[tu] B	[ni]bu[tu] B
20	dirt (on the skin)	[ʔ ʃ!]u	[ʔ i !]]u, [p ʔ i !]]u	[p ʁ i !]]u
21	feces	[ssu	[su	[ssu
22	fist	[tekk ʁ] B	[t ʁkko[B	[t ʁku[ɬ] B
23	gray (lit. white) hair	[y]ja[;(ʉ ʔ	[y] ɬ[; ʔ	iʃ ɬ[;i

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-D&W
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO ,QVWLWXWLRQ

	:RUG	B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
1	jaw; chin	la[;u(whole) 7 [lu]tu[;e] B (tip)	la[]u	[lu]ta[je] B
2	foot; leg	s[sa	s[sa 7 s[sa]nu (9 ga[subjective])	[ssa
3	head	[ha]ma[Qi 7 [Qu]bu[M] B (skull) 7 [bi 'i]ta (head, slap)	[ha]ma[Qi 7 [t u]bu[M] B skull 7 ho B skull (honorific)	[ha]ma[Qi
4	head (temple, cheek)	[a] a[ma] B	bi 'i]ta(head. It is not used much.)	[bi] 'i]ta (temple)
5	arm	pi[i	[]u]te[B	t & B
6	arm	lu[di	lu[di	lu[di
7	heel	[la]du	la[du	la[du] B
8	head hair	[has]sa[;i] B	[has]sa[] B	has[sai]
9	flank	a[ba] M	la[ba M 7] a[ma]ku	]a[ma]ku 7 wa[Qi (flank)
10	tongue	su[ba	su[ba	su[ba
11	hip; buttock	ma[i	[mai 7 [ma]i]ta 'i]ba (rare)	[ma] M bat[te] B bulge of hip)
12	shin	su[n 7 pi]za	su[n 7	[hiza] y[mu
13	back (of the body)	u[y	hu[y	u[y
14	hair whorl	[ma] Qu[Q i] B	[mat]t u[Q i	[ma]tu[Q i
15	kneecap	[Qu]bu[y	[t u]bu[y	[t u]bu[y
16	forehead	[mikko] B	mit[Qe] B	mit[Qe] B
17	calf (of the leg)	[kat] Qi	[k at]Qi	[k at]Qi
18	navel	pu[su	u[su	u[su
19	boil (on the skin)	[ni]bu[tu] B	[n bu]t u] B	[diki]mu['i 7 [ni]bu[tu] B
20	dirt (on the skin)	[pi] 'i]]u	['i] 'i]]u	[hi] 'i]]u
21	feces	s[su	[su	k u[su
22	fist	[t &k]ko B	t &k[ko B k a['a (punch someone in the head)	t &k[ko] B
23	gray (lit. white) hair	[y] M[;e] B	y[M]]i (usually) 7 y[nai (at the birth year ceremony)	y[na]i

	:RUG	B:DQ	B1DNDVDWR	B\$UDNL
1	jaw; chin	la[]u] B 7 la]di[ma] B(tip) 7 []tu[]e] B(tip)	la[]u 7 []tu[]e] B	[]tu[]e] B(tip)
2	foot; leg	[ssa	[ssa	[sa
3	head	[ha]ma[Qi	[ha]ma[Q ɰ	[ha]ma[Qi
4	head (temple, cheek)	[bi] i[ta (head is good or bad)	[bi] i[ta	u[mi]ka[mi (temple) 7 [bi] i[ta (cheek)
5	arm	t ɰ B	t ɰ B 7 ɰ B	t ɰ B
6	arm	[]u]te B(upper arm)	[]u]te[B(upper arm)	[]u]te[B
7	heel	la[du] B	[la]du	[la]du
8	head hair	[ha]ssa[;i] B	[ha]ssa[;i] B	has[sa]]i 7 [ha]ssa[]i] B
9	flank	a[ba] ɰ 7] a[ma]ku	la[ba] ɰ 7] a[ma]ku	--
10	tongue	su[ba	su[ba	su[ba 7 ku[Qi (mouth)
11	hip; buttock	[ma] ɰ 7 [ma] ɰ ta i]ba (bulge of hip)	[ma]i 7 [ma]ita[bu]ni (bone in bulge of hip)	[ma] ɰ 7 [ma] ɰ ta i]ba (bulge of hip)
12	shin	[su]ni	su[n ɰ	su[ni
13	back (of the body)	hu[y	hu[y	u[y
14	hair whorl	[ma]tu[Q i	[ma]tu[Q i	[ma] Qu[Q i]
15	kneecap	[t ɰ]bu[y	[t ɰ]bu[y	[Qu]bu[y 7 [Qubu y
16	forehead	mit[Qe] B	mit[Qe] B	mit[Qe]i
17	calf (of the leg)	[k ɰ]t Qi	[k ɰ]t Qi	[ka]t Qi
18	navel	hu[su	u[su	çi[su
19	boil (on the skin)	[ni]bu[tu] B	[n ɰ]bu[t ɰ] B	[ni]bu[tu] B
20	dirt (on the skin)	[çi] i[]u]	[çi] i[]u	[çi] i[]u] B 7 [çi] i[]u
21	feces	[su	[ssu	--
22	fist	t ɰ[ko] B	t ɰ[ko] B	[t ɰkku[ɰ] B
23	gray (lit. white) hair	y[ɰ] ;i	[y] ɰ[;i]	Bi[ɰ]]i

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-D&W<
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO , QVWLWXQV&KILRWL&D&S

	:RUG	B 2 Q R W V X	B 6 K L W R R N H	B 6 K L R P L F K L
24	cough	[ɰki i[ni	[ɰki i:di("out of breath") 7 [ɰki i:diɰ i("blow out a breath")	[ɰ Qi i:[Q i]ti(be ~ing)
25	lump (on the body)	]a[bu	y[ni 7] a[bu(craggy by nature) 7] a[bu] B(people with craggy head?)	]a[bu
26	saliva	[Qu]b[bē] B	[Qub]be[B	[t ɰ]b[be] B
27	urine	y[ba	y[ba]i	y[ba]i
28	dandruff	ˈu[ɕe	[ɰk[ki 7 [ɰk]ki	[p ɰ] ɰmu (speaker A: dust, too)//[ˈu] ɰmu (speaker B: dust)
29	mole (on the skin)	[ɰ]za	[ɰ]Q a	ɰ[da
30	older brother	[n ɰ B ʔja]k[kē] B (archaic, senior[honorific])	[k ɰ i:[ka]	Bi[da] B
31	older sister	[ne] B 7 ɰ[bakkē] B (archaic, maiden aunt)	[ba] i:[ka] B	[ne] B
32-1	Q H S K H Z	(w)u[i]k[k üæ	u[i]k[ka 7 ik[ka	[ma]ta[be] B
32-2	Q L H F H	mëikk üæ	[m ɰ[ka 7 m ɰ[ka(niece)	[ma]ta[be] B
33	uncle	u[Q i] B	[ɰ] i:[m ^i] B<cf> 7 a[Q i] B (grandfather)	[k ɰ i:[k ɰ] B(honorific)
34	husband	[u]tu	[u]tu	wu[t ɰ
35	man; male	[ji] i[:a	[ji] i[:a	[ji] i[:a
36	aunt	u[ba] B	[ɰ]ba[kk ɰ ɰ [ɰ]ba	[ɰ] i:[ma] B 7 ɰ[ni] B
37	parent and child	[ɰ]jak[k ä	[ɰ]jak[k ä	ɰ[ja]kka
38	woman; female	[u]na[;u	ma[i] B ʔu]na[;u(new)	[wu]na[]u
39	family	]a ɰ ɰ:[Q u] B	]a ɰet[Qu	]a] ɰi] B
40	sibling	[k ɰ] ɰe] B	ji[ɰ M(male sibling) 7 [ɰ]tu[Q a(female sibling)	[yɰ] ɰe] B

y

	:RUG	B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
24	cough	[ɪQi ɪ]ni[B	[se]ki	[ɪQi ɪ]ni[M(be ~ing)
25	lump (on the body)	]a[bu] B	]a[bu] B 7nu (9 ga[subjective])	]a[bu] B
26	saliva	[Qu] ɪ[be] B	[t ʊ] ɪ[be] B	[t ʊ] ɪ[be] B
27	urine	y[ba]i	y[ba]i	y[ba] M
28	dandruff	[ɪt[Qi 7 [ɪtQi 7 [pu] ɪmu(dust, dandruff)	ɪt[Qi 7 € confer 282	[ɪu] ɪmu (dust, dandruff)
29	mole (on the skin)	a[za	ɪa[da	ɪa[za
30	older brother	]jak]ki B	(archaic) jak[k ɪB(also when they call the senior)	]jak]ki B
31	older sister	]ba] ɪ[ka] B	(archaic) [ɪna ɪ[ma] B	[ne] B(the oldest sister) 7 [ne] ɪ[k ʌ] B(second eldest sister)
32-1	Q H S K H Z	[w ʌ]ka (man)	wi[B]k ʌ	#k[ka
32-2	Q L H F H	[mi]k[ka 7 [mikka (woman)	mi[B]k ʌ	[mi]kka (niece)
33	uncle	ɪ[ʒ]	Bu[Q i	ɪ[Q i]
34	husband	]u[tu	]u[tu	ɪ[tu
35	man; male	]ji] ɪ[]a	]ji] ɪ[;a	]ji] ɪ[;a
36	aunt	ɪ[ba]	Bu[ba	wu[ba]
37	parent and child	ɪ[jak]ka	ɪ[wak]k ʌ <cf> ɪwak[k ʌ ɪsu ɪ (hobnob with ~)	ɪ[ja]kka
38	woman; female	[]u]na[;u	[]u]na[u	]wu]na[u
39	family	]ja] ɪi] B	]ja] ɪnut] Qu	]ja] ɪnu] Qu
40	sibling	[so] ɪde] B	[so] ɪde] B	[so] ɪde] B

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-DWQ
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO , QVWLWXQV&XILFLDVS

	:RUG	B:DQ	B1DNDVDWR	B\$UDNL
24	cough	[ɒQi] ˈ[ni]ti (to ~)	[i Qi] ˈ[ni]ti	[se]ki
25	lump (on the body)	]a[bu]	Ba[bu]	Bi[B]
26	saliva	[t ʊ] ˈ[be] B	tup[pe]	B up[pe] B Q
27	urine	y[ba] M	y[ba]i	y[ba] M
28	dandruff	it[Qi	it[Qi	ˈu[ke 7 ˈuke
29	mole (on the skin)	ɹa[da	a[da	ɹa[za
30	older brother	[n ʊ ɒsa] ː 7 [n ʊ ɒ ʊ ɒ] B(children term)	[k ɪ] ˈ[ka] B	o[n ʊ ɒsa] ː 7 ja[kki] B(senior men in the relatives (archaic))
31	older sister	[ne] ɒsa] ː 7 [ne] ɒne] B(children term)	[ne] B	[ne] ɒsa] ː 7 [ɒ] ˈ[ka] B (archaic)
32-1	Q H S K H Z	[mi] ɒk]ka (both man and woman)	mi[ɒkka	mik[k ɪa
32-2	Q L H F H	[mi] ɒk]ka (both man and woman)	mi[ɒkka	mik[k ɪa
33	uncle	wu[Q i]	Bu[Q i]	Bu[Q i] B b
34	husband	wu[tu	ɹu[tu	ɹu[tu
35	man; male	[ji] ˈ[ː a	[ji] ˈ[ː a	[ji] ˈ[ː a
36	aunt	wu[ba]	Bo[ba] B 7 ɹba	ɹba] B b
37	parent and child	ɹja]kk a	ɹja]kka	ɹja]kk ɪa
38	woman; female	[wu]na[ɹu	[ɹna[ɹu	[ɹna[^u
39	family	[ja] ɹutQu	[ja] ɹi] B	[ja] ɹi] B
40	sibling	[so] ɹde] B 7u]na[M (brother's female sibling) 7 [ji] ɹ M(sister's male sibling)	[so] ɹde] B	[so] ɹde] B

	:RUG	B 2 Q R W V X	B 6 K L W R R N H	B 6 K L R P L F K L
41	lover	NR	NR	--
42	child_1	[k üæ	[k üæ	[k æ
43	child_2	[wa] ɸ[b ʔwa] M	[wa] ɸ[b ʔ ^M	wa[ɸbi
44	children	[k üæ] ! [k æ] B 7 [wa] ɸb ʔ [k æ] B	[k üæ] ! [Qa] B 7 [wa] ɸb ʔ [Qa] B	[k æ] ! [Qa] B 7 [wa] ɸbi ! [Qa] B
45	relative; kin	[ʔa] ɸɸQ i] B	[ha] ɸɸQ i] B	p æ[ɸɸQ i 7 [p æ ɸɸQ] ! [Qa] B
46	young person (usually male)	n ɸse] B 7 ɸse] B ka (-'tachi'(plural))	n ɸse] B	n ɸ ye] ɸ18-19 years old) 7 ɸ[ʔu]t Qu(adult)
47	carpenter	[se] ɸku (work) 7 [se ɸku[sa] ɸ(human)	[se] ɸku(work) 7 [se] ɸusa[B (human)	[ye ɸku[ya] ɸhuman)
48	father	[ji !] ; a ɸja	ja]kki[B ʔto ɸnew)	jak[ki B
49	father_1	ɸ[Q a[] ɸ(vocative) 7 ɸ[Q i] B	[a] Q a[ɸarchaic)	ɸ[Q a] ɸarchaic)
50	wife	[t æ] z	t æ[Q i	t æ[Q i
51	friend	[du] ý 7 [du] ý ! [k æ] B	[ho] ɸbē] B ʔdu[ý 7 [du] ý ! [Qa] ɸplural form)	du[ý 7 [du ý] ! [Qa] ɸalso alone)
52	mother	ɸk[ka] B 7 ɸ[ma] B (grandmother)	[ba] ɸnew) 7 [ɸ[ma] B (archaic)	ɸk[ka] ! 7 [a] ! [ma] B
53	grandchild	ma[]o] B 7 ɸma[; a] ɸgreat-grandchild)	[ɸma[; a] B	ma[; a] ɸarchaic) 7 ma[]u] B
54	superior; senior (man)	[n ɸ B 7 ý Q a 7 ý[Q a] B	[ɸi]t[Qu 7 [ý]da[ɸelder brother)	ý[da] B 7 ý]da(unfavorably)
55	inferior; junior (younger brother/sister)	[tu] ýs[sa] B 7 ɸttu B 7 [ɸt]tu[bo] ɸyounger brother) 7 [ɸt]tu[mai (younger	[ɸt]tu] ɸsingular) 7 [ɸttu ! [Qa] ɸplural)	ɸt[tu] B 7 ɸt]tu ɸbo] ɸmale sibling) 7 [ɸttu ɸma[i] B (female sibling)
56	daughter	[mē ɸ ɸb ʔ 7 [mē ɸ ɸbi ! [k æ] B	[me ɸ ɸbi	[me] ɸ ɸbi

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-DWQ
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO , QVWLWXQV&ILRUL&L

	:RUG	B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
41	lover	NR	kana[Bdead word)ladykin(honorific for young women)	--
42	child_1	[k a	[k a	[k a
43	child_2	wa[Mbi	wa[Mbi	--
44	children	[k a] ! [Q a] B 7 [wa Mbi] ! [Q a] B	[k a] ! [Qa] B 7 [wa Mbi] ! [Qa] B	[k a] ! [Qa] B
45	relative; kin	pa[M B z] B(singular) 7 pa[M z] ! [Q a] B(plural)	["a] M BQ i	[ha M BQ i] B 7 [so B e] ! [Qa] B
46	young person (usually male)	n B ye] B	n Bse] B 7me] B Mbi(woman) 7 n Bse] B me] B M a]bi(man+woman)	n Bse] B(to 20 years old)
47	carpenter	[se] Bku 7 [se Bku[sa] B	[se] Bku (work) 7 [se] Bkusa] B(human)	[se] Bk u (work) 7 [se] Bk u[sa] B(human)
48	father	[su] Bpolite)	jak[ki B	--
49	father_1	la[za] Bgrandfather)	la[Q a] B(dead word)	la[Q a] B
50	wife	tu[Q i	t B[Q i	t B[Q i
51	friend	du[y	du[y	du[y
52	mother	[a] ! [ma] Bgrandmother)	[la] ! [ma] B 7 Bna ! [ma] B (archaic)	[la] ! [ma] B
53	grandchild	[B]ma[;a] B	[ma]]u	ma[]o] B
54	superior; senior (man)	[y]da (senior)	9 (name, etc.)jak[ki B 7 9 [k B 7 y]da (also senior women)	[y]da (both man and woman)
55	inferior; junior (younger brother/sister)	[B]t[t u]	But[t u] B	ut[tu] 7 [B]ttu[wa] B b (youngest child)
56	daughter	[me] B Mbi	--	[me] B Mbi

	:RUG	B:DQ	B1DNDVDWR	B\$UDNL
41	lover	wa[;a [su]Qu ! [Qu	NR	--
42	child_1	[k ə	[k ə	[k üæ
43	child_2	wa[ɪbi	wa[ɪbi	wa[ɪbi
44	children	[k ə] ! [Qa] B 7 [wa ɪbi] ! [Qa] B	[k ə] ! [Qa] B 7 [wa ɪbi] ! [Qa] B	[k üæ] ! [Qa] B 7 [wa ɪbi] ! [Qa] B
45	relative; kin	[ha ɪ ɪQ i] B	[ha ɪ ɪQ i] B	ha[ɪ ɪQ i] B
46	young person (usually male)	n ɪ ye] E(29-30 years old, unmarried)	[n ɪ ye] E(both man and woman, about 17 @8-20s No relevance to married or not)	n ɪ se] B
47	carpenter	[ye] ɪku (work) 7 [ye] ɪku[sa] E(human)	[se] ɪku(work) 7 [se] ɪku[sa] E(human)	[se] ɪku (work) 7 [se] ɪku[sa] E(human)
48	father	jak[k ɪ] E(archaic) 7 [Q ə] !	jak[k ɪ] B	--
49	father_1	--	la[Q a] E(grandfather)	la[Q i] E(grandfather)
50	wife	t ɪ [Q i	t ɪ [Q i	tu[Q i
51	friend	du[ɪ	du[ɪ 7 [du] ɪ ! [Qa] E(plural)	du[ɪ
52	mother	[ɪa] ! [ma] E(archaic) 7 b ok[k ə] !	[ɪa] ! [ma] B	[ɪa] ! [ma] B
53	grandchild	ma[ju] E(archaic) 7 ma[;a] B	NR	ma[;a] B
54	superior; senior (man)	[ɪ]da (senior man and woman)	[ɪ]da(all seniors, both man and woman)	[ɪ]da (senior man and woman) 7 ɪ]da (senior man and
55	inferior; junior (younger brother/sister)	ut[tu	[ɪttu] ! [Qa] E(plural) 7 ɪttu(tu(singular)	ɪttu (lower ranking man and woman)
56	daughter	[me] ɪ ɪbi	[me] ɪ ɪbi(17 @8-20s, unmarried)	[me] ɪ ɪbi 7 [me] ɪ ɪbi B

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-D&WU
 5HVHDFK 5HSRUW RQ WKH .L
 \$XJXVW 1DWLRQDO , QVWLWXQV&KILRWL&VS

	: RUG	B 2 Q R W V X	B 6 K L W R R N H	B 6 K L R P L F K L
57	sash; belt	o[bi 7 o[bi] B ʔQi] Q u[b ɸ	[Qu]Qu[bi 7QuQu[bi	ʌ[bi 7Q ɸ Qu]bi
58	kanzashi; ornamental hairpin	[] ɸ ɸ " ä] B	[] ɸ "a[B	]i[ba] B ʔ ʔ[y(hair accessory)
59	clothing; kimono	k ɸ!	k ɸnu	Q ɸ !
60	geta; Japanese clog	las[sa] B	[ʌ]ssa[	Ba y y] B
61	zori; Japanese sandal	[sa]ba	[sa]ba	sa[ba
62	hand towel; washcloth	[te]nu[; ɸ ʔt ʔsa[Q i(archaic)	sa[Q i	[t ʔnu[]u]i
63	string; cord; lace	[" (ʔi]mu	--	mu[su]bi 7 [hi]mu ! [ka] B
64	rice porridge	k ʔ[i] B	k ʔ[ji] B	k ʔ[i
65	fruit	k ʔdamono 7 [hi] ! [na]ji ('hi' is not 'çi'.)	[na]i[mu] !	[na]imu[! 7 [k ʔ]ni[p ʔ] B (blue mandarin orange)
66	cooking; cuisine; dish	[su] ɸ ɸ (of a festival)	[t ʔ]i[mu] Qi(hospitality) 7 [su] ɸ ɸ ʔ y] ɸ ɸ	[y] ɸ ɸ (of a festival)
67	rice	[ʌ]ba[n ʔ7 [ʌ]ʔa[n ʔ [ʌ]ba[n ʔ		[me] Biy7 ʌ[ba]n ʔ
68	sugar	[sa]ta[B	[sa]t[ta] B	sa[ta] B
69	salt	[mas 7 [ma]su	[ma]su	ʌ[yu(archaic) 7 ma[yu(new)
70	meal	[ha] !më[ɸfor domestic animals)	[p ʔ] !më[ɸfeed of cows, horses and domestic animals)	mu[!
71	rice soup	[du] ɸ y] B	[du] ɸ y] B	[du] ɸ y] B
72	egg	[t ʔ]ma[]u 7 hu[;a] B	hu[;a] B	[t ʔ]ma[]u 7 hu[;a] ɸchick)
73	tea	Qa[B ʔa[ɸarchaic)	Qa[B	[Qa B
74	lunch	[ʌ] y[B	[mu]	a[y] B
75	breakfast	mu[!	[mi !]sa[M ɸA)/ / [mu] !sa[M ɸB)	[k ʔ !manu]mu[! 7 [k ʔ] !manumu[!

b

b

	:RUG	B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
57	sash; belt	Qu[Qu]bi 7 lu[bi	lu[bi 7Q i[Qu]bi (thin belt)	Qi[Qi]bi
58	kanzashi; ornamental hairpin	]i[pa] B	[]i] B`a] B	[]i] Bha] B
59	clothing; kimono	Q i[7Q i[nu	Q i[	i[7 Q
60	geta; Japanese clog	[la]s[sa]	Bas[sa	las[sa b
61	zori; Japanese sandal	sa[ba	sa[ba	sa[ba
62	hand towel; washcloth	[t i[nu[;u]i	[t i[nu[i] B a[Q i (dead word)	[t i[nu[]u]i
63	string; cord; lace	NR	[ci]mu	[QiQibi] i[ka] B hi[mu
64	rice porridge	ka[i	k a[i	k a[ji] B
65	fruit	na[i] B i[na]i	[hi] i[na[i (collective for nuts)	[na] i[mu] i
66	cooking; cuisine; dish	[su] B i[	[ ]u] Qi[su] B banquet) 7 [Q u B cooking)	[Q u B M7[su] B ki
67	rice	u[ba]n i	lu[ba]i	lu[ba]i
68	sugar	sa[ta] B	sa[ta] B	sa[ta] B
69	salt	ma[su	ma[su	ma[su
70	meal	mu[i	mu[i (meal) 7 [ha] i[me[B (food)	mu[i
71	rice soup	[du] B y] B	[du] B y] B	[du] B y] B
72	egg	`u[;a] B	[t a]ma[]u 7 `u[;a] B dead word) 7 `u[a] B (dead word)	t a[ma]]u
73	tea	sa[B	sa[B	sa[B
74	lunch	la[y]	Ba[y]	Ba[y] B b
75	breakfast	--	[y] i[ma[Q i] Qi	[ci i]ma[Q i] B 7 [hi i]ma[Q i] B

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-DW
 5HVHDFK 5HSRUW RQ WKH .L
 \$XJXVW 1DWLRQDO ,QVWLWXWLRQ

	:RUG	B:DQ	B1DNDVDWR	B\$UDNL
57	sash; belt	Qu[Qu]bi	Qu[Qu]bi	Qu[Qu]bi (band for kimono) 7 bi/thick belt
58	kanzashi; ornamental hairpin	[ji] ha] B	[ji] ha]	Bi[ha] B
59	clothing; kimono	Q i	i Q	i[nu Q
60	geta; Japanese clog	as[sa	as[sa	as[sa]
61	zori; Japanese sandal	sa[ba	sa[ba	sa[ba
62	hand towel; washcloth	[t i]nu[ji] B	NR	[t i]nu[ji] B
63	string; cord; lace	ci[mu	hi[mu 7 bi[Qu] use for yarn, too)	ci[mu
64	rice porridge	k ai	k ai	[ka]ji B
65	fruit	[na i]mu[i	[na]i[mu] i (something on trees)	[na] i]mu[i (something on trees(archaic)) 7 mandarin orange[k ai] i]ba] B
66	cooking; cuisine; dish	Q u[i M7[su] i k k	Q u[i M7[su] i ki	[su] i ki
67	rice	bi[ba]n i	bi[ba]n i	bi[ba]n i
68	sugar	sa[ta] B	sa[ta] B	sa[ta] B
69	salt	ma[su	ma[su	ma[su
70	meal	mu[i 7 [ha i]me[B(archaic)	[k ai] i[mu] i 7 mu[i (food meal) 7 [ha i]me[B in return for the present)	mu[i 7 [ha i]me[B(thing to have at the birth, archaic)
71	rice soup	[du] i y] B	[du] i y] B	[du] i y] B
72	egg	t ai[ma]]u 7 hu[;a] B(archaic)	ta[ma]]u 7 hu[;a] B made of stone or something, those that are used in order to lay	t ai[ma]]u 7 ["u] ^a["u] ^a(egg dish)
73	tea	sa[B	sa[B	sa[B
74	lunch	ba[y]	Ba[y] B	a[y] B b
75	breakfast	[hi i]me[i Qi	[hi i]ma[i] Qi	[ci i]ma[Qi

	:RUG	B 2 Q R W V X	B 6 K L W R R N H	B 6 K L R P L F K L
76	tempura; vegetables or fish deep-fried in batter	[te ʔpu M	[Qu]Qia[] ¥	[ʔda[]i] B
77	meat	y[ʔ	y[ʔ	mi[B 7 ʔ y (good parts of meat)
78	rice cake	[mu]t[Qi] B	[mu]t[Qi] B	mut[Qi] B
79	dinner	ji[B	[ju] ʔba[]	[ji] B
80	house	[ja B	ja[B	ja[B
81	sunken hearth	[Q u] ʔa[ta]	B i[M Q	NR
82	main building	ʔ[mo]ja 7[b u]mu[ti(guest room "ichibanza")	[ʔ] ʔu[ja] B 7 ʔ]mu[ti (room with alcove "tokonoma")	[ʔ]mu[ti (guest room)
83	gate	[mo ʔ 7Q o[	B o[B Q	[ʔ]muti[]u]Qi 7[Q o B
84	cooking stove	k ʔ[ma]do	k ʔ[ma	Q i[M 7 k ʔ[ma]do
85	kitchen, third house	[to] ʔ[ʔ;a	[ha]ma[ja] ʔarchaic) 7 [mu ʔ] y ʔa] ʔnew)	[ne] ʔyu] B
86	ceiling	[te] ʔQ o[B	[t ʔ] ʔQ o[ʔnew)	[ti] ʔ[Q o] B
87	door	[t ʔ] B	[t ʔ] B	t ʔ[B
88	fence screening off the area between a house and its gate	NR	[mē] B ʔ[ki	[ʔo] ʔn ʔ[Qi] B
89	lavatory; toilet	[ja]nis[su] B	[k ʔ ʔ]Q u	[bu]ta ʔ[ja] ʔpigpen) 7 [ja]ni ʔ ʔo] ʔtoilet) 7 [ʔ] ʔ[Qi] ʔ(toilet)
90	fishing (night)	ʔ[za]i	[Q a]i	[ʔda[M
91	tattoo	[ʔ(ʔa] ji 7 ʔa[Qu]ki	[ha] Q u[ki	[ha]du[Qi
92	moxibustion (trad. Chin.	ja[Qu] B	ja[Qu] B	ja[Qu] B
93	shamisen (string instrument)	[sa] ʔ[ʔ] ʔ	[sa] ʔ y[ʔ	[sa] ʔ[ʔ] ʔ
94	soot (residue on pots and pans)	[na]b ʔ ʔ ʔsu[m ʔ 7 su[su(smoke)	[na]b ʔ ʔ ʔ[]u] B	[su]su 7[nabip ʔ ʔ[]u] B

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-DWU
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO ,QVWLWXWLRQ

	:RUG	B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
76	tempura; vegetables or fish deep-fried in batter	[Qu]ki[a] ;i	NR	[mut Qi] i[ka] B
77	meat	y[y	y[y (archaic)	y[y
78	rice cake	[mu]t[Qi] B 7[mu]t[Qi] B	[mu]t[Qi] B	mut[Qi] B
79	dinner	[ji] B	[ji] B	[ji] B
80	house	ja[B	[ja B	ja[B
81	sunken hearth	[Q i] M(kitchen)	[Q i M	--
82	main building	[ɰ] "u[ja] B 7 [ɰ]mu[ti (spacious room in the mail building)	[ɰ]mu[ti	[ɰ]mu[t k(room with alcove "tokonoma", house with guest room)
83	gate	[Q o] B 7mu i	[mo] i 7 [Q o] iku[Qi] B(gate) 7 [Q o] B	mu[i 7 [Q o] B(where there is a gate)
84	cooking stove	ka[ma	ha[ma	[ha]ma[du
85	kitchen, third house	[ne] ɸsu] B	[mu i] y ɸa] B	(house with kitchen) [ɰmatume ɸ y[ja] B 7 [ne] ɸsu] B
86	ceiling	[t ɕ i[Q o] B	[t ɕ i[Q o] B	[t ɕ i[Q o] B
87	door	t ɕ[B	t ɕ[B	t ɕ[B
88	fence screening off the area between a house and its gate	NR	[so] i[n ɕ]Qi Š	NR
89	lavatory; toilet	[buta] i[ja] B(pigpen) 7 [y]t[Qi] i (toilet)	[y] i[Q ɕ i	(toilet) [y] i[Qi] i
90	fishing (night)	[ɰ]za[i	[ɰ]da[i	[ɰ]da[M
91	tattoo	NR	[ha] Q i[Qi	NR
92	moxibustion (trad. Chin.	ja[Qu] B	ja[Qu] B	ja[Qu] B
93	shamisen (string instrument)	[sa] i[y] i	[sa] i[y] i	[sa] i[y] i
94	soot (residue on pots and pans)	p ɕ[su]mi 7[su]su(soot in a ceiling)	[na]bi i i[]u] B	[su]su

	:RUG	B:DQ	B1DNDVDWR	B\$UDNL
76	tempura; vegetables or fish deep-fried in batter	[t ʂ] i[pu] M	[t ʂ] Qi[a]]i	[te i pu] M
77	meat	n i ku	y[y 7 (fish flesh is) mi[B	n i ku (archaic new) 7 y[y (archaic)
78	rice cake	mut[Qi] B	mut[Qi] B	[mu]t[Qi] B (t . Low)
79	dinner	[ji] B	[ji] B	[ji] B
80	house	ja[B	ja[B	ja[B ʒja B
81	sunken hearth	[Q i] M(furnace)	--	[Q i] M(furnace)
82	main building	[ɓ]mu[ti	[ɓ]mu[t ɤ	[ɓ]mu[ti
83	gate	[Q o] B	[Q o] B	[Q o] B
84	cooking stove	ha[ma	ka[ma]du 7Q i[M7 ha[ma	k ʂ[ma
85	kitchen, third house	[ne] ʂsu] B	[ne] ʂsu] B	[ne] ʂsu] B
86	ceiling	[t ʂ] i[Q o] B	[t ʂ] i[Q o] B	[te iQ o B
87	door	t ʂ[B	t ʂ[	Bi[ta]do
88	fence screening off the area between a house and its gate	NR	NR(the word is not used so much.)	[me ʂ]a[Qi] B
89	lavatory; toilet	[bu]ta[]u]ja (pigpen) 7 [k ʂ i]Q u (toilet)	u[M B ʒka i]Q u	[k ʂ i]Q u (toilet)
90	fishing (night)	[ɓ]da[M	[ɓ]da[i	[ɓ]za[M
91	tattoo	--	NR	NR
92	moxibustion (trad. Chin.	ja[Qu] B	ja[Qu] B	ja[Qu] B
93	shamisen (string instrument)	[sa] i[y] i	[sa] i[y] i	[sa] i[y] i
94	soot (residue on pots and pans)	--	[na]b ɤci i]]u	nabi[ci] i[]u] B

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-D&W<
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO ,QVWLWXWLRQ

	:RUG	B2QRWVX	B6KLWR	RNH	B6KLRLFLKL
95	sumo wrestling	[ɣ]ma	ɣ[ma	ɣ[ma	
96	torch (for fishing)	[t ʌ]imaQu	--	[t ɪda Ma] i[po] B	
97	1 \$				
98	smell; scent	[ha]Q a	ha[Q a	ha[da	
99	grave; tomb	[ˈa]ka	[t ʌ 7 [p ʌ]ka(new)	p ʌ[ka	
100	work in the field; farm work	[ˈa] Mɣ[]u]tu	[p ʌ Mɣ]]u]tu 7 p ʌ[M(farm)	[p ʌte Biɣ]u]tu 7 p ʌ[te] B (farm)	
101	wheat straw	[mu] ɪn ʌ[ʌ] B	[mu] ɪn ʌ[ʌ] B	[mu] ɪn ʌ[ʌ] B	
102	celebration	[ju] ʔwe[B	[ju]we[B	[ju] ʔe[B	
103	repose; rest	ju ʔ	ʌ[k ɪ ɣ ʌ(Let's take a rest)	[ju]ku[ju] i(rest)	
104	marriage	k ʌ[ʌ] ɣ	[se ʔmui	N R	
105	(exchanging of) betrothal gift(s)	[sa] i ; o ʔe ʔnu[ɪ (3-go bacchanal ("go" is traditional unit which is about 180 ml. cup))	[se ʔmui	[ju]i[no B	
106	quarrel; fight	[ɣ]kki 7 [du] ɣk[ki	[ɣ]kk ɳ	[ɣt] Qi(ʔ	
107	language; word	[ju]m ʊʔa	[ju]m ʌi[ta	[ju]mi[ta	
108	mutual aid	[ma]umi ʔɣ[;u]tu	[ji] ʔQ i] B	[ji] ʔQ i] B	
109	soul; spirit	[ma]bu[i	ma[bu]i	[ma]bu[i	
110	strength	t ʌ[ja	t ʌ[ja	[]u]te B	
111	illness	ja[mi	[ja] i me[B	ja[ma]i	
112	ax; hatchet	Q u[m ʌ] B	[ʌ]no	--	
113	ax; hatchet	--	[Q u]m ʌ ʔB(small size)	du[m ʌ] ʔB(big and small)	
114	drill; awl	ki[M7 i[B(archaic)	ʌ[M	ʌ[M	
115	net; mesh	[ʌ]ju ʌ[mi] B ʂa[Q i (triangular net) 7 sa[Q i] ʌ[mi] B	[ʌ]mi 7 [sa]Q i (speaker A)//[sa]di (speaker B)	[sukui] ʌ[mi	
116	oar; paddle	jo[B	jo[B	jo[B	

	:RUG	B6DNDPLQH	B\$GHQ	B.DPLNDWHVX
95	sumo wrestling	y[ma	y[ma (same pronunciation as "island")	y[ma
96	torch (for fishing)	NR	t ǎ[B	NR
97	1 \$			
98	smell; scent	ha[ʒa	ha[da 7 (smell) ha[da]sui	na[da
99	grave; tomb	p ǎ[ka	ˈa[ka	ha[ka
100	work in the field; farm work	[p ǎte ʔ y[]u]tu 7 p ǎ[te] B (farm) 7 p ǎ[M(field)	ˈa[M] y[]u]tu	[hate ʔ y[]u]tu 7 ha[te] B (farm) 7 ha[M
101	wheat straw	[mu i]n ǎ[ʌ] B	[mu] i n ǎ[ʌ] B	[mu i]n ǎ[ʌ] B
102	celebration	[ju ʃe[B	[ju ʃe[B	[ju ʃve[B
103	repose; rest	[ju]k ǎ[i	[ju] ʃn ǎ[i (verb) 7 ju[ʃni(Take a rest!)	--
104	marriage	[]u ʒ[][ke] B	[ja ʃa Qi	(wedding)[se ʃnu[M
105	(exchanging of) betrothal gift(s)	[se ʃnu[i 7 [so] ʃ	[k ʌ] Qimusu[bi (dead word) 7 [ju]i[no B	--
106	quarrel; fight	[ʃt] Qi[B	[ʃt] Qi[B 7 ʃt] Qu[i (verb)	[ʃt Qi
107	language; word	[ju]mi[ta 7 [pa]na[ʃ	[ju]mi[ta 7 [ʃ]maju[mi]ta (dialect)	[ju]mi[ta 7 [ʃma]ju[mi]ta
108	mutual aid	[jui	ju[i 7 [ji] ʃQ i] B	[ji Bi]da[ma] B
109	soul; spirit	[ju] ʃ M] B 7 ma BQa]mu[i 7 [ma]bu[i	[t ǎ]ma y[B(soul) 7 [ma]bu[i (spirit)	[ma]bu[M(soul, ghost) 7 [maQ a]mu[i (ghost)
110	strength	[Q ʃka[ʌ	Q [ʃa ʌ	[Qi]ka[ʌ] 7 t ǎ[ja
111	illness	ja[ma]i	[ja] i me[B	ja[ma]i
112	ax; hatchet	NR	]u[nu (big)	u] ʃhu
113	ax; hatchet	Q u[ma] B	du[n ǎ (small)	du[ma (big and small)
114	drill; awl	ʃ[M	ʃ[M	ʃ[M
115	net; mesh	sa[di	sa[di 7 sa[di] ʌ[mi] B	sa[di 7 ʌ[mi
116	oar; paddle	jo[B	jo[B	t ǎjo] B

*HQHUDO 6WXG\ IRU 5HVHDFK DQGFWRQV LQ DUW
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO , QVWLWXDWLRQ

	:RUG	B:DQ	B1DNDVDWR	B\$UDNL
95	sumo wrestling	y[ma	y[ma	y[ma
96	torch (for fishing)	--	, ZRXOG QRW DVN EHFDXVH WKLV ZRUG LV QRW XVHG VR PXFK	
97	1 \$			
98	smell; scent	ha[da	ha[da(both good or bad smell)	ha[da (both good and bad smell)
99	grave; tomb	[haka	[haka] ![me] B	t ǂ [ǂ]i y
100	work in the field; farm work	[ha M] y[]u]tu 7 ha[te] B (farm) 7 ha[M	[hate ǂ y[]u]tu 7 ha[te] B (farm) 7 ha[M(field)	ha[te] ǂa[] ǂ B 7 ha[te] B (farm)
101	wheat straw	[mu !]n ǂ [ǂ] B	[mu !]n ǂ [ǂ] B	mu[]i]wa[ǂ]
102	celebration	[ju ǂe[B	[jui]je[B	[ju ǂe[B 7u[ǂe[B
103	repose; rest	ju[ǂ (Take a rest!)	juk[k ǂ]i	[ja]su[mo ǂ(Let's take a rest)
104	marriage	--	NR	--
105	(exchanging of) betrothal gift(s)	--	[ye ǂmu[i	se ǂmu[M(archaic)
106	quarrel; fight	[y]t Qi[M	[y]t Qi[B	[y]t Qi[M
107	language; word	[ju]mi[ta 7 [yma]ju[mi]ta	jumita	[ju]mi[ta
108	mutual aid	[ji] ǂQ i] B	ju[i 7 [ji] ǂQ i] B	ji[B
109	soul; spirit	[ma]bu[M(soul, spirit) 7 [ma BQ]mu[! (ghost)	[ma]bu[i 7 [ma Bi]mu[!	ma ǂQ i]mu[! (ghost) 7 [ma]bu[M(spirit)
110	strength	[Qi]ka[ǂ7 [ta]ja	NR('taja' is not used)	t ǂ[ja (straining strength)
111	illness	ja[mi	ja[ma]i	ja[ma]i
112	ax; hatchet	--	--	--
113	ax; hatchet	du[ma] B	du[n ǂ]	B u[ma] B Q
114	drill; awl	k[M	k[M	k ǂ M
115	net; mesh	sa[di	sa[di	sa[di 7 ǂami (net)
116	oar; paddle	jo[B	jo[B	jo[B

	:RUG	B 2 Q R W V X	B 6 K L W R R N H	B 6 K L R P L F K L
117	boat; ship	ˈu[ni 7 [k ɛ] m[ma] B	[ˈu]n ɤ[kɑ B 7 ü[n ɤ(boat)	[p ɛ]ni !:[ka] B(speaker A)// [p ɛ]n ɤ(speaker B)
118	spear; lance	t ɛ[; ɛ 7 t ɛ[; ɛ] B 7 [ippunu] pole and line fishing)	[ɛp]pu[nu (single spear) 7 t ɛ[n ɛ (three spear)	t ɛ[n ɛ
119	basket	[p ɤa[; ɤ 7 ˈ ɤa[; ɤ (big basket), t ɛ ![; a] B(small basket)	[so] ɛw ɤ	k ɛ[]u 7 ma[]u (small)
120	basket (on a head)	[ba] ɛk ɛ	--	--
121	basket	[p ɤa[; ɤ 7 ˈ ɤa[; ɤ (big basket), [t ɤ M (small basket (rare))	[p ɛ M[; ɤ^) 7 [t ɛ ![; a] B (for fishing in cross- coupled)	pi[M] ji
122	sickle; scythe	[ha]ma	ha[ma	ha[ma
123	hoe	[k üɛ] B	[k üɛ] B 7 [k üɛ] B	[k ɛ] B
124	colander	ju[i 7 [ju]iso B ü 7 [ɛ ɛ m üso ɛ ˈ üɤ	--	p ɛ[M] (fine mesh)
125	colander	[sa] !ba[M] B	7 [sa] !ba[ɛ] B	ju[l (rough mesh)
126	colander	NR	--	[sa] !ba[M] B
127	spade; shovel	NR	ma[;a	--
128	plow	su[ɛ	su[ki	su[Qi
129	mat	mus[su (thin) 7 [ˈu]mu (thick)	[mu]s[su 7 [n ɤQ i[ki (thin, for bedclothes)	mu[y y (thin) 7 [ɛ ɛ]u[mu] ɛ(for husking)
130	spatula	NR	ˈ ɤa 7 p ɛ M	[p ɛ M
131	rope basket	[ɛ] ɛda] B	[ɛ] ɛda] B	[ɛ] ɛda] B
132	round head pad (carrying a load)	(not used)	--	--
133	iron pot; kettle	pa[]a]ma	[ha]]a]ma	[ɛbani !:[ka]ma] B

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-D&WQ
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO , QVWLWXQV&ILRUL&VS

	:RUG	B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
117	boat; ship	[p ɒni] i[ka] ɛ <small>(small boat)</small> 7 [p ɒ]n ɤ	[k ɒ]ibu[ni B 7iɸa]su[ki] B	[sa]ama ɸu[ni] B
118	spear; lance	t ɒ[n ɒ	t ɒ[; ɒ B	t ɒ[ja 7[ɪppo i]du[ja] B (single spear)
119	basket	so[ɸbi	k ɒ[]u 7 ma[]u ɛ <small>(portable in fishing)</small>	k ɒ[]u
120	basket (on a head)	[p ɒ ɪ[;i] B	NR	--
121	basket	[ti] M	y[na]i (agricultural) 7 ɒ[ɪɸi[M (for shopping)	[t ɒ M 7[t ɒ;a] i[ka] B
122	sickle; scythe	ha[ma	ha[ma	ha[ma
123	hoe	[k ɛ] B	[k ɛ B	k ɛ[B
124	colander	[ju]	[so] ɸbi 7 ju[M	so[ɸbi 7 [so ɸi] i[k ɒ] B (small) 7 ju[M <small>(rough mesh)</small>
125	colander	[sa i]ba[ɪ] B	[sa] i ba[ɪ] B	[sa] i ba[ɪ] ɛ <small>(winnowing basket)</small>
126	colander	NR	[it]tu[do] ɸbi[] ɸ	--
127	spade; shovel	NR	[ji] ɸa[i	--
128	plow	su[ki	su[Qi	su[Qi
129	mat	u[mu 7 [mu]s[su (straw mat)	--	u[mu 7 mus[su (thin)
130	spatula	[p ɒ ɪ	--	ɸi[ɪ
131	rope basket	[ɪ] ɸa] B	--	[ɪ] ɸa] ɛ <small>(to put fertilizer)</small> 7 muk[ku] ɛ <small>(to put grass)</small>
132	round head pad (carrying a load)	--	--	--
133	iron pot; kettle	p ɒ[]a]ma	--	ha[]a]ma

	:RUG	B:DQ	B1DNDVDWR	B\$UDNL
117	boat; ship	[ˈu]ni	[ˈun ɤ̃ :[ka] B	ku[ɲ]bu[ni
118	spear; lance	[t ʊ]nu[bo] B	t ʊ[n ǎ	t ʊ[n ǎ (big) 7 [k ʊ] ʔQ a] B (small)
119	basket	so[ʔi (big) 7 [so ʔi] :[ka] B (small)	so[ʔi 7 [t ʃ :[;a] B (creel for fish) 7 bu[t ʃ]u (narrow creel)	k ʊ[]o
120	basket (on a head)	çi[ʊ]i (back basket, used in cross-coupled)	çi[ʊ]i (basket of field tool dangled from a head)	--
121	basket	[t ʃ M	[t ʃ M (basket of field tool dangled from a head)	çi[ʊ]i 7 [t ʃ M
122	sickle; scythe	ha[ma	ha[ma	ha[ma
123	hoe	[k ʊ] B	[k ʊ] B	[k üe] B
124	colander	--	so[ʔi (for cleaning vegetables)	so[ʔi (colander for cleaning vegetables)
125	colander	--	ju[(used like sieve)	[sa :]ba[ʊ] B (without hole, for
126	colander	[sa :]ba[ʊ] B	[sa :]ba[ʊ] B (without hole, for winnowing chaff)	ju[ɲ] B
127	spade; shovel	--	ju[da]l (all spade, to plow with oxen)	ju[Q a] M (to plow with horses and oxen)
128	plow	--	su[ki (iron tip of plow)	su[ki
129	mat	]u[da 7 mus[sa	hu[mu 7 mus[su (use for sleeping)	ˈu[mu 7 mu[ssu (thin)
130	spatula	[he] ʊ (use for concrete- making)	NR (not used)	(not used)
131	rope basket	[ɔ] ʔda] B	[ɔ] ʔda] B	[ɔ] ʔda] B 7 mu[kku B (use for hand working)
132	round head pad (carrying a load)	--	--	--
133	iron pot; kettle	ha[]a]ma	ha[]a]ma	ha[^ a]ma (' ^' sounds nasalized.)

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-D&W
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO , QVWLWXQV&KIL&WL&D&S

	:RUG	B2QRWVX	B6KLWR RNH	B6KLRLFLKL
134	mallet	[la]zu[mu]	[la]Q u[mu]	la[Q u]mu
135	teapot	jak[k üæ˥ (kettle) 7 su[ša] B(teapot)	[Qu]ka B(teapot) 7[jakka	u[ka] Bȷa[kka] ˥
136	comb	[sa]ba[ki]	[sa]ba[ki]	[sa]ba[Qi 7k ʉ[y]
137	small sword	NR	[na]i[˥u	k ʈ[]a]ta[na
138	rice paddle	[ʈ(ü ʈ ʈ 7[m ʈ y[; e B	[m ʈ y] e[B ʈsa]ku[y (ladle) 7[yə]ku[y	[mi] y[]e] B ʈa[ku] y (ladle)
139	P R Q H \	[ha]ni (money) 7 [k ʈ]Q i[nu] B	[ha]ni	ha[ni 7[k ʈ]Q i[˥ (small change) 7 ha[bij]ha[ni] B(bill)
140	meal tray with legs; meal on a tray	[Q i]	i[nu Q	Q i[˥
141	firewood	[t ʈ] ˥[mu]	[t ʈ] ˥[mu]	[t ʈ ˥]mu
142	cane; walking stick; wand	[]u]sa[ni	[]u]sa[ni	]u[yə]ni
143	hand towel; washcloth	[nu]nu	sa[Q i	nu[nu
144	chopstick	[˥ ũa] y Š	[t ʈ]mu[tu	me ʈ y 7[p ʈ] y Š
145	dipper; ladle	n ʈou 7[sa]ku[y (ladle)	n ʈou	[ni]bu
146	string; cord; lace	NR	[Qu]Qubi ˥[ka] B	--
147	futon; bedding	ʈ[du	ʈ[du	ha[bbi]p ʈ[tu] ˥ (comforter) 7[yQi]p ʈ[tu] ˥ (mattress)
148	kitchen knife	[˥o] ʈQa] B	[ho] ʈQu] B <cf>[ho] ʈQa] B(whole	ha[ta]na
149	cutting board	[ma]na[Qa	[ma]na[Qa	--
150	water tub; water bucket	[t ʈ M 7[t ʈ] ˥[]u	[t ʈ] ˥[]u 7[t ʈ ˥]]u (use for salt production)	--
151	water jar	[m ʈu] a[m ʈ ʈ ˥a] ˥ [do] B	[t ʈ ʈ]]ami (for grains) 7 [p ʈ] ˥[du] B(dead word) 7 [m ʈQ u[wi] B	[t ʈ ʈ]]a[mi (big) 7 [p ʈ ˥du] ˥[ka 7 [p ʈ ˥du]ka[mi (small)
152	(wooden) bowl	ma ʈ	ma ʈ	ma[ʈ

	:RUG	B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
134	mallet	la[zu]mu	--	la[di]mu (long-mallet) 7 [jamatu] la[di]mu (wide-
135	teapot	su[k ə] B ʔjakka] ʔ (kettle)	--	[su] ʔka] B(teapot) 7 jak[ka] ʔ (kettle)
136	comb	[sa]ba[Q ɹ	--	[sa]ba[Qi
137	small sword	ha[ta]na	--	[k ə]jo]ta]na
138	rice paddle	[mi] y[;e] B ʔa[ku] y (ladle)	--	ʔbi] ʔ7 sa[ku] y (ladle)
139	P R Q H \	ha[n ɹ ʔku] Q i[ʔ (small change)	--	ha[ni 7 [k ə]Q i[ʔ (small change)
140	meal tray with legs; meal on a tray	Q i[ʔ 7 [Q i ʔ	--	Q i[ʔ
141	firewood	[ta ʔ]mu	--	[t ə ʔ]mu
142	cane; walking stick; wand	]u[sa]ni	--	]u[y] B
143	hand towel; washcloth	nu[nu 7 [t ʔnu[]u] B	(dead word) sa[Q i 7 (western towel) [da] ʔ[sa]Q i	k ʔ Q i 7 nu[nu
144	chopstick	[p ə] y	--	[ha] y 7 [t ʔmu[tu
145	dipper; ladle	[n ʔbu	--	[n ʔbu
146	string; cord; lace	--	--	--
147	futon; bedding	[ʔ]du 7 p ə[t ə] ʔ	--	[ʔ]du
148	kitchen knife	[p ə] ʔQo] B ʔa[ta]na	--	ʔa[ta]na
149	cutting board	[ma]na[Qa	--	[ma] ʔQa
150	water tub; water bucket	[ta ʔ]]u (tub in vault toilet)	--	--
151	water jar	--	--	--
152	(wooden) bowl	ma[ʔ	--	[ma] ʔM

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-DWQ
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO ,QVWLWXWRU\KILRULDS

	:RUG	B:DQ	B1DNDVDWR	B\$UDNL
134	mallet	la[du]mu	la[du]mu (long)	la[Q u]mu (long) 7 jama[tu]a[Q u]mu (wide)
135	teapot	su[k a] B(teapot) 7 jak[k a] i (iron kettle)	su[ka] B(teapot) 7 jak[ka] i (iron kettle)	su[ka] B(teapot) 7 ja[ka] i (iron kettle)
136	comb	[sa]ba[Qi	[sa]ba[Qi	[sa]ba[Qi
137	small sword	[k a]a[ta]na	ha[ta]na (collective for sword, kitchen knife	NR
138	rice paddle	[mi y] ;e[B sa[ku] y (ladle)	[mi y] ;e[B	mi[y]]e[B
139	P R Q H \	ha[ni 7 [k a]Q i i (small change)	Q i i i 7 ha[n ¥(also called)	ha[ni 7 [k a]Q i i i
140	meal tray with legs; meal on a tray	Q i i	i i Q	i i i Q
141	firewood	[t a i]mu	[t a i]mu	[t a i]mu 7 t a i]mu
142	cane; walking stick; wand	]u[sa]ni	]u[sa]n	¥u[sa]ni
143	hand towel; washcloth	k i i 7 nu[nu (woven cloth)	nu[nu	k a i i (a piece of cloth)
144	chopstick	[ha] y 7 [t i]mu[tu (archaic)	[t i]mu[t u	[ha] y 7 [t i]mu[tu (archaic)
145	dipper; ladle	[ni]bu	n ¥bu 7 sa[ku] y (ladle)	[ni]bu
146	string; cord; lace	hi[mu		--
147	futon; bedding	hu[tu] i 7 [u]du (archaic)	[u]du	u[to] i
148	kitchen knife	[ho] BQo] B	ha[ta]na	ha[ta]na
149	cutting board	[ma]na[Qa	[ma]na[Qa	[ma]na[Qa
150	water tub; water bucket	ba[ki]tu (bucket)	[t a i]]u (for vault toilet, wooden, thing to bring to bucket toilet)	NR
151	water jar	[ha]mi	[ha]mi	[ha]mi (for miso (bean paste), too)
152	(wooden) bowl	ma[B M	ma[B	ma[B M

	:RUG	B 2 Q R W V X	B 6 K L W R R N H	B 6 K L R P L F K L
153	the north	[n ɔ̃ y ʃ̥ (archaic)]	[n ɔ̃ y 7 n ɔ̃ y ka Q i (north wind)]	--
154	the west	NR	[ɬ] kibē [B	--
155	the east	k ʃ̥ [Qi (east wind) 7 [ɬ a] a] it ʃ̥ da (rising sun)	[k ʃ̥] Qi 7 hu [Qika Q i (east wind)]	--
156	the south	[ʔ e ɬ ɔ̃ y (south wind)]	ʔ ē [B ʔ ʔ ē] i ka [Q i (south wind)]	p ʃ̥ [B
157	outside	[su] ʃ̥	[ja] i mē [ʃ̥ (garden outside a house) 7 [su] tu	su [tu (speaker A) // su [ʃ̥ (speaker B)]
158	(the) right (side)	n ɔ̃ n ɔ̃ B	[mi] ji	mi [ji 7 mi [ji] ʃ̥ (speaker A) // [mi] ji (speaker B)
158	W K H O H I V p i Q a ʃ̥ H	[çi] da [i	p ʃ̥ da [i	
159	dawn	[ɬ a] ɬ u [ki	[ɬ a] ɬ u [ki	[ɬ a] ka i [ma (speaker A) // [ɬ a] u [Qi (speaker B)]
160	morning	[ɬ a] sak [k a] ma 7 [k a] i [ma	ɬ [sa] kkama	[k a] i [ma (speaker A, B)]
161	daytime; noon	[ma] Bi ʔ M	[çi] i [ma 7 ma [çi i] ma (A) / / ma [y i] ma (B)]	p ʃ̥ M (speaker A, B)
162	now	n ʃ̥ [ma	n ʃ̥ [ma	[n ʃ̥] ma (speaker A, B)
163	early summer (in Okinawa)	NR	NR	NR (speaker A, B)
164	(spare) time	ma [du	ma [du	[ma] du (archaic) (speaker A) // çi [ma (new) 7 ma [du (archaic) (speaker B)]
165	evening	[jo] ʃ̥ e Ba [ta	--	(dusk) [jo] ʃ̥ ne [ʃ̥ (speaker A, B) 7 (night) ju [ʃ̥ M (speaker A, B)]
166	(the middle of the) night	[ju] na [B	[ju] na [B ʔ u [na] B 7 [jo] ʃ̥ ne [ʃ̥ (night)]	[ju] na [ʃ̥ (speaker A) // ju [na] ʃ̥ (speaker B)]
167	the year before last	[mi] Quna [ti] B	[mi] Quna [ti] B	[su] ji t ʃ̥ [y (speaker A) // [mi] Qu [na] ti (speaker B)]
168	last year	hu [Q u	hu [Q u	hu [du (speaker A) // ʔ u [du (speaker B)]

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-DWQ
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO ,QVWLWXWLRQ

	:RUG	B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
153	the north	n ɸ y	[n ɸ y (also "north wind")	n ɸ y
154	the west	NR	(wind) [ɸt] Qin ɸ y	ɸ ɸ M B
155	the east	la[ja] M	(wind) ʔu[Qi	la ɸ M B
156	the south	[pe] B	[ʔe] B	[he] B
157	outside	su[tu	--	su[tu
158	(the) right (side)	[mi] ;i	--	[mi]]i
158	WKH OHIV ɸ ɸ B H	--	--	çi[da] M
159	dawn	[la ɸa] i[ma	--	[la ɸu[Qi
160	morning	NR	--	[k ɸ] i[ma (till about 10 a.m.)
161	daytime; noon	[k ɸ] i[ma (till noon) 7 p ɸ M (noon)	--	[ma]çi i[ma (noon)
162	now	[n ɸ]ma	--	[na]ma
163	early summer (in Okinawa)	--	--	NR
164	(spare) time	ma[du 7 p ɸma	--	ma[du
165	evening	[p ɸ i[ma] B 7jo] ɸhe] B	--	[jo ɸe ɸla[ta] B 7 [la ɸ] ɸhe] B
166	(the middle of the) night	ju[M(night)	--	[ju]na[ka 7 (night) ju[M u(night)
167	the year before last	[mi] Qu[na]t ɸ	--	[mi]su[na]ti
168	last year	ʔu[zu 7 [Q u	--	ʔu[du

	:RUG	B:DQ	B1DNDVDWR	B\$UDNL
153	the north	[n ɔ̃]ka[di (north wind)	NR	n ɔ̃ y (use only in "wind")
154	the west	--	NR	--
155	the east	--	ko[Qi (also "east wind")	[he] B(?)
156	the south	[he ɪ]ka[di] B(south wind)	[h ɪ] B	--
157	outside	su[tu	su[tu	--
158	(the) right (side)	[mi] ʃi	[mi] ʃi	--
158	W K H O H I V i[da] M G H	çi[da]i	--	
159	dawn	[ɫ ɸu[Qi	[ɫ ɸu[Qi	--
160	morning	[k ʌ]ma (-11 a.m.)	[mi ɪ] ɪ[ma(till about 7-8 a.m.)	[k ʌ]ma (all the morning)
161	daytime; noon	[ma]çi ɪ[ma (just 12-1 p.m.)	[k ʌ] ɪ[ma (about 3-4, 5 p.m. early morning)	[k ʌ] ɪ[ma (early morning) 7 ç i[ru (noon)
162	now	[n ɔ̃]ma	[n ɔ̃]ma	[n ɔ̃]ma
163	early summer (in Okinawa)	--	--	--
164	(spare) time	ma[du 7 hi[ma (new)	ma[du (temporal and spatial interval)	--
165	evening	[jo ɓe ɓu[Qi 7 [jo ɓe ɓ; a[ta] B	[jo] ɓhe] B ʃu ɪ]ku[M B	--
166	(the middle of the) night	[ju]na[B ʃu[M(night)	[ju]na[B ʃu[M(night) <cf>[çi] ɪ[ma] B(daytime)	--
167	the year before last	[mi] Qu[na]ti	[mi] Qu[na]ti	--
168	last year	hu[du	u[du	u[zu

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-DWU
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO ,QVWLWXWLRQ

	:RUG	B2QRWVX	B6KLWR RNH	B6KLRLFLKL
169	this year	[hu]ta[bi	[hu]ta[bi	ˈu[ta]bi (this year, next time)(speaker A)//[k ɤ]tu[y i(speaker B)
170	this year	[ko ˈdo (next time)	[k ɤ] ˈ[do(A)//[k ɤ] ˈ[du(B)	[k ɤ] ˈdu (this year, next time)(speaker A)//[k ɤ ˈ]du(speaker B)
171	the year after next	[na] ɸni[Qu	[ja ˈ]Qu	[ja] ˈQo(speaker A)// [ja ˈ]Qu(speaker B)
172	next year	ja[ni	a[ni	[a]ni(speaker A, B)
174	tomorrow	la[Qa	la[Qa	la[Qa(speaker A, B)
173-1	the day after tomorrow	[la]sa[ti	[la]sa[ti	la[sa]ti(speaker A, B)
173-2	WKUHH GD\ V IURP QRZ	--	[jo]	B ɸn ɔ̃[ti] ɸspeaker B) Q
177-1	the next day	--	NR	NR(speaker A)//[na] ɸQ a(speaker B)
177-2	WZR GD\ V	θDWHU	NR	mik[ka(speaker B)
176	today	[k ɔ̃] B	k ɤɸB	[yu] ɸspeaker A, B)
175	\HVWHUGD	k ɸn ɔ̃] B	ki[n ɔ̃] B	Q ɸn ɔ̃] ɸspeaker A)// Qi[n ɔ̃] ɸspeaker B)
175	the day before yesterday	ɸt[t ɸ] B	[wu]t[ti] B	wut[t ɸ] ɸspeaker A)//[wu]t[ti] ɸspeaker B)
178	RQH WKLO-J		[t ɸ]Qu	[t ɸ]tu
180	WZR WKLO-JV		[t aɸQu	[t aɸtu
181	WKUHH WKLO-JV		[mi ɸQu	[mi ɸtu
182	IRXU WKLO-JV		[ju ɸQu	[ju ɸtu
183	ILYH WKLO-JV		[ɸ]Qu[Qu	[ɸ]tu
184	VL[WKLO-JV		[mu ɸQu	[mu ɸtu
185	VHYHQ WKLO-JV		[nana]Qu	[na]na[tu
186	HLJKW WKLO-JV		[ja ɸQu	[ja] ɸtu
187	QLQH WKLO-JV		[k ɔ̃] ɸhu]Qu ([ku]ku[nu] Q	[k ɔ̃] ɸhu]tu
179	WHQ WKLO-JV		[t ɔ̃] B	tu[B
188	RQH SHUVRQ		[Q ɤ]i	[Q ɤ]i
189	WZR SHRSO	θH	[t a]i	[t a]i
190	WKUHH SHRSO		mi[Qa]i	[mi] Qa[i

%DVLF 9RFDEXODU\

	:RUG	B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
169	this year	NR	--	k 8[ta]bi (this time)
170	this year	[ku i]du	--	[k 8 i]du
171	the year after next	[ja] iQu	--	[ja i]Qu
172	next year	[ja]ni	--	[ja]i
174	tomorrow	a[Qa	--	la[Qa
173-1	the day after tomorrow	la[sa]t i	--	la[sa]ti
173-2	WKUHH GD\ V IURP QRZ	jo[B	--	--
177-1	the next day	[na] BQa	--	[na] BQa
177-2	WZR GD\ V	ΘDWHU	--	--
176	today	[su] B	--	[su] B
175	\HVWHUGD\	ki[;u] B	--	Qi[ju] B
175	the day before yesterday	[i]u]t[t 8 B	--	bt[ti] B
178	RQH WKLO	tu i] Qu	--	[t i]tu
180	WZR WKLO	tu a] BQu	--	[t a] Bu
181	WKUHH WKL	mi] BQu	--	[mi] Bu
182	IRXU WKLO	ju] BQu	--	[ju] Bu
183	ILYH WKLO	ji] Qu[Qu	--	[i]tu[tu
184	VL[WKLO	mu] BQu	--	[mu] Bu
185	VHYHQ WKLO	na] BQu	--	[na]na[tu
186	HLJKW WKLO	ja] BQu	--	[ja] Bu
187	QLQH WKLO	ku] Bhu] Qu	--	[k 8] Bu]tu
179	WHQ WKLO	ku] B	--	t 8[B
188	RQH SHUV	Qi	--	[Q 8] M
189	WZR SHRS	ti	--	t a[M
190	WKUHH SHRS	mi] Bti	--	[mi] Qa[M

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&WRQLU-DSW
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO ,QVWLWXWRU\KILRWLDS

	:RUG	B:DQ	B1DNDVDWR	B\$UDNL
169	this year	--	--	--
170	this year	[k ɤ !]du	[k ɤ !]du	--
171	the year after next	[ja !]Qu	[ja !]Qu	[ja]ni[ja !]Qu
172	next year	[ja]ni	[ja]ni	[ja]ni
174	tomorrow	la[Qa	la[Qa	--
173-1	the day after tomorrow	la[sa]t ɪ	la[sa]ti	--
173-2	WKUHH GD\ V IURP QRZ	jo[B	jo[B	--
177-1	the next day	[na] BQa	[na] BQa	--
177-2	WZR GD\ V	θ DWHU	[mi Qa] B y] B	--
176	today	[su] B	[su] B	--
175	\HVWHUGD	Q i[n ɔ]	B i[n ɔ] B Q	--
175	the day before yesterday	wut[t ɪ]	But[t ɪ] B	-- b
178	RQH WKLO	tu i]tu	[t i]tu	[t i] Qu
180	WZR WKLO	tu a] Bu	[t a] B ɤ	[t a] BQu
181	WKUHH WKL	mi B	[mi] B ɤ	[mi] BQu
182	IRXU WKLO	ju B	[ju] B ɤ	[ju] BQu
183	ILYH WKLO	tu B	[tu] B ɤ	[tu] BQu
184	VL[WKLO	mu B	[mu] B ɤ	[mu] BQu
185	VHYHQ WKLO	na B	[na] B ɤ	[na] BQu
186	HLJKW WKLO	ja B	[ja] B ɤ	[ja] BQu
187	QLQH WKLO	ku B	[ku] B ɤ	[ku] BQu
179	WHQ WKLO	tu B	[tu] B ɤ	[tu] BQu
188	RQH SHUV	[Q ɤ] M same form as "five RQ (people)"	[Qu]i	[Qu] M
189	WZR SHRS	tu M	[tu]i	[tu] M
190	WKUHH SHRS	mi M	[mi] Qa[i]	[mi] Qa[M

	:RUG	B 2 Q R W V X	B 6 K L W R R N H	B 6 K L R P L F K L
191-1	IR X U S H R S-O H		ju[ta]i	[ju]ta[i]
191-2	five (people)	--	[i] Qu[ta]i	[]u]n ði
191-3	six (people)	--	mu[ta]i	--
191-4	seven (people)	--	[na]na[ta]i	--
191-5	eight (people)	--	ja[ta]i	--
191-6	nine (people)	--	[k ð] ða]i	--
191-7	ten (people)	--	--	--
192	one (when counting)	--	[hi] B	NR
193	two (when counting)	--	["u] B	NR
194	three (when counting)	--	[mi] B	NR
195	four (when counting)	--	[ju] B	NR
196	five (when counting)	--	[ð] B	NR
197	six (when counting)	--	[mu] B	NR
198	seven (when counting)	--	[na]na	NR
199	eight (when counting)	--	[ja] B	NR
200	nine (when counting)	--	[k ð]nu	NR
201	1 \$			
202	there (distal)	--	--	[ða]ma
203	that (distal pronoun)	--	--	ð[M
204	here	--	--	["u]ma
205	this (pronoun)	--	--	"u[M
206	there (medial)	--	--	[ða]ma
207	that (medial pronoun)	--	--	ð[M
208	you	--	--	[na] ðni

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-DWQ
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO ,QVWLWXWLRQ

	:RUG	B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
191-1	IRXU SHR	[tʰa]	--	[ja]ta[M
191-2	five (people)	[i] Qu[t a]i	--	[ʰtu]ta[M
191-3	six (people)	[mu]t a[i]	--	[mu]ta[M
191-4	seven (people)	[na]na[t a]i	--	[na]na[ta] M
191-5	eight (people)	[ja]t a[i]	--	[ja]ta[M
191-6	nine (people)	[ku]nu[t a]i	--	[k a] ![ta] M
191-7	ten (people)	--	--	[t a]ta[M
192	one (when counting)	[t ʰ B	--	[çi] B
193	two (when counting)	ta[B	--	[ʰu] B
194	three (when counting)	[mi] B	--	[mi] B
195	four (when counting)	[ju] B	--	[jo] B
196	five (when counting)	[i] B	--	NR
197	six (when counting)	mu[B	--	--
198	seven (when counting)	[na]na	--	--
199	eight (when counting)	ja[B	--	--
200	nine (when counting)	[ku] B	--	--
201	1 \$			
202	there (distal)	--	--	[la]ma
203	that (distal pronoun)	--	--	la[M
204	here	--	--	[hu]ma
205	this (pronoun)	--	--	ʰ[M
206	there (medial)	--	--	[ʰ]ma
207	that (medial pronoun)	--	--	ʰ[M
208	you	--	--	[na] ʰmi (superior)

	:RUG	B:DQ	B1DNDVDWR	B\$UDNL
191-1	IRXU SHR	siota[M	[ju]t ə[i	[ju]ta[M
191-2	five (people)	[Q ə] M same form as "one (person)"	[ɒ]tu[t ə]i	]o[n ɒ]
191-3	six (people)	--	[mu]t ə[i	--
191-4	seven (people)	--	[na]na[t ə]i	--
191-5	eight (people)	--	[ja]ta[i	--
191-6	nine (people)	--	[ku]nu[t ə]i	--
191-7	ten (people)	--	[t ɒ]t ə[i	--
192	one (when counting)	--	--	--
193	two (when counting)	--	--	--
194	three (when counting)	--	--	--
195	four (when counting)	--	--	--
196	five (when counting)	--	--	--
197	six (when counting)	--	--	--
198	seven (when counting)	--	--	--
199	eight (when counting)	--	--	--
200	nine (when counting)	--	--	--
201	1 \$			
202	there (distal)	--	[ɫə]ma	--
203	that (distal pronoun)	--	[ɫə] M	--
204	here	--	[ɫə]ma	--
205	this (pronoun)	--	ɫ[M	--
206	there (medial)	--	[ɫə]ma	--
207	that (medial pronoun)	--	ɫ[M	--
208	you	--	[na] ɸni	[na] ɸni

*HQHUDO 6WXG\ IRU 5HVHDFK DQGFRQVHUYDWLRQ
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO ,QVWLWXWRUHV

	:RUG	B2QRWVX	B6KLWRRNH	B6KLRLPLFKL
209	you (thou)	--	--	bu b
210	you (plural; inclusive/exclusi ve)	--	--	[na BQa
211	you (plural; inclusive/exclusi ve)	--	--	[bu M:[na] B
212	I; me	--	--	[wa] i
213	we; us	--	--	[wa] i[na] B
214	we; us (inclusive)	--	--	[wa BQa
215	how many	--	--	[b]k u[t u
216	how much	--	--	[sa] i[sa
217	when	--	--	tu
218	who	--	--	t a M
219	how	--	--	ya y y
220	where	--	--	iQ a
221	which	--	--	[di] M
222	why	--	--	[nu F;a
223	what	--	--	[nu] B
224	light;	--	--	la Ba[tuji (it is lighting.)
225	lightning	--	--	[u]di[B
226	thunder	--	--	[ha] i'm a B
227	tide	--	--	bu yu] ja
228	earthquake	--	--	Q i[y i(new)
229	sky	--	--	[t k:]to[B
230	the sun	--	--	[t dda
231	whirlwind; tornado	--	--	b Bu Baarchaic) 7 [ta]tuma[ki(new)
232	earth; the ground	--	--	mi[Qa
233	rainbow	--	--	n BQ i
234	fire	--	--	bu[ma]tu
235	smoke	--	--	[ci]bu[y

	:RUG	B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
209	you (thou)	--	--	[da (inferior)
210	you (plural; inclusive/exclusi ve)	--	--	[na BQ] B
211	you (plural; inclusive/exclusi ve)	--	--	[da] ![na] B
212	I; me	--	--	[wa] !
213	we; us	--	--	[wa] ![na] B
214	we; us (inclusive)	--	--	wa[Qa] B 7ib'n ā (everyone)
215	how many	--	--	l[k ŋ]tu
216	how much	--	--	[sa !]sa
217	when	--	--	i[t ŋ
218	who	--	--	t ā[M
219	how	--	--	[sa ʔhe[!
220	where	--	--	[Q a] B
221	which	--	--	[di] M
222	why	--	--	[nu] B
223	what	--	--	nu B
224	light;	--	--	[lā] ʔ M
225	lightning	--	udi (=ink brush)	[çi]du[M
226	thunder	--	[k ā]mina[i	ha !m ā] ʔ M
227	tide	--	su[	Bu[su
228	earthquake	--	--	NR
229	sky	--	[t ā] !t ŋ[B	[t k'!]to[B
230	the sun	--	[t ā]da	[t ā]da
231	whirlwind; tornado	--	[lā] ʔnu] !	NR
232	earth; the ground	--	mi[Qa 7 du[M (mud) 7 k ŋ[Qa (blue clods of dirt)	t ŋ[Qi (soil on the surface) 7 mi[Qa 7 k ŋ[Qa (clayish soil)
233	rainbow	--	--	n ʔQ i
234	fire	--	l[ma]tu Š	l[ma]tu
235	smoke	--	çi[bu] y	[çi]bu[y

*HQHUDO 6WVG\ IRU 5HVHDFK DQGF&RQVU-DW
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO , QVWLWXQJ KLWLFDS

	:RUG	B:DQ	B1DNDVDWR	B\$UDNL
209	you (thou)	--	[da	[da
210	you (plural; inclusive/exclusi ve)	--	na[BQa	na[BQa
211	you (plural; inclusive/exclusi ve)	--	[da] i[na] B	[da BQa
212	I; me	--	[wa] i	[wa] i
213	we; us	--	[wa] i[na] B	wat[ta] B
214	we; us (inclusive)	--	wa[BQa	wa[BQa
215	how many	--	[sa i]sa 7 ([lɪk t ʊ (is not dialectal form))	[lɪkuQu 7 [sa i]sa
216	how much	--	[sa i]sa	--
217	when	--	lɪtu	lɪ Qu
218	who	--	ta[M	t a[M
219	how	--	sa[y i]	--
220	where	--	[Q a] B	[Q a B
221	which	--	[di] M	[di] M7 [di i] ;a (-ga [subjective])
222	why	--	[nu] ;a	--
223	what	--	[nu] B	--
224	light;	--	[lə]ka[i]	--
225	lightning	--	[lɪna]bi[k a]i	[çi]du[M
226	thunder	--	[k a]mi]na[i]	--
227	tide	--	lɪsu	--
228	earthquake	--	NR	--
229	sky	--	[t ʃi]to[B	--
230	the sun	--	[t ʃda	--
231	whirlwind; tornado	--	no[B	--
232	earth; the ground	--	mi[Qa	--
233	rainbow	--	[Qi M]i M] o] B	[n ɪ Q i
234	fire	--	--	--
235	smoke	--	--	--

	: RUG	B 2 Q R W V X	B 6 K L W R R N H	B 6 K L R P L F K L
236	shoal; shallows; ford	--	--	[ɬa]sa[ɣ
237	path between rice paddies	--	--	[ɬa']da[ni ɛ
238	Z D W H U Z H O O	--	--	[ha']ba[ta] ɛ(water well) 7 ɬQ u[mi (fountain)
239	hill	--	--	mu[i 7 Ůja[ma
240	cliff	--	--	[ɣa]ki(new)
241	slope	--	--	[p 8 ɬ7 p 8 ɬ
242	coral reef	--	--	]a[ki
243	grassland; meadow	--	--	ssat[ta]n ɔ̃
244	top; peak	--	--	wi[B 7 ɬ B
245	cave	--	--	]a[ma
246	yard; garden	--	--	[ja] '[me] ɛ(space in front of the house) 7 [çi ɬu ɣ ɣa] ɛ(when such of trees are planted in the
247	shoal; shallows; ford	--	--	[ɬa]sa[sa
248	field (not cultivated)	--	--	[çi] ɬp[pa(new?)
249	pillar; post; column	--	--	[p 8]ja 7 p 8[ɣ] ɬ(new?)

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQV&U-DWQ
5HVHDFK 5HSRUW RQ WKH .L
\$XJXVW 1DWLRQDO , QVWLWXQV&ILRUL&D

	:RUG	B6DNDPLQH	B\$GHQ	B.DPLNDWHWVX
236	shoal; shallows; ford	--	[la]sa[y	[asasa] B M B
237	path between rice paddies	--	la[bu y	la[bu] y (border between rice paddies)
238	Z D W H U Z H O O		ha[B(water well) 7 ["u] ! [Q i (fountain)	ha[B(fountain)
239	hill	--	mu[i	mu[M
240	cliff	--	[Q i] y[ba] M(cliff) 7 ["a !ta (top of the cliff)	[ha] ! [ta
241	slope	--	"i[M7 sa[ka	sa[ka (normal slope) 7 hi[M(slope of the higher mountain)
242	coral reef	--	[y M"e B i[y] B(corallite) 7 ba[M i[y (dead shape of coral branch)	--
243	grassland; meadow	--	--	[la M Q i[B
244	top; peak	--	t u[Q i (roof) 7 "a[na] B(top)	--
245	cave	--	]o[B 7 d[na 7]a[ma (where it is falling)	[b y !]]a[ma] B(stone cave?)
246	yard; garden	--	[ja] ! [me] B	[ja] ! [me] B
247	shoal; shallows; ford	--	su[ni (fishing place)	--
248	field (not cultivated)	--	"a[te] B(cultivation) 7 "a[M (field)	ha[M(cultivation)
249	pillar; post; column	--	["a]ja	ha[y] M

	:RUG	B:DQ	B1DNDVDWR	B\$UDNL
236	shoal; shallows; ford	--	--	--
237	path between rice paddies	--	ba[bu] y (at the corner of border between fields, also called highest part of something)	--
238	Z D W H U Z H O O		[ɬ] Q i[mi (fountain) 7 ha[B (water well)	--
239	hill	--	mu[i	--
240	cliff	--	--	--
241	slope	--	hi[ɬ (top of the mountain)	--
242	coral reef	--	--	--
243	grassland; meadow	--	--	--
244	top; peak	--	--	--
245	cave	--	]a[ma	--
246	yard; garden	--	--	--
247	shoal; shallows; ford	--	--	--
248	field (not cultivated)	--	--	--
249	pillar; post; column	--	--	--

Accent Data

In the following, accent data of the Kikaijima dialects are presented. Rising pitch was indicated with ‘[’ and falling pitch with ‘]’ in the *Basic Vocabulary Data* section, but in this section the following symbols are used, in the interest of legibility:

Morae pronounced with high pitch: ● Particle morae pronounced with high pitch: ▲
 Morae pronounced with low pitch: ○ Particle morae pronounced with low pitch: △
 Morae pronounced with medium pitch: ◎

Forms like the following are observed for the particles:

-ga (-NOMINATIVE) = -*ŋa* or -*nu* (behave identically with respect to accent)
 -kara (-ABLATIVE) = -*kara* (two morae)
 -made (-TERMINATIVE) = -*gadi* or -*madi* (behave identically with respect to accent)
 -ni (-DATIVE/LOCATIVE) = -*kai* (two morae) or -*ni* (one mora)
 -mo (-too) = -*mu*

‘.’ in the English column indicate an utterance-final form, while ‘...’ indicates a non-final form. In cases where multiple accent patterns were given, these are separated with ‘/’. The researchers responsible for each of the research sites were as follows:

Site	Group	Researchers
Onotsu	Accent A	H. Kubozono, Giriko, Pellard, Hirako, Takemura
	Accent B	Matsumori, Nitta, Kang, Takayama
Shitooke	Accent A	H. Kubozono, Matsumori, Giriko, Takemura, Kang
	Accent B	Nitta, Uwano, Hirako, Takayama
Shiomichi	Accent A	H. Kubozono, Giriko, Takemura, Kang
	Accent B	Nitta, Uwano, Hirako, Takayama
Aden	Accent A	H. Kubozono, Matsumori, Giriko, Pellard, Takemura
	Accent B	Uwano, Nitta, Kang, Takayama
Kamikatetsu	Accent A	H. Kubozono, Giriko, Takemura, Kang
	Accent B	Nitta, Kibe, Takayama, Hirako
Gusuku	Accent	Nitta, Shigeno
Sakamine	Accent A	H. Kubozono, Mitsui, Takemura, Shirata
	Accent B	Kibe, Takayama, Hirako, Sato
Wan	Accent A	H. Kubozono, Giriko, Takemura, Kang
	Accent B	Kibe, Nitta, Hirako, Takayama
Nakasato	Accent A	H. Kubozono, Giriko, Takemura, Kang
	Accent B	Kibe, Takayama, Hirako, Nitta
Araki	Accent A	Matsumori, Giriko, Takemura
	Accent B	Kibe, Takayama, Toyama, Sato

	6WDQG DUG	-DQQRVX\$	2QRWVX%	6KLWRRNH\$	6KLWR			
\$	FDYH >JDPD@	ÖÑ	ÖÑ	A÷	ÖÑ	E•Ef	A÷	
	FDYH 120,1\$7,9(<	ÑÖ¹	ÑÖ¹	A÷	ÖÖÖ	EfE•Ef	A÷	
	FDYH \$%/\$7,9(<	ÖÑ¹¹	ÖÑ¹¹	A÷	A÷	EfE•EfEf	A÷	
	FDYH 7(50,1\$7,9(<	ÖÑ¹¹	ÖÑ¹¹	A÷	A÷	EfE•EfEf	A÷	
	FDYH '\$7,9(/2&\$7,9(<	ÖÑ¹¹	ÖÑ¹¹	A÷	A÷	EfE•EfEf	A÷	
	FDYH \$%/\$7,9(WRR	ÖÑ¹¹¹	ÖÑ¹¹¹	A	÷	EfE•EfEfEf>Ü	÷ A÷	
	FDYH 7(50,1\$7,9(<	ÖÑ¹¹	A÷	A÷	A÷	EfE•EfEfEf	A÷	
	FDYH '\$7,9(/2&\$7,9(WRR	ÖÑ¹¹	A	÷	A	EfE•EgEgEg>Ü	A A÷ ÷	
	FDYH '\$7,9(/2&\$7,9(<	ÖÑ¹¹	A÷	A÷	A÷	EfE•EfEf	A÷	
	FDYH '\$7,9(/2&\$7,9(WRR	ÖÑ¹¹	A÷	A÷	A÷	EfE•EfEfEf	A÷	
FDYH \$&&86\$7,9A <	A <	÷	A	÷	A	÷	A	
%<	PRXQWDLQ >MDP	ÖÖ	ÑÖ	A÷	ÑÖ	A	÷	A
	PRXQWDLQ 120,1\$7,9(<	E•Ef	EfE•Ef	A÷	EfE•Ef	A÷	A÷	
	PRXQWDLQ \$%/\$7,9(<	ÖÑ¹	ÖÑ¹	A÷	ÖÖ¹	A	÷	A
	PRXQWDLQ 7(50,1\$7,9(<	ÖÑ¹	ÖÑ¹	A÷	ÖÖ¹	A	÷	A
	PRXQWDLQ '\$7,9(/2&\$7,9(<	ÖÑ	ÖÑ¹	A÷	ÖÑ,,	A	÷	A
	PRXQWDLQ \$%/\$7,9(WRR	ÖÑ¹,¹	A	÷	A ÖÖ¹,,	÷ A	÷	A
	PRXQWDLQ 7(50,1\$7,9(WRR	ÖÑ¹,¹	A	÷	A ÖÖ¹,,	÷ A	÷	A
	PRXQWDLQ '\$7,9(/2&\$7,9(WRR	ÖÑ¹	ÖÑ¹,,	A÷	ÖÑ,,	A	÷	A
	PRXQWDLQ '\$7,9(/2&\$7,9(WRR	E•Ef	ÖÑ¹	A÷	ÖÑ	A	÷	A
	PRXQWDLQ '\$7,9(/2&\$7,9(WRR	ÖÑ¹	ÖÑ¹,,	A÷	ÖÑ,¹	A	÷	A
PRXQWDLQ \$&&86\$7,9(<	A÷	ÑÖ	A÷	ÑÖ	A	÷	A	
&	VHD >bXPL@	ÖÖ	ÑÖ	A÷	ÖÑ	EfE•	A÷	
	VHD 120,1\$7,9(<	EfE•Ef	EfE•Ef	A÷	ÖÖ	EfE•Ef>Ü	A÷	
	VHD \$%/\$7,9(<	ÖÑ¹	ÖÑ¹	A÷	ÖÖ,,	EfE•EgEg>Ü	A÷	
	VHD 7(50,1\$7,9(<	ÖÑ¹	ÖÑ¹	A÷	ÖÖ,,	EfE•EfEf>Ü	A÷	
	VHD '\$7,9(/2&\$7,9(<	ÖÑ	ÖÑ¹	A÷	ÖÖ,,	EfE•EgEg	A÷	
	VHD \$%/\$7,9(WRR	ÖÑ¹,¹	A	÷	A ÖÖ,,,	÷ EfE•EfEfEf>Ü	A÷	
	VHD 7(50,1\$7,9(WRR	ÖÑ¹,¹	A	÷	A ÖÖ,,,	÷ EfE•EfEfEf	A÷	
	VHD '\$7,9(/2&\$7,9(<	ÖÑ¹	ÖÑ¹,,	A÷	ÖÖ,,	EfE•EgEg	A÷	
	VHD '\$7,9(/2&\$7,9(WRR	E•Ef	ÖÑ¹	A÷	ÖÖ¹¹	EfE•EfEf	A÷	
	VHD '\$7,9(/2&\$7,9(WRR	ÖÑ¹	A	÷	A ÖÖ¹¹	÷ A	÷	A
VHD \$&&86\$7,9(A÷	A÷	ÑÖ	A÷	ÖÖ	A	÷	A	
	ERDW VKLS >KXQ	ÖÖ-XQL@	ÑÖ	A÷	ÑÖ	A	÷	A
	ERDW 120,1\$7,9(<	EfE•Ef	EfE•Ef	A÷	EfE•Ef	A÷	A÷	
	ERDW \$%/\$7,9(<	ÖÑ¹	ÖÑ¹	A÷	ÖÖ¹	A	÷	A
	ERDW 7(50,1\$7,9(<	ÖÑ¹	ÖÑ¹	A÷	ÖÖ¹	A	÷	A
	ERDW '\$7,9(/2&\$7,9(<	ÖÑ	ÖÑ¹	A÷	ÖÑ,,	A	÷	A
	ERDW \$%/\$7,9(WRR	ÖÑ¹,¹	A	÷	A ÖÖ¹,,	÷ A	÷	A
	ERDW 7(50,1\$7,9(WRR	ÖÑ¹,¹	A	÷	A ÖÖ¹,,	÷ A	÷	A

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQVL&U&Y&S&W&R&L
5HVHDFK 5HSRUW RQ WKH .LND
\$XJXVW 1DWLRQDO ,QVWLWX&X&K&L&R&W&L&D&S&D&C

	6WDQGDU	6DNDQ	HQH \$	6DNDQ	PLQ \$ % \$	GHQ \$ %	DPLNDW	DVNDW	DVNDW	PLNDW	WHVX %
	FDYH >JDPD@	A	E	A	E	E	E	f	E	E	E
	FDYH 120,1\$7,9(<	A÷	A÷	EfE•Ef	EfE•Ef	A÷	A÷	EfE•Ef	EfE•Ef	EfE•Ef	E
	FDYH \$%/\$7,9(<	A÷	A÷	EfE•EfEg	EfE•EfEf	A÷	A÷	EfE•EfEf	EfE•EfEf	EfE•EfEf	E
	FDYH 7(50,1\$7,9(<	A÷	A÷	EfE•EfEf	EfE•EfEf	A÷	A÷	EfE•EfEf	EfE•EfEf	EfE•EfEf	E
	FDYH '\$7,9(/2&\$7,9(<	A÷	A÷	EfE•EfEf	EfE•EfEf	A÷	A÷	EfE•EfEf	EfE•EfEf	EfE•EfEf	E
	FDYH \$%/\$7,9(WRR<	A÷	A÷	EfE•EfEfEf	EfE•EfEfEf	A÷	A÷	EfE•EfEfEf	EfE•EfEfEf	EfE•EfEfEf	E
\$	FDYH 7(50,1\$7,9(<	A÷	A÷	EfE•EfEfEf	EfE•EfEfEf	A÷	A÷	EfE•EfEfEf	EfE•EfEfEf	EfE•EfEfEf	E
	FDYH '\$7,9(/2&\$7,9(WRR	A÷	A÷	EfE•EfEfEf	EfE•EfEfEf	A÷	A÷	EfE•EfEfEf	EfE•EfEfEf	EfE•EfEfEf	E
	FDYH '\$7,9(/2&\$7,9(WRR	A÷9(	A÷	EfE•EfEg	EfE•EfEg	A÷	A÷	EfE•EfEg	EfE•EfEg	EfE•EfEg	E
	FDYH '\$7,9(/2&\$7,9(WRR	A÷	A÷	EfE•EfEfEg	EfE•EfEfEg	A÷	A÷	EfE•EfEfEg	EfE•EfEfEg	EfE•EfEfEg	E
	FDYH \$&&86\$7,9(<	A <	E	E	E	E	E	E	E	E	E
	PRXQWDLQ >MDP@	A @	E	E	E	E	E	E	E	E	E
	PRXQWDLQ 120,1\$7,9(<	A÷	EfE•Ef	EfE•Ef	EfE•Ef	A÷	A÷	EfE•Ef	EfE•Ef	EfE•Ef	E
	PRXQWDLQ \$%/\$7,9(<	A÷9(	EfEfEgEf	EfE•EfEg	EfE•EfEf	A÷	A÷	EfE•EfEf	EfE•EfEf	EfE•EfEf	E
	PRXQWDLQ 7(50,1\$7,9(<	A÷	EfEfEgEf	A÷	EfE•EfEf	A÷	A÷	EfE•EfEf	EfE•EfEf	EfE•EfEf	E
	PRXQWDLQ '\$7,9(/2&\$7,9(<	A÷	EfEfEgEf	A÷	EfE•EfEf	A÷	A÷	EfE•EfEf	EfE•EfEf	EfE•EfEf	E
%	PRXQWDLQ \$%/\$7,9(WRR	A÷	EfEfEfEgEf	A÷	EfE•EfEfEf	A÷	A÷	EfE•EfEfEf	EfE•EfEfEf	EfE•EfEfEf	E
	PRXQWDLQ 7(50,1\$7,9(WRR	A÷	EfEfEfEgEf	A÷	EfE•EfEfEf	A÷	A÷	EfE•EfEfEf	EfE•EfEfEf	EfE•EfEfEf	E
	PRXQWDLQ '\$7,9(/2&\$7,9(WRR	A÷	EfEfEgEf	A÷	EfE•EfEfEf	A÷	A÷	EfE•EfEfEf	EfE•EfEfEf	EfE•EfEfEf	E
	PRXQWDLQ '\$7,9(/2&\$7,9(WRR	A÷	EfE•Ef	A÷	EfE•EfEg	A÷	A÷	EfE•EfEg	EfE•EfEg	EfE•EfEg	E
	PRXQWDLQ '\$7,9(/2&\$7,9(WRR	A÷	EfEfEgEf	A÷	EfE•EfEfEg	A÷	A÷	EfE•EfEfEg	EfE•EfEfEg	EfE•EfEfEg	E
	PRXQWDLQ \$&&86\$7,9(<	A	E	E	E	A	E	E	E	E	E
	VHD >bXPL@	A	E	E	E	E	E	fE	E	E	E
	VHD 120,1\$7,9(<	A÷	EfEfEf	EfE•Eg>Ü EfEfEf	EfEfEf	A÷	A÷	EfEfEf	EfEfEf	EfEfEf	E
	VHD \$%/\$7,9(<	A÷	EfEfEfEf	EfE•EgEg	EfEfEfEf	A÷	A÷	EfEfEfEf	EfEfEfEf	EfEfEfEf	E
	VHD 7(50,1\$7,9(<	A÷	EfEfEfEf	A÷	EfEfEfEf	A÷	A÷	EfEfEfEf	EfEfEfEf	EfEfEfEf	E
	VHD '\$7,9(/2&\$7,9(<	A÷	EfEfEf	A÷	EfEfEfEf	A÷	A÷	EfEfEfEf	EfEfEfEf	EfEfEfEf	E
	VHD \$%/\$7,9(WRR<	A÷	EfEfEfEfEf	A÷	EfEfEfEfEf	A÷	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf	E
	VHD 7(50,1\$7,9(WRR<	A÷	EfEfEfEfEf	A÷	EfEfEfEfEf	A÷	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf	E
	VHD '\$7,9(/2&\$7,9(WRR<	A÷	EfEfEfEf	A÷	EfEfEfEfEf	A÷	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf	E
	VHD '\$7,9(/2&\$7,9(WRR	A÷	EfEfEg	A÷	EfE•EfEg	A÷	A÷	EfEfEfEg	EfEfEfEg	EfEfEfEg	E
	VHD '\$7,9(/2&\$7,9(WRR	A÷	EfEfEfEgEf	A÷	EfE•EfEfEg	A÷	A÷	EfEfEfEfEg	EfEfEfEfEg	EfEfEfEfEg	E
	VHD \$&&86\$7,9(<	A	E	E	E	A	E	E	E	E	E
&	ERDW VKLS >KXQL @	A	E	E	E	E	E	E	E	E	E
	ERDW 120,1\$7,9(<	A	E	EfE•Eg>Ü EfEfEf	EfEfEf	A÷	A÷	EfEfEf	EfEfEf	EfEfEf	E
	ERDW \$%/\$7,9(<	A÷	A÷	EfE•EgEg	EfEfEfEf	A÷	A÷	EfEfEfEf	EfEfEfEf	EfEfEfEf	E
	ERDW 7(50,1\$7,9(<	A÷	A÷	A÷	EfEfEfEf	A÷	A÷	EfEfEfEf	EfEfEfEf	EfEfEfEf	E
	ERDW '\$7,9(/2&\$7,9(<	A÷	A÷	A÷	EfEfEfEf	A÷	A÷	EfEfEfEf	EfEfEfEf	EfEfEfEf	E
	ERDW \$%/\$7,9(WRR<	A÷	A÷	A÷	EfEfEfEfEf	A÷	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf	E
	ERDW 7(50,1\$7,9(WRR	A÷	A÷	A÷	EfEfEfEfEf	A÷	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf	E

\$FFHQW 'DWD

	6WDQGDUG	-DQQL	IVH :DQ	%	1DN	DVDWR	\$	1DN	DVDWR	%	\$UDNL	\$
\$	FDYH >JDPD@	A ÷	A	÷	E	•E	f	E	•E	f		
	FDYH 120,1\$7,9(<A÷	A÷		EfE•Ef	EfEfEg	A÷	EfE•Ef					
	FDYH \$%/\$7,9(<A÷	A÷		EfEfEgEf	EfEfEfEg	A÷	EfE•EfEf					
	FDYH 7(50,1\$7,9A÷	A÷		EfEfEgEf	EfEfEfEg	A÷	EfE•EfEf					
	FDYH '\$7,9(/2&\$7,9(<A÷	A÷		EfE•Ef	EfEfEg	A÷	EfE•Ef					
	FDYH \$%/\$7,9(WRR<A÷	A÷		EfEfEfEgEf	EfEfEfEfEg	A÷	EfE•EfEfEf					
	FDYH 7(50,1\$7,9(WRR<A÷	A÷		EfEfEfEgEf	EfEfEfEfEg	A÷	EfE•EfEfEf					
	FDYH '\$7,9(/2&\$7,9(WRR<A÷	A÷		EfEfEgEf	EfEfEfEg	A÷	EfEfEgEf					
	FDYH '\$7,9(/2&\$7,9(WRR<A÷	A÷		EfE•Ef	EfE•Ef	A÷	EfE•Ef					
	FDYH '\$7,9(/2&\$7,9(WRR<A÷	A÷		EfEfEgEf	EfEfEgEf	A÷	EfEfEgEf					
%<	FDYH \$&&86\$7,9(<A<	A<	A	÷	A	÷	E	fE	•			
	PRXQWDLQ >MDP@ ÷	E	•E	f	E	•E	f	E	•E			
	PRXQWDLQ 120,1\$7,9(<A	A		EfE•Ef>Û EfEfEg	÷ EfEfEg	A÷	EfE•Ef					
	PRXQWDLQ \$%/\$7,9(<A÷	A÷		EfEfEgEf	EfEfEfEg	A÷	EfE•EfEf					
	PRXQWDLQ 7(50,1\$7,9(<A÷	A÷		EfEfEgEf	EfEfEfEg	A÷	EfE•EfEf					
	PRXQWDLQ '\$7,9(/2&\$7,9(<A÷	A÷		EfE•Ef	EfEfEg	A÷	EfE•Ef					
	PRXQWDLQ \$%/\$7,9(WRR<A÷	A÷		EfEfEfEgEf	EfEfEfEfEg	A÷	EfE•EfEfEf					
	PRXQWDLQ 7(50,1\$7,9(WRR<A÷	A÷		EfEfEfEgEf	EfEfEfEfEg	A÷	EfE•EfEfEf					
	PRXQWDLQ '\$7,9(/2&\$7,9(WRR<A÷	A÷		EfEfEgEf	EfEfEfEg	A÷	EfEfEgEf					
	PRXQWDLQ '\$7,9(/2&\$7,9(WRR<A÷	A÷		EfE•Ef	EfE•Ef	A÷	EfE•Ef					
&	PRXQWDLQ '\$7,9(/2&\$7,9(WRR<A÷	A÷		EfEfEgEf	EfEfEgEf	A÷	EfEfEgEf					
	PRXQWDLQ \$&&86\$7,9(<A	A	A	÷	A	÷	E	fE	•			
	VHD >bXPL@	A ÷	E	fE	•	E	fE	•	E	fE		
	VHD 120,1\$7,9(<A	A		EfEfEf>Û EfEfEg	÷ EfEfEf	A÷	EfEfEf					
	VHD \$%/\$7,9(<A	A		EfEfEfEf>Û EfEfEfEg	÷ EfEfEfEf	A÷	EfEfEfEf					
	VHD 7(50,1\$7,9(<A	A		EfEfEfEf>Û EfEfEfEg	÷ EfEfEfEf	A÷	EfEfEfEf					
	VHD '\$7,9(/2&\$7,9(<A	A		EfEfEf>Û EfEfEg	÷ EfEfEf	A÷	EfEfEf					
	VHD \$%/\$7,9(WRR<A	A		EfEfEfEfEf>Û EfEfEfEfEg	÷ EfEfEfEfEf	A÷	EfEfEfEfEf					
	VHD 7(50,1\$7,9(WRR<A	A		EfEfEfEfEf>Û EfEfEfEfEg	÷ EfEfEfEfEf	A÷	EfEfEfEfEf					
	VHD '\$7,9(/2&\$7,9(WRR<A	A		EfEfEfEf>Û EfEfEfEg	÷ EfEfEfEf	A÷	EfEfEfEf					
	VHD '\$7,9(/2&\$7,9(WRR<A	A		EfEfEf	EfEfEg	A÷	EfEfEg					
	VHD '\$7,9(/2&\$7,9(WRR<A	A		EfEfEfEfEg	EfEfEfEfEg	A÷	EfEfEfEfEg					
	VHD \$&&86\$7,9(<A	A	A	÷	A	÷	E	fE	•	f		
	ERDW VKLS >KXQL ÷	E	fE	•	E	fE	•	E	fE			
	ERDW 120,1\$7,9(<A	A		EfEfEf>Û EfEfEg	÷ EfEfEf	A÷	EfEfEf					
	ERDW \$%/\$7,9(<A	A		EfEfEfEf>Û EfEfEfEg	÷ EfEfEfEf	A÷	EfEfEfEf					
	ERDW 7(50,1\$7,9A÷	A÷		EfEfEfEf	EfEfEfEf	A÷	EfEfEfEf					
	ERDW '\$7,9(/2&\$7,9(<A÷	A÷		EfEfEf	EfEfEf	A÷	EfEfEf					
	ERDW \$%/\$7,9(WRR<A	A		EfEfEfEfEf>Û EfEfEfEfEg	÷ EfEfEfEfEf	A÷	EfEfEfEfEf					
	ERDW 7(50,1\$7,9(WRR<A	A		EfEfEfEfEf>Û EfEfEfEfEg	÷ EfEfEfEfEf	A÷	EfEfEfEfEf					

NOMINATIVE: ?ñu / ABLATIVE: kara / TERMINATIVE: @di, madi / DATIVE/LOCATIVE: kai, ni / too Hmu

*HQHUDO 6WXG\ IRU 5HVHDFUK DQGF&RQVLEU-DSDWR
5HVHDFUK 5HSRUW RQ WKH .LND
\$XJXVW 1DWLRQDO ,QVWLWXWLRU IRU L&SDC

[illegible]

\$ F F H Q W ' D W D

	6WDQG DUG	6DSDR	HQH \$ 6	DSDPLQ	\$ % \$ G	HQ \$ %	DPLND	WVND	WVND	WVND	W H V V X %
	ERDW '\$7,9(/2&\$7,9(W	A÷ RR	A÷	A÷	EfEfEfEfEf	A÷	A÷	EfEfEfEfEf			
	ERDW '\$7,9(/2&\$7,9(W	A÷ R	A÷	A÷	EfE•EfEg	A÷	A÷	EfEfEfEg			
	ERDW '\$7,9(/2&\$7,9(W	A÷ RR	A÷	A÷	EfE•EfEfEg	A÷	A÷	EfEfEfEfEg			
	ERDW \$&&86\$7,9(<	A÷ R	A÷	A÷	A÷	÷	E	fE			f
\$	SRUW KDUERU > PLQDWX WXPDL@	A÷ R	EfE•Ef	A÷	EfE•Ef	A÷	A÷	EfE•Ef			
	SRUW 120,1\$7,9(	A÷	EfEfE•Ef	A÷	EfEfE•Ef	A÷	A÷	EfE•EfEf			
	SRUW \$%/\$7,9(<	A÷	EfEfEfEgEf	A÷	EfEfE•EfEf	A÷	A÷	EfE•E•EfEf			
	SRUW 7(50,1\$7,9(	A÷	EfEfEfEgEf	A÷	EfEfE•EfEf	A÷	A÷	EfE•E•EfEf			
	SRUW '\$7,9(/2&\$7,9(<	A÷ R	EfEfE•Ef	A÷	EfEfE•EfEf	A÷	A÷	EfE•E•EfEf			
	SRUW \$%/\$7,9(WRR<	A÷ R	EfEfEfEfEgEf	A÷	EfEfE•EfEfEf	A÷	A÷	EfE•E•EfEfEf			
	SRUW 7(50,1\$7,9(<	A÷ R	EfEfEfEfEgEf	A÷	EfEfE•EfEfEf	A÷	A÷	EfE•E•EfEfEf			
	SRUW '\$7,9(/2&\$7,9(WRR<	A÷ R	EfEfEfEgEf	A÷	EfEfE•EfEfEf	A÷	A÷	EfE•E•EfEfEf			
	SRUW '\$7,9(/2&\$7,9(<	A÷ R	EfEfE•Ef	A÷	EfEfE•EfEg	A÷	A÷	EfE•E•EfEg			
	SRUW '\$7,9(/2&\$7,9(WRR	A÷ R	EfEfEfEgEf	A÷	EfE•E•EfEfEg	A÷	A÷	EfE•E•EfEfEg			
SRUW \$&&86\$7,9(<	A÷ R	EfE•Ef	A÷	EfE•Ef	A÷	A÷	EfE•Ef				
%	VWUDZ EDJ >WD KAMD@	A÷ R	A÷	A÷	EfE•Ef	A÷	A÷	E•EfE•			
	VWUDZ EDJ 120,1\$7,9(<	A÷	A÷	A÷	EfEfE•Ef	A÷	A÷	E•EfEfEf			
	VWUDZ EDJ \$%/\$7,9(<	A÷ R	A÷	A÷	EfEfE•EfEf	A÷	A÷	E•EfEfEfEf			
	VWUDZ EDJ 7(50,1\$7,9(<	A÷ R	A÷	A÷	EfEfE•EfEf	A÷	A÷	E•EfEfEfEf			
	VWUDZ EDJ '\$7,9(/2&\$7,9(<	A÷	A÷	A÷	EfEfE•EfEf	A÷	A÷	E•EfEfEfEf			
	VWUDZ EDJ \$%/\$7,9(WRR<	A÷ R	A÷	A÷	EfEfE•EfEfEf	A÷	A÷	E•EfEfEfEfEf			
	VWUDZ EDJ 7(50,1\$7,9(WRR<	A÷ R	A÷	A÷	EfEfE•EfEfEf	A÷	A÷	E•EfEfEfEfEf			
	VWUDZ EDJ '\$7,9(/2&\$7,9(WRR	A÷ R	A÷	A÷	EfE•E•EfEfEg	A÷	A÷	E•EfEfEfEfEf			
	VWUDZ EDJ '\$7,9(/2&\$7,9(<	A÷	A÷	A÷	EfEfE•EfEg	A÷	A÷	E•EfEfEfEg			
	VWUDZ EDJ '\$7,9(/2&\$7,9(WRR	A÷ R	A÷	A÷	EfE•E•EfEfEg	A÷	A÷	E•EfEfEfEfEg			
	VWUDZ EDJ \$&&86\$7,9(<	A÷	A÷	A÷	EfE•Ef	A÷	A÷	E•EfEf			
	&	ILHOG FXOWLYD KDWHB@	A÷ R	W H G >SDW H B E•EfE•	A÷	E•EfE•	A÷	A÷	E•EfE•		
ILHOG 120,1\$7,9(		A÷	E•E•E•Ef	A÷	E•EfEfEf	A÷	A÷	E•EfEfEf			
ILHOG \$%/\$7,9(<		A÷	E•E•E•EgEf	A÷	E•EfEfEfEf	A÷	A÷	E•EfEfEfEf			
ILHOG 7(50,1\$7,9(<		A÷ R	E•E•E•EgEf	A÷	E•EfEfEfEf	A÷	A÷	E•EfEfEfEf			
ILHOG '\$7,9(/2&\$7,9(<		A÷ R	E•E•E•Ef	A÷	E•EfEfEfEf	A÷	A÷	E•EfEfEfEf			
ILHOG \$%/\$7,9(WRR<		A÷ R	E•E•E•EgEgEf	A÷	E•EfEfEfEfEf	A÷	A÷	E•EfEfEfEfEf			
ILHOG 7(50,1\$7,9(<		A÷ R	E•E•E•EgEgEf	A÷	E•EfEfEfEfEf	A÷	A÷	E•EfEfEfEfEf			
ILHOG '\$7,9(/2&\$7,9(WRR<		A÷ R	E•E•E•EgEf	A÷	E•EfEfEfEfEf	A÷	A÷	E•EfEfEfEfEf			
ILHOG '\$7,9(/2&\$7,9(<		A÷ R	E•E•EfEg	A÷	E•EfEfEfEg	A÷	A÷	E•EfEfEfEg			
ILHOG '\$7,9(/2&\$7,9(WRR		A÷ R	E•E•E•EfEg	A÷	E•EfEfEfEfEg	A÷	A÷	E•EfEfEfEfEg			
ILHOG \$&&86\$7,9(<	A÷ R	E•EfEf	A÷	E•EfEf	A÷	A÷	E•EfEf				
VN\ >WL!WRB@	A÷	A÷	A÷	EfE•E•Ef	A÷	A÷	EfEfE•Ef				

NOMINATIVE: ?ŋnu / ABLATIVE: kara / TERMINATIVE: @di, madi / DATIVE/LOCATIVE: kai, ni / too Hmu

*HQHUDO 6WXG\ IRU 5HVHDFUK DQGF&RQVLEU-DSDWR
5HVHDFUK 5HSRUW RQ WKH .LND
\$XJXVW 1DWLRQDO ,QVWLWXWLRU IRU L&SDC

	6WDQGDUG	-D\$Q\$H :DQ	% 1DNDVDWR	\$ 1DNDVDWR	% \$UDNL \$		
	ERDW ' \$7,9(/2&\$7,9(WRR	A÷	EfEfEfEf>Ü ÷ EfEfEfEf	A÷	EfEfEfEf		
	ERDW ' \$7,9(/2&\$7,9(WRR	A÷	EfEfEfEg	EfEfEfEg	A÷	EfEfEfEg	
	ERDW ' \$7,9(/2&\$7,9(WRR	A÷	EfEfEfEfEg	EfEfEfEfEg	A÷	EfEfEfEfEg	
	ERDW \$&&86\$7,9(<	A÷	A	A	÷	E	
\$	SRUW KDUERU > PLQDWX WXPDL@	A÷	E•EfE•	EfE•Ef	A÷	EfE•Ef	
	SRUW 120,1\$7,9(WRR	A÷	A÷	EfEfEfEfEg	A÷	EfEfE•Ef	
	SRUW \$%/\$7,9(< WRR	A÷	A÷	EfEfEfEfEfEg	A÷	EfEfE•EfEf	
	SRUW 7(50,1\$7,9(< WRR	A÷	A÷	EfEfEfEfEfEg	A÷	EfEfE•EfEf	
	SRUW ' \$7,9(/2&\$7,9(< WRR	A÷	A÷	EfEfEfEfEg	A÷	EfEfE•Ef	
	SRUW \$%/\$7,9(WRR <	A÷	A÷	EfEfEfEfEfEfEg	A÷	EfEfE•EfEfEf	
	SRUW 7(50,1\$7,9(< WRR	A÷	A÷	EfEfEfEfEfEfEg	A÷	EfEfE•EfEfEf	
	SRUW ' \$7,9(/2&\$7,9(WRR <	A÷	A÷	EfEfEfEfEfEg	A÷	EfEfEfEfEgEf	
	SRUW ' \$7,9(/2&\$7,9(< WRR	A÷	A÷	EfEfE•Ef	A÷	EfEfE•Ef	
	SRUW ' \$7,9(/2&\$7,9(WRR	A÷	A÷	EfEfEfEfEgEf	A÷	EfEfEfEfEgEf	
SRUW \$&&86\$7,9(<	A÷	A÷	EfEfEfEg	A÷	EfE•Ef		
%	VWUDZ EDJ > WDM@	A÷	E•EfE•	EfEf	A÷	EfE•Ef	
	VWUDZ EDJ 120,1\$7,9(<	A÷	A÷	EfE•Ef	A÷	EfEfE•Ef	
	VWUDZ EDJ \$%/\$7,9(< WRR	A÷	A÷	EfEfEfEfEg	A÷	EfEfE•EfEf	
	VWUDZ EDJ 7(50,1\$7,9(< WRR	A÷	A÷	EfEfEfEfEfEg	A÷	EfEfE•EfEf	
	VWUDZ EDJ ' \$7,9(/2&\$7,9(< WRR	A÷	A÷	EfEfEfEfEfEg	A÷	EfEfE•Ef	
	VWUDZ EDJ \$%/\$7,9(WRR <	A÷	A÷	EfEfEfEfEg	A÷	EfEfE•EfEfEf	
	VWUDZ EDJ 7(50,1\$7,9(WRR <	A÷	A÷	EfEfEfEfEfEfEg	A÷	EfEfE•EfEfEf	
	VWUDZ EDJ ' \$7,9(/2&\$7,9(WRR	A÷	A÷	EfEfEfEfEfEg	A÷	EfEfEfEfEgEf	
	VWUDZ EDJ ' \$7,9(/2&\$7,9(WRR	A÷	A÷	EfEfE•Ef	A÷	EfEfE•Ef	
	VWUDZ EDJ ' \$7,9(/2&\$7,9(WRR	A÷	A÷	EfEfE•Ef	A÷	EfEfEfEfEgEf	
VWUDZ EDJ \$&&86\$7,9(<	A÷	A÷	EfEfEfEfEgEf	A÷	EfE•Ef		
&	ILHOG FXOWLYD WHG > SDW KDWHB@	A÷	E•EfE•	EfEfEfEg	A÷	E•EfE•	
	ILHOG 120,1\$7,9(WRR	A÷	A÷	E•EfE•	A÷	EfEfEfEfEf	
	ILHOG \$%/\$7,9(< WRR	A÷	A÷	EfE•E•Ef	A÷	EfEfEfEfEfEf	
	ILHOG 7(50,1\$7,9(< WRR	A÷	A÷	EfE•E•EgEf	A÷	EfEfEfEfEfEf	
	ILHOG ' \$7,9(/2&\$7,9(< WRR	A÷	A÷	EfE•E•Ef	A÷	EfEfEfEfEf	
	ILHOG \$%/\$7,9(WRR <	A÷	A÷	EfE•E•EgEgEf	A÷	EfEfEfEfEfEfEf	
	ILHOG 7(50,1\$7,9(< WRR	A÷	A÷	EfE•E•EgEgEf	A÷	EfEfEfEfEfEfEf	
	ILHOG ' \$7,9(/2&\$7,9(WRR <	A÷	A÷	EfE•E•EgEf	A÷	EfEfEfEfEfEf	
	ILHOG ' \$7,9(/2&\$7,9(< WRR	A÷	A÷	E•EfEfEfEg	A÷	EfEfEfEfEg	
	ILHOG ' \$7,9(/2&\$7,9(WRR	A÷	A÷	E•EfEfEfEfEg	A÷	EfEfEfEfEfEg	
ILHOG \$&&86\$7,9(<	A÷	A÷	EfE•E•	A÷	EfEfEfEf		
	VN\ > WL:WRB@	A÷	A÷	A÷	EfEfEfE•Ef	A÷	EfEfE•Ef

\$FFHQW 'DWD

	6WDQGDUG	-DQDQW	XI \$	2QRWVX %	6KLWRRNH \$	6KLWRRNH %	6K
\$	VN\ 120,1\$7,9(<	EfE•E•Eg	A÷	A÷	ÖÑÑÖ,	A	÷
	VN\ \$%/\$7,9(<	EfE•E•EgEg	A÷	A÷	ÖÑÑÖ,,	A	÷
	VN\ 7(50,1\$7,9(<	EfE•E•EgEg>Ü EfE•E•E•EfEg	A	÷	A ÖÑÑÖ,,	÷ A	÷
	VN\ '\$7,9(/2&\$7,9(<	EfE•E•E•Eg	A÷	A÷	ÖÑÑÖ,	A	÷
	VN\ \$%/\$7,9(WRR<	EfE•E•E•EgEgEf	A÷	A÷	ÖÑÑÖ,,,	A	÷
	VN\ 7(50,1\$7,9(WRR<	EfE•E•E•EgEgEg	A÷	A÷	ÖÑÑÖ,,,	A	÷
	VN\ '\$7,9(/2&\$7,9(WRR<	EfE•E•E•EgEg	A÷	A÷	ÖÑÑÖ,,	A	÷
	VN\ '\$7,9(/2&\$7,9(WRR<	EfE•E•E•Eg	A÷	A÷	ÖÑÖÖ¹	A	÷
	VN\ '\$7,9(/2&\$7,9(WRR<	EfE•E•E•EgEg	A÷	A÷	ÖÑÖÖ,'	A	÷
%	VN\ \$&&86\$7,9(<	ÖÑÑÑ	A	÷	A ÖÑÖÖ	÷ A	÷
	NLWFKHQ >WRB]	AMD @	÷	A	÷	A	÷
	NLWFKHQ 120,1\$7,9(<	A,9(<	÷	A	÷	A	÷
	NLWFKHQ \$%/\$7,9(<	A(<	÷	A	÷	A	÷
	NLWFKHQ 7(50,1\$7,9(<	A,9(<	÷	A	÷	A	÷
	NLWFKHQ '\$7,9(/2&\$7,9(<	A	÷	A	÷	A	÷
	NLWFKHQ \$%/\$7,9(WRR<	A(WRR<	÷	A	÷	A	÷
	NLWFKHQ 7(50,1\$7,9(WRR<	A	÷	A	÷	A	÷
	NLWFKHQ '\$7,9(/2&\$7,9(WRR<	A	÷	A	÷	A	÷
&	NLWFKHQ '\$7,9(/2&\$7,9(WRR<	A	÷	A	÷	A	÷
	NLWFKHQ '\$7,9(/2&\$7,9(WRR<	A	÷	A	÷	A	÷
	NLWFKHQ '\$7,9(/2&\$7,9(WRR<	A	÷	A	÷	A	÷
	NLWFKHQ '\$7,9(/2&\$7,9(WRR<	A	÷	A	÷	A	÷
	NLWFKHQ '\$7,9(/2&\$7,9(WRR<	A	÷	A	÷	A	÷
	NLWFKHQ '\$7,9(/2&\$7,9(WRR<	A	÷	A	÷	A	÷
	NLWFKHQ '\$7,9(/2&\$7,9(WRR<	A	÷	A	÷	A	÷
	NLWFKHQ '\$7,9(/2&\$7,9(WRR<	A	÷	A	÷	A	÷
	NLWFKHQ '\$7,9(/2&\$7,9(WRR<	A	÷	A	÷	A	÷
	FHLOLQJ >WLzR	ÖÑÑÖ	A	÷	A ÖÑÖÑ	÷ A	÷
	FHLOLQJ 120,1\$7,9(<	EfE•E•E•Ef	A÷	A÷	ÖÑÑÖ,	A	÷
	FHLOLQJ \$%/\$7,9(<	EfE•E•E•EgEf	A÷	A÷	ÖÑÑÖ,,	A	÷
	FHLOLQJ 7(50,1\$7,9(<	EfE•E•E•EgEf	A÷	A÷	ÖÑÑÖ,,	A	÷
	FHLOLQJ '\$7,9(/2&\$7,9(<	EfE•E•E•Ef	A÷	A÷	ÖÑÑÖ,	A	÷
	FHLOLQJ \$%/\$7,9(WRR<	EfE•E•E•EgEfEg	A÷	A÷	ÖÑÑÖ,,,	A	÷
	FHLOLQJ 7(50,1\$7,9(WRR<	EfE•E•E•EgEfEg	A÷	A÷	ÖÑÑÖ,,,	A	÷
	FHLOLQJ '\$7,9(/2&\$7,9(WRR<	EfE•E•E•EfEg	A÷	A÷	ÖÑÑÖ,,	A	÷
	FHLOLQJ '\$7,9(/2&\$7,9(WRR<	EfE•E•E•Ef	A÷	A÷	ÖÑÖÖ¹	A	÷
\$	FHLOLQJ '\$7,9(/2&\$7,9(WRR<	EfE•E•E•EfEg	A÷	A÷	ÖÑÖÖ,'	A	÷
	FHLOLQJ \$&&86\$7,9(<	ÖÑÑÖ	A	÷	A ÖÑÖÖ	÷ A	÷
	FDYH >]DPD@	A	÷	A	÷	A	÷
	FDYH 723,&<	A	÷	A	÷	A	÷
	FDYH \$%/\$7,9(723,&<	A	÷	A	÷	A	÷
	FDYH 7(50,1\$7,9(723,&<	A	÷	A	÷	A	÷
	FDYH '\$7,9(/2&\$7,9(723,&<	A	÷	A	÷	A	÷
	FDYH \$%/\$7,9(WRR<	A	÷	A	÷	A	÷
	FDYH \$%/\$7,9(WRR<	A	÷	A	÷	A	÷
%>	PRXQWDLQ >MDP	A @	÷	A	÷	A	÷
	PRXQWDLQ 723,&<	A	÷	A	÷	A	÷
	PRXQWDLQ \$%/\$7,9(723,&<	A	÷	A	÷	A	÷
	PRXQWDLQ 7(50,1\$7,9(723,&<	A	÷	A	÷	A	÷

NOMINATIVE: ?ñnu / ABLATIVE: kara / TERMINATIVE: @di,madi / DATIVE/LOCATIVE: kai,ni / too Hmu

*HQHUDO 6WXG\ IRU 5HVHDFUK DQGF&RQVLEU-DSDWR
5HVHDFUK 5HSRUW RQ WKH .LND
\$XJXVW 1DWLRQDO ,QVWLWXWLRU IRU L&SDC

	6WDQGDUg	6DNDQH	HQH \$ 6DNDQH	\$ % \$ GHQ \$ %	DPLNDW.DVNDW.BVNDWHHVX %			
\$	VN\ 120,1\$7,9(<	A÷	A÷	A÷	EfE•E•E•Ef	A÷	A÷	EfEfEfE•Ef
	VN\ \$%/\$7,9(<	A÷	A÷	A÷	EfE•E•E•EfEf	A÷	A÷	EfEfEfE•EfEf
	VN\ 7(50,1\$7,9(<	A÷	A÷	A÷	EfE•E•E•EfEf	A÷	A÷	EfEfEfE•EfEf
	VN\ '\$7,9(/2&\$7,9(<	A÷	A÷	A÷	EfE•E•E•EfEf	A÷	A÷	EfEfEfE•EfEf
	VN\ \$%/\$7,9(WR<	A÷	A÷	A÷	EfE•E•E•EfEfEf	A÷	A÷	EfEfEfE•EfEfEf
	VN\ 7(50,1\$7,9(WARR<	A÷	A÷	A÷	EfE•E•E•EfEfEf	A÷	A÷	EfEfEfE•EfEfEf
	VN\ '\$7,9(/2&\$7,9(WRR<	A÷	A÷	A÷	EfE•E•E•EfEfEf	A÷	A÷	EfEfEfE•EfEfEf
	VN\ '\$7,9(/2&\$7,9(WARR<	A÷	A÷	A÷	EfE•E•E•EfEf	A÷	A÷	EfEfEfE•EfEf
	VN\ '\$7,9(/2&\$7,9(WRR	A÷	A÷	A÷	EfE•E•E•EfEfEf	A÷	A÷	EfEfEfE•EfEfEf
VN\ \$&&86\$7,9(<	A÷	A÷	A÷	EfE•E•Ef	A÷	A÷	EfEfEfE•Ef	
%&	NLWFKHQ >WRBJAMD@	A÷	A÷	A÷	EfE•E•Ef	A÷	A÷	A÷
	NLWFKHQ 120,1\$7,9(<	A÷	A÷	A÷	EfE•E•E•Ef	A÷	A÷	A÷
	NLWFKHQ \$%/\$7,9(<	A÷	A÷	A÷	EfE•E•E•EfEf	A÷	A÷	A÷
	NLWFKHQ 7(50,1\$7,9(<	A÷	A÷	A÷	EfE•E•E•EfEf	A÷	A÷	A÷
	NLWFKHQ '\$7,9(/2&\$7,9(<	A÷	A÷	A÷	EfE•E•E•EfEf	A÷	A÷	A÷
	NLWFKHQ \$%/\$7,9(WRR<	A÷	A÷	A÷	EfE•E•E•EfEfEf	A÷	A÷	A÷
	NLWFKHQ 7(50,1\$7,9(WRR<	A÷	A÷	A÷	EfE•E•E•EfEfEf	A÷	A÷	A÷
	NLWFKHQ '\$7,9(/2&\$7,9(WRR	A÷	A÷	A÷	EfE•E•E•EfEfEf	A÷	A÷	A÷
	NLWFKHQ '\$7,9(/2&\$7,9(WRR	A÷	A÷	A÷	EfE•E•E•EfEf	A÷	A÷	A÷
	NLWFKHQ '\$7,9(/2&\$7,9(WRR	A÷	A÷	A÷	EfE•E•E•EfEfEf	A÷	A÷	A÷
	NLWFKHQ \$&&86\$7,9(<	A÷	A÷	A÷	EfE•E•Ef	A÷	A÷	A÷
	&	FHLQLQJ >WLIZRBA@	A÷	A÷	A÷	EfE•EfE•	A÷	A÷	EfE•EfE•
FHLQLQJ 120,1\$7,9(<		A÷	A÷	A÷	EfE•EfEfEf	A÷	A÷	EfE•EfEfEf
FHLQLQJ \$%/\$7,9(<		A÷	A÷	A÷	EfE•EfEfEfEf	A÷	A÷	EfE•EfEfEfEf
FHLQLQJ 7(50,1\$7,9(<		A÷	A÷	A÷	EfE•EfEfEfEf	A÷	A÷	EfE•EfEfEfEf
FHLQLQJ '\$7,9(/2&\$7,9(<		A÷	A÷	A÷	EfE•EfEfEfEf	A÷	A÷	EfE•EfEfEfEf
FHLQLQJ \$%/\$7,9(WRR<		A÷	A÷	A÷	EfE•EfEfEfEfEf	A÷	A÷	EfE•EfEfEfEfEf
FHLQLQJ 7(50,1\$7,9(WRR<		A÷	A÷	A÷	EfE•EfEfEfEfEf	A÷	A÷	EfE•EfEfEfEfEf
FHLQLQJ '\$7,9(/2&\$7,9(WRR		A÷	A÷	A÷	EfE•EfEfEfEfEf	A÷	A÷	EfE•EfEfEfEfEf
FHLQLQJ '\$7,9(/2&\$7,9(WRR		A÷	A÷	A÷	EfE•EfEfEfEf	A÷	A÷	EfE•EfEfEfEf
FHLQLQJ '\$7,9(/2&\$7,9(WRR		A÷	A÷	A÷	EfE•EfEfEfEfEf	A÷	A÷	EfE•EfEfEfEfEf
FHLQLQJ \$&&86\$7,9(<		A÷	A÷	A÷	EfE•EfEf	A÷	A÷	EfE•EfEf
\$		FDYH >]DPD@	A	A	A	A	÷	E	•E
	FDYH 723,&<	A÷	A÷	A÷	EfE•Ef	A÷	A÷	EfE•Ef
	FDYH \$%/\$7,9(723,&<	A÷	A÷	A÷	EfE•EfEfEf	A÷	A÷	EfE•EfEfEf
	FDYH 7(50,1\$7,9(723,&<	A÷	A÷	A÷	EfE•EfEfEf	A÷	A÷	EfE•EfEfEf
	FDYH '\$7,9(/2&\$7,9(723,&<	A÷	A÷	A÷	A÷	A÷	A÷	EfE•EfEfEf
	FDYH \$%/\$7,9(WRR<	A÷	A÷	A÷	A÷	A÷	A÷	EfE•EfEfEf
	FDYH \$%/\$7,9(WRR<	A÷	A÷	A÷	A÷	A÷	A÷	EfE•EfEfEf
%&	PRXQWDLQ >MDFA@	A	A	A	A	÷	E	•E
	PRXQWDLQ 723,&<	A÷	A÷	A÷	EfE•Ef	A÷	A÷	EfE•EfEfEf
	PRXQWDLQ \$%/\$7,9(723,&<	A÷	A÷	A÷	EfE•EfEfEf	A÷	A÷	EfE•EfEfEf
	PRXQWDLQ 7(50,1\$7,9(723,&<	A÷	A÷	A÷	EfE•EfEfEf	A÷	A÷	EfE•EfEfEf
	PRXQWDLQ '\$7,9(/2&\$7,9(723,&<	A÷	A÷	A÷	A÷	A÷	A÷	EfE•EfEfEf

\$FFHQW 'DWD

	6WDQGDUG	-D\$Q\$	VH :DQ	%	1DNDVDWR	\$ 1DNDVDWR	%	\$UDNL \$	
\$	VN\ 120,1\$7,9(<	A÷	A÷	A÷	EfEfEfEfEg	A÷	EfEfEfE•Ef		
	VN\ \$%/\$7,9(<	A÷	A÷	A÷	EfEfEfEfEfEg	A÷	EfEfEfE•EfEf		
	VN\ 7(50,1\$7,9(<	A÷	A÷	A÷	EfEfEfEfEfEg	A÷	EfEfEfE•EfEf		
	VN\ '\$7,9(/2&\$7,9(<	A÷	A÷	A÷	EfEfEfEfEfEg	A÷	EfEfEfE•Ef		
	VN\ \$%/\$7,9(WRR<	A÷	A÷	A÷	EfEfEfEfEfEfEg	A÷	EfEfEfE•EfEfEf		
	VN\ 7(50,1\$7,9(WRR<	A÷	A÷	A÷	EfEfEfEfEfEfEg	A÷	EfEfEfE•EfEfEf		
	VN\ '\$7,9(/2&\$7,9(WRR<	A÷	A÷	A÷	EfEfEfEfEfEfEg	A÷	EfEfEfEfEfEgEf		
	VN\ '\$7,9(/2&\$7,9(WRR	A÷	A÷	A÷	EfEfEfEfEfEgEf	A÷	EfEfEfEfEfEgEf		
	VN\ \$&&86\$7,9(<	A÷	A÷	A÷	EfEfEfE•	A÷	EfEfE•Ef		
%	NLWFKHQ >WRB]	AMD@	A÷	A÷	EfEfE•Ef	A÷	EfEfE•Ef		
	NLWFKHQ 120,1\$7,9(<	A÷	A÷	A÷	EfEfEfEfEfEg	A÷	EfEfEfE•Ef		
	NLWFKHQ \$%/\$7,9(<	A÷	A÷	A÷	EfEfEfEfEfEfEg	A÷	EfEfEfE•EfEfEf		
	NLWFKHQ 7(50,1\$7,9(<	A÷	A÷	A÷	EfEfEfEfEfEfEg	A÷	EfEfEfE•EfEfEf		
	NLWFKHQ '\$7,9(/2&\$7,9(<	A÷	A÷	A÷	EfEfEfEfEfEg	A÷	EfEfEfE•Ef		
	NLWFKHQ \$%/\$7,9(WRR<	A÷	A÷	A÷	EfEfEfEfEfEfEg	A÷	EfEfEfE•EfEfEf		
	NLWFKHQ 7(50,1\$7,9(WRR<	A÷	A÷	A÷	EfEfEfEfEfEfEg	A÷	EfEfEfE•EfEfEf		
	NLWFKHQ '\$7,9(/2&\$7,9(WRR	A÷	A÷	A÷	EfEfEfEfEfEfEg	A÷	EfEfEfEfEfEgEf		
	NLWFKHQ '\$7,9(/2&\$7,9(WRR	A÷	A÷	A÷	EfEfEfE•Ef	A÷	EfEfE•Ef		
	NLWFKHQ \$&&86\$7,9(<	A÷	A÷	A÷	EfEfEfE•	A÷	EfEfE•Ef		
&	FHLOLQJ >WLzR	A@	EfE•EfE•	A÷	EfE•EfE•	A÷	EfE•EfE•		
	FHLOLQJ 120,1\$7,9(<	A÷	EfE•EfEfEf	A÷	EfEfE•E•Ef	A÷	EfE•EfEfEf		
	FHLOLQJ \$%/\$7,9(<	A÷	EfE•EfEfEfEf	A÷	EfEfE•E•EgEf	A÷	EfE•EfEfEfEf		
	FHLOLQJ 7(50,1\$7,9(<	A÷	EfE•EfEfEfEf	A÷	EfEfE•E•EgEf	A÷	EfE•EfEfEfEf		
	FHLOLQJ '\$7,9(/2&\$7,9(<	A÷	EfE•EfEfEf	A÷	EfEfE•E•Ef	A÷	EfE•EfEfEf		
	FHLOLQJ \$%/\$7,9(WRR<	A÷	EfE•EfEfEfEfEf	A÷	EfEfE•E•EgEgEf	A÷	EfE•EfEfEfEfEf		
	FHLOLQJ 7(50,1\$7,9(WRR<	A÷	EfE•EfEfEfEfEf	A÷	EfEfE•E•EgEgEf	A÷	EfE•EfEfEfEfEf		
	FHLOLQJ '\$7,9(/2&\$7,9(WRR	A÷	EfE•EfEfEfEf	A÷	EfEfE•E•EgEf	A÷	EfE•EfEfEfEf		
	FHLOLQJ '\$7,9(/2&\$7,9(WRR	A÷	EfE•EfEfEfEg	A÷	EfEfE•EfEfEg	A÷	EfE•EfEfEfEg		
	FHLOLQJ '\$7,9(/2&\$7,9(WRR	A÷	EfE•EfEfEfEfEg	A÷	EfEfE•EfEfEfEg	A÷	EfE•EfEfEfEfEg		
\$	FDYH >]DPD@	A	÷	A	÷	A	÷	E	•E f
	FDYH 723,&<	A÷	A÷	A÷	EfEfEg	A÷	EfE•Eg		
	FDYH \$%/\$7,9(723,&<	A÷	A÷	A÷	EfEfEfEfEfEg	A÷	EfE•EgEgEg		
	FDYH 7(50,1\$7,9(723,&<	A÷	A÷	A÷	EfEfEfEfEfEg	A÷	EfE•EgEgEg		
	FDYH '\$7,9(/2&\$7,9(723,&<	A÷	A÷	A÷	EfEfEfEfEg	A÷	E•EfEgEg		
	FDYH \$%/\$7,9(WRR<	A÷	A÷	A÷	EfEfEfEfEfEg	A÷	EfE•EgEgEg		
%	PRXQWDLQ >MDP	A@	÷	A	÷	A	÷	E	•E f
	PRXQWDLQ 723,&<	A÷	A÷	A÷	EfEfEg	A÷	EfE•Eg		
	PRXQWDLQ \$%/\$7,9(723,&<	A÷	A÷	A÷	EfEfEfEfEfEg	A÷	EfE•EgEgEg		
	PRXQWDLQ 7(50,1\$7,9(723,&<	A÷	A÷	A÷	EfEfEfEfEfEg	A÷	EfE•EgEgEg		

NOMINATIVE: ?ñu / ABLATIVE: kara / TERMINATIVE: @di, madi / DATIVE/LOCATIVE: kai, ni / too Hmu

*HQHUDO 6WXG\ IRU 5HVHDFUK DQGF&RQVLEU-DSDWR
5HVHDFUK 5HSRUW RQ WKH .LND
\$XJXVW 1DWLRQDO ,QVWLWXWLRU IRU L&SDC

	6WDQGDUG	-DQQRWHX\$	2QRWVX%	6KLWRRNH\$	6KLWRRNH%	6K
	PRXWQ '\$7,9(/2&\$7,9(723,&< PRXQWDLQ \$%/\$7,9(WRR<	A	A	A	A	
	VHD >bXPL@ VHD 723,&< VHD \$%/\$7,9(723,&< VHD 7(50,1\$7,9(723,&< VHD '\$7,9(/2&\$7,9(723,&< VHD \$%/\$7,9(WRR<	A	A	A	A	
	ERDW VKLS >"XQA@ ERDW 723,&< ERDW \$%/\$7,9(723,&< ERDW 7(50,1\$7,9(723,&< ERDW '\$7,9(/2&\$7,9(723,&< ERDW \$%/\$7,9(WRR<	A	A	A	A	
	EORRG >Q LB Q ± EORRG 120,1\$7,9(< EORRG 120,1\$7,9(< EORRG WRR EORRG \$%/\$7,9(< EORRG 7(50,1\$7,9(< EORRG \$%/\$7,9(WRR EORRG 7(50,1\$7,9(WRR	ÖÑ	ÖÑ	ÖÑ	E•Ef EfE•Ef EfE•Ef EfE•Ef EfE•EfEg EfE•EfEg EfE•EfEg>Ü EfE•EfEg	E•Ef EfE•Ef EfE•Ef A÷ EfE•EfEg A÷ A÷ A÷
	OHDI >KDB@ OHDI 120,1\$7,9(< OHDI 120,1\$7,9(< OHDI WRR OHDI \$%/\$7,9(< OHDI 7(50,1\$7,9(< OHDI \$%/\$7,9(WRR OHDI 7(50,1\$7,9(WRR	ÖÑ	ÖÑ	ÖÑ	E•Ef EfE•Ef EfE•Ef EfE•Ef EfE•EfEg EfE•EfEg EfE•EfEg EfE•EfEg	E•Ef EfE•Ef EfE•Ef A÷ EfE•EfEg A÷ A÷ A÷
	VDNH DOFRKROL >VHB@ VDNH 120,1\$7,9(< VDNH 120,1\$7,9(< VDNH WRR VDNH \$%/\$7,9(< VDNH 7(50,1\$7,9(< VDNH \$%/\$7,9(WRR VDNH 7(50,1\$7,9(WRR	ÖÑ	ÖÑ	ÖÑ	E•Ef EfE•Ef EfE•Ef EfE•Ef EfE•EfEg EfE•EfEg EfE•EfEg EfE•EfEg	E•Ef EfE•Ef EfE•Ef A÷ EfE•EfEg A÷ A÷ A÷
	ZDWHU ZHOO >KDB@ ZHOO 120,1\$7,9(< ZHOO 120,1\$7,9(< ZHOO WRR ZHOO \$%/\$7,9(< ZHOO 7(50,1\$7,9(< ZHOO \$%/\$7,9(WRR ZHOO 7(50,1\$7,9(WRR	ÖÑ	ÖÑ	ÖÑ	E•Ef EfE•Ef EfE•Ef EfE•Ef EfE•EfEg EfE•EfEg EfE•EfEg EfE•EfEg	E•Ef A÷ A÷ A÷ A÷ A÷ A÷ A÷
	H\H >PLB@ H\H 120,1\$7,9(<	ÖÖ E,Ef	ÑÖ	ÑÖ	E•Ef EfE•Ef	E•Ef EfE•Ef

\$FFHQW 'DWD

	6WDQGDUG	6DNDQHQH \$	6DNDQHQH \$	6DNDQHQH \$	6DNDQHQH \$	6DNDQHQH \$	6DNDQHQH \$	6DNDQHQH \$
	PRXQW '\$7,9(/2&\$7,9(723,&< PRXQWDLQ \$%/\$7,9(WRR <	A÷	A÷	A÷	A÷	A÷	A÷	EfE•EfEfEf
	VHD >bXPL@	A	A	A	A	A	A	fE
	VHD 723,&<	A÷	A÷	A÷	EfE•Ef	A÷	A÷	EfEfEfEfEf
	VHD \$%/\$7,9(723,&<	A÷	A÷	A÷	EfE•EfEfEf	A÷	A÷	EfEfEfEfEf
	VHD 7(50,1\$7,9(723,&<	A÷	A÷	A÷	EfE•EfEfEf	A÷	A÷	EfEfEfEfEf
	VHD '\$7,9(/2&\$7,9(723,&<	A÷	A÷	A÷	A÷	A÷	A÷	EfEfEfEfEf
	VHD \$%/\$7,9(WRR <	A÷	A÷	A÷	A÷	A÷	A÷	EfEfEfEfEf
8	ERDW VKLS >"XQ@	A@	A	A	A	A	E	fE
	ERDW 723,&<	A÷	A÷	A÷	EfEfEf	A÷	A÷	EfEfEfEfEf
	ERDW \$%/\$7,9(723,&<	A÷	A÷	A÷	EfEfEfEfEf	A÷	A÷	EfEfEfEfEf
	ERDW 7(50,1\$7,9(723,&<	A÷	A÷	A÷	EfEfEfEfEf	A÷	A÷	EfEfEfEfEf
	ERDW '\$7,9(/2&\$7,9(723,&<	A÷	A÷	A÷	A÷	A÷	A÷	EfEfEfEfEf
	ERDW \$%/\$7,9(WRR <	A÷	A÷	A÷	A÷	A÷	A÷	EfEfEfEfEf
	EORRG >QLB Q±	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef
	EORRG 120,1\$7,9(<	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef
	EORRG 120,1\$7,9(<	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef
	EORRG WRR	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef
	EORRG \$%/\$7,9(<	EfEfEfEf	EfEfEfEf	EfE•EfEf	EfE•EfEf	EfE•EfEf	A÷	EfE•EfEf
	EORRG 7(50,1\$7,9(<	EfEfEfEf	EfEfEfEf	EfE•EfEf	A÷	EfE•EfEf	A÷	EfE•EfEf
	EORRG \$%/\$7,9(<	EfEfEfEf	EfEfEfEf	EfE•EfEf	A÷	EfE•EfEf	A÷	EfE•EfEf
	EORRG 7(50,1\$7,9(WRR	EfEfEfEf	EfEfEfEf	A÷	A÷	EfE•EfEf	A÷	EfE•EfEf
	OHD1 >KDB@	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef
	OHD1 120,1\$7,9(<	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef
	OHD1 120,1\$7,9(<	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef
	OHD1 WRR	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef
	OHD1 \$%/\$7,9(<	EfEfEfEf	EfEfEfEf	EfE•EfEf	EfE•EfEf	EfE•EfEf	A÷	EfE•EfEf
	OHD1 7(50,1\$7,9(<	EfEfEfEf	EfEfEfEf	EfE•EfEf	A÷	A÷	A÷	EfE•EfEf
\$	OHD1 \$%/\$7,9(WRR	EfEfEfEf	EfEfEfEf	EfE•EfEf	A÷	A÷	A÷	EfE•EfEf
	OHD1 7(50,1\$7,9(WRR	EfEfEfEf	EfEfEfEf	EfE•EfEf	A÷	A÷	A÷	EfE•EfEf
	VDNH DOFRKROL >VHB@	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef
	VDNH 120,1\$7,9(<	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef
	VDNH 120,1\$7,9(<	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef
	VDNH WRR	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef
	VDNH \$%/\$7,9(<	EfEfEfEf	EfEfEfEf	EfE•EfEf	EfE•EfEf	EfE•EfEf	A÷	EfE•EfEf
	VDNH 7(50,1\$7,9(<	EfEfEfEf	EfEfEfEf	EfE•EfEf	A÷	EfE•EfEf	A÷	EfE•EfEf
	VDNH \$%/\$7,9(<	EfEfEfEf	EfEfEfEf	EfE•EfEf	A÷	EfE•EfEf	A÷	EfE•EfEf
	VDNH 7(50,1\$7,9(WRR	EfEfEfEf	EfEfEfEf	EfE•EfEf	A÷	EfE•EfEf	A÷	EfE•EfEf
	VDNH 7(50,1\$7,9(WRR	EfEfEfEf	EfEfEfEf	EfE•EfEf	A÷	EfE•EfEf	A÷	EfE•EfEf
	ZDWHU ZHOO >KDB@	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef
	ZHOO 120,1\$7,9(<	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef
	ZHOO 120,1\$7,9(<	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef
	ZHOO WRR	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef
	ZHOO \$%/\$7,9(<	EfEfEfEf	EfEfEfEf	EfE•EfEf	EfE•EfEf	EfE•EfEf	A÷	EfE•EfEf
	ZHOO 7(50,1\$7,9(<	EfEfEfEf	EfEfEfEf	EfE•EfEf	A÷	EfE•EfEf	A÷	EfE•EfEf
	ZHOO \$%/\$7,9(<	EfEfEfEf	EfEfEfEf	EfE•EfEf	A÷	EfE•EfEf	A÷	EfE•EfEf
	ZHOO 7(50,1\$7,9(WRR	EfEfEfEf	EfEfEfEf	EfE•EfEf	A÷	EfE•EfEf	A÷	EfE•EfEf
	H\H >PLB@	E•Ef	E•Ef	EfEf	E•Ef	E•Ef	E•Ef	E•Ef
	H\H 120,1\$7,9(<	EfE•Ef	EfE•Ef	A÷	EfE•Ef	EfE•Ef	A÷	EfE•Ef

NOMINATIVE: ?anu / ABLATIVE: kara / TERMINATIVE: @di, madi / DATIVE/LOCATIVE: kai, ni / too Hmu

*HQHUDO 6WXG\ IRU 5HVHDFUK DQGF&RQVLEU-DSDWR
5HVHDFUK 5HSRUW RQ WKH .LND
\$XJXVW 1DWLRQDO ,QVWLWXWLRU IRU L&SDC

	6WDQGDUg	-D\$Q\$H	VH :DQ	%	1DNDVDWR	\$	1DN	DVDWR
	PRXWDLQ \$7,9(/2&\$7,9(723,&< PRXQWDLQ \$%/\$7,9(WRR <	A÷	A÷	A÷	EfEfEfEg	A÷		E•EfEgEg
8	VHD >bXPL@	A	A	A	A	A	÷	E
	VHD 723,&<	A÷	A÷	A÷	EfEfEf	A÷		EfEfEf
	VHD \$%/\$7,9(723,&<	A÷	A÷	A÷	EfEfEfEfEf	A÷		EfEfEfEfEf
	VHD 7(50,1\$7,9(723,&<	A÷	A÷	A÷	EfEfEfEfEf	A÷		EfEfEfEfEf
	VHD '\$7,9(/2&\$7,9(723,&<	A÷	A÷	A÷	EfEfEfEf	A÷		EfEfEfEf
	VHD \$%/\$7,9(WRR <	A÷	A÷	A÷	EfEfEfEfEf	A÷		EfEfEfEfEf
	ERDW VKLS >'XQ@	A@	A	A	A	A	÷	E
	ERDW 723,&<	A÷	A÷	A÷	EfEfEf	A÷		EfEfEf
	ERDW \$%/\$7,9(723,&<	A÷	A÷	A÷	EfEfEfEfEf	A÷		EfEfEfEfEf
	ERDW 7(50,1\$7,9(723,&<	A÷	A÷	A÷	EfEfEfEfEf	A÷		EfEfEfEfEf
\$	'\$7,9(/2&\$7,9(723,&<	A÷	A÷	A÷	EfEfEfEf	A÷		EfEfEfEf
	ERDW \$%/\$7,9(WRR <	A÷	A÷	A÷	EfEfEfEfEf	A÷		EfEfEfEfEf
	EORRG >QLB Q±	E@	E	f	A	÷	E	•E
	EORRG 120,1\$7,9(<	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef		EfE•Ef
	EORRG 120,1\$7,9(<	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef		EfE•Ef
	EORRG WRR	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef		EfE•Ef
	EORRG \$%/\$7,9(	EfEfEgEf>Ü EfE•Ef	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEf		EfE•EfEg
	EORRG 7(50,1\$7,9(<	EfEfEgEf>Ü EfE•Ef	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEf		EfE•EfEg
	EORRG \$%/\$7,9(	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg>Ü EfE•EgEfEf		EfE•EfEfEg
	EORRG 7(50,1\$7,9 WRR	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg>Ü EfE•EgEfEf		EfE•EfEfEg
8	OHDI >KDB@	E	E	f	A	÷	E	•E
	OHDI 120,1\$7,9(<	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef		EfE•Ef
	OHDI 120,1\$7,9(<	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef		EfE•Ef
	OHDI WRR	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef		EfE•Ef
	OHDI \$%/\$7,9(	EfEfEgEf	A÷	EfEfEgEf>Ü EfE•EgEf	EfEfEgEf	EfE•EfEf>Ü EfE•EfEg		EfE•EfEg
	OHDI 7(50,1\$7,9(	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEf>Ü EfE•EfEg		EfE•EfEg
	OHDI \$%/\$7,9(WRR	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg>Ü EfE•EgEfEf		EfE•EfEfEg
	OHDI 7(50,1\$7,9(	EfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg		EfE•EfEfEg
	VDNH DOFRKROL >VHB@	EfE•Ef	EfEf	E•Ef	E•Ef	E•Ef		E•Ef
	VDNH 120,1\$7,9(<	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef		EfE•Ef
8	VDNH 120,1\$7,9(<	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef		EfE•Ef
	VDNH WRR	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef		EfE•Ef
	VDNH \$%/\$7,9(	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg		EfE•EfEg
	VDNH 7(50,1\$7,9(	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg		EfE•EfEg
	VDNH \$%/\$7,9(WRR	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg		EfE•EfEfEg
	VDNH 7(50,1\$7,9(	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg		EfE•EfEfEg
	ZDWHU ZHOO >KDB@	EfEf	EfEf	E•Ef	E•Ef	E•Ef		E•Ef
	ZHOO 120,1\$7,9(<	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef		EfE•Ef
	ZHOO 120,1\$7,9(<	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef		EfE•Ef
	ZHOO WRR	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef		EfE•Ef
8	ZHOO \$%/\$7,9(	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg		EfE•EfEg
	ZHOO 7(50,1\$7,9(	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg		EfE•EfEg
	ZHOO \$%/\$7,9(WRR	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg		EfE•EfEfEg
	ZHOO 7(50,1\$7,9(	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg		EfE•EfEfEg
	H\H >PLB@	E•Ef	EfEf	E•Ef	E•Ef	E•Ef		E•Ef
	H\H 120,1\$7,9(<	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef		EfE•Ef

\$FFHQW 'DWD

	6WDQGDUG	-DQDQW	X\$	2QRWVX	%	6KLWRRNH	\$	6KLWRRNH	%	6K
%	H\H 120,1\$7,9(	E,E,Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef		
	H\H WRR	E,E,Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷		
	H\H \$%/\$7,9(	E,E,EgEf	ÖÑ¹,	ÖÑ¹, ÖÖ¹,	ÖÖ¹,	EfE•EfEg	EfE•EfEg			
	H\H 7(50,1\$7,9(	E,E,EgEf	ÖÑ¹,	ÖÑ¹, ÖÖ¹,	ÖÖ¹,	EfE•EfEg	A÷			
	H\H \$%/\$7,9(WR	E,E,EgEfEg>Ü EfEfEgEfEg	ÖÑ¹,¹	ÖÑ¹,¹	ÖÖ¹,¹	EfE•EfEfEg	EfE•EfEfEg			
	H\H 7(50,1\$7,9(V	E,E,EgEfEg	ÖÑ¹,¹	ÖÑ¹,¹	ÖÖ¹,¹	EfE•EfEfEg>Ü EfE•EfEfEg	A÷			
	WUHH >KLB@	ÖÖ	ÑÖ	ÑÖ	ÑÖ	E•Ef	E•Ef			
	WUHH 120,1\$7,9(	E,E,Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef			
	WUHH 120,1\$7,9(	E,E,Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef			
	WUHH WRR	E,E,Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷			
	WUHH \$%/\$7,9(	E,E,EgEf	ÖÑ¹,	ÖÑ¹, ÖÖ¹,	ÖÖ¹,	EfE•EfEg	EfE•EfEg			
	WUHH 7(50,1\$7,9(	E,E,EgEf	ÖÑ¹,	ÖÑ¹, ÖÖ¹,	ÖÖ¹,	EfE•EfEg	A÷			
	WUHH \$%/\$7,9(V	E,E,EgEfEg	ÖÑ¹,¹	ÖÑ¹,¹	ÖÖ¹,¹	EfE•EfEfEg	EfE•EfEfEg			
	WUHH 7(50,1\$7,9(	E,E,EgEfEg	ÖÑ¹,¹	ÖÑ¹,¹	ÖÖ¹,¹	EfE•EfEfEg	A÷			
	WXE EXFNHW >Z	ÖÖZ×B@	ÑÖ	ÑÖ	A	÷	A	÷		E
	WXE 120,1\$7,9(<	E,E,Ef	EfE•Ef	EfE•Ef	A÷	A÷	EfE/Ef			
	WXE 120,1\$7,9(	E,E,Eg	EfE•Ef	EfE•Ef	A÷	A÷	EfE/Eg			
	WXE WRR	E,E,Ef	EfE•Ef	EfE•Ef	A÷	A÷	A÷			
	WXE \$%/\$7,9(	E,E,EgEf	ÖÑ¹,	ÖÑ¹, ÖÖ¹,	A÷	A÷	EfE/EgEg			
	WXE 7(50,1\$7,9(	E,E,EgEf	ÖÑ¹,	ÖÑ¹, ÖÖ¹,	A	÷	A	÷		A
	WXE \$%/\$7,9(WR	E,E,EgEfEg	ÖÑ¹,¹	ÖÑ¹,¹	A÷	A÷	EfE/EgEgEg			
	WXE 7(50,1\$7,9(	E,E,EgEfEg	ÖÑ¹,¹	ÖÑ¹,¹	A	÷	A	÷		A
	KRXVH >MDB@	ÖÖ	ÑÖ	ÑÖ	ÑÖ	ÑÖ	ÑÖ			
	KRXVH 120,1\$7,9(	ÖÖ	ÖÑ,	ÖÑ,	ÖÑ,	ÖÑ,	ÖÑ,			
	KRXVH 120,1\$7,9(	ÖÖ	ÖÑ,	ÖÑ,	ÖÑ,	ÖÑ,	ÖÑ,			
	KRXVH WRR	ÖÖ	ÖÑ,	ÖÑ,	ÖÑ,	ÖÑ,	?			
	KRXVH \$%/\$7,9(	ÖÖ¹,	ÖÑ¹,	ÖÑ¹, ÖÖ¹,	ÖÖ¹,	ÖÑ,¹	ÖÑ,¹			
	KRXVH 7(50,1\$7,9(	ÖÖ¹,	ÖÑ¹,	ÖÑ¹, ÖÖ¹,	ÖÖ¹,	ÖÑ,¹	?			
	KRXVH \$%/\$7,9(WR	ÖÖ¹,¹	ÖÑ¹,¹	ÖÑ¹,¹	ÖÖ¹,¹	ÖÑ,,¹	ÖÑ,,¹			
	KRXVH 7(50,1\$7,9(	ÖÖ¹,¹	ÖÑ¹,¹	ÖÑ¹,¹	ÖÖ¹,¹	ÖÑ,,¹	?			
\$	ZDWHU >PL\X PL	ÖÖ@	ÖÑ	ÑÖ	ÑÖ	ÑÖ	ÑÖ			
	ZDWHU 120,1\$7,9(	ÖÖ¹	ÑÖ¹	ÖÖ,	EfE•Ef	EfE•Ef	EfE•Ef			
	ZDWHU 120,1\$7,9(	ÖÖ¹	ÑÖ¹	ÖÖ, ÖÑ,	EfE•Ef	EfE•Ef	EfE•Ef			
	ZDWHU WRR	ÖÖ¹	ÑÖ¹	EfE•Ef	EfE•Ef	EfE•Ef	A÷			
	ZDWHU \$%/\$7,9(	ÖÑ¹¹	ÖÑ¹¹	ÖÑ¹, ÖÖ¹,	ÖÖ¹,	EfE•EfEg	A÷			
	ZDWHU 7(50,1\$7,9(	ÖÑ¹¹	ÖÑ¹¹	ÖÑ¹, ÖÖ¹,	ÖÖ¹,	EfE•EfEg	A÷			
	ZDWHU \$%/\$7,9(WR	ÖÑ¹¹	ÖÑ¹¹	ÖÖ¹,¹	ÖÖ¹,¹	EfE•EfEfEg	A÷			
	ZDWHU 7(50,1\$7,9(	ÖÑ¹¹	ÖÑ¹¹	ÖÖ¹,¹	ÖÖ¹,¹	EfE•EfEfEg	A÷			
	ELUG >WXL@	ÖÑ	ÖÑ	ÖÑ	ÖÑ	E•Ef	EfEf			
	ELUG 120,1\$7,9(	ÖÖ¹	ÑÖ¹	ÖÖ,	ÖÖ,	EfE•Ef	EfE•Ef			
	ELUG 120,1\$7,9(	ÖÖ¹	ÑÖ¹	ÖÖ, ÖÖ¹	ÖÖ¹	EfE•Ef	EfE•Ef			
	ELUG WRR	ÖÖ¹	ÑÖ¹	ÖÖ, ÖÖ¹	ÖÖ¹	EfE•Ef	A÷			
	ELUG \$%/\$7,9(	ÖÑ¹¹	ÖÑ¹¹	ÖÖ¹¹	ÖÖ¹¹	EfE•EfEg	A÷			
	ELUG 7(50,1\$7,9(	ÖÑ¹¹	ÖÑ¹¹	ÖÖ¹¹	ÖÖ¹¹	EfE•EfEg	A÷			
	ELUG \$%/\$7,9(WR	ÖÖ¹¹	ÖÑ¹¹	ÖÖ¹¹	ÖÖ¹¹	EfE•EfEfEg	A÷			
	ELUG 7(50,1\$7,9(	ÖÖ¹¹	ÖÑ¹¹	ÖÖ¹¹	ÖÖ¹¹	EfE•EfEfEg	A÷			
	QRVH >SDQD KD	ÖÖ@	ÖÑ	ÖÑ	ÖÑ	E•Ef	E•Ef			

NOMINATIVE: ?önu / ABLATIVE: kara / TERMINATIVE: @di, madi / DATIVE/LOCATIVE: kai, ni / too Hmu

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQVLGUDSWQR
5HVHDFK 5HSRUW RQ WKH .LND
\$XJXVW 1DWLRQDO ,QVWLWXDWLRKIRLWLD\$SDO

	6WDQGDU	6DNDQH	QH \$ 6DNDQH	\$ % \$ GHQ \$ %	DPLNDW.DVNDW.DVNDW.DVNDW.HVWX %					
%	H\H 120,1\$7,9(	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef		
	H\H WRR	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef			
	H\H \$ %/\$7,9(	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg	A÷	EfE•EfEg		
	H\H 7(50,1\$7,9(	EfEfEgEf	EfEfEgEf	EfE•EfEg	A÷	EfE•EfEg	A÷	EfE•EfEg	
	H\H \$ %/\$7,9(WRR	EfEfEfEgEf	EfEfEfEgEf	EfE•EfEfEg	A÷	EfE•EfEfEg	A÷	EfE•EfEfEg		
	H\H 7(50,1\$7,9(WRR	EfEfEfEgEf	EfEfEfEgEf	EfE•EfEfEg	A÷	EfE•EfEfEg	A÷	EfE•EfEfEg		
	WUHH >KLB@	A	÷	E	•E	f	E	fE	f	E
	WUHH 120,1\$7,9(	EfE•Ef	EfE•Ef	A÷	EfE•Ef	EfE•Ef	A÷	EfE•Ef	
	WUHH 120,1\$7,9(	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef	
	WUHH WRR	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef		
	WUHH \$ %/\$7,9(	A÷	EfEfEgEf	EfE•EfEg	EfE•EfEg	EfE•EfEg	A÷	EfE•EfEg	
	WUHH 7(50,1\$7,9(	A÷	EfEfEgEf	EfE•EfEg	A÷	EfE•EfEg	A÷	EfE•EfEg	
	WUHH \$ %/\$7,9(WRR	WRR	EfEfEfEgEf	EfE•EfEfEg	A÷	EfE•EfEfEg	A÷	EfE•EfEfEg		
	WUHH 7(50,1\$7,9(WRR	A÷WRR	EfEfEfEgEf	EfE•EfEfEg	A÷	EfE•EfEfEg	A÷	EfE•EfEfEg		
	WXE EXFNHW >Z	AB	Z≠B@	÷	A	÷	A	÷	A	÷
	WXE 120,1\$7,9(<	A÷	A÷	A÷	A÷	EfEfEf	A÷	EfE•Ef		
	WXE 120,1\$7,9(	A÷	A÷	A÷	A÷	EfEfEg	A÷	EfE•Ef	
	WXE WRR	A÷	A÷	A÷	A÷	EfEfEg	A÷	EfE•Ef		
	WXE \$ %/\$7,9(	A÷	A÷	A÷	A÷	EfEfEfEg	A÷	EfE•EfEg	
	WXE 7(50,1\$7,9(	A÷	A÷	A÷	A÷	EfEfEfEg	A÷	EfE•EfEg	
	WXE \$ %/\$7,9(WRR	A÷	A÷	A÷	A÷	EfEfEfEfEg	A÷	EfE•EfEfEg		
	WXE 7(50,1\$7,9(WRR	WRR	A÷	A÷	A÷	EfEfEfEfEg	A÷	EfE•EfEfEg		
	KRXVH >MDB@	E•Ef	E•Ef	EfEf	E•Ef	E•Ef	E•Ef	E•Ef		
	KRXVH 120,1\$7,9(	EfE•Ef	EfE•Ef	A÷	EfE•Ef	EfE•Ef	A÷	EfE•Ef	
	KRXVH 120,1\$7,9(	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef	
	KRXVH WRR	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef		
	KRXVH \$ %/\$7,9(	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg	EfE•EfEg	A÷	EfE•EfEg	
	KRXVH 7(50,1\$7,9(	EfEfEgEf	EfEfEgEf	EfE•EfEg	A÷	EfE•EfEg	A÷	EfE•EfEg	
	KRXVH \$ %/\$7,9(WRR	WRR	EfEfEfEgEf	EfE•EfEfEg	A÷	EfE•EfEfEg	A÷	EfE•EfEfEg		
	KRXVH 7(50,1\$7,9(WRR	EfEfEfEgEf	EfEfEfEgEf	EfE•EfEfEg	A÷	EfE•EfEfEg	A÷	EfE•EfEfEg		
	\$	ZDWHU >PL\X PL	GEF@	E•Ef	E•E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	
		ZDWHU 120,1\$7,9(	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	
ZDWHU 120,1\$7,9(		EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	
ZDWHU WRR		EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef	EfE•Ef			
ZDWHU \$ %/\$7,9(		EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg	EfE•EfEg	EfE•EfEg	
ZDWHU 7(50,1\$7,9(		EfEfEgEf	EfEfEgEf	EfE•EfEg	A÷	EfE•EfEg	A÷	EfE•EfEg
ZDWHU \$ %/\$7,9(WRR		WRR	EfEfEfEgEf	EfE•EfEfEg	EfE•EfEfEg	EfE•EfEfEg	EfEfEfEgEf	EfE•EfEfEg		
ZDWHU 7(50,1\$7,9(WRR		EfEfEfEgEf	EfEfEfEgEf	EfE•EfEfEg	A÷	EfE•EfEfEg	A÷	EfE•EfEfEg		
ELUG >WXL@		E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef		
ELUG 120,1\$7,9(		EfE•Ef	EfE•Ef	E•E•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef
ELUG 120,1\$7,9(		EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef
ELUG WRR		EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef		
ELUG \$ %/\$7,9(		EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg	EfE•EfEg	EfE•EfEg	EfE•EfEg
ELUG 7(50,1\$7,9(		EfEfEgEf	EfEfEgEf	EfE•EfEg	A÷	EfE•EfEg	A÷	EfE•EfEg
ELUG \$ %/\$7,9(WRR		WRR	EfEfEfEgEf	EfE•EfEfEg	EfE•EfEfEg	EfE•EfEfEg	EfEfEfEgEf	EfE•EfEfEg		
ELUG 7(50,1\$7,9(WRR		EfEfEfEgEf	EfEfEfEgEf	EfE•EfEfEg	A÷	EfE•EfEfEg	A÷	EfE•EfEfEg		
QRVH >SDQD KD	SDQD	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef			

\$FFHQW 'DWD

	6WDQGDUG	-DSDQ\$	VH :DQ	%	1DNDVDWR	\$ 1DNDVDWR	%	\$UDNL	\$		
	H\H 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef			
	H\H WRR	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef				
	H\H \$%/\$7,9(	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEf	EfE•EfEg			
	H\H 7(50,1\$7,9(	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEf>Ü EfE•EfEg	EfE•EfEg			
	H\H \$%/\$7,9(WRR	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg				
	H\H 7(50,1\$7,9(WRR	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg				
	WUHH >KLB@	E	•E	f	A	÷	E	•E	f	E	•E
	WUHH 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef	EfE•Ef			
	WUHH 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef			
	WUHH WRR	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef				
	WUHH \$%/\$7,9(	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg			
	WUHH 7(50,1\$7,9(	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg			
	WUHH \$%/\$7,9(WRR	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg				
	%WUHH 7(50,1\$7,9(WRR	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg				
	WXE EXFNHW >Z	AB	Z≠B@	÷	A	÷	A	÷	A	÷	A
	WXE 120,1\$7,9(<	A	÷	A	÷	A	÷	A	÷	A	÷
	WXE 120,1\$7,9(A	÷	A	÷	A	÷	A	÷	A	÷
	WXE WRR	A	÷	A	÷	A	÷	A	÷	A	÷
	WXE \$%/\$7,9(A	÷	A	÷	A	÷	A	÷	A	÷
	WXE 7(50,1\$7,9(A	÷	A	÷	A	÷	A	÷	A	÷
	WXE \$%/\$7,9(WRR	A	÷	A	÷	A	÷	A	÷	A	÷
	WXE 7(50,1\$7,9(WRR	A	÷	A	÷	A	÷	A	÷	A	÷
	KRXVH >MDB@	E•Ef	EfEf	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef			
	KRXVH 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef	EfE•Ef	EfE•Ef		
	KRXVH 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef		
	KRXVH WRR	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef			
	KRXVH \$%/\$7,9(	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg	EfE•EfEg		
	KRXVH 7(50,1\$7,9(	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg	EfE•EfEg		
	KRXVH \$%/\$7,9(WRR	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg	EfE•EfEfEg			
	KRXVH 7(50,1\$7,9(WRR	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg	EfE•EfEfEg			
\$	ZDWHU >PL\X	PL\X@	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef			
	ZDWHU 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef	EfE•Ef	EfE•Ef		
	ZDWHU 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef		
	ZDWHU WRR	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef			
	ZDWHU \$%/\$7,9(	EfEfEgEf>Ü EfE•E•Ef	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg	EfE•EfEg		
	ZDWHU 7(50,1\$7,9(	EfEfEgEf>Ü EfE•E•Ef	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg	EfE•EfEg		
	ZDWHU \$%/\$7,9(WRR	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg	EfE•EfEfEg			
	ZDWHU 7(50,1\$7,9(WRR	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg	EfE•EfEfEg			
	ELUG >WXL@	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef			
	ELUG 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef	EfE•Ef	EfE•Ef		
	ELUG 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef		
	ELUG WRR	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef			
	ELUG \$%/\$7,9(	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg>Ü EfE•EfEf	EfE•EfEg	EfE•EfEg		
	ELUG 7(50,1\$7,9(	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg	EfE•EfEg		
	ELUG \$%/\$7,9(WRR	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg	EfE•EfEfEg			
	ELUG 7(50,1\$7,9(WRR	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg	EfE•EfEfEg			
	QRVH >SDQD	SDQD@	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef			

NOMINATIVE: ?ñu / ABLATIVE: kara / TERMINATIVE: @ñi, madi / DATIVE/LOCATIVE: kai, ni / too Hmu

*HQHUDO 6WXG\ IRU 5HVHDFUK DQGF&RQVLEU-DSDWR
5HVHDFUK 5HSRUW RQ WKH .LND
\$XJXVW 1DWLRQDO ,QVWLWXWLRU IRU L&SDC

	6WDQGDUG	-2QRWVX\$	2QRWVX%	6KLWRRNH\$	6KLWRRNH%	6K
	QRVH 120,1\$7,9(S	NÖ¹ ÖÖ¹	NÖ¹	ÖÖ,	ÖÖ,	EfE•Ef
	QRVH 120,1\$7,9(S	ÖÖ¹ NÖ¹	NÖ¹	ÖÖ,	ÖÖ¹	EfE•Ef
	QRVH WRR	ÖÖ¹ NÖ¹	NÖ¹	ÖÖ,	ÖÖ¹	EfE•Ef
	QRVH \$%/\$7,9(S	ÖN¹¹	ÖN¹¹	ÖÖ¹¹	ÖÖ¹¹	EfE•EfEg
	QRVH 7(50,1\$7,9(S	ÖN¹¹	ÖN¹¹	ÖÖ¹¹	ÖÖ¹¹	EfE•EfEg
	QRVH \$%/\$7,9(W S	ÖN¹¹¹	ÖN¹¹¹	ÖÖ¹¹¹	ÖÖ¹¹¹	EfE•EfEfEg
	QRVH 7(50,1\$7,9(WRR	ÖN¹¹¹	ÖN¹¹¹	ÖÖ¹¹¹	ÖÖ¹¹¹	EfE•EfEfEg
	FDYH >JDPD@	A÷	ÖN	ÖN	ÖN	E•Ef
	FDYH 120,1\$7,9(A÷	A÷	NÖ¹	ÖÖ,	ÖÖ,	EfE•Ef
	FDYH 120,1\$7,9(A÷	A÷	NÖ¹	ÖÖ,	ÖÖ¹	EfE•Ef
	FDYH WRR	A÷	NÖ¹	ÖÖ,	ÖÖ¹	EfE•Ef
	FDYH \$%/\$7,9(A÷	A÷	ÖN¹¹	ÖÖ¹¹	ÖÖ¹¹	EfE•EfEg
	FDYH 7(50,1\$7,9(A÷	A÷	ÖN¹¹	ÖÖ¹¹	ÖÖ¹¹	EfE•EfEg
	FDYH \$%/\$7,9(W A÷	A÷	ÖN¹¹¹	ÖÖ¹¹¹	ÖÖ¹¹¹	EfE•EfEfEg
	FDYH 7(50,1\$7,9(A÷	A÷	ÖN¹¹¹	ÖÖ¹¹¹	ÖÖ¹¹¹	EfE•EfEfEg
%	PRXQWDLQ >MDP A÷	A÷	NÖ	NÖ	NÖ	E•Ef
	PRXQWDLQ 120,1\$7,9(A÷	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef
	PRXQWDLQ 120,1\$7,9(A÷	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef
	PRXQWDLQ WRR	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef
	PRXQWDLQ \$%/\$7,9(A÷	A÷	ÖN¹,	ÖN¹, ÖÖ¹,	ÖÖ¹,	EfE•EfEg
	PRXQWDLQ 7(50,1\$7,9(A÷	A÷	ÖN¹,	ÖN¹, ÖÖ¹,	ÖÖ¹,	EfE•EfEg
	PRXQWDLQ \$%/\$7,9(WRR	A÷	ÖN¹,¹	ÖN¹,¹ ÖÖ¹,¹	ÖÖ¹,¹	EfE•EfEfEg
	PRXQWDLQ 7(50,1\$7,9(WRR	A÷	ÖN¹,¹	ÖÖ¹,¹	ÖÖ¹,¹	EfE•EfEfEg
	EHDQ SHD >PDP ¥@	PDP NÖ	NÖ	NÖ	NÖ	E•Ef
	EHDQ 120,1\$7,9(E•Ef	E•Ef	EfE•Ef	A÷	EfE•Ef	EfE•Ef
	EHDQ 120,1\$7,9(E•Ef	E•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef
	EHDQ WRR	E•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷
	EHDQ \$%/\$7,9(ÖN¹,	ÖN¹,	ÖN¹,	ÖÖ¹, ÖN¹,	ÖÖ¹,	EfE•EfEg
	EHDQ 7(50,1\$7,9(ÖN¹,	ÖN¹,	ÖN¹,	ÖN¹, ÖÖ¹,	ÖÖ¹,	EfE•EfEg
	EHDQ \$%/\$7,9(W ÖN¹,¹	ÖN¹,¹	ÖN¹,¹	ÖN¹,¹ ÖN¹,¹	ÖÖ¹,¹	EfE•EfEfEg
	EHDQ 7(50,1\$7,9(WRR	ÖN¹,¹	ÖN¹,¹	ÖN¹,¹ ÖN¹,¹	ÖÖ¹,¹	EfE•EfEfEg
	IORZHU >SDQD NÖ	NÖ	NÖ	NÖ	NÖ	E•Ef
	IORZHU 120,1\$7,9(E•Ef	E•Ef	EfE•Ef	A÷	EfE•Ef	EfE•Ef
	IORZHU 120,1\$7,9(E•Ef	E•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef
	IORZHU WRR	E•Ef	EfE•Ef	EfE•Ef	EfE•Ef	A÷
IORZHU \$%/\$7,9(ÖN¹,	ÖN¹,	ÖN¹,	ÖÖ¹, ÖN¹,	ÖÖ¹,	EfE•EfEg	
IORZHU 7(50,1\$7,9(ÖN¹,	ÖN¹,	ÖN¹,	ÖN¹, ÖÖ¹,	ÖÖ¹,	EfE•EfEg	
IORZHU \$%/\$7,9(W ÖN¹,¹	ÖN¹,¹	ÖN¹,¹	ÖN¹,¹ ÖN¹,¹	ÖÖ¹,¹	EfE•EfEfEg	
IORZHU 7(50,1\$7,9(WRR	ÖN¹,¹	ÖN¹,¹	ÖN¹,¹ ÖN¹,¹	ÖÖ¹,¹	EfE•EfEfEg	
FHUHDSHFZKH EDUOH\ U\H R	NÖ	NÖ	NÖ	NÖ	E•Ef	
>P X Q - P X U F	NÖ	NÖ	NÖ	NÖ	E•Ef	
FHUHDO 120,1\$7,9(A÷	A÷	EfE•Ef	A÷	EfE•Ef	EfE•Ef	
FHUHDO 120,1\$7,9(A÷	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	
FHUHDO WRR	A÷	EfE•Ef	EfE•Ef	EfE•Ef	A÷	
FHUHDO \$%/\$7,9(A÷	A÷	ÖN¹,	ÖÖ¹, ÖN¹,	ÖÖ¹,	EfE•EfEg	

\$FFHQW 'DWD

	6WDQGDUG	6DSDQHQH \$ 6DSDQHQH \$ % \$GHQ \$ %	DPLND W.DVND W.DVND W.DVND W.HVWX %								
	QRVH 120,1\$7,9(	EfE•Ef	EfE•Ef	E•E•Ef	EfE•Ef	EfE•Ef	EfE•Ef			
	QRVH 120,1\$7,9(	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef			
	QRVH WRR	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef	EfE•Ef				
	QRVH \$ %/\$7,9(	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg	EfE•EfEg	EfE•EfEg			
	QRVH 7(50,1\$7,9(	EfEfEgEf	EfEfEgEf	EfE•EfEg	A÷	EfE•EfEg	EfE•EfEg			
	QRVH \$ %/\$7,9(WRR	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg	EfE•EfEfEg	EfE•EfEfEg				
	QRVH 7(50,1\$7,9(	EfEfEfEgEf	EfEfEfEgEf	EfE•EfEfEg	A÷	EfE•EfEfEg	EfE•EfEfEg			
	FDYH >JDPD@	E	•E	f	A	÷	E	•E	f	E	•E
	FDYH 120,1\$7,9(	EfE•Ef	A÷	E•E•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef		
	FDYH 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef		
	FDYH WRR	EfE•Ef	A÷	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef			
	FDYH \$ %/\$7,9(	EfEfEgEf	A÷	EfE•EfEg	EfE•EfEg	EfE•EfEg	EfE•EfEg	EfE•EfEg		
	FDYH 7(50,1\$7,9(	EfEfEgEf	A÷	EfE•EfEg	A÷	EfE•EfEg	A÷	EfE•EfEg		
	FDYH \$ %/\$7,9(WRR	EfEfEfEgEf	A÷	EfE•EgEfEg	EfE•EfEfEg	EfE•EfEfEg	EfEfEfEgEf	EfE•EfEfEg			
FDYH 7(50,1\$7,9(	EfEfEfEgEf	A÷	EfE•EfEfEg	A÷	EfE•EfEfEg	A÷	EfE•EfEfEg			
%	PRXQWDLQ >MDP	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef			
	PRXQWDLQ 120,1\$7,9(	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef		
	PRXQWDLQ 120,1\$7,9(	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef		
	PRXQWDLQ WRR	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef			
	PRXQWDLQ \$ %/\$7,9(	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg	EfE•EfEg	EfE•EfEg	EfE•EfEg		
	PRXQWDLQ 7(50,1\$7,9(	EfEfEgEf	EfEfEgEf	EfE•EfEg	A÷	EfE•EfEg	A÷	EfE•EfEg		
	PRXQWDLQ \$ %/\$7,9(WRR	EfEfEfEgEf	EfEfEfEgEf	EfE•EfEfEg	EfE•EfEfEg	EfE•EfEfEg	EfEfEfEgEf	EfE•EfEfEg			
	PRXQWDLQ 7(50,1\$7,9(WRR	EfEfEfEgEf	EfEfEfEgEf	EfE•EfEfEg	A÷	EfE•EfEfEg	A÷	EfE•EfEfEg			
	EHDQ SHD >PDP	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef			
	EHDQ 120,1\$7,9(	EfE•Ef	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef		
	EHDQ 120,1\$7,9(	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef		
	EHDQ WRR	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef			
	EHDQ \$ %/\$7,9(	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg	EfE•EfEg	EfE•EfEg	EfE•EfEg		
	EHDQ 7(50,1\$7,9(	EfEfEgEf	EfEfEgEf	EfE•EfEg	A÷	EfE•EfEg	A÷	EfE•EfEg		
	EHDQ \$ %/\$7,9(WRR	EfEfEfEgEf	EfEfEfEgEf	EfE•EfEfEg	EfE•EfEfEg	EfE•EfEfEg	EfEfEfEgEf	EfE•EfEfEg			
	EHDQ 7(50,1\$7,9(	EfEfEfEgEf	EfEfEfEgEf	EfE•EfEfEg	A÷	EfE•EfEfEg	A÷	EfE•EfEfEg		
	IORZHU >SDQD	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef			
	IORZHU 120,1\$7,9(	EfE•Ef	EfE•Ef	E•E•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef		
	IORZHU 120,1\$7,9(	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef		
	IORZHU WRR	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef			
	IORZHU \$ %/\$7,9(	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg	EfE•EfEg	EfE•EfEg	EfE•EfEg		
	IORZHU 7(50,1\$7,9(	EfEfEgEf	EfEfEgEf	EfE•EfEg	A÷	EfE•EfEg	A÷	EfE•EfEg		
	IORZHU \$ %/\$7,9(WRR	EfEfEfEgEf	EfEfEfEgEf	EfE•EfEfEg	EfE•EfEfEg	EfE•EfEfEg	EfEfEfEgEf	EfE•EfEfEg			
	IORZHU 7(50,1\$7,9(WRR	EfEfEfEgEf	EfEfEfEgEf	EfE•EfEfEg	A÷	EfE•EfEfEg	A÷	EfE•EfEfEg			
	FHUHDO SHD >PDP	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef			
	FHUHDO 120,1\$7,9(	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef		
	FHUHDO 120,1\$7,9(	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef		
	FHUHDO WRR	EfE•Ef	EfE•Ef	EfE•Ef	A÷	EfE•Ef	EfE•Ef	EfE•Ef			
FHUHDO \$ %/\$7,9(	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg	EfE•EfEg	EfE•EfEg	EfE•EfEg			

NOMINATIVE: ?anu / ABLATIVE: kara / TERMINATIVE: @di, madi / DATIVE/LOCATIVE: kai, ni / too Hmu

*HQHUDO 6WXG\ IRU 5HVHDFUK DQGF&RQVLEU-DSDWR
5HVHDFUK 5HSRUW RQ WKH .LND
\$XJXVW 1DWLRQDO ,QVWLWXWLRU IRU L&SDC

	6WDQGDUg	-D\$DQ\$	VH :DQ	% 1DNDVDWR	\$ 1DN	DVDWR	% \$UDNL \$	
	QRVH 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef>Ü EfEfEf	EfE•Ef
	QRVH 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef	EfE•Ef
	QRVH WRR	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef	EfE•Ef	
	QRVH \$%/\$7,9(	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg>Ü EfE•EfEf	EfE•EfEg
	QRVH 7(50,1\$7,9	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg	
	QRVH \$%/\$7,9(W	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg	
	QRVH 7(50,1\$7,9	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg	
	FDYH >JDPD@	E	•E	f	A	÷	E	•E
	FDYH 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfEfEg	A÷	EfE•Ef
	FDYH 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfEfEg	A÷	EfE•Ef
	FDYH WRR	EfE•Ef	A÷	EfE•Ef	EfEfEg	A÷	EfE•Ef	
	FDYH \$%/\$7,9(	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	A÷	EfE•EfEg
	FDYH 7(50,1\$7,9	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	A÷	EfE•EfEg	
	FDYH \$%/\$7,9(W	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	A÷	EfE•EfEfEg	
	FDYH 7(50,1\$7,9	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	A÷	EfE•EfEfEg	
%	PRXQWDLQ >MDP	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	
	PRXQWDLQ 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef	EfE•Ef
	PRXQWDLQ 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef	EfE•Ef
	PRXQWDLQ WRR	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef	EfE•Ef	
	PRXQWDLQ \$%/\$	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg	
	PRXQWDLQ 7(50,1\$7,9(	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEf	EfE•EfEg
	PRXQWDLQ \$%/\$	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg	
	PRXQWDLQ 7(50,1\$7,9(WRR	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg	
	EHDQ SHD >PDP	E	•E	f	A	÷	E	•E
	¥@	E	•E	f	A	÷	E	•E
	EHDQ 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef	EfE•Ef
	EHDQ 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef	EfE•Ef
	EHDQ WRR	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef	EfE•Ef	
	EHDQ \$%/\$7,9(	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg
	EHDQ 7(50,1\$7,9	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEf	EfE•EfEg	
	EHDQ \$%/\$7,9(W	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg	
	EHDQ 7(50,1\$7,9	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg	
	IORZHU >SDQD	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	
	IORZHU 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef	EfE•Ef
	IORZHU 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef	EfE•Ef
	IORZHU WRR	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef	EfE•Ef	
	IORZHU \$%/\$7,9(	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg
	IORZHU 7(50,1\$7,9	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg	
	IORZHU \$%/\$7,9(W	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg	
	IORZHU 7(50,1\$7,9 WRR	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg	
FHUHD\ U\H R	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef		
>PXQ`PX	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef	E•Ef		
FHUHD 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef	EfE•Ef	
FHUHD 120,1\$7,9(	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef	EfE•Ef	
FHUHD WRR	EfE•Ef	A÷	EfE•Ef	EfEfEg	EfE•Ef	EfE•Ef		
FHUHD \$%/\$7,9	EfEfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg		

\$FFHQW 'DWD

	6WDQGDUG	-DQDQVX\$	2QRWVX%	6KLWRRNH\$	6KLWRRNH%	6K	
	FHUHDO 7(50,1\$7,9(	A9(	ÖÑ¹,	ÖÑ¹,	ÖÖ¹,	EfE•EfEg	A÷
	FHUHDO \$%/\$7,9(	A-WRR	ÖÑ¹,¹	ÖÑ¹,¹	ÖÖ¹,¹	EfE•EfEfEg	A÷
	FHUHDO 7(50,1\$7,9(	A÷(	ÖÑ¹,¹	ÖÑ¹,¹	ÖÖ¹,¹	EfE•EfEfEg	A÷
	WRR	A÷	ÖÑ¹,¹	ÖÑ¹,¹	ÖÖ¹,¹	EfE•EfEfEg	A÷
&	VHD >bXPL@	A÷	ÑÖ	ÖÑ	ÖÑ	EfE•	EfE•
	VHD 120,1\$7,9(<	A÷	EfE•Ef	ÖÖ,	ÖÖ,	EfEfEf	EfEfEf
	VHD 120,1\$7,9(	A÷	EfE•Ef	ÖÖ,	ÖÖ¹	EfEfEg>Ü EfE•Eg>Ü EfEfEf	EfEfEg
	VHD WRR	A÷	EfE•Ef	ÖÖ,	ÖÖ¹	EfEfEg>Ü EfE•Eg>Ü EfEfEf	A÷
	VHD \$%/\$7,9(	A÷	ÖÑ¹,	ÖÖ¹¹	ÖÖ¹¹	EfE•EfEg>Ü EfE•EgEg>Ü EfEfEgEg	EfEfEgEg
	VHD 7(50,1\$7,9(	A÷	ÖÑ¹,	ÖÖ¹¹	ÖÖ¹¹	EfE•EgEg	A÷
	VHD \$%/\$7,9(WRR	A÷	ÖÑ¹,¹	ÖÖ¹¹¹	ÖÖ¹¹¹	EfE•EfEfEg	EfEfEgEgEg
	VHD 7(50,1\$7,9(	WRR	ÖÑ¹,¹	ÖÖ¹¹¹	ÖÖ¹¹¹	EfE•EgEgEg	A÷
	SRW SDQ >QDEL	ÑÖ	ÑÖ	ÑÖ	ÑÖ	EfE•	EfE•
	SRW 120,1\$7,9(<	ÖÑ¹ ÑÑ,	EfE•Ef	ÖÑ,	EfE•Ef	EfEfEf	EfEfEf
	SRW 120,1\$7,9(	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Eg	EfEfEg
	SRW WRR	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfEfEf>Ü EfEfEg	A÷
	SRW \$%/\$7,9(	ÖÑ¹,	ÖÑ¹,	ÖÑ¹, ÖÖ¹,	ÖÖ¹,	EfE•EfEg>Ü EfE•EgEg>Ü EfEfEgEg	EfEfEgEg
	SRW 7(50,1\$7,9(	ÖÑ¹,	ÖÑ¹,	ÖÑ¹,	ÖÖ¹,	EfE•EgEg	A÷
	SRW \$%/\$7,9(WRR	ÖÑ¹,¹	ÖÑ¹,¹	ÖÑ¹,¹ ÖÖ¹,¹	ÖÖ¹,¹	EfE•EfEfEg	EfEfEgEgEg
	SRW 7(50,1\$7,9(	WRR,¹	ÖÑ¹,¹	ÖÑ¹,¹	ÖÖ¹,¹	EfE•EgEgEg	A÷
	ERDW VKLS >"XQ	A@	ÑÖ	ÑÖ	ÑÖ	EfE•	EfE•
	ERDW 120,1\$7,9(<	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfEfEf	EfEfEf
	ERDW 120,1\$7,9(	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfEfEf	EfEfEg
	ERDW WRR	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfEfEf>Ü EfEfEg	A÷
	ERDW \$%/\$7,9(	A÷	ÖÑ¹,	ÖÑ¹,	ÖÖ¹,	EfE•EfEg>Ü EfE•EgEg>Ü EfEfEgEg	EfEfEgEg
	ERDW 7(50,1\$7,9(	A÷	ÖÑ¹,	ÖÑ¹, ÖÖ¹,	ÖÖ¹,	EfE•EgEg	A÷
	ERDW \$%/\$7,9(WRR	A÷	ÖÑ¹,¹	ÖÑ¹,¹	ÖÖ¹,¹	EfE•EfEfEg	EfEfEgEgEg
	ERDW 7(50,1\$7,9(	A-WRR	ÖÑ¹,¹	ÖÑ¹,¹	ÖÖ¹,¹	EfE•EgEgEg	A÷
	PRUWDU PLOOVV	WRR	ÖÑ¹,¹	ÖÑ¹,¹	ÖÖ¹,¹	EfE•	EfE•
	PRUWDU 120,1\$7,9(<	A9(<	EfE•Ef	EfE•Ef	EfE•Ef	EfEfEf	EfEfEf
	PRUWDU 120,1\$7,9(	A9(	EfE•Ef	EfE•Ef	EfE•Ef	EfEfEf	EfEfEg
	PRUWDU WRR	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfEgEg	A÷
	PRUWDU \$%/\$7,9(	A÷	ÖÑ¹,	ÖÑ¹, ÖÖ¹,	ÖÖ¹,	EfEfEgEg	EfEfEgEg
	PRUWDU 7(50,1\$7,9(	A÷9(	ÖÑ¹,	ÖÑ¹,	ÖÖ¹,	EfE•EgEg	A÷
	PRUWDU \$%/\$7,9(	A-WRR	ÖÑ¹,¹	ÖÑ¹,¹	ÖÖ¹,¹	EfE•EfEfEg	EfEfEgEgEg
	PRUWDU 7(50,1\$7,9(	A÷9(	ÖÑ¹,¹	ÖÑ¹,¹	ÖÖ¹,¹	EfE•EgEgEg	A÷
WRR	A÷	ÖÑ¹,¹	ÖÑ¹,¹	ÖÖ¹,¹	EfE•EgEgEg	A÷	
WKH VXQ >WLGD	A÷	ÑÖ	ÑÖ	ÑÖ	EfE•	EfE•	
WKH VXQ 120,1\$7,9(<	A9(<	EfE•Ef	EfE•Ef	EfE•Ef	EfEfEf	EfEfEf	
WKH VXQ 120,1\$7,9(	A9(	EfE•Ef	EfE•Ef	EfE•Ef	EfEfEf	EfEfEg	
WKH VXQ WRR	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfEfEf	A÷	
WKH VXQ \$%/\$7,9(	A÷	ÖÑ¹,	ÖÑ¹,	ÖÖ¹,	EfEfEgEg>Ü EfE•EgEg	EfEfEgEg	

NOMINATIVE: ?ñnu / ABLATIVE: kara / TERMINATIVE: @di, madi / DATIVE/LOCATIVE: kai, ni / too Hmu

\$FFHQW 'DWD

	6WDQGDUG	-DSDQ	IVH :DQ	% 1DN	DVDWR	\$ 1DN	DVDWR	% \$UDNL \$
	FHUHDO 7(50,1\$	EfEgEf	A÷	EfEfEgEf	EfEfEgEf	EfE•EfEg	EfE•EfEg	
	FHUHDO \$%/\$7,9	EfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg	
	FHUHDO 7(50,1\$7,9(WRR	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfE•EgEfEg	EfE•EfEfEg	
8	VHD >bXPL@	EfE•	EfE•	EfE•	EfE•	EfE•	EfE•	
	VHD 120,1\$7,9(<	EfEfEf	A÷	EfEfEf	EfEfEf	EfEfEf	EfEfEf	
	VHD 120,1\$7,9(	EfEfEg	A÷	EfEfEg	EfEfEg	EfEfEg	EfEfEg	
	VHD WRR	EfEfEg	A÷	EfEfEg	EfEfEg	EfEfEg>Û EfEfEf	EfEfEg	
	VHD \$%/\$7,9(	EfEfEfEg	A÷	EfEfEfEg	EfEfEfEg	EfE•EfEg>Û EfEfEfEg	EfEfEfEg	
	VHD 7(50,1\$7,9(	EfEfEfEg	A÷	EfEfEfEg	EfEfEfEg	EfE•EfEg>Û EfEfEfEg	EfEfEfEg	
	VHD \$%/\$7,9(WRR	EfEfEfEg	A÷	EfEfEfEfEg	EfEfEfEfEg	EfE•EfEfEg>Û EfE•EgEfEg	EfEfEfEfEg	
	VHD 7(50,1\$7,9(	EfEfEfEg	A÷	EfEfEfEfEg	EfEfEfEfEg	EfE•EfEfEg>Û EfE•EgEfEg	EfEfEfEfEg	
	SRW SDQ >QDEL	EfE•	EfE•	EfE•	EfE•	EfE•	EfE•	
	SRW 120,1\$7,9(<	EfEfEf	A÷	EfEfEf	EfEfEf	EfEfEf	EfEfEf	
	SRW 120,1\$7,9(	EfEfEg	A÷	EfEfEg	EfEfEg	EfEfEg	EfEfEg	
	SRW WRR	EfEfEg	A÷	EfEfEg	EfEfEg	EfEfEg>Û EfEfEf	EfEfEg	
	SRW \$%/\$7,9(	EfEfEfEg	A÷	EfEfEfEg	EfEfEfEg	EfE•EfEg>Û EfEfEfEg	EfEfEfEg	
	SRW 7(50,1\$7,9(	EfEfEfEg	A÷	EfEfEfEg	EfEfEfEg	EfE•EfEg>Û EfEfEfEg	EfEfEfEg	
	SRW \$%/\$7,9(WRR	EfEfEfEfEg	A÷	EfEfEfEfEg	EfEfEfEfEg	EfE•EfEfEg	EfEfEfEfEg	
	SRW 7(50,1\$7,9(	EfEfEfEg	A÷	EfEfEfEfEg	EfEfEfEfEg	EfE•EgEfEg	EfEfEfEfEg	
	ERDW VKLS >"XQ	EfE•	EfE•	EfE•	EfE•	EfE•	EfE•	
	ERDW 120,1\$7,9(	EfEfEf	A÷	EfEfEf	EfEfEf	EfEfEf	EfEfEf	
	ERDW 120,1\$7,9(	EfEfEg	A÷	EfEfEg	EfEfEg	EfEfEg	EfEfEg	
	ERDW WRR	EfEfEg	A÷	EfEfEg	EfEfEg	EfEfEg	EfEfEg	
	ERDW \$%/\$7,9(	EfEfEfEg	A÷	EfEfEfEg	EfEfEfEg	EfE•EfEg>Û EfEfEfEg	EfEfEfEg	
	ERDW 7(50,1\$7,9(	EfEfEfEg	A÷	EfEfEfEg	EfEfEfEg	EfE•EfEg>Û EfEfEfEg	EfEfEfEg	
	ERDW \$%/\$7,9(WRR	EfEfEfEfEg	A÷	EfEfEfEfEg	EfEfEfEfEg	EfE•EfEfEg	EfEfEfEfEg	
	ERDW 7(50,1\$7,9(	EfEfEfEg	A÷	EfEfEfEfEg	EfEfEfEfEg	EfE•EgEfEg	EfEfEfEfEg	
	PRUWDU PLOOVV	EfE•	EfE•	EfE•	EfE•	EfE•	EfE•	
	PRUWDU 120,1\$7,9(<	EfE•Ef	A÷	EfEfEf	EfEfEf	EfEfEf	EfEfEf	
	PRUWDU 120,1\$7,9(	EfE•Ef	A÷	EfEfEg	EfEfEg	EfEfEg	EfEfEg	
	PRUWDU WRR	EfE•Ef	A÷	EfEfEg	EfEfEg	EfEfEg	EfEfEg	
	PRUWDU \$%/\$7,9(	EfEfEgEf	A÷	EfEfEfEg	EfEfEfEg	EfE•EfEg>Û EfEfEfEg	EfEfEfEg	
	PRUWDU 7(50,1\$7,9(	EfEfEgEf	A÷	EfEfEfEg	EfEfEfEg	EfE•EfEg>Û EfEfEfEg	EfEfEfEg	
	PRUWDU \$%/\$7,9(WRR	EfEfEfEgEf	A÷	EfEfEfEfEg	EfEfEfEfEg	EfE•EfEfEg	EfEfEfEfEg	
	PRUWDU 7(50,1\$7,9(WRR	EfEfEfEgEf	A÷	EfEfEfEfEg	EfEfEfEfEg	EfE•EgEfEg	EfEfEfEfEg	
	WKH VXQ >WLGD	EfE•	EfE•	EfE•	EfE•	EfE•	EfE•	
	WKH VXQ 120,1\$7,9(<	EfEfEf	A÷	EfEfEf	EfEfEf	EfEfEf	EfEfEf	
	WKH VXQ 120,1\$7,9(	EfEfEg	A÷	EfEfEg	EfEfEg	EfEfEg	EfEfEg	
	WKH VXQ WRR	EfEfEg	A÷	EfEfEg	EfEfEg	EfEfEg	EfEfEg	
	WKH VXQ \$%/\$7,9(	EfEfEfEg	A÷	EfEfEfEg	EfEfEfEg	EfE•EfEg>Û EfEfEfEg	EfEfEfEg	

NOMINATIVE: ?ñnu / ABLATIVE: kara / TERMINATIVE: @ñdi, madi / DATIVE/LOCATIVE: kai, ni / too Hmu

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQVL&U&Y&S&W&R&Q
5HVHDFK 5HSRUW RQ WKH .LND
\$XJXVW 1DWLRQDO ,QVWLWXWLRQ\KLRWL&S&D&O

	6WDQGDU\$ -DQQLVX\$ 2QRWVX% 6KLWRRNH\$ 6KLWRRNH% 6K
	WKH V X Q 7(50,1\$7,9(A÷ ÑÑ¹, ÑÑ¹, ÑÑ¹, EfE•EgEg A÷
	WKH V X Q \$%/\$7,9(WRR ÑÑ¹,¹ ÑÑ¹,¹ ÑÑ¹,¹ EfE•EgEgEg>Û EfE•EfEfEg EfE•EgEgEg
	WKH V X Q 7(50,1\$7,9(A÷ ÑÑ¹,¹ ÑÑ¹,¹ ÑÑ¹,¹ EfE•EgEgEg A÷
	VPRNH >KLEXyL@ A÷ ÑÑÑ ÑÑÑ ÑÑÑ EfE•Ef EfE•Ef
	VPRNH 120,1\$7,9(A÷ ÑÑÑ¹ ÑÑÑ, ÑÑÑ, EfEfE•Ef EfEfE•Ef
	VPRNH 120,1\$7,9(A÷ ÑÑÑ¹ ÑÑÑ¹ ÑÑÑ¹ EfEfE•Ef EfEfE•Ef
	VPRNH WRR A÷ ÑÑÑ¹ ÑÑÑ¹ ÑÑÑ¹ EfEfE•Ef A÷
	VPRNH \$%/\$7,9(A÷ ÑÑÑ¹¹ ÑÑÑ¹¹ ÑÑÑ¹¹ EfEfE•EfEg EfEfE•EfEg
	VPRNH 7(50,1\$7,9(A÷ ÑÑÑ¹¹ ÑÑÑ¹¹ ÑÑÑ¹¹ EfEfE•EfEg A÷
	VPRNH \$%/\$7,9(WRR ÑÑÑ¹¹ ÑÑÑ¹¹ ÑÑÑ¹¹ EfEfE•EfEfEg A÷
	VPRNH 7(50,1\$7,9(WRR A÷ ÑÑÑ¹¹ ÑÑÑ¹¹ ÑÑÑ¹¹ EfEfE•EfEgEg A÷
	GDQFLQJ GDQFH A÷XGXL@ ÑÑÑ ÑÑÑ ÑÑÑ EfE•Ef EfE•Ef
	GDQFLQJ 120,1\$7,9(A÷ ÑÑÑ¹ ÑÑÑ, ÑÑÑ, EfE•E•Ef EfEfE•Ef
	GDQFLQJ 120,1\$7,9(A÷ ÑÑÑ¹ ÑÑÑ¹ ÑÑÑ¹ EfE•E•Ef EfEfE•Ef
\$	GDQFLQJ WRR A÷ ÑÑÑ¹ ÑÑÑ¹ ÑÑÑ¹ EfE•E•Ef A÷
	GDQFLQJ \$%/\$7,9(A÷ ÑÑÑ¹¹ ÑÑÑ¹¹ ÑÑÑ¹¹ EfE•E•EfEg EfEfE•EfEg
	GDQFLQJ 7(50,1\$7,9(A÷ ÑÑÑ¹¹ ÑÑÑ¹¹ ÑÑÑ¹¹ EfE•E•EfEg A÷
	GDQFLQJ \$%/\$7,9(WRR ÑÑÑ¹¹ ÑÑÑ¹¹ ÑÑÑ¹¹ EfE•E•EfEfEg A÷
	GDQFLQJ 7(50,1\$7,9(WRR A÷ ÑÑÑ¹¹ ÑÑÑ¹¹ ÑÑÑ¹¹ EfE•E•EfEfEg>Û EfE•E•EfEgEg A÷
	VKDSH IRUP >NDJDQL@ ÑÑÑ ÑÑÑ ÑÑÑ EfE•Ef EfE•Ef
	VKDSH 120,1\$7,9(A÷ ÑÑÑ¹ ÑÑÑ, ÑÑÑ, EfEfE•Ef EfEfE•Ef
	VKDSH 120,1\$7,9(A÷ ÑÑÑ¹ ÑÑÑ¹ ÑÑÑ¹ EfEfE•Ef EfEfE•Ef
	VKDSH WRR A÷ ÑÑÑ¹ ÑÑÑ¹ ÑÑÑ¹ EfEfE•Ef A÷
	VKDSH \$%/\$7,9(A÷ ÑÑÑ¹¹ ÑÑÑ¹¹ ÑÑÑ¹¹ EfEfE•EfEg EfEfE•EfEg
	VKDSH 7(50,1\$7,9(A÷ ÑÑÑ¹¹ ÑÑÑ¹¹ ÑÑÑ¹¹ EfEfE•EfEg A÷
	VKDSH \$%/\$7,9(WRR ÑÑÑ¹¹ ÑÑÑ¹¹ ÑÑÑ¹¹ EfEfE•EfEfEg A÷
	VKDSH 7(50,1\$7,9(WRR A÷ ÑÑÑ, ÑÑÑ¹¹ ÑÑÑ¹¹ EfEfE•EfEfEg>Û EfEfE•EfEgEg A÷
	VFLVVRUV VKHDJDVDPL A÷ ÑÑÑ ÑÑÑ ÑÑÑ EfE•Ef EfE•Ef
	VFLVVRUV 120,1\$7,9(A÷ ÑÑÑ, ÑÑÑ, ÑÑÑ, EfEfE•Ef EfEfE•Ef
	VFLVVRUV 120,1\$7,9(A÷ ÑÑÑ, ÑÑÑ¹ ÑÑÑ¹ EfE•E•Ef EfEfE•Ef
	VFLVVRUV WRR A÷ ÑÑÑ, ÑÑÑ¹ ÑÑÑ¹ EfEfE•Ef>Û EfE•E•Ef A÷
	VFLVVRUV \$%/\$7,9(A÷ ÑÑÑ¹, ÑÑÑ¹, ÑÑÑ¹, ÑÑÑ¹, ÑÑÑ¹ EfEfE•EfEg>Û EfE•E•EfEg EfEfE•EfEg
	VFLVVRUV 7(50,1\$7,9(A÷ ÑÑÑ¹, ÑÑÑ¹, ÑÑÑ¹, ÑÑÑ¹, ÑÑÑ¹ EfE•E•EfEg A÷
	VFLVVRUV \$%/\$7,9(WRR ÑÑÑ¹,¹ ÑÑÑ¹¹ ÑÑÑ¹¹ EfE•E•EfEfEg A÷
	VFLVVRUV 7(50,1\$7,9(WRR A÷ ÑÑÑ¹,¹ ÑÑÑ¹¹ ÑÑÑ¹¹ EfE•E•EfEgEg A÷
	PLUURU >NDJDPL@ ÑÑÑ ÑÑÑ ÑÑÑ EfE•Ef EfE•Ef
	PLUURU 120,1\$7,9(A÷ ÑÑÑ, ÑÑÑ, ÑÑÑ, EfE•E•Ef>Û EfEfE•Ef
	PLUURU 120,1\$7,9(A÷ ÑÑÑ, ÑÑÑ¹ ÑÑÑ¹ EfE•E•Ef EfEfE•Ef

\$ F F H Q W ' D W D

	6WDQG DUG	6DSDQHQH \$ 6DSDQHQH \$ % \$ G HQ \$ %	DPLND W.DPLND W.DPLND W.HWVX %
	WKH VXQ 7(50,1\$7,9) WRR	EfEfEfEg>Ü EfE•EfEg	EfEfEfEfEg
	WKH VXQ \$%/\$7,9(WRR	EfE•EfEg	EfEfEfEfEg
	WKH VXQ 7(50,1\$7,9) WRR	EfE•EfEg>Ü EfE•EfEg	EfEfEfEfEg
\$	VPRNH >KLEXYL@	EfE•Ef	EfE•Ef
	VPRNH 120,1\$7,9 WRR	EfE•Ef	EfE•Ef
	VPRNH 120,1\$7,9 WRR	EfE•Ef	EfE•Ef
	VPRNH WRR	EfE•Ef	EfE•Ef
	VPRNH \$%/\$7,9(WRR	EfEfEfEfEg	EfEfEfEfEg
	VPRNH 7(50,1\$7,9) WRR	EfEfEfEfEg	EfEfEfEfEg
	VPRNH \$%/\$7,9(WRR	EfEfEfEfEg	EfEfEfEfEg
	VPRNH 7(50,1\$7,9) WRR	EfEfEfEfEg	EfEfEfEfEg
	GDQFLQJ GDQFH XL@	EfE•Ef	EfE•Ef
	GDQFLQJ 120,1\$7,9 WRR	EfE•Ef	EfE•Ef
	GDQFLQJ 120,1\$7,9 WRR	EfE•Ef	EfE•Ef
	GDQFLQJ WRR	EfE•Ef	EfE•Ef
	GDQFLQJ \$%/\$7,9(WRR	EfEfEfEfEg	EfEfEfEfEg
	GDQFLQJ 7(50,1\$7,9) WRR	EfEfEfEfEg	EfEfEfEfEg
	GDQFLQJ \$%/\$7,9(WRR	EfEfEfEfEg	EfEfEfEfEg
	GDQFLQJ 7(50,1\$7,9) WRR	EfEfEfEfEg	EfEfEfEfEg
	VKDSH IRUP >NDJPL@	EfE•Ef	EfE•Ef
	VKDSH 120,1\$7,9 WRR	EfE•Ef	EfE•Ef
	VKDSH 120,1\$7,9 WRR	EfE•Ef	EfE•Ef
	VKDSH WRR	EfE•Ef	EfE•Ef
VKDSH \$%/\$7,9(WRR	EfEfEfEfEg	EfEfEfEfEg	
VKDSH 7(50,1\$7,9) WRR	EfEfEfEfEg	EfEfEfEfEg	
VKDSH \$%/\$7,9(WRR	EfEfEfEfEg	EfEfEfEfEg	
VKDSH 7(50,1\$7,9) WRR	EfEfEfEfEg	EfEfEfEfEg	
VFLVVRUV VKHDKD VDPL@	UV >SDVDPL EfE•Ef	EfEfEfEfEg	EfE•Ef
VFLVVRUV 120,1\$7,9 WRR	EfE•Ef	EfE•Ef	EfE•Ef
VFLVVRUV 120,1\$7,9 WRR	EfE•Ef	EfE•Ef	EfE•Ef
VFLVVRUV WRR	EfE•Ef	EfE•Ef	EfE•Ef
VFLVVRUV \$%/\$7,9(WRR	EfEfEfEfEg	EfEfEfEfEg	EfEfEfEfEg
VFLVVRUV 7(50,1\$7,9) WRR	EfEfEfEfEg	EfEfEfEfEg	EfEfEfEfEg
VFLVVRUV \$%/\$7,9(WRR	EfEfEfEfEg	EfEfEfEfEg	EfEfEfEfEg
VFLVVRUV 7(50,1\$7,9) WRR	EfEfEfEfEg	EfEfEfEfEg	EfEfEfEfEg
PLUURU >NDJPL@	EfE•Ef	EfE•Ef	EfE•Ef
PLUURU 120,1\$7,9 WRR	EfE•Ef	EfE•Ef	EfE•Ef
PLUURU 120,1\$7,9 WRR	EfE•Ef	EfE•Ef	EfE•Ef

NOMINATIVE: ?önu / ABLATIVE: kara / TERMINATIVE: @di.madi / DATIVE/LOCATIVE: kai.ni / too Hmu

*HQHUDO 6WXG\ IRU 5HVHDFUK DQGF&RQVLEU-DSDWR
5HVHDFUK 5HSRUW RQ WKH .LND
\$XJXVW 1DWLRQDO ,QVWLWXWLRU IRU L&SDC

	6WDQGDUG	-D\$DQ\$	VH :DQ	% 1DNDVDWR	\$ 1DNDVDWR	% \$UDNL \$
	WKH V XQ 7(50,1\$7,9(	EfEfEfEg	A÷	EfEfEfEfEg	EfEfEfEfEg	EfEfEfEfEg
	WKH V XQ \$ %/\$7,9(	EfEfEfEfEg	A÷	EfEfEfEfEfEg	EfEfEfEfEfEg	EfEfEfEfEfEg
	WKH V XQ 7(50,1\$7,9(WRR	EfEfEfEfEfEg	A÷	EfEfEfEfEfEg	EfEfEfEfEfEg	EfEfEfEfEfEg
\$	VPRNH >KLEXYL@	EfEfEf	A÷	EfEfEf	EfEfEf	EfEfEf
	VPRNH 120,1\$7,9(	EfEfEfEfEf	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf
	VPRNH 120,1\$7,9(	EfEfEfEfEf	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf
	VPRNH WRR	EfEfEfEfEf	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf
	VPRNH \$ %/\$7,9(	EfEfEfEfEf>Ü EfEfEfEfEf	A÷	EfEfEfEfEfEf	EfEfEfEfEfEf	EfEfEfEfEfEf
	VPRNH 7(50,1\$7,9(	EfEfEfEfEf>Ü EfEfEfEfEf	A÷	EfEfEfEfEfEf	EfEfEfEfEfEf	EfEfEfEfEfEf
	VPRNH \$ %/\$7,9(	EfEfEfEfEfEf	A÷	EfEfEfEfEfEfEf	EfEfEfEfEfEfEf	EfEfEfEfEfEfEf
	VPRNH 7(50,1\$7,9(WRR	EfEfEfEfEfEfEf	A÷	EfEfEfEfEfEfEf	EfEfEfEfEfEfEf	EfEfEfEfEfEfEf
	GDQFLQJ GDQFH	EfEfEfEf	A÷	EfEfEfEf	EfEfEfEf	EfEfEfEf
	GDQFLQJ 120,1\$7,9(	EfEfEfEfEf	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf
	GDQFLQJ 120,1\$7,9(	EfEfEfEfEf	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf
	GDQFLQJ WRR	EfEfEfEfEf	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf
	GDQFLQJ \$ %/\$7,9(	EfEfEfEfEf>Ü EfEfEfEfEf	A÷	EfEfEfEfEfEf	EfEfEfEfEfEf	EfEfEfEfEfEf
	GDQFLQJ 7(50,1\$7,9(	EfEfEfEfEf>Ü EfEfEfEfEf	A÷	EfEfEfEfEfEf	EfEfEfEfEfEf	EfEfEfEfEfEf
	GDQFLQJ \$ %/\$7,9(	EfEfEfEfEfEf	A÷	EfEfEfEfEfEfEf	EfEfEfEfEfEfEf	EfEfEfEfEfEfEf
	GDQFLQJ 7(50,1\$7,9(WRR	EfEfEfEfEfEfEf	A÷	EfEfEfEfEfEfEf	EfEfEfEfEfEfEf	EfEfEfEfEfEfEf
	VKDSH IRUP >NDJDPL@	EfEfEfEf	A÷	EfEfEfEf	EfEfEfEf	EfEfEfEf
	VKDSH 120,1\$7,9(	EfEfEfEfEf	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf
	VKDSH 120,1\$7,9(	EfEfEfEfEf	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf
	VKDSH WRR	EfEfEfEfEf	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf
	VKDSH \$ %/\$7,9(	EfEfEfEfEfEf	A÷	EfEfEfEfEfEf	EfEfEfEfEfEf	EfEfEfEfEfEf
	VKDSH 7(50,1\$7,9(	EfEfEfEfEfEf	A÷	EfEfEfEfEfEf	EfEfEfEfEfEf	EfEfEfEfEfEf
	VKDSH \$ %/\$7,9(	EfEfEfEfEfEf	A÷	EfEfEfEfEfEfEf	EfEfEfEfEfEfEf	EfEfEfEfEfEfEf
	VKDSH 7(50,1\$7,9(WRR	EfEfEfEfEfEfEf	A÷	EfEfEfEfEfEfEf	EfEfEfEfEfEfEf	EfEfEfEfEfEfEf
	VFLVVRUV VKHD	EfEfEfEf>Ü EfEfEfEf	A÷	EfEfEfEf	EfEfEfEf	EfEfEfEf
	VFLVVRUV 120,1\$7,9(	EfEfEfEfEf	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf
	VFLVVRUV 120,1\$7,9(	EfEfEfEfEf>Ü EfEfEfEf	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf
	VFLVVRUV WRR	EfEfEfEfEf	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf
VFLVVRUV \$ %/\$7,9(	EfEfEfEfEfEf	A÷	EfEfEfEfEfEf	EfEfEfEfEfEf	EfEfEfEfEfEf	
VFLVVRUV 7(50,1\$7,9(	EfEfEfEfEfEf	A÷	EfEfEfEfEfEf	EfEfEfEfEfEf	EfEfEfEfEfEf	
VFLVVRUV \$ %/\$7,9(	EfEfEfEfEfEf	A÷	EfEfEfEfEfEfEf	EfEfEfEfEfEfEf	EfEfEfEfEfEfEf	
VFLVVRUV 7(50,1\$7,9(WRR	EfEfEfEfEfEfEf	A÷	EfEfEfEfEfEfEf	EfEfEfEfEfEfEf	EfEfEfEfEfEfEf	
PLUURU >NDJDPL@	EfEfEfEf	A÷	EfEfEfEf	EfEfEfEf	EfEfEfEf	
PLUURU 120,1\$7,9(	EfEfEfEfEf	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf	
PLUURU 120,1\$7,9(	EfEfEfEfEf>Ü EfEfEfEf	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf	

\$FFHQW 'DWD

	6WDQGDUG	-DQDQW	2QRWVX \$	2QRWVX %	6KLWRRNH \$	6KLWRRNH %	6K
%	PLUURU WRR	A÷	ÖÑÑ,	ÖÑÖ¹	ÖÑÖ¹	EfEfE•Ef	A÷
	PLUURU \$%/\$7,9	A÷	ÖÑÑ¹, ÖÖÑ¹,	ÖÖÖ¹, ÖÖÖ¹¹	ÖÑÖ¹¹	EfE•E•EfEg	EfE•E•EfEg
	PLUURU 7(50,1\$7,9	A÷	ÖÑÑ¹, ÖÖÑ¹,	ÖÖÖ¹, ÖÖÖ¹¹	ÖÑÖ¹¹	EfE•E•EfEg	A÷
	PLUURU \$%/\$7,9 WRR	A÷	ÖÑÑ¹,¹	ÖÖÖ¹¹¹	ÖÑÖ¹¹¹	EfE•E•EfEfEg	A÷
	PLUURU 7(50,1\$7,9 WRR	A÷	ÖÑÑ¹,¹	ÖÖÖ¹¹¹	ÖÑÖ¹¹¹	EfE•E•EfEgEg	A÷
	FDOHQGDU >NXM@	A÷	ÖÑÖ	ÑÖÑ	ÖÑÖ	EfE•Ef	EfE•Ef
	FDOHQGDU 120,1\$7,9(<	A÷	ÖÑÑ,	ÖÑÖ,	ÖÑÖ,	EfE•E•Ef>Ü EfEfE•Ef	EfEfE•Ef
	FDOHQGDU 120,1\$7,9(	A÷	ÖÑÑ,	ÖÑÖ¹	ÖÑÖ¹	EfE•E•Ef>Ü EfEfE•Ef	EfEfE•Ef
	FDOHQGDU WRR	A÷	ÖÑÑ,	ÖÑÖ¹	ÖÑÖ¹	EfEfE•Ef	A÷
	FDOHQGDU \$%/\$7,9	A÷	ÖÑÑ¹, ÖÖÑ¹,	ÖÖÖ¹, ÖÖÖ¹¹	ÖÑÖ¹¹	EfE•E•EfEg	EfE•E•EfEg
	FDOHQGDU 7(50,1\$7,9	A÷	ÖÑÑ¹, ÖÖÑ¹,	ÖÖÖ¹, ÖÖÖ¹¹	ÖÑÖ¹¹	EfE•E•EfEg>Ü EfEfE•EfEg	A÷
	FDOHQGDU \$%/\$7,9 WRR	A÷	ÖÑÑ¹,¹	ÖÖÖ¹¹¹	ÖÑÖ¹¹¹	EfE•E•EfEfEg	A÷
&	FDOHQGDU 7(50,1\$7,9 WRR	A÷	ÖÑÑ¹,¹	ÖÖÖ¹¹¹	ÖÑÖ¹¹¹	EfE•E•EfEgEg	A÷
	NDWDQD VZRUG	A÷	ÖÑÖ	ÖÑÖ	ÑÖÑ ÖÑÖ	E•EfE•	EfE•Ef
	NDWDQD 120,1\$7,9(<	A÷	ÖÑÑ,	ÖÑÖ,	ÖÑÖ,	E•EfEfEf	EfEfE•Ef
	NDWDQD 120,1\$7,9(	A÷	ÖÑÑ,	ÖÑÖ,	ÖÑÖ¹	E•EfEfEg	EfEfE•Ef
	NDWDQD WRR	A÷	ÖÑÑ,	ÖÑÖ¹ ÖÑÖ) W7F	ÖÑÖ¹	E•EfEfEg	A÷
	NDWDQD \$%/\$7,9	A÷	ÖÑÑ¹, ÖÖÑ¹,	ÖÑÖ¹¹	ÖÑÖ¹¹	E•EfEfEgEg>Ü E•EfE•EgEg	EfEfE•EfEg
	NDWDQD 7(50,1\$7,9	A÷	ÖÑÑ¹, ÖÖÑ¹,	ÖÑÖ¹¹	ÖÑÖ¹¹	E•EfE•EgEg>Ü E•EfEfEgEg	A÷
	NDWDQD \$%/\$7,9 WRR	A÷	ÖÑÑ¹,¹	ÖÑÖ¹¹¹	ÖÑÖ¹¹¹	E•EfEfEgEgEg	A÷
	NDWDQD 7(50,1\$7,9 WRR	A÷	ÖÑÑ¹,¹	ÖÑÖ¹¹¹	ÖÑÖ¹¹¹	E•EfEfEgEgEg	A÷
	ILHOG FXOWLYD	A÷	ÖÑÖ	ÖÑÖ	ÑÖÑ ÖÑÖ	E•EfE•	E•EfE•
	ILHOG 120,1\$7,9	A÷	ÖÑÑ,	ÖÑÑ,	ÖÑÖ,	E•EfEfEf	E•EfEfEf
	ILHOG 120,1\$7,9	A÷	ÖÑÑ,	ÖÑÖ,	ÖÑÖ¹	E•EfEfEg	E•EfEfEg
	ILHOG WRR	A÷	ÖÑÑ,	ÖÑÑ,	ÖÑÖ¹	E•EfEfEg	A÷
	ILHOG \$%/\$7,9(	A÷	ÖÑÑ¹, ÖÖÑ¹,	ÖÑÑ¹¹	ÖÑÖ¹¹	E•EfEfEgEg	E•EfEfEfEg
	ILHOG 7(50,1\$7,9	A÷	ÖÑÑ¹, ÖÖÑ¹,	ÖÑÑ¹¹	ÖÑÖ¹¹	E•EfEfEgEg	A÷
	ILHOG \$%/\$7,9(WRR	A÷	ÖÑÑ¹,¹	ÖÑÑ¹,¹	ÖÑÖ¹¹¹	E•EfEfEgEgEg	A÷
	ILHOG 7(50,1\$7,9 WRR	A÷	ÖÑÑ¹,¹	ÖÑÑ¹,¹	ÖÑÖ¹¹¹	E•EfEfEgEgEg	A÷
	KLS >JDPDNX@	A÷	ÖÑÖ	ÑÖÑ	ÑÖÑ ÖÑÖ	A÷	E•EfE•
	KLS 120,1\$7,9(<	A÷	ÖÑÑ,	ÖÑÖ,	ÖÑÖ,	A	÷
	KLS 120,1\$7,9(	A÷	ÖÑÑ,	ÖÑÖ¹ ÖÑÖ	ÖÑÖ¹	A	÷
	KLS WRR	A÷	ÖÑÑ,	ÖÑÖ¹	ÖÑÖ¹	A	÷
	KLS \$%/\$7,9(	A÷	ÖÑÑ¹, ÖÖÑ¹,	ÑÖÖ¹¹ ÖÖÖ¹¹	ÖÑÖ¹¹	A	÷
	KLS 7(50,1\$7,9(	A÷	ÖÑÑ¹, ÖÖÑ¹,	ÑÖÖ¹¹ ÖÖÖ¹¹	ÖÑÖ¹¹	A	÷
	KLS \$%/\$7,9(WRR	A÷	ÖÑÑ¹,¹	ÖÖÖ¹¹¹ ÖÖÖ¹¹¹	ÖÑÖ¹¹¹	A	÷
	KLS 7(50,1\$7,9(WRR	A÷	ÖÑÑ¹,¹	ÖÖÖ¹¹¹ ÖÖÖ¹¹¹	ÖÑÖ¹¹¹	A	÷
	GDZQ >bDBWXQ L@	A÷	ÖÑÑÖ	A÷	ÖÑÖÑ	EfEfE•EfE•>Ü EfE•E•EfE•	EfEfE•Ef
	GDZQ 120,1\$7,9(	A÷	ÖÑÑÖ¹	A÷	ÖÑÑÖ,	EfE•E•EfEf>Ü EfEfE•EfEf	EfEfE•E•Ef

NOMINATIVE: ?ñu / ABLATIVE: kara / TERMINATIVE: @di, madi / DATIVE/LOCATIVE: kai, ni / too Hmu

*HQHUDO 6WXG\ IRU 5HVHDFK DQGFARQVLEUYSWQR
5HVHDFK 5HSRUW RQ WKH .LND
\$XJXVW 1DWLRQDO ,QVWLWXWLRQ\KLRWLVSDO

	6WDQGDU G	6DNDQH QH \$ 6DNDQH QH \$ % \$ G	DPLNDW.DVNDW.DVNDW.DVNDW.HWVX %					
%	PLUURU WRR	EfEfE•Ef	EfEfEfEfEfEf	EfEfE•Ef>Ü EfE•E•Ef	A÷	EfEfE•Ef	EfEfE•Ef	EfEfE•Ef
	PLUURU \$ % / \$ 7,9	EfEfEfEfEf	EfE•Ef	EfEfE•EfEg>Ü EfE•E•EfEg	EfE•E•EfEg	EfEfE•EfEg	EfEfE•EfEg	EfEfE•EfEg
	PLUURU 7(50,1\$7,9	EfEfEfEfEf	EfEfEfEfEf	EfEfE•EfEg>Ü EfE•E•EfEg	A÷	EfEfE•EfEg	A÷	EfEfE•EfEg
	PLUURU \$ % / \$ 7,9	EfEfEfEfEf	EfEfEfEfEf	A÷	EfE•E•EfEfEg	EfEfE•EfEfEg>Ü EfE•E•EfEfEg	EfEfEfEfEfEf	EfEfE•EfEfEg
	PLUURU 7(50,1\$7,9	EfEfEfEfEf	EfEfEfEfEf	EfEfE•EfEfEg>Ü EfE•E•EfEfEg	A÷	EfEfE•EfEfEg	A÷	EfEfE•EfEfEg
	WRR	EfEfEfEfEf	EfEfEfEfEf	EfEfE•EfEfEg>Ü EfE•E•EfEfEg	A÷	EfEfE•EfEfEg	A÷	EfEfE•EfEfEg
	FDOHQGDU >NXM	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef
	FDOHQGDU 120,1\$7,9	EfEfE•Ef>Ü EfE•E•Ef	EfEfE•Ef	EfEfE•Ef>Ü EfE•E•Ef	EfE•E•Ef	EfEfE•Ef	EfEfE•Ef	EfEfE•Ef
	FDOHQGDU 120,1\$7,9	EfEfE•Ef	EfEfE•Ef	EfEfE•Ef>Ü EfE•E•Ef	EfE•E•Ef	EfEfE•Ef	EfEfE•Ef	EfEfE•Ef
	FDOHQGDU WRR	EfEfE•Ef	EfEfE•Ef	EfEfE•Ef>Ü EfE•E•Ef	A÷	EfEfE•Ef	EfEfE•Ef	EfEfE•Ef
	FDOHQGDU \$ % / \$ 7,9	EfEfEfEfEf	EfEfEfEfEf	EfEfE•EfEg>Ü EfE•E•EfEg	EfE•E•EfEg	EfEfE•EfEg	EfEfE•EfEg	EfEfE•EfEg
	FDOHQGDU 7(50,1\$7,9	EfEfEfEfEf	EfEfEfEfEf	EfEfE•EfEg>Ü EfE•E•EfEg	A÷	EfEfE•EfEg	A÷	EfEfE•EfEg
	FDOHQGDU \$ % / \$ 7,9	EfEfEfEfEf	EfEfEfEfEf	EfEfE•EfEfEg>Ü EfE•E•EfEfEg	EfE•E•EfEfEg	EfEfE•EfEfEg>Ü EfE•E•EfEfEg	EfEfEfEfEfEf	EfEfE•EfEfEg
	FDOHQGDU 7(50,1\$7,9	EfEfEfEfEf	EfEfEfEfEf	EfEfE•EfEfEg>Ü EfE•E•EfEfEg	A÷	EfEfE•EfEfEg	A÷	EfEfE•EfEfEg
8	NDWDQD VZRUG	>NDWDQD E•EfE•	E•EfE•	E•EfE•	E•EfE•	E•EfE•	E•EfE•	E•EfE•
	KDWDQD@	E•EfE•	E•EfE•	EfEfEfEf>Ü EfEfEfEf	E•EfEfEf	EfEfEfEf	E•EfEfEf	E•EfEfEf
	NDWDQD 120,1\$7,9	E•E•Ef	E•E•Ef	EfEfEfEf	E•EfEfEf	EfEfEfEf	E•EfEfEf	E•EfEfEf
	NDWDQD 120,1\$7,9	E•E•EfEg	E•E•EfEg	EfEfEfEf	E•E•EfEg	EfEfEfEf	E•E•EfEg	E•E•EfEg
	NDWDQD WRR	E•E•EfEg	E•E•EfEg	EfEfEfEf	A÷	EfEfEfEf	E•E•EfEg	E•E•EfEg
	NDWDQD \$ % / \$ 7,9	E•E•E•EfEg	E•E•E•EfEg	E•EfEfEfEg	E•EfEfEfEg	EfEfEfEfEg	E•EfEfEfEg	E•EfEfEfEg
	NDWDQD 7(50,1\$7,9	E•E•E•EfEg	E•E•E•EfEg	E•EfEfEfEg	A÷	EfEfEfEfEg	A÷	E•EfEfEfEg
	NDWDQD \$ % / \$ 7,9	E•E•E•EfEg>Ü E•E•E•EfEg	E•E•E•EfEg	EfEfEfEfEfEg>Ü E•EfEfEfEfEg	E•EfEfEfEfEg	EfEfEfEfEfEg	E•EfEfEfEfEg	E•EfEfEfEfEg
	NDWDQD 7(50,1\$7,9	E•E•E•EfEg>Ü E•E•E•EfEg	E•E•E•EfEg	EfEfEfEfEfEg>Ü E•EfEfEfEfEg	A÷	EfEfEfEfEfEg	A÷	E•EfEfEfEfEg
	WRR	E•E•E•EfEg>Ü E•E•E•EfEg	E•E•E•EfEg	EfEfEfEfEfEg>Ü E•EfEfEfEfEg	A÷	EfEfEfEfEfEg	A÷	E•EfEfEfEfEg
	ILHOG FXOWLYD	WHG > "DW E•EfE•	E•EfE•	E•EfE•	E•EfE•	E•EfE•	E•EfE•	E•EfE•
	SDWHB@	E•EfE•	E•EfE•	E•EfE•	E•EfE•	E•EfE•	E•EfE•	E•EfE•
	ILHOG 120,1\$7,9	E•E•EfEf>Ü E•E•E•Ef	E•E•E•Ef	EfEfEfEf>Ü EfEfEfEf	E•EfEfEf	EfEfEfEf	E•EfEfEf	E•EfEfEf
	ILHOG 120,1\$7,9	E•EfEfEf>Ü E•E•EfEf	E•E•EfEf	EfEfEfEf	E•EfEfEf	EfEfEfEf	E•EfEfEf	E•EfEfEf
	ILHOG WRR	E•EfEfEf>Ü E•E•EfEf	E•E•EfEf	EfEfEfEf	A÷	EfEfEfEf	E•EfEfEf	E•EfEfEf
	ILHOG \$ % / \$ 7,9	E•E•E•EfEg	E•E•E•EfEg	E•EfEfEfEg	E•EfEfEfEg	EfEfEfEfEg	E•EfEfEfEg	E•EfEfEfEg
	ILHOG 7(50,1\$7,9	E•E•E•EfEg	E•E•E•EfEg	E•EfEfEfEg	A÷	EfEfEfEfEg	A÷	E•EfEfEfEg
	ILHOG \$ % / \$ 7,9	E•E•E•EfEg>Ü E•E•E•EfEg	E•E•E•EfEg	EfEfEfEfEfEg>Ü E•EfEfEfEfEg	E•EfEfEfEfEg	EfEfEfEfEfEg	E•EfEfEfEfEg	E•EfEfEfEfEg
	ILHOG 7(50,1\$7,9	E•E•E•EfEg>Ü E•E•E•EfEg	E•E•E•EfEg	EfEfEfEfEfEg>Ü E•EfEfEfEfEg	A÷	EfEfEfEfEfEg	A÷	E•EfEfEfEfEg
	KLS >JDPDNX@	E•EfE•	E•EfE•	E•EfE•	E•EfE•	E•EfE•	E•EfE•	E•EfE•
	KLS 120,1\$7,9(<	E•E•EfEf>Ü E•E•E•Ef	E•E•E•Ef	EfEfEfEf>Ü EfEfEfEf	E•EfEfEf	EfEfEfEf	E•EfEfEf	E•EfEfEf
	KLS 120,1\$7,9	E•E•EfEf	E•E•EfEf	EfEfEfEf	E•EfEfEf	EfEfEfEf	E•EfEfEf	E•EfEfEf
	KLS WRR	E•E•EfEf	E•E•EfEf	EfEfEfEf	A÷	EfEfEfEf	E•EfEfEf	E•EfEfEf
	KLS \$ % / \$ 7,9	E•E•E•EfEg	E•E•E•EfEg	EfEfEfEfEfEg>Ü E•EfEfEfEfEg	E•EfEfEfEfEg	EfEfEfEfEfEg	E•EfEfEfEfEg	E•EfEfEfEfEg
	KLS 7(50,1\$7,9	E•E•E•EfEg	E•E•E•EfEg	E•EfEfEfEfEg	A÷	EfEfEfEfEfEg	A÷	E•EfEfEfEfEg
	KLS \$ % / \$ 7,9	E•E•E•EfEg>Ü E•E•E•EfEg	E•E•E•EfEg	EfEfEfEfEfEg>Ü E•EfEfEfEfEg	E•EfEfEfEfEg	EfEfEfEfEfEg	E•EfEfEfEfEg	E•EfEfEfEfEg
	KLS 7(50,1\$7,9	E•E•E•EfEg>Ü E•E•E•EfEg	E•E•E•EfEg	EfEfEfEfEfEg>Ü E•EfEfEfEfEg	A÷	EfEfEfEfEfEg	A÷	E•EfEfEfEfEg
	GDZQ >bDBWXQ L	EfEfE•Ef	EfEfE•Ef	EfE•E•Ef>Ü EfEfE•Ef	EfE•E•Ef	EfEfE•Ef	A÷	EfEfE•Ef
	GDZQ 120,1\$7,9	EfEfEfEfE•Ef	EfEfEfEfE•Ef	EfEfE•E•Ef>Ü EfEfE•E•Ef	EfE•E•E•Ef	EfEfEfEfE•Ef	A÷	EfEfEfEfE•Ef

\$FFHQW 'DWD

	6WDQGDU	-DQ	\$VH :DQ	% 1DN	DVDWR	\$ 1DN	DVDWR	% \$UDNL \$
%	PLUURU WRR	EfEfE•Ef	A÷	EfEfE•Ef	EfEfE•Ef	E•EfE•Ef	EfEfE•Ef	
	PLUURU \$%/\$7,9	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfEfE•EfEf	EfEfE•EfEf	
	PLUURU 7(50,1\$7,9	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfEfE•EfEf	EfEfE•EfEf	
	PLUURU \$%/\$7,9	EfEfEfEgEf	A÷	EfEfEfEfEgEf	EfEfEfEfEgEf	EfEfE•EfEfEf	EfEfE•EfEfEf	
	PLUURU 7(50,1\$7,9	EfEfEfEfEgEf	A÷	EfEfEfEfEgEf	EfEfEfEfEgEf	EfEfE•EfEfEf	EfEfE•EfEfEf	
	WRR	EfEfEfEfEgEf	A÷	EfEfEfEfEgEf	EfEfEfEfEgEf	EfEfE•EfEfEf	EfEfE•EfEfEf	
	FDOHQGDU >NXM	E•EfE•	A÷	EfE•Ef	EfE•Ef	EfE•Ef	EfE•Ef	
	FDOHQGDU 120,1\$7,9	EfEfEfEf	A÷	EfEfE•Ef	EfEfEfEf	EfEfE•Ef	EfEfE•Ef	
	FDOHQGDU 120,1\$7,9	EfEfE•Ef	A÷	EfEfE•Ef	EfEfE•Ef	EfEfE•Ef	EfEfE•Ef	
	FDOHQGDU WRR	EfEfE•Ef	A÷	EfEfE•Ef	EfEfE•Ef	EfEfE•Ef	EfEfE•Ef	
	FDOHQGDU \$%/\$7,9	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfEfEgEfEf	EfEfE•EfEf	
	FDOHQGDU 7(50,1\$7,9	EfEfEfEgEf	A÷	EfEfEfEgEf	EfEfEfEgEf	EfEfEgEfEf	EfEfE•EfEf	
	FDOHQGDU \$%/\$7,9	EfEfEfEfEgEf	A÷	EfEfEfEfEgEf	EfEfEfEfEgEf	EfEfE•EfEfEf	EfEfE•EfEfEf	
	FDOHQGDU 7(50,1\$7,9	EfEfEfEfEgEf	A÷	EfEfEfEfEgEf	EfEfEfEfEgEf	EfEfE•EfEfEf	EfEfE•EfEfEf	
8	NDWDQD VZRUG	>NDWDQD	E•EfE•	E•EfE•	E•EfE•	E•EfE•	E•EfE•	
	KDWDQD@	E•EfE•	E•EfE•	E•EfE•	E•EfE•	E•EfE•	E•EfE•	
	NDWDQD 120,1\$7,9	EfEfEfEf	A÷	E•EfEfEf	EfE•E•Ef	E•EfEfEf	EfEfEfEf	
	NDWDQD 120,1\$7,9	EfEfEfEf	A÷	E•EfEfEf	E•EfEfEf	E•EfEfEg>Û	EfEfEfEf	
	NDWDQD WRR	E•EfEfEf	A÷	E•EfEfEf	E•EfEfEf	E•EfEfEg>Û	EfEfEfEf	
	NDWDQD \$%/\$7,9	E•EfEfEfEf	A÷	E•EfEfEfEf	E•EfEfEfEf	E•EfEfEfEf	EfEfEfEfEf	
	NDWDQD 7(50,1\$7,9	EfEfEfEfEf	A÷	E•EfEfEfEf	E•EfEfEfEf	E•EfEfEfEf	EfEfEfEfEf	
	NDWDQD \$%/\$7,9	EfEfEfEfEf	A÷	E•EfEfEfEfEf	E•EfEfEfEfEf	E•EfEfEfEfEf	EfEfEfEfEfEf	
	NDWDQD 7(50,1\$7,9	EfEfEfEfEfEf	A÷	E•EfEfEfEfEf	E•EfEfEfEfEf	E•EfEfEfEfEf	EfEfEfEfEfEf	
	WRR	EfEfEfEfEfEf	A÷	E•EfEfEfEfEf	E•EfEfEfEfEf	E•EfEfEfEfEf	EfEfEfEfEfEf	
	ILHOG FXOWLYD	WHG >'DWHB	E•EfE•	E•EfE•	E•EfE•	E•EfE•	E•EfE•	
	SDWHB@	E•EfE•	E•EfE•	E•EfE•	E•EfE•	E•EfE•	E•EfE•	
	ILHOG 120,1\$7,9	EfEfEfEfEf	A÷	E•EfEfEfEf	EfE•E•Ef	E•EfEfEfEf	EfEfEfEfEf	
	ILHOG 120,1\$7,9	E•EfEfEfEf	A÷	E•EfEfEfEf	E•EfEfEfEf	E•EfEfEg>Û	EfEfEfEfEf	
	ILHOG WRR	E•EfEfEfEf	A÷	E•EfEfEfEf	E•EfEfEfEf	E•EfEfEg>Û	EfEfEfEfEf	
	ILHOG \$%/\$7,9	E•EfEfEfEfEf	A÷	E•EfEfEfEfEf	E•EfEfEfEfEf	E•EfEfEfEfEf	EfEfEfEfEfEf	
	ILHOG 7(50,1\$7,9	EfEfEfEfEfEf	A÷	E•EfEfEfEfEf	E•EfEfEfEfEf	E•EfEfEfEfEf	EfEfEfEfEfEf	
	ILHOG \$%/\$7,9	EfEfEfEfEfEf	A÷	E•EfEfEfEfEfEf	E•EfEfEfEfEfEf	E•EfEfEfEfEfEf	EfEfEfEfEfEfEf	
	ILHOG 7(50,1\$7,9	EfEfEfEfEfEfEf	A÷	E•EfEfEfEfEfEf	E•EfEfEfEfEfEf	E•EfEfEfEfEfEf	EfEfEfEfEfEfEf	
	KLS >JDPDNX@	A÷	E•EfE•	A÷	E•EfE•	E•EfE•	E•EfE•	
	KLS 120,1\$7,9(<	A÷	E•EfEfEf	A÷	EfE•E•Ef	E•EfEfEf	EfEfEfEf	
	KLS 120,1\$7,9	A÷	E•EfEfEf	A÷	E•EfEfEf	E•EfEfEf	EfEfEfEf	
	KLS WRR	A÷	E•EfEfEf	A÷	E•EfEfEf	E•EfEfEf	EfEfEfEf	
	KLS \$%/\$7,9	A÷	E•EfEfEfEf	A÷	E•EfEfEfEf	E•EfEfEfEf	EfEfEfEfEf	
	KLS 7(50,1\$7,9	A÷	E•EfEfEfEf	A÷	E•EfEfEfEf	E•EfEfEfEf	EfEfEfEfEf	
	KLS \$%/\$7,9	WRR	A÷	A÷	E•EfEfEfEfEf	E•EfEfEfEfEf	EfEfEfEfEfEf	
	KLS 7(50,1\$7,9	WRR	A÷	A÷	E•EfEfEfEfEf	E•EfEfEfEfEf	EfEfEfEfEfEf	
	GDZQ >bDBWXQ L	EfEfEfE•Ef	EfEfEfE•Ef	EfEfE•Ef>Û	EfEfE•Ef	EfEfE•Ef	EfEfE•Ef	
	GDZQ 120,1\$7,9	EfEfEfEfE•Ef	EfEfEfEfE•Ef	EfEfEfEfE•Ef>Û	EfEfEfEfEf	E•E•EfE•Ef	EfEfEfEfE•Ef	

NOMINATIVE: ?ñu / ABLATIVE: kara / TERMINATIVE: @ñi, madi / DATIVE/LOCATIVE: kai, ni / too Hmu

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQVL&U&Y&S&W&R&R&R
5HVHDFK 5HSRUW RQ WKH .LND
\$XJXVW 1DWLRQDO ,QVWLWXWLRQ\KLRWL&S&D&D

	6WDQGDUG	-DQQLVX\$	2QRWVX%	6KLWRRNH\$	6KLWRRNH%	6K		
\$	GDZQ 120,1\$7,9(<A÷	ÖÑÑÖ¹	A÷	ÖÑÑÖ¹	EfEfE•EfEfEg	A÷		
	GDZQ WRR	A÷	ÖÑÑÖ¹	ÖÑÑÖ¹	EfEfE•EfEfEg	A÷		
	GDZQ \$%/\$7,9(<A÷	ÖÑÑÖ,¹	A÷	ÖÑÑÖ¹¹	EfEfE•EfEfEgEg	A÷		
	GDZQ 7(50,1\$7,9(<?	ÖÑÑÖ,¹	?	ÖÑÑÖ¹¹	EfEfE•EfEfEgEg	A÷		
	GDZQ \$%/\$7,9(WRR	ÖÑÑÑ,¹ "	?	ÖÑÑÖ¹¹¹	EfEfE•EfEfEgEgEg	A÷		
	GDZQ 7(50,1\$7,9 WRR	?	ÖÑÑÑ,¹ "	ÖÑÑÖ¹¹¹	EfEfE•EfEfEgEgEg	A÷		
	IRRG >KDIPH@	A	÷	ÖÑÖÑ	A	÷	EfE•E•Ef	
	IRRG 120,1\$7,9(<A÷	ÖÑÑÑ,	A÷	ÖÑÑÖ,	A÷	÷	EfE•E•Ef	
	IRRG 120,1\$7,9(<A÷	ÖÑÑÑ,	A÷	ÖÑÑÖ¹	A	÷	A	
	IRRG WRR	A÷	ÖÑÑÑ,	A÷	ÖÑÑÖ¹	A	÷	A
	IRRG \$%/\$7,9(<A÷	ÖÑÑÑ¹,	A÷	ÖÑÑÖ¹¹	A	÷	A	
	IRRG 7(50,1\$7,9(<?	ÖÑÑÑ¹,	?	ÖÑÑÖ¹¹	A	÷	A	
%	IRRG \$%/\$7,9(WRR	ÖÑÑÑ¹,¹	?	ÖÑÑÖ¹¹¹	A	÷	A	
	IRRG 7(50,1\$7,9(WRR	ÖÑÑÑ¹,¹	?	ÖÑÑÖ¹¹¹	A	÷	A	
	WKXQGHU >KDIP@	ÖÑÑÖ	A÷	ÖÖÑÖ	EfEfE•Ef>Ü EfE•E•Ef	÷	EfE•E•Ef	
	WKXQGHU 120,1\$7,9(<A÷	ÖÑÑÖ¹	A÷	ÖÖÑÖ,	EfEfE•EfEf	÷	EfE•E•E•Ef	
	WKXQGHU 120,1\$7,9(<A÷	ÖÑÑÖ¹	A÷	ÖÖÑÖ¹	EfEfEfE•Ef	÷	A÷	
	WKXQGHU WRR	A÷	ÖÑÑÖ¹	ÖÖÑÖ¹	EfEfEfE•Ef	÷	A÷	
	WKXQGHU \$%/\$7,9(<A÷	ÖÑÑÖ¹¹	A÷	ÖÖÑÖ¹¹	EfEfEfE•EfEg	÷	A÷	
	WKXQGHU 7(50,1\$7,9(<?	ÖÑÑÖ,¹	?	ÖÖÑÖ¹¹	EfEfEfE•EfEg	÷	A÷	
	WKXQGHU \$%/\$7,9(WRR	ÖÑÑÖ¹¹¹	?	ÖÖÑÖ¹¹¹	EfEfEfE•EfEfEg	÷	A÷	
	WKXQGHU 7(50,1\$7,9(WRR	ÖÑÑÖ¹¹¹	?	ÖÖÑÖ¹¹¹	EfEfEfE•EfEfEg	÷	A÷	
	NLWFKHQ >WRB]AMD@	ÖÑÑÖ	A÷	A÷	EfE•Ef	÷	A÷	
	NLWFKHQ 120,1\$7,9(<A÷	ÖÑÑÖ¹	A÷	A÷	EfE•E•Ef	÷	A÷	
NLWFKHQ 120,1\$7,9(<A÷	ÖÑÑÖ¹	A÷	A÷	EfE•E•Ef	÷	A÷		
NLWFKHQ WRR	A÷	ÖÑÑÖ¹	A÷	EfE•E•Ef	÷	A÷		
NLWFKHQ \$%/\$7,9(<A÷	ÖÑÑÖ¹¹	A	÷	EfE•E•EfEg>Ü EfEfE•EfEg	÷	A÷		
NLWFKHQ 7(50,1\$7,9(<?	ÖÑÑÖ,¹	?	?	EfE•E•EfEg>Ü EfEfE•EfEg	÷	A÷		
NLWFKHQ \$%/\$7,9(WRR	ÖÑÑÖ¹¹¹	?	?	EfE•E•EfEfEg	÷	A÷		
NLWFKHQ 7(50,1\$7,9(WRR	ÖÑÑÖ¹¹¹	?	?	EfE•E•EfEgEg>Ü EfE•E•EfEfEg	÷	A÷		
&	\RXQJ JLUO >PHDEL@	ÖÑÑÖ	A÷	ÖÖÑÖ	EfE•EfE•	÷	EfE•EfE•	
	\RXQJ JLUO 120,1\$7,9(<A÷	ÖÑÑÖ¹	A÷	ÖÖÑÖ,	EfE•EfEfEf	÷	EfE•EfEfEf	
	\RXQJ JLUO 120,1\$7,9(<A÷	ÖÑÑÖ¹	A÷	ÖÖÑÖ¹	EfE•EfEfEg	÷	A÷	
	\RXQJ JLUO WRR	A÷	ÖÑÑÖ¹	ÖÖÑÖ¹	EfE•EfEfEg	÷	A÷	
	\RXQJ JLUO \$%/\$7,9(<A÷	ÖÑÑÖ¹¹	A÷	ÖÖÑÖ¹¹	EfE•EfEfEgEg	÷	A÷	
	\RXQJ JLUO 7(50,1\$7,9(<?	ÖÑÑÖ,¹	?	ÖÖÑÖ¹¹	EfE•EfEfEgEg	÷	A÷	
	\RXQJ JLUO \$%/\$7,9(WRR	ÖÑÑÖ¹¹¹	?	ÖÖÑÖ¹¹¹	EfE•EfEfEgEgEg	÷	A÷	
	\RXQJ JLUO 7(50,1\$7,9(WRR	ÖÑÑÖ¹¹¹	?	ÖÖÑÖ¹¹¹	EfE•EfEfEgEgEg	÷	A÷	
	FHLOLQJ >WLIZLAB@	÷	A	÷	ÖÑÖÑ	A	÷	EfE•EfE•
	FHLOLQJ 120,1\$7,9(<A÷	ÖÑÑÑ,	A÷	ÖÑÑÖ,	EfE•EfEfEf	÷	EfE•EfEfEf	
	FHLOLQJ 120,1\$7,9(<A÷	ÖÑÑÑ,	A÷	ÖÑÑÖ¹	EfE•EfEfEg	÷	A÷	
	FHLOLQJ WRR	A÷	ÖÑÑÑ,	A÷	ÖÑÑÖ¹	EfE•EfEfEg	÷	A÷
	FHLOLQJ \$%/\$7,9(<A÷	ÖÑÑÑ¹,	A÷	ÖÑÑÖ¹¹	EfE•EfEfEgEg	÷	A÷	
	FHLOLQJ 7(50,1\$7,9(<?	ÖÑÑÑ¹,	?	ÖÑÑÖ¹¹	EfE•EfEfEgEg	÷	A÷	
	FHLOLQJ \$%/\$7,9(WRR	ÖÑÑÑ¹,¹	?	ÖÑÑÖ¹¹¹	EfE•EfEfEgEgEg	÷	A÷	

\$FFHQW 'DWD

	6WDQGDUG	6DNDQHQH \$ 6DNDQHQH \$ % \$GHQ \$ %	DPLNDW.DW.DNDW.DW.DNDW.DW.DNDW.DW.DNDW.HVWX %					
\$	GDZQ 120,1\$7,9(<))	EfEfEfE•Ef	EfEfEfE•Ef	EfEfE•E•Ef>Ü EfE•E•E•Ef	EfE•E•E•Ef	EfEfEfE•Ef	A÷	EfEfEfE•Ef
	GDZQ WRR	EfEfEfE•Ef	EfEfEfE•Ef	A÷	A÷	EfEfEfE•Ef	A÷	EfEfEfE•Ef
	GDZQ \$ % / \$ 7,9(<))	EfEfEfEfEgEf	EfEfEfEfEgEf	A÷	EfE•E•E•EfEg	EfEfEfE•EfEg	A÷	EfEfEfE•EfEg
	GDZQ 7(50,1\$7,9(<))	EfEfEfEfEgEf	EfEfEfEfEgEf	A÷	A÷	EfEfEfE•EfEg	A÷	EfEfEfE•EfEg
	GDZQ \$ % / \$ 7,9(WRR)	EfEfEfEfEfEgEf	EfEfEfEfEfEgEf	A÷	EfE•E•E•EfEg	EfEfEfE•EfEg	A÷	EfEfEfE•EfEg
	GDZQ 7(50,1\$7,9 WRR)	EfEfEfEfEfEgEf	EfEfEfEfEfEgEf	A÷	A÷	EfEfEfE•EfEg	A÷	EfEfEfE•EfEg
	IRRG >KD:PHB@	EfE•EfE•	A÷	A÷	EfE•E•Ef	EfE•EfE•	A÷	A÷
	IRRG 120,1\$7,9(<))	EfEfE•EfEf	A÷	A÷	EfE•E•E•Ef	EfE•EfEfEf	A÷	A÷
	IRRG 120,1\$7,9(<))	EfEfE•EfEg	A÷	A÷	EfE•E•E•Ef	EfE•EfEfEf	A÷	A÷
	IRRG WRR	EfEfE•EfEg	A÷	A÷	A÷	EfE•EfEfEf	A÷	A÷
	IRRG \$ % / \$ 7,9(<))	EfEfE•E•EfEg	A÷	A÷	EfE•E•E•EfEg	EfE•EfEfEfEg	A÷	A÷
	IRRG 7(50,1\$7,9(<))	EfEfE•E•EfEg	A÷	A÷	A÷	EfE•EfEfEfEg	A÷	A÷
%	IRRG \$ % / \$ 7,9(WRR)	EfEfE•E•EfEg	A÷	A÷	EfE•E•E•EfEg	EfE•EfEfEfEg	A÷	A÷
	IRRG 7(50,1\$7,9(<))	EfEfE•E•EfEg	A÷	A÷	A÷	EfE•EfEfEfEg	A÷	A÷
	WKKXQGHU >KD:QND:PHB@	EfE•EfE•	A÷	EfE•E•Ef>Ü EfEfE•Ef	A÷	EfEfEfE•Ef	A÷	A÷
	WKKXQGHU 120,1\$7,9(<))	A÷9(<))	A÷	EfE•E•E•Ef	A÷	EfEfEfEfE•Ef	A÷	A÷
	WKKXQGHU 120,1\$7,9(<))	EfEfE•EfE•Ef	A÷	EfE•E•E•Ef>Ü EfEfE•E•Ef	A÷	EfEfEfEfE•Ef>Ü EfEfEfEfE•Ef	A÷	A÷
	WKKXQGHU WRR	EfEfEfE•Ef	A÷	A÷	A÷	EfEfEfEfE•Ef	A÷	A÷
	WKKXQGHU \$ % / \$ 7,9(<))	EfEfEfEfEgEf	A÷	A÷	A÷	EfEfEfEfE•EfEg	A÷	A÷
	WKKXQGHU 7(50,1\$7,9(<))	EfEfEfEfEgEf	A÷	A÷	A÷	EfEfEfEfE•EfEg	A÷	A÷
	WKKXQGHU \$ % / \$ 7,9(<))	EfEfEfEfEfEgEf	A÷	A÷	A÷	EfEfEfEfE•EfEg	A÷	A÷
	WKKXQGHU 7(50,1\$7,9(<))	EfEfEfEfEfEgEf	A÷	A÷	A÷	EfEfEfEfE•EfEg	A÷	A÷
	WKKXQGHU WRR	EfEfEfEfEfEgEf	A÷	A÷	A÷	EfEfEfEfE•EfEg	A÷	A÷
	WKKXQGHU \$ % / \$ 7,9(<))	EfEfEfEfEfEgEf	A÷	A÷	A÷	EfEfEfEfE•EfEg	A÷	A÷
&	NLWFKHQ >WRB]AMD@	A÷	A÷	EfE•E•Ef	A÷	A÷	A÷	A÷
	NLWFKHQ 120,1\$7,9(<))	A÷9(<))	A÷	A÷	EfE•E•E•Ef	A÷	A÷	A÷
	NLWFKHQ 120,1\$7,9(<))	A÷9(<))	A÷	A÷	EfE•E•E•Ef	A÷	A÷	A÷
	NLWFKHQ WRR	A÷	A÷	A÷	A÷	A÷	A	÷
	NLWFKHQ \$ % / \$ 7,9(<))	A÷	A÷	EfE•E•E•EfEg	A÷	A÷	A÷	A
	NLWFKHQ 7(50,1\$7,9(<))	A÷	A÷	A÷	A÷	A÷	A	÷
	NLWFKHQ \$ % / \$ 7,9(WRR)	A÷ WRR	A÷	A÷	EfE•E•E•EfEfEg	A÷	A÷	A÷
	NLWFKHQ 7(50,1\$7,9(<))	A÷ WRR	A÷	A÷	A÷	A÷	A	÷
	NLWFKHQ WRR	A÷	A÷	A÷	A÷	A÷	A	÷
	NLWFKHQ \$ % / \$ 7,9(<))	A÷	A÷	A÷	A÷	A÷	A	÷
	NLWFKHQ 7(50,1\$7,9(<))	A÷	A÷	A÷	A÷	A÷	A	÷
	NLWFKHQ WRR	A÷	A÷	A÷	A÷	A÷	A	÷
&	IRXQJ JLUO >PHB]AMD@	EfE•EfE•	EfE•EfE•	EfE•EfE•	EfE•EfE•	EfE•EfE•	A÷	EfE•EfE•
	IRXQJ JLUO 120,1\$7,9(<))	EfE•E•EfEf	EfE•E•E•Eg	A÷	EfE•EfEfEf	EfE•EfEfEf	A÷	EfE•EfEfEf
	IRXQJ JLUO 120,1\$7,9(<))	EfE•EfEfEg>Ü EfEfE•EfEg	EfE•E•E•Ef	EfE•EfEfEg	EfE•EfEfEg	EfE•EfEfEg>Ü EfEfEfEfEg	A÷	EfE•EfEfEg
	IRXQJ JLUO WRR	EfE•E•EfEg>Ü EfEfE•EfEg	EfE•E•E•Ef	A÷	A÷	EfE•EfEfEg	A÷	EfE•EfEfEg
	IRXQJ JLUO \$ % / \$ 7,9(<))	EfE•E•E•EfEg	EfE•E•E•EfEg	A÷	EfE•EfEfEgEg	EfE•EfEfEgEg	A÷	EfE•EfEfEfEg
	IRXQJ JLUO 7(50,1\$7,9(<))	EfE•E•E•EfEg	EfE•E•E•EfEg	A÷	A÷	EfE•EfEfEfEg	A÷	EfE•EfEfEfEg
	IRXQJ JLUO \$ % / \$ 7,9(WRR)	EfE•E•E•EgEfEg>Ü EfE•E•E•EfEfEg	EfE•E•E•EgEfEg	A÷	EfE•EfEfEfEfEg	EfE•EfEfEfEfEg	A÷	EfE•EfEfEfEfEg
	IRXQJ JLUO WRR	EfE•E•E•EgEfEg	EfE•E•E•EgEfEg	A÷	A÷	EfE•EfEfEfEfEg	A÷	EfE•EfEfEfEfEg
	IRXQJ JLUO 7(50,1\$7,9(<))	EfE•E•E•EgEfEg	EfE•E•E•EgEfEg	A÷	A÷	EfE•EfEfEfEfEg	A÷	EfE•EfEfEfEfEg
	IRXQJ JLUO \$ % / \$ 7,9(<))	EfE•E•E•EgEfEg>Ü EfE•E•E•EfEfEg	EfE•E•E•EgEfEg	A÷	EfE•EfEfEfEfEg	EfE•EfEfEfEfEg	A÷	EfE•EfEfEfEfEg
	IRXQJ JLUO WRR	EfE•E•E•EgEfEg	EfE•E•E•EgEfEg	A÷	A÷	EfE•EfEfEfEfEg	A÷	EfE•EfEfEfEfEg
	IRXQJ JLUO \$ % / \$ 7,9(<))	EfE•E•E•EgEfEg>Ü EfE•E•E•EfEfEg	EfE•E•E•EgEfEg	A÷	EfE•EfEfEfEfEg	EfE•EfEfEfEfEg	A÷	EfE•EfEfEfEfEg

NOMINATIVE: ?ñu / ABLATIVE: kara / TERMINATIVE: @ñi, madi / DATIVE/LOCATIVE: kai, ni / too Hmu

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQVL&U&DSWQR
5HVHDFK 5HSRUW RQ WKH .LND
\$XJXVW 1DWLRQDO ,QVWLWX&X&K&R&W&L&D&S&D&C

	6WDQGDU	-DQ	\$VH :DQ	%	1DNDVDWR	\$ 1DNDVDWR	%	\$UDNL \$
\$	GDZQ 120,1\$7,9(	EfEfEfEfEf	EfEfEfEf	EfEfEfEf	EfEfEfEf	E•E•EfE•Ef	EfEfEfEfEf	
	GDZQ WRR	EfEfEfEfEf	EfEfEfEf	EfEfEfEf	EfEfEfEf	E•E•EfE•Ef	EfEfEfEfEf	
	GDZQ \$%/\$7,9(	EfEfEfEfEfEgEf	EfEfEfEfEgEf	EfEfEfEfEgEf	EfEfEfEfEgEf	E•E•EfE•EfEg>Ü	EfEfEfEfEfEg	
	GDZQ 7(50,1\$7,9	EfEfEfEfEfEgEf	EfEfEfEfEgEf	EfEfEfEfEgEf	EfEfEfEfEgEf	E•E•EfE•EfEg	EfEfEfEfEfEg	EfEfEfEfEfEg
	GDZQ \$%/\$7,9(WRR	EfEfEfEfEfEgEf	EfEfEfEfEgEf	EfEfEfEfEgEf	EfEfEfEfEgEf	E•E•EfE•EfEg>Ü	EfEfEfEfEfEg	EfEfEfEfEfEg
	GDZQ 7(50,1\$7,9 WRR	EfEfEfEfEfEgEf	EfEfEfEfEgEf	EfEfEfEfEgEf	EfEfEfEfEgEf	E•E•EfE•EfEg>Ü	EfEfEfEfEfEg	EfEfEfEfEfEg
	IRRG >KD:PHB@	A÷	EfEfE•Ef	A÷	EfEfE•Ef	A÷	EfEfE•Ef	
	IRRG 120,1\$7,9(<	A÷	EfEfEfE•Ef	A÷	EfEfEfEfEg	A÷	EfEfEfEfEf	
	IRRG 120,1\$7,9(	A÷	EfEfEfE•Ef	A÷	EfEfEfE•Ef	A÷	EfEfEfEfEg	
	IRRG WRR	A÷	EfEfEfE•Ef	A÷	EfEfEfE•Ef	A÷	EfEfEfEfEg	
	IRRG \$%/\$7,9(	A÷	EfEfEfEfEgEf	A÷	EfEfEfEfEgEf	A÷	EfEfEfEfEfEg	
	IRRG 7(50,1\$7,9	A÷	EfEfEfEfEgEf	A÷	EfEfEfEfEgEf	A÷	EfEfEfEfEfEg	
%	IRRG \$%/\$7,9(WRR	A÷	EfEfEfEfEgEf	A÷	EfEfEfEfEgEf	A÷	EfEfEfEfEfEg	
	IRRG 7(50,1\$7,9	A÷	EfEfEfEfEgEf	A÷	EfEfEfEfEgEf	A÷	EfEfEfEfEfEg	
	IRRG \$%/\$7,9(WRR	A÷	EfEfEfEfEgEf	A÷	EfEfEfEfEgEf	A÷	EfEfEfEfEfEg	
	IRRG 7(50,1\$7,9	A÷	EfEfEfEfEgEf	A÷	EfEfEfEfEgEf	A÷	EfEfEfEfEfEg	
	WKKQGHU >KD:Q	A÷	EfEfE•Ef	EfEfE•Ef	EfEfE•Ef	EfEfE•Ef	EfEfE•Ef	
	WKKQGHU 120,1\$	A÷	EfEfEfE•Ef	EfEfEfE•Ef	EfEfEfEfEg	E•E•EfE•Ef	EfEfEfEfE	
	WKKQGHU 120,1\$	A÷	EfEfEfE•Ef	EfEfEfE•Ef	EfEfEfEfEg	E•E•EfE•Ef	EfEfEfEfE	
	WKKQGHU WRR	A÷	EfEfEfE•Ef	EfEfEfE•Ef	EfEfEfEfEg	E•E•EfE•Ef	EfEfEfEfE	
	WKKQGHU \$%/\$7	A÷	EfEfEfEfEgEf	EfEfEfEfEgEf	EfEfEfEfEgEf	E•E•EfE•EfEg>Ü	EfEfEfEfEfEg	
	WKKQGHU 7(50,1	A÷	EfEfEfEfEgEf	EfEfEfEfEgEf	EfEfEfEfEgEf	E•E•EfE•EfEg>Ü	EfEfEfEfEfEg	
	WKKQGHU \$%/\$7	A÷	EfEfEfEfEgEf	EfEfEfEfEgEf	EfEfEfEfEgEf	E•E•EfE•EfEg>Ü	EfEfEfEfEfEg	
	WKKQGHU 7(50,1	A÷	EfEfEfEfEgEf	EfEfEfEfEgEf	EfEfEfEfEgEf	E•E•EfE•EfEg>Ü	EfEfEfEfEfEg	
8	WKKQGHU 7(50,1\$7,9 WRR	A÷	EfEfEfEfEgEf	EfEfEfEfEgEf	EfEfEfEfEgEf	E•E•EfE•EfEg>Ü	EfEfEfEfEfEg	
	NLWFKHQ >WRB]	A÷	A÷	A÷	EfEfE•Ef	A÷	EfEfEfE•	
	NLWFKHQ 120,1\$	A÷	A÷	A÷	EfEfEfEfEg	A÷	EfEfEfEfEf	
	NLWFKHQ 120,1\$	A÷	A÷	A÷	EfEfEfEfEf	A÷	EfEfEfEfEf	
	NLWFKHQ WRR	A÷	A÷	A÷	EfEfEfEfEf	A÷	EfEfEfEfEf	
	NLWFKHQ \$%/\$7,9	A÷	A÷	A÷	EfEfEfEfEgEf	A÷	EfEfEfEfEfEg	
	NLWFKHQ 7(50,1\$7,9	A÷	A÷	A÷	EfEfEfEfEgEf	A÷	EfEfEfEfEfEg	
	NLWFKHQ \$%/\$7,9 WRR	A÷	A÷	A÷	EfEfEfEfEfEg	A÷	EfEfEfEfEfEg	
	NLWFKHQ 7(50,1\$7,9 WRR	A÷	A÷	A÷	EfEfEfEfEfEg	A÷	EfEfEfEfEfEg	
	IRXQJ JLUO >PHB@	A÷	EfEfE•Ef	EfEfE•Ef	EfEfE•Ef	EfEfE•Ef	EfEfE•Ef	
	IRXQJ JLUO 120,1\$7,9(<	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf	EfEfE•EfEf	EfEfEfEfEf	
	IRXQJ JLUO 120,1\$7,9	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf	EfEfE•EfEf	EfEfEfEfEf	
	IRXQJ JLUO WRR	A÷	EfEfEfEfEf	EfEfEfEfEf	EfEfEfEfEf	EfEfE•EfEf	EfEfEfEfEf	
8	IRXQJ JLUO \$%/\$7,9	A÷	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfE•EfEf	EfEfEfEfEfEg	
	IRXQJ JLUO 7(50,1\$7,9	A÷	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfE•EfEf	EfEfEfEfEfEg	
	IRXQJ JLUO \$%/\$7,9	A÷	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfE•EfEf	EfEfEfEfEfEg	
	IRXQJ JLUO 7(50,1\$7,9	A÷	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfE•EfEf	EfEfEfEfEfEg	
	IRXQJ JLUO \$%/\$7,9	A÷	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfE•EfEf	EfEfEfEfEfEg	
	IRXQJ JLUO 7(50,1\$7,9	A÷	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfE•EfEf	EfEfEfEfEfEg	
	IRXQJ JLUO \$%/\$7,9	A÷	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfE•EfEf	EfEfEfEfEfEg	
	IRXQJ JLUO 7(50,1\$7,9	A÷	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfE•EfEf	EfEfEfEfEfEg	
	IRXQJ JLUO \$%/\$7,9	A÷	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfE•EfEf	EfEfEfEfEfEg	
	IRXQJ JLUO 7(50,1\$7,9	A÷	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfE•EfEf	EfEfEfEfEfEg	
	IRXQJ JLUO \$%/\$7,9	A÷	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfE•EfEf	EfEfEfEfEfEg	
	IRXQJ JLUO 7(50,1\$7,9	A÷	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfE•EfEf	EfEfEfEfEfEg	
	IRXQJ JLUO \$%/\$7,9	A÷	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfEfEfEfEg>Ü	EfEfE•EfEf	EfEfEfEfEfEg	

\$FFHQW 'DWD

	6WDQGDUG	6QRVX \$	2QRVX %	6KLWRRNH \$	6KLWRRNH %	6K
	FHLOLQJ 7(50,1\$7,9(WRR	ÖNN¹,¹ ?	ÖNNÖ¹¹	EfE•EfEfEgEg	A÷	
	OHD\ >SDB@	?	Ö	Ñ A	÷ ?	E
	ÖD					•E
	,167580(17\$/ /2&\$7,	ÑÖ¹	?	A÷	EfE•Ef	
	9(< ÖD					÷
	,167580(17\$/ /2&\$7,	ÖÑ¹	?	A	÷ A	
	9(					•E
	SDSHU >KDEL@	?	Ö	Ñ A	÷ ?	E
	SDSHU					•E
	,167580(17\$/ /2&\$7,	ÑÖ¹	?	A÷	EfE•Ef	
	9(< SDSHU					÷
	,167580(17\$/ /2&\$7,	ÑÖ¹	?	A	÷ A	
	9(					•E
	FORWK >QXQX@	?	Ö	Ñ A	÷ ?	E
	FORWK					•E
	,167580(17\$/ /2&\$7,	ÑÖ¹	?	A÷	EfE•Ef	
	9(< FORWK					÷
	,167580(17\$/ /2&\$7,	ÑÖ¹	?	A	÷ A	
	9(					•E
	JDUOLF >SLMX@	?	Ö	Ñ A	÷ ?	E
	JDUOLF					•E
	,167580(17\$/ /2&\$7,	ÑÖ¹	?	A÷	EfE•Ef	
	9(< JDUOLF					÷
	,167580(17\$/ /2&\$7,	ÑÖ¹	?	A	÷ A	
	9(					•E
	LURQ SRW NHWV OH >SÖD]	ÑÖÑ	?	A÷	E•EfE•	
	DPD@					•E
	URQ VSR					•E
	,167580(17\$/ /2&\$7,	ÑÖÑ¹	?	A÷	E•EfEfEf	
	9(< URQ VSR					÷
	,167580(17\$/ /2&\$7,	ÑÖÖ¹	?	A	÷ A	
	9(					•E
	WUHH >NLB@	?	Ñ	Ö A	÷ ?	E
	WUHH					•E
	,167580(17\$/ /2&\$7,	ÖÑ,	?	A÷	EfE•Ef	
	9(< WUHH					÷
	,167580(17\$/ /2&\$7,	ÖÑ,	?	A	÷ A	
	9(					•E
	EHDQ SHD >PDPL@	?	Ñ	Ö A	÷ ?	E
	EHDQ					•E
	,167580(17\$/ /2&\$7,	ÖÑ,	?	A÷	EfE•Ef	
	9(< EHDQ					÷
	,167580(17\$/ /2&\$7,	ÖÑ,	?	A	÷ A	
	9(					•E
	FHUGVSHLF ZKH					•E
	EDUOH\ U\H ROWV	?	Ñ	Ö A	÷ ?	E
	>XQQL FHUGD					•E
	,167580(17\$/ /2&\$7,	ÖÑ,	?	A÷	EfE•Ef	
	9(< FHUGD					÷
	,167580(17\$/ /2&\$7,	ÖÑ,	?	A	÷ A	
	9(					•E
	JDUOLF FKLYH >ELMD@	?	Ñ	Ö A	÷ ?	E
	JDUOLF KYH					•E
	,167580(17\$/ /2&\$7,	ÖÑ,	?	A÷	EfE•Ef	
	9(< JDUOLF KYH					÷
	,167580(17\$/ /2&\$7,	ÖÑ,	?	A	÷ A	
	9(					•E
	FRPE >VDEDQ L@	?	ÖÑÖ	?	A÷	EfE•Ef

NOMINATIVE: ?önu / ABLATIVE: kara / TERMINATIVE: @di, madi / DATIVE/LOCATIVE: kai, ni / too Hmu

*HQHUDO 6WXG\ IRU 5HVHDFUK DQGF&RQVLEU-DSDWR
5HVHDFUK 5HSRUW RQ WKH .LND
\$XJXVW 1DWLRQDO ,QVWLWXWLRU IRU L&SDC

[illegible]

%

\$FFHQW 'DWD

	6WDQGDUG	-DSDQ\$	VH :DQ	%	1DNDVDWR	\$	1DNDVDWR	%	\$UDNL	\$
	FHLOLQJ 7(50,1\$7,9(WRR	EfEfEfEfEfEfEg	EfE•EfEfEfEfEg	EfE•EfEfEfEfEg	A÷	EfE•E•EfEfEfEfEg	EfE•EfEfEfEfEg			
	OHD\ >SDB@	A	÷	A	÷	A	÷	E	•E	f
	OH ,167580(17\$/ /2&AZ, 9(< OH ,167580(17\$/ /2&AZ, 9(	AZ,	A÷	A÷	EfEfEg	A÷	EfE•Ef			
	SDSHU >KDEL@	A	÷	E	•E	f	A	÷	E	•E
	SDSHU ,167580(17\$/ /2&AZ, 9(< SDSHU ,167580(17\$/ /2&AZ, 9(	AZ,	EfE•Ef	A÷	EfEfEg	A÷	EfE•Ef			
	FORWK >QXQX@	A	÷	E	•E	f	A	÷	E	•E
	FORW ,167580(17\$/ /2&AZ, 9(< FORW ,167580(17\$/ /2&AZ, 9(	AZ,	EfE•Ef	A÷	EfEfEg	A÷	EfE•Ef			
	JDUOLF >SLMX@	A	÷	E	•E	f	A	÷	E	•E
	JDOH ,167580(17\$/ /2&AZ, 9(< JDOH ,167580(17\$/ /2&AZ, 9(	AZ,	EfE•Ef	A÷	EfEfEg	A÷	EfE•Ef			
	LURQ SRW NHWV OH >S@D] DPD@ URQ VSR ,167580(17\$/ /2&AZ, 9(< URQ VSR ,167580(17\$/ /2&AZ, 9(	AZ,	E•EfE•	A÷	A÷	A÷	E•EfE•			
	URQ VSR ,167580(17\$/ /2&AZ, 9(	AZ,	E•EfEfEfEf	A÷	A÷	A÷	EfEfEfEfEf			
	WUHH >NLB@	A	÷	A	÷	A	÷	E	•E	f
	WHH ,167580(17\$/ /2&AZ, 9(< WHH ,167580(17\$/ /2&AZ, 9(	AZ,	A÷	A÷	EfEfEg	A÷	EfE•Ef			
	EHDQ SHD >PDPL@	A	÷	E	•E	f	A	÷	E	•E
	EHDQ ,167580(17\$/ /2&AZ, 9(< EHDQ ,167580(17\$/ /2&AZ, 9(	AZ,	EfE•Ef	A÷	EfEfEg	A÷	EfE•Ef			
	FHUCVSHLF ZKH EDUOH\ U\H R\WV >XQL FHUCD ,167580(17\$/ /2&AZ, 9(< FHUCD ,167580(17\$/ /2&AZ, 9(	AZ,	EfE•Ef	A÷	EfEfEg	A÷	EfE•Ef			
	JDUOLF FKLYH >ALMD@	A	÷	E	•E	f	A	÷	E	•E
	JDOFLKYH ,167580(17\$/ /2&AZ, 9(< JDOFLKYH ,167580(17\$/ /2&AZ, 9(	AZ,	A÷	A÷	EfEfEg	A÷	EfEfEf			
	FRPE >VDEQ L@	A÷	EfE•Ef	A÷	EfE•Ef	A÷	EfE•Ef			

NOMINATIVE: ?@nu / ABLATIVE: kara / TERMINATIVE: @di, madi / DATIVE/LOCATIVE: kai, ni / too Hmu

*HQHUDO 6WXG\ IRU 5HVHDFUK DQGF&RQVLEU-DSDWR
5HVHDFUK 5HSRUW RQ WKH .LND
\$XJXVW 1DWLRQDO ,QVWLWXWLRU IRU L&SDC

	6WDQGDUG	-2QRWVX\$	2QRWVX%	6KLWRRNH\$	6KLWRRNH%	6K
	FRIE ,167580(17\$/ /2&\$7, 9(< FRIE ,167580(17\$/ /2&\$7, 9(	ÖÑÑ,	?	?	A÷	EfEfE•Ef
	FRIE ,167580(17\$/ /2&\$7, 9(	ÖÑÑ,	?	?	A	÷
	SRW SDQ >QDEL@ SRW ,167580(17\$/ /2&\$7, 9(< SRW ,167580(17\$/ /2&\$7, 9(	ÖÑ,	?	Ñ	Ö A	÷ ? E
	SRW ,167580(17\$/ /2&\$7, 9(< SRW ,167580(17\$/ /2&\$7, 9(	ÖÑ,	?	?	A÷	EfEfEf
	ERDW VKLS >"XQL@ ERD ,167580(17\$/ /2&\$7, 9(< ERD ,167580(17\$/ /2&\$7, 9(	ÖÑ,	?	Ñ	Ö A	÷ ? E
	EDVNHWW >WLMX@ EDVW ,167580(17\$/ /2&\$7, 9(< EDVW ,167580(17\$/ /2&\$7, 9(	ÖÑ,	?	?	A	÷
	EDVW ,167580(17\$/ /2&\$7, 9(< EDVW ,167580(17\$/ /2&\$7, 9(	ÖÑ,	?	?	A	÷
	PRUW DU PLOOVWRQH >bXVX@ PRU ,167580(17\$/ /2&\$7, 9(< PRU ,167580(17\$/ /2&\$7, 9(	ÖÑ,	?	Ñ	Ö A	÷ ? E
	PRU ,167580(17\$/ /2&\$7, 9(< PRU ,167580(17\$/ /2&\$7, 9(	ÖÑ,	?	?	A÷	EfEfEf
	PXJZR UW >SXWX@ PXJZR ,167580(17\$/ /2&\$7, 9(< PXJZR ,167580(17\$/ /2&\$7, 9(	ÖÑ,	?	Ñ	Ö A	÷ ? E
	PXJZR ,167580(17\$/ /2&\$7, 9(< PXJZR ,167580(17\$/ /2&\$7, 9(	ÖÑ,	?	?	A÷	EfEfEf
	VXJDU >VDWDB@ VXJDU ,167580(17\$/ /2&\$7, 9(< VXJDU ,167580(17\$/ /2&\$7, 9(	ÖÑÖ	?	?	A÷	E•EfE•
	VXJDU ,167580(17\$/ /2&\$7, 9(< VXJDU ,167580(17\$/ /2&\$7, 9(	ÖÑÑ,	?	?	A÷	E•EfEfEf
	ZDWHU ZHOO >KDB@ ZHO ,167580(17\$/ /2&\$7, 9(< ZHO ,167580(17\$/ /2&\$7, 9(	ÖÑ¹	?	Ö	Ñ A	÷ ? A
	ZHO ,167580(17\$/ /2&\$7, 9(< ZHO ,167580(17\$/ /2&\$7, 9(	ÖÑ¹	?	?	A	÷
	FDYH >JDPD@ FDYH ,167580(17\$/ /2&\$7, 9(< FDYH ,167580(17\$/ /2&\$7, 9(	ÑÖ¹	?	?	A	÷
	FDYH ,167580(17\$/ /2&\$7, 9(< FDYH ,167580(17\$/ /2&\$7, 9(	ÑÖ¹	?	?	A	÷
	SRUW KDUERU >PLQDWR@ SRU ,167580(17\$/ /2&\$7, 9(< SRU ,167580(17\$/ /2&\$7, 9(	ÑÖ¹¹	?	?	A	÷
	SRU ,167580(17\$/ /2&\$7, 9(< SRU ,167580(17\$/ /2&\$7, 9(	ÑÖ¹¹	?	?	A	÷

§

\$ F F H Q W ' D W D

[illegible]

NOMINATIVE: ?ŋnu / ABLATIVE: kara / TERMINATIVE: @di, madi / DATIVE/LOCATIVE: kai, ni / too Hmu

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQVL&U&V&W&R
5HVHDFK 5HSRUW RQ WKH .LND
\$XJXVW 1DWLRQDO ,QVWLWX&Q&H&R&L&D&S&D&O

	6WDQGDUQ -DQ	SDQ\$	IVH :DQ	%	1DNDVDWR	\$ 1DNDVDWR	%	\$UDNL	\$
	FRF ,167580(17\$/ /2&AZ, 9(< FRF ,167580(17\$/ /2&AZ, 9(<	FRF	EfE•E•Ef	A÷	EfEfEfEg	A÷	EfEfE•Ef		
	FRF ,167580(17\$/ /2&AZ, 9(< FRF ,167580(17\$/ /2&AZ, 9(<	FRF	EfE•E•Ef	A÷	EfE•E•Ef	A÷	EfEfE•Ef		
	SRW SDQ >QDEL SRW ,167580(17\$/ /2&AZ, 9(< SRW ,167580(17\$/ /2&AZ, 9(<	SRW	÷	E	fE	•	A	÷	E fE
	SRW ,167580(17\$/ /2&AZ, 9(< SRW ,167580(17\$/ /2&AZ, 9(<	SRW	A÷	A÷	EfEfEf	A÷	EfEfEf		
	SRW ,167580(17\$/ /2&AZ, 9(< SRW ,167580(17\$/ /2&AZ, 9(<	SRW	A÷	A÷	EfEfEg	A÷	EfEfEg		
	ERDW VKLS >~XQ ERDW ,167580(17\$/ /2&AZ, 9(< ERDW ,167580(17\$/ /2&AZ, 9(<	ERDW	÷	E	fE	•	A	÷	E fE
	ERDW ,167580(17\$/ /2&AZ, 9(< ERDW ,167580(17\$/ /2&AZ, 9(<	ERDW	A÷	A÷	EfEfEf	A÷	EfEfEf		
	ERDW ,167580(17\$/ /2&AZ, 9(< ERDW ,167580(17\$/ /2&AZ, 9(<	ERDW	A÷	A÷	EfEfEg	A÷	EfEfEg		
	EDVNHW >WLMX EDVNHW ,167580(17\$/ /2&AZ, 9(< EDVNHW ,167580(17\$/ /2&AZ, 9(<	EDVNHW	÷	E	fE	•	A	÷	E fE
	EDVNHW ,167580(17\$/ /2&AZ, 9(< EDVNHW ,167580(17\$/ /2&AZ, 9(<	EDVNHW	A÷	A÷	EfEfEf	A÷	EfEfEf		
	EDVNHW ,167580(17\$/ /2&AZ, 9(< EDVNHW ,167580(17\$/ /2&AZ, 9(<	EDVNHW	A÷	A÷	EfEfEg	A÷	EfEfEg		
8	PRUWU PLOOVV PRUWU ,167580(17\$/ /2&AZ, 9(< PRUWU ,167580(17\$/ /2&AZ, 9(< PRUWU ,167580(17\$/ /2&AZ, 9(<	PRUWU	÷	E	fE	•	A	÷	E fE
	PRUWU ,167580(17\$/ /2&AZ, 9(< PRUWU ,167580(17\$/ /2&AZ, 9(<	PRUWU	A÷	A÷	EfEfEf	A÷	EfEfEf		
	PRUWU ,167580(17\$/ /2&AZ, 9(< PRUWU ,167580(17\$/ /2&AZ, 9(<	PRUWU	A÷	A÷	EfEfEg	A÷	EfEfEg		
	PXJZRUV >SXWX PXJZRUV ,167580(17\$/ /2&AZ, 9(< PXJZRUV ,167580(17\$/ /2&AZ, 9(<	PXJZRUV	÷	E	fE	•	A	÷	E fE
	PXJZRUV ,167580(17\$/ /2&AZ, 9(< PXJZRUV ,167580(17\$/ /2&AZ, 9(<	PXJZRUV	A÷	A÷	EfEfEf	A÷	EfEfEf		
	PXJZRUV ,167580(17\$/ /2&AZ, 9(< PXJZRUV ,167580(17\$/ /2&AZ, 9(<	PXJZRUV	A÷	A÷	EfEfEg	A÷	EfEfEg		
	VXJDU >VDWDB VXJDU ,167580(17\$/ /2&AZ, 9(< VXJDU ,167580(17\$/ /2&AZ, 9(<	VXJDU	E•EfE•	A÷	E•EfE•	A÷	E•EfE•		
	VXJDU ,167580(17\$/ /2&AZ, 9(< VXJDU ,167580(17\$/ /2&AZ, 9(<	VXJDU	A÷	A÷	EfE•E•Ef	A÷	EfEfEfEf		
	VXJDU ,167580(17\$/ /2&AZ, 9(< VXJDU ,167580(17\$/ /2&AZ, 9(<	VXJDU	A÷	A÷	E•EfEfEg	A÷	EfEfEfEg		
	ZDWHU ZHOO >ADB ZDWHU ,167580(17\$/ /2&AZ, 9(< ZDWHU ,167580(17\$/ /2&AZ, 9(<	ZDWHU	÷	E	fE	f	A	÷	E •E
	ZDWHU ,167580(17\$/ /2&AZ, 9(< ZDWHU ,167580(17\$/ /2&AZ, 9(<	ZDWHU	EfE•Ef	A÷	EfEfEg	A÷	EfE•Ef		
	ZDWHU ,167580(17\$/ /2&AZ, 9(< ZDWHU ,167580(17\$/ /2&AZ, 9(<	ZDWHU	EfE•Ef	A÷	EfE•Ef	A÷	EfE•Ef		
	FDYH >]DPD FDYH ,167580(17\$/ /2&AZ, 9(< FDYH ,167580(17\$/ /2&AZ, 9(<	FDYH	÷	A	÷	A	÷	E	•E f
	FDYH ,167580(17\$/ /2&AZ, 9(< FDYH ,167580(17\$/ /2&AZ, 9(<	FDYH	A÷	A÷	EfEfEg	A÷	EfE•Ef		
	FDYH ,167580(17\$/ /2&AZ, 9(< FDYH ,167580(17\$/ /2&AZ, 9(<	FDYH	A÷	A÷	EfE•Ef	A÷	EfE•Ef		
	SRUW KDUERU >ALQDWR SRUW ,167580(17\$/ /2&AZ, 9(< SRUW ,167580(17\$/ /2&AZ, 9(<	SRUW	E•EfE•	A÷	EfE•Ef	A÷	EfE•Ef		
	SRUW ,167580(17\$/ /2&AZ, 9(< SRUW ,167580(17\$/ /2&AZ, 9(<	SRUW	A÷	A÷	EfEfEfEg	A÷	EfEfE•Ef		
	SRUW ,167580(17\$/ /2&AZ, 9(< SRUW ,167580(17\$/ /2&AZ, 9(<	SRUW	A÷	A÷	EfEfE•Ef	A÷	EfEfE•Ef		

\$FFHQW 'DWD

	6WDQGDUG	2QRWVX \$	2QRWVX %	6KLWRRNH \$	6KLWRRNH %	6K
	KRXVH >MDB@	?	?	A ?	E	? •E
	KRXVH ,167580(17\$/ /2&\$7, 9(< KRXVH ,167580(17\$/ /2&\$7, 9(	ÖÑ,	?	A÷	EfE•Ef	
	PRXQWDLQ >MDFD@	?	?	A ?	E	? •E
	PRXQWDLQ ,167580(17\$/ /2&\$7, 9(< PRXQWDLQ ,167580(17\$/ /2&\$7, 9(	ÖÑ,	?	A÷	EfE•Ef	
	PDLQ EXLOGLQJ >bXPXWL@	?	?	A÷ ?	EfE•Ef	?
	PDLQEXLQJ ,167580(17\$/ /2&\$7, 9(< PDLQEXLQJ ,167580(17\$/ /2&\$7, 9(	ÖÑÑ,	?	A÷	EfE•Ef	
	VHD >bXPL@	?	Ñ	Ö A	? E	fE
	VHD ,167580(17\$/ /2&\$7, 9(< VHD ,167580(17\$/ /2&\$7, 9(	ÖÑ,	?	A÷	EfEfEf	
	ILHOG QRW FXOWLYDWHG >\$D	?	Ñ	Ö A	? E	•E
	MX@ ,167580(17\$/ /2&\$7, 9(< TBO ,167580(17\$/ /2&\$7, 9(	ÖÑ,	?	A÷	EfE•Ef	
	VKRUH EHDFK >\$@DPD@	?	Ñ	Ö A	? E	fE
	VKRUH ,167580(17\$/ /2&\$7, 9(< VKRUH ,167580(17\$/ /2&\$7, 9(	ÖÑ,	?	A÷	EfEfEf	
	ILHOG FXOWLYDWHG >SDWH	ÖÖ	?	A÷	E•EfE•	
	TBO ,167580(17\$/ /2&\$7, 9(< TBO ,167580(17\$/ /2&\$7, 9(	ÖÑÑ,	?	A÷	E•EfEfEf	
		ÖÑÑ,	?	A	A	÷

NOMINATIVE: ?ñu / ABLATIVE: kara / TERMINATIVE: @di, madi / DATIVE/LOCATIVE: kai, ni / too Hmu

*HQHUDO 6WXG\ IRU 5HVHDFK DQGF&RQVLEUYSWQR
5HVHDFK 5HSRUW RQ WKH .LND
\$XJXVW 1DWLRQDO ,QVWLWXDWLRU

	6WDQGDU	6DSDQH	QH \$	6DSDQH	\$ % \$	GHQ \$	DPLNDW	DPLNDW	DPLNDW	DPLNDW	WHWVX %
	KRXVH >MDB@	A	-	A	-	A	÷	A	÷		A
	KRXVH ,167580(17\$/ /2&9Z, 9(< KRXVH ,167580(17\$/ /2&9Z, 9(	AZ,	A÷	A÷	A÷	A÷	A÷	A÷	EfEfEgEf		
	PRXQWDLQ >MDF@	A@	-	A	-	A	÷	A	÷		A
	PRXQWDLQ ,167580(17\$/ /2&9Z, 9(< PRXQWDLQ ,167580(17\$/ /2&9Z, 9(	AZ,	A÷	A÷	A÷	A÷	A÷	A÷	EfEfEgEf		
	PDLQ EXLOGLQJ AbXPXWL@	A	-	A	-	A	÷	A	÷		A
	PDLQEXLOGLQJ ,167580(17\$/ /2&9Z, 9(< PDLQEXLOGLQJ ,167580(17\$/ /2&9Z, 9(	AZ,	A÷	A÷	A÷	A÷	A÷	A÷	EfEfEgEf		
	VHD >bXPL@	A	-	A	-	A	÷	A	÷		A
	VHD ,167580(17\$/ /2&9Z, 9(< VHD ,167580(17\$/ /2&9Z, 9(	AZ,	A÷	A÷	A÷	A÷	A÷	A÷	EfEfEfEf		
	ILHOG QRW FXOWLYDWHG >SD	A	-	A	-	A	÷	A	÷		A
	ILHOG QRW FXOWLYDWHG MX@ TEO ,167580(17\$/ /2&9Z, 9(< TEO ,167580(17\$/ /2&9Z, 9(	AZ,	A÷	A÷	A÷	A÷	A÷	A÷	EfEfEfEf		
	VKRUH EHDFK >SDPD@	A	-	A	-	A	÷	A	÷		A
	VKRUH ,167580(17\$/ /2&9Z, 9(< VKRUH ,167580(17\$/ /2&9Z, 9(	AZ,	A÷	A÷	A÷	A÷	A÷	A÷	EfEfEfEf		
	ILHOG FXOWLYDWHG >SDWHB@	A	-	A	-	A	÷	A	÷		A
	ILHOG FXOWLYDWHG TEO ,167580(17\$/ /2&9Z, 9(< TEO ,167580(17\$/ /2&9Z, 9(	AZ,	A÷	A÷	A÷	A÷	A÷	A÷	EfEfEfEfEf		

\$FFHQW 'DWD

	6WDQGDUG	-DQ	Q\$	VH :DQ	%	1DN	DVDWR	\$	1DN	DVDWR	%	\$UDNL	\$
	KRXVH >MDB@	A			E	f		f	A	÷		E	•E
	KRXVH ,167580(17\$/ /2&9Z, 9(< KRXVH ,167580(17\$/ /2&9Z, 9(	AZ,		EfE•Ef	A÷		EfEfEg	A÷		EfE•Ef			
	KRXVH ,167580(17\$/ /2&9Z, 9(	AZ,		EfE•Ef	A÷		EfE•Ef	A÷		EfE•Ef			
	PRXQWDLQ >MDF@	A@			E	•E		f	A	÷		E	•E
	PRXQWDLQ ,167580(17\$/ /2&9Z, 9(< PRXQWDLQ ,167580(17\$/ /2&9Z, 9(	AZ,		EfE•Ef	A÷		EfEfEg	A÷		EfE•Ef			
	PRXQWDLQ ,167580(17\$/ /2&9Z, 9(	AZ,		EfE•Ef	A÷		EfE•Ef	A÷		EfE•Ef			
	PDLQ EXLOGLQJ AXPXWL@	A@		EfE•Ef	A÷		EfE•Ef	A÷		EfE•Ef			
	PDLQ EXLOGLQJ ,167580(17\$/ /2&9Z, 9(< PDLQ EXLOGLQJ ,167580(17\$/ /2&9Z, 9(	AZ,		EfEfE•Ef	A÷		EfEfEfEg	A÷		EfEfE•Ef			
	PDLQ EXLOGLQJ ,167580(17\$/ /2&9Z, 9(	AZ,		EfEfE•Ef	A÷		EfEfE•Ef	A÷		EfEfE•Ef			
	PDLQ EXLOGLQJ ,167580(17\$/ /2&9Z, 9(	AZ,		EfEfE•Ef	A÷		EfEfE•Ef	A÷		EfEfE•Ef			
	VHD >bXPL@	A			E	f		•	A	÷		E	/E
	VHD ,167580(17\$/ /2&9Z, 9(< VHD ,167580(17\$/ /2&9Z, 9(	AZ,		A÷	A÷		EfEfEf	A÷		EfEfEf			
	VHD ,167580(17\$/ /2&9Z, 9(	AZ,		A÷	A÷		EfEfEg	A÷		EfEfEg			
	ILHOG QRW FXOWLYDWHG >SDW	A@			E	•E		f	A	÷		E	•E
	ILHOG QRW FXOWLYDWHG >SDW MX@ TEO ,167580(17\$/ /2&9Z, 9(< TEO ,167580(17\$/ /2&9Z, 9(	AZ,		EfE•Ef	A÷		EfEfEg	A÷		EfE•Ef			
	ILHOG QRW FXOWLYDWHG >SDW MX@ TEO ,167580(17\$/ /2&9Z, 9(	AZ,		EfE•Ef	A÷		EfE•Ef	A÷		EfE•Ef			
	ILHOG QRW FXOWLYDWHG >SDW MX@ TEO ,167580(17\$/ /2&9Z, 9(	AZ,		EfE•Ef	A÷		EfE•Ef	A÷		EfE•Ef			
	VKRUH EHDFA >SDW	A@			E	•E		f	A	÷		E	/E
	VKRUH ,167580(17\$/ /2&9Z, 9(< VKRUH ,167580(17\$/ /2&9Z, 9(	AZ,		A÷	A÷		EfEfEf	A÷		EfEfEf			
	VKRUH ,167580(17\$/ /2&9Z, 9(	AZ,		A÷	A÷		EfEfEg	A÷		EfEfEg			
	ILHOG FXOWLYDWHG >SDW	A@			E	•E			A÷			E•EfE•	
	ILHOG FXOWLYDWHG >SDW TEO ,167580(17\$/ /2&9Z, 9(< TEO ,167580(17\$/ /2&9Z, 9(	AZ,		A÷	A÷		EfE•E•Ef	A÷		EfEfEfEf			
	ILHOG FXOWLYDWHG >SDW TEO ,167580(17\$/ /2&9Z, 9(	AZ,		A÷	A÷		E•EfEfEg	A÷		EfEfEfEg			

NOMINATIVE: ?anu / ABLATIVE: kara / TERMINATIVE: @di, madi / DATIVE/LOCATIVE: kai, ni / too Hmu

Grammar Data

In the following, grammar data of the Kikaijima dialects are presented. Word forms are transcribed using the International Phonetic Alphabet. See the *Phonology of the Kikaijima Dialects* section of chapter 3 for an explanation of the phonetic symbols. In addition, the following notation is used in the dialect sentences in this section:

- In cases where a speaker gave multiple word forms, these responses are given enclosed in braces ‘{ }’ and separated with ‘/’.
- In cases where responses differed among speakers, the word forms in question are separated with ‘//’ and an uppercase letter indicating the speaker is added after each in parentheses ‘()’.
- Optional elements (elements both with and without which the sentence in question is acceptable) are given in parentheses ‘()’.
- Optional elements are encountered at a variety of levels: phonemes, words, phrases, clauses, and so on.
- The end of a sentence is marked with ‘.’.

The researchers responsible for each of the research sites were as follows:

Site	Group	Researchers
Onotsu	Grammar M	Matsumoto, Shimoji
	Grammar K	Kaneda, Inoue, Niinaga
	Grammar O	Onishi, Ogino, Toyama, Shigeno
	Grammar T	Takubo, Shirata, Yamada
Shitooke	Grammar M, T	Matsumoto, Shimoji, Takubo, Shirata, Yamada
	Grammar K	Kaneda, Inoue, Niinaga, Sato
	Grammar O	Onishi, Ogino, Toyama, Shigeno
Kamikatetsu	Grammar M	Matsumoto, Shimoji, Takeda
	Grammar K	Kaneda, Inoue, Niinaga, Sato
	Grammar O	Karimata, A. Kubozono, Toyama, Shigeno
Nakasato	Grammar M	Matsumoto, Mitsui, Shimoji
	Grammar K	Kaneda, Inoue, Niinaga, Sato
	Grammar O	Karimata, A. Kubozono, Toyama, Shigeno
Araki	Grammar M	Matsumoto, Mitsui, Shimoji
	Grammar K	Kaneda, Inoue, Niinaga
	Grammar O	Karimata, A. Kubozono, Kawase, Shigeno

	Site	Group	Standard Japanese Sentence	Notes
01	0_Standard		<i>ore-wa kyoo-wa isogashii.</i> I-TOPIC today-TOPIC to.be.busy 'I am busy today.'	
01	1_Onotsu	M	wano: kju:ja {ʔisuɡasa/ʔisuɡasaN(do:)}.	
01	1_Onotsu	K	wano: kju: ɕigaʔasaN.	
01	2_Shitooke	M	wano: kju:ja ʔisuɡasa.	
01	2_Shitooke	K	du:ja kju:ja ɕigaʔasaN.	
01	2_Shitooke	O	wano: kju:ja ʔisuɡasa.	
01	3_Kamikatetsu	M	wano: ɕu:ja ʔiɕuɡaɕa {ʔuɕiʔaN/ʔuɕiʔa:}.	
01	3_Kamikatetsu	K	wano: su:wa ʔisogasaN.	
01	4_Nakasato	M	wano: su:ja ʔisuɡasa.	
01	4_Nakasato	K	wano: su:ja ʔisuɡasai.	
01	4_Nakasato	O	wano: su:ja isuɡasai.	Speaker D: also 'waN ja'.
01	5_Araki	M	wano: su:ja ʔisuɡasai.	The final 'i' in 'isuɡasai' sounds nasalized.
01	5_Araki	O	wanuja su:ja {ʔisuŋasaiN/ʔisuŋasaN}.	
02	0_Standard		<i>omae-ga hatake-e ik-e.</i> you-SUBJECT field-ALLATIVE to.go-IMPERATIVE 'You go to the field.' (imperative)	
02	1_Onotsu	M	daŋa {h/ɸ}ate:kai ʔiki.	
02	1_Onotsu	K	da: hate:kai ʔiki.	
02	2_Shitooke	M	daja ɸakkai {ʔikiʝo:/ʔikiʝo:}.	'pate:/ɸate:': 'rice paddy'.
02	2_Shitooke	K	da ja {h/p}ate:kai ʔiki.	
02	2_Shitooke	O	da(:)ŋa pate:kai {ʔiki/ʔiki}.	
02	3_Kamikatetsu	M	da: {hate:katsi/hate:ni} {ʔikijo:/ʔikinja}.	
02	3_Kamikatetsu	K	da: hate:katsi {ʔiki/ʔiki}.	
02	4_Nakasato	M	daŋa hate:gatsi ʔiki.	
02	4_Nakasato	K	daŋa hate:gatsi ʔiki.	
02	4_Nakasato	O	daŋa {hate:ni/hategatsi} ʔiki.	Speaker D: also 'hate:i'.
02	5_Araki	M	daŋa hate:katsi iki.	
02	5_Araki	O	da: hate:kanʔi ʔiki.	
03	0_Standard		<i>un, hatake-e-wa ore-ga iku.</i> yes, field-ALLATIVE-TOPIC I-NOMINATIVE to.go 'Yes, I will go to the field.'	

	Site	Group	Standard Japanese Sentence	Notes
03	1_Onotsu	M	ʔiN, hate:kae: {waŋa/waŋa} ʔikui.	
03	1_Onotsu	K	ʔiN, hate:kae: waŋa ʔikui.	
03	2_Shitooke	M	N:, φakkai waŋa ʔikuiN{kara/na}.	As a response to 02.
03	2_Shitooke	O	{ʔuN(C)//ʔiN(D)} pate: {kai(C)//kae:(D)} waŋa ʔikui.	
03	3_Kamikatetsu	M	N:, hate: {je/e} waNnu ʔiN.	
03	3_Kamikatetsu	K	ʔi:, hate:katse: waNnu ʔika.	
03	4_Nakasato	M	ʔiN, hate:gatse: waŋa ʔitsuŋa.	
03	4_Nakasato	K	ʔiN, hate:gatse: waŋa ʔitsui.	
03	4_Nakasato	O	ʔuN hate:gatse: waŋa ʔitsui.	
03	5_Araki	M	ʔiN, hate:teje: waŋa ʔitsui.	
03	5_Araki	O	ʔuN, hate:kanje: waŋa ʔitsuŋdo:.	
04	0_Standard		<i>ore-no kuwa-wa doko-ni aru?</i> I-GENITIVE hoe-TOPIc where-LOCATIVE to.be ‘Where is my hoe?’	
04	1_Onotsu	M	wa: kʷe:ja dʒa:nʲi ʔai.	
04	1_Onotsu	K	waNnu φe:ja za:nʲi ʔakka.	
04	2_Shitooke	M	wa: kʷe:ja {dʒa:nʲi ʔakka(B)/dʒa:kaina(A)}.	The sound of ‘e’ is somewhat ambiguous.
04	2_Shitooke	O	{wa: (k)kʷe:ja(C)//waNnu kʷe:ja(D)} dʒa:nʲi ʔai.	
04	3_Kamikatetsu	M	{wanuN/waNnu} kʷe:ja dʒa:nʲi {ʔarijo/ʔando:}.	
04	3_Kamikatetsu	K	wa: ke:ja za:nʲi ʔari joʔ.	A sudden stop of airflow (glottal closure) is audible at the end of the sentence.
04	4_Nakasato	M	wʰa: kʷe:ja {dʒa:nʲi {aijo:/akka}/dʒa:nʲidu aru}.	‘dʒa:nʲidu aijo:’ is possible, as well.
04	4_Nakasato	K	wa: ke:ja za:nʲidu ʔaru.	
04	4_Nakasato	O	waNnu kʷe:ja dʒa:ni {ʔassu jo:/ʔakkai}.	
04	5_Araki	M	wa: kʷe:ja dʒa:nʲi {aŋ/ai}.	
04	5_Araki	O	wa: kʷe:ja {dʒa:nʲi ʔaiN/dʒa:nʲidu ʔa:}.	
05	0_Standard		<i>kono kama-wa Taro-no-ka?</i> this sickle-TOPIc Taro-GENITIVE-INTERROGATIVE ‘Is this sickle Taro’s?’	
05	1_Onotsu	M	φunu kama: taŋo:nu muNna.	

	Site	Group	Standard Japanese Sentence	Notes
05	1_Onotsu	K	huN ϕ e:ja taʁu:nu muNka.	‘ ϕ e:’: ‘hoe’.
05	2_Shitooke	M	ʔuN hama: taʁo:nu hamakaja:.	
05	2_Shitooke	O	{huN(C)/ʔuN(D)} hama: taʁo:nu muNkaja(:).	
05	3_Kamikatetsu	M	ϕ uN hama: taʁo:nu muN{na/ka}.	
05	3_Kamikatetsu	K	ʔuN kama: taʁo:nu muNna?	A sudden stop of airflow (glottal closure) is audible at the end of the sentence.
05	4_Nakasato	M	ʔuN hama: {taʁo:nu {na/ka}/taʁo:suna/taʁo:nu muNna}.	Speaker B: also ‘diruŋa’.
05	4_Nakasato	K	ʔuN hama: taʁo:nu muN{na(:)/ka(:)}.	
05	4_Nakasato	O	ʔuN hama: taʁo:nu muN na.	
05	5_Araki	M	ʔuN hama: taʁo:nu muNna.	
05	5_Araki	O	ʔuN hama: taʁo: muNna.	
06	0_Standard		<i>dore-ga omae-no kasa-da?</i> which-NOMINATIVE you-GENITIVE bamboo.hat-COPULA ‘Which is your bamboo hat?’	
06	1_Onotsu	M	dʒuriŋa da:(nu) hasajo.	
06	1_Onotsu	K	zuriŋa da: hasa do:.	
06	2_Shitooke	M	diruŋa da: hasajo:.	
06	2_Shitooke	O	diruŋa {da:(C)//da:nu(D)} kasaka.	‘kasa’: also ‘hasa’.
06	3_Kamikatetsu	M	diruŋo: da: {muNnu haʒana/muno: haʒa}.	diruŋo: ‘which-TOPIC’?
06	3_Kamikatetsu	K	duNŋa da: hasa jo.	
06	4_Nakasato	M	diNŋa da: hasajo:.	‘NP-GENITIVE-(thing)-INTERROGATIVE’: da: suna ‘yours-INTERROGATIVE’; t’a: suna ‘whose-INTERROGATIVE’.
06	4_Nakasato	K	diŋga da: hasa jo.	‘ga’: ‘ŋa’?
06	4_Nakasato	O	duŋiŋa da: hasa jo:.	
06	5_Araki	M	diruŋa da: {kasa/hasa}.	There is a semantic difference: kasa ‘umbrella; bamboo hat’, but hasa ‘bamboo hat’ (not ‘umbrella’); e.g. hasa hanbi ‘bamboo hat rash’.
06	5_Araki	O	diNŋa da: hasa jo:.	

	Site	Group	Standard Japanese Sentence	Notes
07	0_Standard		<i>sono kasa-ga ore-no-da.</i> that bamboo.hat-NOMINATIVE I-GENITIVE-COPULA 'That bamboo hat is mine.'	
07	1_Onotsu	M	ɸunu hasaŋa wa: muNɔ̌ɔ̌a.	
07	1_Onotsu	K	huN hasaŋa wa: muN.	
07	2_Shitooke	M	ʔuN hasaŋa wa: {munu/muN}.	Also possible: ʔuŋa wa: hasa 'That is my bamboo hat.'
07	2_Shitooke	O	huN {hasa(C)//kasa(D)}ŋa wa: muNɔ̌ɔ̌a.	
07	3_Kamikatetsu	M	ɸuN {haɕa:/hasa:} wa: muNdo:.	Does not correspond to the model sentence: 'that bamboo.hat-TOPIC'.
07	3_Kamikatetsu	K	ʔuN hasaŋa wa: muN.	
07	4_Nakasato	M	ʔuN hasaŋa wa: muNɔ̌ɔ̌a.	
07	4_Nakasato	K	ʔuN hasaŋa wa: muN do:.	
07	4_Nakasato	O	ʔuN hasaŋa wa: muN do:.	
07	5_Araki	M	ʔuN kasa: wa: muNdo:.	'kasa:': 'bamboo.hat-TOPIC'.
07	5_Araki	O	ʔuN hasaŋa wa: muN do:.	
08	0_Standard		<i>kono furoshiki-wa omae-no-ka?</i> this <i>furoshiki</i> -TOPIC you-GENITIVE-INTERROGATIVE 'Is this <i>furoshiki</i> yours?'	
08	1_Onotsu	M	ɸunu ɸuɾuɕike: da: muNna.	
08	1_Onotsu	K	huN huɾuɕike: da: muNka.	
08	2_Shitooke	M	ʔuN ɸuɾuɕike: da: muNna.	
08	2_Shitooke	O	huN huɾuɕike: da: muN{ka(C)//na(D)}.	
08	3_Kamikatetsu	M	ɸuN ɸuɾuɕike: da: muNna.	
08	3_Kamikatetsu	K	ʔuN ʔusukki(:)ja da: muNna.	
08	4_Nakasato	M	ʔuN {ɸuɾuɕike:/ʔutsukki:ja} da: muNna.	
08	4_Nakasato	K	ʔuN huɾuɕike: da: muN na.	
08	4_Nakasato	O	ʔuN huɾuɕike: da: muN na.	
08	5_Araki	M	ʔuN {ɸuɾuɕike:/ʔutsukki:ja} da: muNna.	
08	5_Araki	O	ʔuN ʔutsukki:ja da: muNna.	

	Site	Group	Standard Japanese Sentence	Notes
09	0_Standard		<i>sore-wa ootoo-no kamoshirenai.</i> that-TOPIC younger.brother-GENITIVE may.be 'That may be my brother's.'	
09	1_Onotsu	M	ʔure: ʔuttu:nu muNka wakaʔando:.	
09	1_Onotsu	K	hure: ʔuttu:nu muNkamu ɕirifa:.	
09	2_Shitooke	M	ʔure: ʔuttuN muNkamu wakaʔan.	
09	2_Shitooke	O	ʔure: ʔuttu:no kamu {ɕirifa:/ɕirifa:}(C)// ʔure: ʔuttu:nu muNkamo wakaʔa:(D)}.	
09	3_Kamikatetsu	M	ɸure: ʔuttunu muNkamu wakaʔando:.	
09	3_Kamikatetsu	K	ʔure: ʔuttunu muNkamu ɕirifa:.	
09	4_Nakasato	M	ʔure: ʔuttu:nu (muN)kamu {ɕirifa:(A)// wakaʔa:ja:(B)}.	
09	4_Nakasato	K	ʔure: ʔuttu:nu kamu wakaʔa:.	
09	4_Nakasato	O	ʔure: ʔuttu:nu muNkamu wakaʔa:.	
09	5_Araki	M	ʔure: ʔuttu:nu muNkamu {wakaʔan/ɕirifaN/ɕirifa: :}. ‘ʔutu:tu’ would reportedly be more appropriate, as ‘ʔuttu:’ connotes inferiority.	
09	5_Araki	O	ʔuN ʔutsukki:ja wa: ʔuttunu munza.	Does not correspond to the model sentence?
10	0_Standard		<i>Okinawa-ni-wa fune-de iku-yori hikooki-de i-tta hoo-ga ii.</i> Okinawa-LOCATIVE-TOPIC ship-INSTRUMENTAL to.go-rather.than plane-INSTRUMENTAL to.go-PAST side-NOMINATIVE to.be.good 'Rather than going by ship, you should go to Okinawa by plane.'	
10	1_Onotsu	M	ʔokinawan:i ɸunizi ʔikuujukka ɕiko:kizi ʔizan ho: :ŋa jutasando:.	
10	1_Onotsu	K	ʔukina:kae: hunizi ʔikuujukka ɕiko:kizi ʔizan ho:ŋa jutasai.	
10	2_Shitooke	M	{ʔokinawa/naɸa}n:je ɸunizi ʔikuN jukkamu ɕiko:kizi ʔizan ho:ŋa jutasaija:.	
10	2_Shitooke	O	ʔukinawan(i)e: hunidzi ʔikuNjori ɕiko:kide ʔidzan ho:ŋa jutasai.(C)// ʔukinawakae: {ne:/kae:} hunidzi ʔikuNjuri ɕiko:kidzi ʔidzan ho:ŋa jutasai.(D)	

	Site	Group	Standard Japanese Sentence	Notes
10	3_Kamikatetsu	M	ʔokinawanije: ɸunije: ʔikunʔuri ɕiko:kje: ʔizan ho:ŋa jutasando:.	
10	3_Kamikatetsu	K	ʔokinawakatse: huniʔi ʔitsukkamu ɕiko:kizi ʔizan ho:nu jutasari.	
10	4_Nakasato	M	ʔokina: gatse: ɸuniʔi {ʔitsukkamu(A)/ʔitsunʔurimu(B)} ɕiko:kizi ʔizan ho:ŋa jutasai(ja:).	
10	4_Nakasato	K	ʔokina: {nʔe:/gatse:} huniʔi ʔitsukkamu ɕiko:kizi ʔizan ho:ŋa juta(s)sai.	
10	4_Nakasato	O	ʔokina: gatse: {huni/humi} dʔi ʔitsukkamu ɕiko: kidʔi ʔidʔan ho:ŋa jutasari.	
10	5_Araki	M	ʔokinawanije: ɸuniʔi {ʔitsunʔuri/ʔitsunʔukka} ɕiko:kizi ʔizan ho:ŋa jutasai{n/i}.	The final 'i' in 'jutasai' sounds nasalized.
10	5_Araki	O	ʔokina: kanʔe: huniʔi ʔizan ʔurimu ɕiko:kizi ʔizan ho:ŋa jutasan do:.	
11	0_Standard		<i>hikooki-wa itsinitsi-ni ikkai-shika nai.</i> plane-TOPIC one.day-LOCATIVE one.time-outside.of to.not.be 'There is only one flight per day.'	
11	1_Onotsu	M	ɕiko:ke: ɸittse:ni ʔikkaieika nendo:.	
11	1_Onotsu	K	ɕiko:ke: ʔittse:ni ʔikkaieika ne:.	
11	2_Shitooke	M	ɕiko:kje: ɸittse:ni ʔikkaieika nendo:.	
11	2_Shitooke	O	ɕiko:ke: pittse:ni ʔikkaieika ne:ra:.	
11	3_Kamikatetsu	M	ɕiko:kje: ɕittse:e: ʔikkaieika ne:ran(do:).	
11	3_Kamikatetsu	K	ɕiko:ke: ɕittse:en ʔikkaieika ʔuran.	
11	4_Nakasato	M	ɕiko:kje: ʔitsenʔitseni ʔikkaieika nen.	Speaker B: also 'uran' instead of 'nen'.
11	4_Nakasato	K	ɕiko:ke: ɕittse:ni ʔikkaieika ne:.	
11	4_Nakasato	O	ɕiko:ke: ɕittse:ni ʔikkaieika nen do:.	
11	5_Araki	M	ɕiko:kje: ɕittse:ni {ʔikkaidu ʔan/ʔikkaieika nen}.	
11	5_Araki	O	ɕiko:kija ɕittse:ni ʔikkaieika {ne:ran/tuban}do:.	'tuban': 'to.fly- NEGATIVE'.

	Site	Group	Standard Japanese Sentence	Notes
12	0_Standard		<i>kuukoo-nara kottsi-no mitsi-o iki-nasai.</i> airport-CONDITIONAL this.side-GENITIVE road-ACCUSATIVE to.go-IMPERATIVE 'Go along this road for the airport.'	
12	1_Onotsu	M	ku:ko: ʔariba ɸumanu {mitsi ʔikijo:/mitsioba ʔizi tabo:ri}.	'ʔizi tabo:ri' is honorific.
12	1_Onotsu	K	ɕiko:zo:kara ʔariba human mitsijo:ba ʔiki jo:.	
12	2_Shitooke	M	ɕiko:dzo:kae: {ʔuN/ʔuma} mitsi(ba) {ʔiki/ʔikiba jutasan}.	'airfield-ALLATIVE-TOPIC'. ʔikiba jutasan 'to.go-CONDITIONAL to.be.good': a somewhat polite expression. In the case of speaker A, 'ʔikiba' sounds like 'ʔikiba'.
12	2_Shitooke	O	ɕiko:dzo:ate: {humanu mitsio {ʔiki/ʔike}(C)//{huNmitsi(ba) ʔiki(D)}}.	
12	3_Kamikatetsu	M	{ɕiko:dzo:jariba/ɕiko:zo:gatsei nariba} {ɸuN/ʔuN} mitsinu {ʔizanho:ŋa jutasando:/ʔikindo:te jutasando:}.	
12	3_Kamikatetsu	K	ɕiko:zo:katsae: ʔuN mitsi tu:re:ki (jo:).	
12	4_Nakasato	M	ku:ko:{gatsei/nariba} ʔuma:nu mitsi(o:ba) ʔikijo:.	'ku:ko:gatsei': 'airport-ALLATIVE-TOPIC'. Speaker B often suffixes '(mitsi)o:ba'.
12	4_Nakasato	K	ɕiko:zo: nariba ʔuN mitsijo:ba ʔiki jo:.	
12	4_Nakasato	O	ku:ko:gatsei: ʔumanu mitsi {jo:ba/o} {ʔiki:/ʔiki Nso:ri}.	
12	5_Araki	M	ku:ko: nariba {ʔuN/ɸuN} mitsi ʔikijo:.	ʔitsiNso:ri 'please go': polite form.
12	5_Araki	O	ku:ko:kanie ʔuN mitsi ʔikijo:.	'airport-ALLATIVE-TOPIC that road-ACCUSATIVE to.go-IMPERATIVE'.
13	0_Standard		<i>mitsi-no mannaka-o arui-tewa ikenai.</i> road-GENITIVE middle-ACCUSATIVE to.walk-CONDITIONAL will.not.do 'You must not walk in the middle of the road.'	

	Site	Group	Standard Japanese Sentence	Notes
13	1_Onotsu	M	mit _ɛ inu maNna: {juba/oba} ʔakkɪba ʔikaNdo:.	Fluctuates between 'juba' and 'joba'?
13	1_Onotsu	K	mit _ɛ inu maNna:jo:ba ʔatt _ɛ : ʔikaN do:.	
13	2_Shitooke	M	mit _ɛ inu maNna: ʔatt _ɛ : ʔikaNdo:.	
13	2_Shitooke	O	mit _ɛ inu maNna:ba ʔatt _ɛ : ʔikaN.(C)	
13	3_Kamikatetsu	M	mit _ɛ inu maNnakakara: ʔatt _ɛ iba ʔikaNdo:.	
13	3_Kamikatetsu	K	mit _ɛ inu maNnaka ʔatt _ɛ iba ʔikaN (do:).	
13	4_Nakasato	M	mit _ɛ inu maNna:(o:ba) ʔatt _ɛ : ʔikaN(do:).	
13	4_Nakasato	K	mit _ɛ iN maNna: ʔatt _ɛ : ʔikaN do:.	
13	4_Nakasato	O	mit _ɛ inu maNna: {jo:ba/wo} ʔakkiba: ʔikaN (do:).	
13	5_Araki	M	mit _ɛ inu maNna:(oba) ʔatt _ɛ : ʔikaN.	
13	5_Araki	O	mit _ɛ inu maNna: ʔakkiba ʔikaN do:.	
14	0_Standard		mitsi-ga hiroi-naa. road-NOMINATIVE to.be.wide-EXCLAMATORY 'What a wide road!'	
14	1_Onotsu	M	{mit _ɛ iŋa ɕirusaija:/mit _ɛ inu ʔubisaja:}.	'ʔubisa': an exclamatory form meaning 'to be large'.
14	1_Onotsu	K	mit _ɛ inu ɕu:sa:nu:kka.	
14	2_Shitooke	M	mit _ɛ inu {ɸ/p}irusaja:.	
14	2_Shitooke	O	mit _ɛ iŋa pirusaja:.	
14	3_Kamikatetsu	M	mit _ɛ inu ɕirusaja:.	
14	3_Kamikatetsu	K	mit _ɛ inu ɕirusarija:.	
14	4_Nakasato	M	mit _ɛ iŋa ɕirusaija:.	Speaker B: 'mit _ɛ iŋa ɕirusaja:.' (the -nu-case is not used for the subject in spite of the exclamatory form).
14	4_Nakasato	K	mit _ɛ iŋa ɕirusa ja:.	
14	4_Nakasato	O	mit _ɛ inu ɕirusa ja:.	
14	5_Araki	M	mit _ɛ iŋa ɕirusaija:./mit _ɛ inu ɕirusaja:.	The final 'i' in 'ɕirusai' sounds nasalized.
14	5_Araki	O	ʔuN mit _ɛ i ɕirukamuja:.	'that road to.be.wide-EXCLAMATORY'.

	Site	Group	Standard Japanese Sentence	Notes
15	0_Standard		<i>a, ame-ga fu-ttekita.</i> ah, rain-NOMINATIVE to.fall-to.come-PAST 'Ah, it has started to rain.'	
15	1_Onotsu	M	<i>ʔa, ʔamI {ŋa/nu} ɸutittɕa.</i>	When asked, one speaker stated that 'ʔamInu' is more appropriate, although 'ʔamI ŋa' was uttered first.
15	1_Onotsu	K	<i>ʔa:, ʔamIŋa ɸutittɕi.</i>	
15	2_Shitooke	M	<i>ʔari, ʔamIŋa {ɸutittɕaŋ/ɸutittɕi}.</i>	Speaker B pronounced 'ʔamI' as 'ʔami'.
15	2_Shitooke	O	<i>{ʔage/ʔaija/ʔari} ʔamIŋa hutittɕa.</i>	
15	3_Kamikatetsu	M	<i>nama, ʔaminu {ɸurentɕi:/ɸurentɕaŋ}.</i>	'nama': 'now; presently'.
15	3_Kamikatetsu	K	<i>{ʔa/ho:ho:} ʔaminu ɸurentɕi:.</i>	'ʔami' also sounds like 'ʔamI'.
15	4_Nakasato	M	<i>{ʔakke:/hage:}, ʔamiŋa ɸutittɕi:.</i>	
15	4_Nakasato	K	<i>ʔa, ʔamiŋa ɸutittɕi:.</i>	
15	4_Nakasato	O	<i>ʔugi: ʔata:dani ʔamiŋa {hutittɕaŋ do:/hutittɕa:}.</i>	'ʔata:dani': 'suddenly'.
15	5_Araki	M	<i>ʔage: ʔamiŋa ɸutittɕi:.</i>	
15	5_Araki	O	<i>{hagi:/haŋi:} ʔamiŋa {hutittɕaŋ do:/hutittɕi:}.</i>	
16	0_Standard		<i>itoko-no futon-ga yane-no ue-ni hosi-tearu.</i> cousin-GENITIVE bedding-NOMINATIVE roof-GENITIVE top-LOCATIVE to.air-RESULTATIVE 'My cousin's bedding is airing on the roof.'	
16	1_Onotsu	M	<i>ʔitukunu ʔuduŋa janʔiN uɰi:nʔi {ɸutɕai/ɸutɕi ai}.</i>	
16	1_Onotsu	K	<i>ʔitukunu ʔuduŋa janpija:nʔi ɸutɕi ʔai.</i>	

	Site	Group	Standard Japanese Sentence	Notes
16	2_Shitooke	M	ʔitukunu ʔuduŋa jaNpɪra:nɯi {ɸutɕeN/ɸutɕi ʔaN}.	
16	2_Shitooke	O	ʔitukunu ʔuduŋa jaNpɪra:nu wi:ni hutɕi ʔai.(C)	
16	3_Kamikatetsu	M	ʔitukunu {ɸutuNnu/ʔudunu} jʔaŋɕira:(nu) {ɸi: nɯi/ɸi:e:} ɸuɕa:ri.	In the past, 'ʔudu' was used instead of 'ɸutuN'.
16	3_Kamikatetsu	K	ɕiɕo:ja su:kamu hadinu ɕusattan.	'today-TOPIC yesterday-rather.than wind-NOMINATIVE/GENITIVE to.be.strong-PAST'. 'ɕiɕo:' also sounds like 'ɕɕiɕo:'.
16	4_Nakasato	M	ʔitukunu ʔuduŋa ʔjaŋɕira:nɯi {ɸutɕi ʔai/ɸutɕai}.	
16	4_Nakasato	K	ɕinɯ:ja su:kkamu hadiŋa ɕusatti.	
16	4_Nakasato	O	ʔitokonu hutuNŋa janinu i:nɯi hutɕan do:.	
16	5_Araki	M	ʔitukunu ʔudu jaŋɕira:nɯi ɸutɕi ʔai.	The final 'i' in 'ʔaii' is nasalized.
16	5_Araki	O	ʔitukunu hutuN janinu wʔi:ni hutɕando:.	'ni' in 'wʔi:ni': 'nɯi'?
17	0_Standard		<i>kinoo-wa kyoo-yori kaze-ga tuyoka-tta.</i> yesterday-TOPIC today-rather.than wind-NOMINATIVE to.be.strong-PAST 'Yesterday, it was windier than today.'	
17	1_Onotsu	M	kinɯ:ja kɯ:jukka haziŋa ɕusataja:.	
17	1_Onotsu	K	kinɯ:ja kɯ:jukka haziŋa ɕusati ja:.	
17	2_Shitooke	M	kinɯ:ja kɯ:jukka(mu) haziŋa {ɕusanatitɕeN/ɕusanatitɕi:ja:/ɕukunati}.	The predicate expresses 'to become strong'. Also: tatɕitɕi:ja: 'to.stand-STATIVE-PAST'. 'ɕukunati' may have slipped in from the model sentence.
17	2_Shitooke	O	kinɯ:ja {{kɯ:juri/kɯ:jukkamu}(C)/kɯ:ikkamu(D)} hadɕiŋa ɕusata.	
17	3_Kamikatetsu	M	kiju: ɕu:juri hadinu {ʔɕusari/ʔɕusataNdo:}.	

	Site	Group	Standard Japanese Sentence	Notes
17	3_Kamikatetsu	K	teijo:ja su:kamu hadinu tsusattan.	'today-TOPIC yesterday-rather.than wind-NOMINATIVE/GENITIVE to.be.strong-PAST'. 'teijo:' also sounds like 'daijo:'.
17	4_Nakasato	M	tein'u:ja su:kkamu hadiŋa {tsusat'a(ja :)/tsusatan}.	
17	4_Nakasato	K	tein'u:ja su:kkamu hadiŋa tsusatti.	
17	4_Nakasato	O	teinu:ja sukkamu hadiŋa tsusatan do:	Uttered by speaker D.
17	5_Araki	M	tein'u:ja su:jurimu haŋiŋa ts'usati.	
17	5_Araki	O	teinu:ja {su:kamu/su:jurimu} haŋiŋa tsu:satan do:	
18	0_Standard		<i>masshiro-na tori-ga sora-o ton-deiru.</i> pure.white-COPULA bird-NOMINATIVE sky-ACCUSATIVE to.fly-PROGRESSIVE 'A pure white bird is flying in the sky.'	
18	1_Onotsu	M	maŋŋirusuN tuiŋa, {sura/tiN}joba tudui.	
18	1_Onotsu	K	maŋŋiru ssuN tuiŋa tiNto:jo:ba tudui.	
18	2_Shitooke	M	ŋiru tuiŋa tiN tudi uija:.	The 'i' in 'tuiŋa' is nasalized.
18	2_Shitooke	O	{maŋŋiru:/ŋiru:} tui(:)ŋa tiNto:ba tudui.	
18	3_Kamikatetsu	M	ŋiruduriŋa tiNto:(oba) {tubo:ri/tubo:Ndo:}.	
18	3_Kamikatetsu	K	ŋiru turi:ga tiNto:oba tubuN.	
18	4_Nakasato	M	{ŋiruduri:ŋa/maŋŋiru: tuiŋa} tiNto:(oba) {tuduija:/tuduso:ja:}.	The 'r' of 'ri' in 'ŋiruduri' is not elided. Cf. kuruduri 'black bird'.
18	4_Nakasato	K	maŋŋiru: tuiŋa soŋajo:ba tudui.	
18	4_Nakasato	O	maŋŋirona tuiŋa tiNto:ni tudui.	
18	5_Araki	M	{ŋirusaN t'uriŋa/ŋiruduriŋa} tiNto: tudui.	The final 'i' in 'tudui' is nasalized.
18	5_Araki	O	{ŋiru/maŋŋirunu} turiŋa tiNto: {tuduĩ/tuduN do:}.	
19	0_Standard		<i>ano yama-ni-wa inoshishi-ga iru-sooda.</i> that mountain-LOCATIVE- TOPIC wild.boar-NOMINATIVE to.be-EVIDENTIAL 'I heard that there are wild boars on that mountain.'	
19	1_Onotsu	M	ŋaN jaman'je: ŋinoŋŋiŋa ŋunti:do:.	

	Site	Group	Standard Japanese Sentence	Notes
19	1_Onotsu	K	ʔaN jaman'e: ʔinoʕiʕiŋa uNti:ga.	
19	2_Shitooke	M	ʔaN jaman'je: ʔinuʕiʕiŋa uNti: {do:/ŋa}.	
19	2_Shitooke	O	ʔaN jaman'e: ʔinoʕiʕiŋa uNti:do:.(C)	
19	3_Kamikatetsu	M	ʔaN {jama:/jamae:} ʔinuʕiʕinu ʔukkamu wakaraNdo:te:.	One speaker first uttered 'taro:kara ki:ʕanmunɕaŋa', corresponding to 'Taro-ABLATIVE to.hear-PAST thing-COPULA-but'.
19	3_Kamikatetsu	K	ʔaN jamajeno: ʔinoʕiʕinu ʔuNbe:za.	
19	4_Nakasato	M	ʔaN jaman'je: inuʕiʕiŋa ʔuN nessuija:.	In the past, 'ʕiʕiri' was used for 'wild boar'.
19	4_Nakasato	K	ʔaN jaman'e: ʔinuʕiʕiŋa ʔuN {nassui/nessui}.	
19	4_Nakasato	O	ʔaN jaman'e: ʔinoʕiʕiŋa ʔuNbe:(ɕza).(C)// ʔuN jaman'e: ʔinuʕiʕiŋa ʔuN ʔaNbe:ɕza.(D)	
19	5_Araki	M	ʔaN jaman'je: ʔinuʕiʕiŋa ʔuNti:sa.	
19	5_Araki	O	ʔaN jaman'e: {ʔinoʕiʕi/ʕiʕi}ŋa ʔuNbe: do:.	
20	0_Standard		are-wa gakkoo-da. Yakuba-dewa nai. that-TOPIC school-COPULA; town.office-COPULA NEGATIVE 'That is the school. It is not the town office.'	
20	1_Onotsu	M	ʔare: gakko:ɕza. jakuba: aʔaN.	
20	1_Onotsu	K	ʔare: gakko:za. jakuba: aʔa:.	
20	2_Shitooke	M	ʔare: gakko:ɕzi, jakuba: aʔaNdo:.	In the past, 'kaija' was also used for 'town office'.
20	2_Shitooke	O	ʔare: gakko:ɕza, jakuba: aʔaN.(C)	
20	3_Kamikatetsu	M	ʔare: gakkodo:, jakuba: ʔaʔaNdo:.	
20	3_Kamikatetsu	K	ʔare: gakko:za, jakuba: ʔaʔaN.	
20	4_Nakasato	M	ʔare: gakko:do:, jakuba: ʔaʔaNdo:.	
20	4_Nakasato	K	ʔare: gakko: do:, jakuba: ʔaʔaN do:.	
20	4_Nakasato	O	ʔare: gakko: do:, jakuba: ʔaʔaN do:.	
20	5_Araki	M	ʔare: gakko:do:, jakuba: ʔaʔaNdo:.	
20	5_Araki	O	ʔare: gakko: do:, jakuba ʔaʔaN do:.	
21	0_Standard		are-ga yakuba-da. that-NOMINATIVE town.office-COPULA 'That is the town office.'	

	Site	Group	Standard Japanese Sentence	Notes
21	1_Onotsu	M	ʔariŋa jakubadza.	
21	1_Onotsu	K	ʔariŋa jakuba doː.	
21	2_Shitooke	M	ʔariŋa jakubadoː.	
21	2_Shitooke	O	ʔariŋa jakubadza. (C)// ʔaridu jakuba deːru.(D)	
21	3_Kamikatetsu	M	ʔaŋŋa jakubadoː.	
21	3_Kamikatetsu	K	ʔaŋŋa jakubaza.	
21	4_Nakasato	M	{ʔaŋŋa/ʔariŋa} jakubadoː.	
21	4_Nakasato	K	ʔariŋa jakuba doː.	
21	4_Nakasato	O	ʔariŋa jakuba doː.	
21	5_Araki	M	ʔaŋŋa jakubadoː.	
21	5_Araki	O	ʔariŋa jakuba doː.	
22	0_Standard		<p><i>ano me-no ookii, iro-no shiroi otoko-wa dare-da-roo?</i> that eye-NOMINATIVE/GENITIVE to.be.large, color-NOMINATIVE/GENITIVE to.be.white man-TOPIc who-COPULA-CONJECTURAL ‘Who could that large-eyed, light-skinned person be?’</p>	
22	1_Onotsu	M	ʔanu mɪːnu ʔubisanu ʔirunu ɕirusanu jɪŋŋaː tarukajaː.	
22	1_Onotsu	K	ʔaN mɪːnu ʔuɸisanu, ʔirunu ɕijusanu jɪŋŋaː tarukajaː.	
22	2_Shitooke	M	ʔaN mɪːnu {ʔubisanu/ʔubisaː} ʔirunu ɕirusaN jɪŋŋaːtarukajaː.	
22	2_Shitooke	O	{ʔaN/ʔanu} mɪːnu ʔubIsanu ʔirunu ɕirusanu jɪŋŋawa tarukai.(C)// ʔanu mɪːnu ʔubIsaN ʔirunu ɕirusaN jɪŋŋaː tarukai.(D)	
22	3_Kamikatetsu	M	ʔaN mɪːnu maiɕa ʔirunu ɕiru{ɕaː~saː} jɪŋŋaː tarukajaː.	
22	3_Kamikatetsu	K	ʔaN mɪːnu maisaN, ʔirunu ɕirusaN jɪŋŋaː tarukajaː.	
22	4_Nakasato	M	ʔaN mɪːnu ʔubisaN, ʔirunu ɕirusaN jɪŋŋaː {tʰarkai(A)/tʰarukajaː}.	
22	4_Nakasato	K	ʔaN mɪːnu ʔubisaN, ʔirunu ɕirusaN jɪŋŋaː tarukai.	

	Site	Group	Standard Japanese Sentence	Notes
22	4_Nakasato	O	ʔaN mi:nu ʔubisaN ʔirunu ɕirusaN ʔiNŋaja taru {jo/kai}.	
22	5_Araki	M	ʔaN mi:nu uɸusaN irunu ɕirusaN jINŋa: tarukai.	
22	5_Araki	O	{ʔanu/ʔaN} mi:nu {ʔu:doʔ/ʔubisaN} ʔirunu ɕirusaN jINŋa: tarukai.	
23	0_Standard		<i>mago-ga kyonen-kara Tokyo-ni iru.</i> grandchild-NOMINATIVE last.year-ABLATIVE Tokyo-LOCATIVE to.be 'My grandchild has been in Tokyo since last year.'	
23	1_Onotsu	M	mago:ŋa ɸuzukara to:kio:nii ʔuN.	
23	1_Onotsu	K	mago:ŋa huzukara to:kio:nii ui.	
23	2_Shitooke	M	magu:ja ɸuzukara to:kio:nii ui.	Speaker B used 'uN' instead of 'ui'.
23	2_Shitooke	O	{magu:/mago:} ŋa hudzukara to:kio:ni ʔui.(C)	
23	3_Kamikatetsu	M	mago: ɸudukara to:kio:{je:/nii} uNdo:.	
23	3_Kamikatetsu	K	mago:nu ʔudukara to:kio:jeN ʔuN.	
23	4_Nakasato	M	maŋa:ŋa ɸudukara to:kio:nii {ʔuN(do:)/ʔui}.	Presently, 'maga:.' is used more often than 'maŋa:.'.
23	4_Nakasato	K	mago:ŋa hudukara to:kio:nii ʔui.	
23	4_Nakasato	O	mago:ŋa hudukara to:kjo:ni ʔui.	
23	5_Araki	M	maŋo:ŋa ɸuzukara to:kio:nii ui.	
23	5_Araki	O	{maŋo:ŋa/wa: maŋa:ja} huzukara to:kjo:nii ʔuN do:.	
24	0_Standard		<i>mago-wa itsu Tokyo-kara kaeru-ka?</i> grandchild-TOPIC when Tokyo-ABLATIVE to.return-INTERROGATIVE 'When will our grandchild come back from Tokyo?'	
24	1_Onotsu	M	mago:ja ʔitsu to:kio:kara mudujukka.	
24	1_Onotsu	K	mago:ja ʔitsu to:kio:kara mudujukka.	
24	2_Shitooke	M	(waNna:) magu:ja ʔitsu to:kio:kara {mudujukka/mudutʔi kʊkka}.	'muduti kʊkka': 'to.return to.come-INTERROGATIVE'.
24	2_Shitooke	O	mago:{ŋa/ja} ʔitsu to:kio:kara kʊkka.	
24	3_Kamikatetsu	M	mago: ʔitu: to:kio:kara mudufen {ɕikka/ɕINɕijo :}.	
24	3_Kamikatetsu	K	mago: ʔitu to:kio:kara mudufikka.	

	Site	Group	Standard Japanese Sentence	Notes
24	4_Nakasato	M	maŋa:ja itu to:kio:kara {mudujukka/mudujusujo :}.	
24	4_Nakasato	K	magō:ja ŋitʰu to:kio:kara mudujukka.	
24	4_Nakasato	O	magō:ja ŋitu: to:kio:kara {mudujukka/mudujusuka}.	
24	5_Araki	M	maŋo:ja ŋitsu to:kio:kara mudujusujo:.	
24	5_Araki	O	maŋo:ja ŋitsu to:kio:kara ɕimakanʲi mudurusujo :.	‘ɕimakanʲi’: ‘island-ALLATIVE’.
25	0_Standard		<i>hatsigatsu-ni-wa kaette kuru yooda.</i> August-LOCATIVE-TOPIC to.return to.come EVIDENTIAL ‘It appears he will come back in August.’	
25	1_Onotsu	M	hatsigatsunije: mudutte kʲuNtsaŋisan(ŋa).	
25	1_Onotsu	K	hatsiŋatsunje: muduti kʲuN sakuza:ga.	
25	2_Shitooke	M	hatsigatsunije: mudutʰi kʲuN {nessui/nessuN}.	
25	2_Shitooke	O	patsigatsunje: muduti kʲuNdzara.	
25	3_Kamikatetsu	M	hatsigatsunije: mudureN ɕikkamu wakaraŋdo:te :.	
25	3_Kamikatetsu	K	hatsigato: mudureN ɕimbe:za.	
25	4_Nakasato	M	hatsigatsunije: muduti suN nessuija:.	
25	4_Nakasato	K	hatsigatsunje: muduti suN nessui.	
25	4_Nakasato	O	hatsigatsunje: mudujuN nessui.	
25	5_Araki	M	hatsigatsunije muduti sunti:do:.	If ‘muduti sunbe:ɕa’ is used, it sounds like the grandchild of someone else is being referred to.
25	5_Araki	O	hatsiŋatsunje: muduti {suN/sunbe:} do:.	‘sun’: ‘to.come’; ‘sunbe:’: ‘to.come-EVIDENTIAL’.
26	0_Standard		<i>kaasan-wa ashita Tokyo-e musuko-ni ai-ni iku.</i> mother-TOPIC tomorrow Tokyo-ALLATIVE son-DATIVE to.meet-DATIVE to.go ‘The mother will go to Tokyo to see her son tomorrow.’	
26	1_Onotsu	M	ʔokka:ja ʔatɕa to:kio:kai musukonʲi ʔo:Nnʲa ŋikʲuNtsi.	
26	1_Onotsu	K	ʔokka:ja ʔatɕa to:kio:kai kʰwanʲi ʔoNnʲa ŋiki do:.	

	Site	Group	Standard Japanese Sentence	Notes
26	2_Shitooke	M	ʔokkano: ʔatɕa: to:kio:kai {k'a/jinŋank'a}n'i ʔo:nja ʔik'uN.	'k'a': 'child'.
26	2_Shitooke	O	{ba:ja(C)//ʔokkano:(D)} ʔatɕa to:kio:kai jinŋ ak'ani ʔai ʔonn'a ʔik'ui.	
26	3_Kamikatetsu	M	ʔanma:ja ʔatɕa to:kio:katsi jinŋank'aŋnari ʔo:ija ʔi {tɕ/k}indo:.	'ʔokkan' would mean 'wife'.
26	3_Kamikatetsu	K	ʔokkano: ʔatɕa to:kio:katsi {k'atu/k'anu nari} ʔo:ja ʔitɕi(N).	
26	4_Nakasato	M	ʔanma:ja ʔatɕa: to:kio:gatsi k'aŋtsa: ʔo:inja ʔitɕuN(do:).	
26	4_Nakasato	K	ʔokkano: ʔatɕa to:kio:gatsi k'ani ʔo:inn'a ʔitɕui.	
26	4_Nakasato	O	ʔokkano: ʔatɕa to:kio:ni k'ani ʔo:inn'a ʔitɕui.	
26	5_Araki	M	ʔanma:ja ʔatɕa to:kio: k'ani inŋank'wan'i ʔo: inja ʔitɕui.	
26	5_Araki	O	ʔokkanno: ʔatɕa to:kio:kan'i jinŋank'wan'i ʔa:i: n'a ʔitɕuN do:.	
27	0_Standard		<i>Osaka-kara Tokyo-made-no kishatsin-wa ikura-da-roo-ka?</i> Osaka-ABLATIVE Tokyo-TERMINATIVE-GENITIVE train.fare-TOPIC how.much- COPULA-CONJECTURAL-INTERROGATIVE 'How much might the train fare from Osaka to Tokyo be?'	
27	1_Onotsu	M	ʔo:sakakara to:kio:garinu kisatɕino: k'ansakaja:.	
27	1_Onotsu	K	ʔo:sakakara to:kio:madinu kisatɕino: k'ansakaja:.	
27	2_Shitooke	M	ʔo:sakakara to:kio:madinu kisatɕino: tɕ'aŋsakaja:.	
27	2_Shitooke	O	ʔo:sakakara to:kio:madinu kisatɕino: {tɕaŋsa/ikura} ka:jukkaja:.	'{tɕaŋsa/ikura} ka:jukkaja ': 'how.much to.cost- INTERROGATIVE'.
27	3_Kamikatetsu	M	ʔo:sakakara to:kio:made: k'isatɕino: {saŋsa ka:rikka/saŋsakai:}.	'to:kio:made:': 'Tokyo- TERMINATIVE-TOPIC'.
27	3_Kamikatetsu	K	ʔo:sakakara to:kio:madinu kisatɕino: saŋsakaja:.	

	Site	Group	Standard Japanese Sentence	Notes
27	4_Nakasato	M	ʔo:sakakara to:kjo:madinu kiɕatɕino: saNsabe:ri kai(ja:).	Older generations used 'sansabe:ri ka:jukkai'.
27	4_Nakasato	K	ʔo:sakakara to:kjo:madinu kiɕatɕino: saNsakai.	
27	4_Nakasato	O	ʔo:sakakara to:kjo:madinu kiɕatɕino: saNsakai.	Speaker D: also 'kiɕatɕinja'.
27	5_Araki	M	ʔo:sakakara to:kjo:madinu kiɕatɕiNno: saNsa bakkai {kai/ka:rukkai}.	'ka:rukkai': 'to.cost- CONJECTURAL- INTERROGATIVE'.
27	5_Araki	O	ʔo:sakakara to:kjo:madinu kiɕatɕiNno: saNsag uraikai.	
28	0_Standard		<i>yoji-made eki-de ma-tte-ore.</i> four.o'clock-TERMINATIVE station-LOCATIVE to.wait-to.be-IMPERATIVE 'Wait at the station until four o'clock.'	
28	1_Onotsu	M	jozi {made:/gari} ʔekizi matɕuri.	'made:': 'TERMINATIVE- TOPIC'.
28	1_Onotsu	K	jozimadi jekizi matɕuri jo:.	
28	2_Shitooke	M	jozimade: jekizi matɕuri.	
28	2_Shitooke	O	jodzimate jekidzi matɕuri.	
28	3_Kamikatetsu	M	jozimade: jekje: matɕo:rijo:.	
28	3_Kamikatetsu	K	jozimadi jeki {je/zen} matɕo:ri jo:.	
28	4_Nakasato	M	jozimadi jekizi matɕurijo:.	
28	4_Nakasato	K	jozimadi jekizi matɕuri.	
28	4_Nakasato	O	jodzimate jekidzi matɕuri.	
28	5_Araki	M	jozimadi jekizi matɕuri(jo):.	
28	5_Araki	O	jozimadi jekizi matɕurijo:.	
29	0_Standard		<i>goji-madeni kaera-naku-tewa naranai.</i> five.o'clock-LIMITATIVE to.return-NEGATIVE-CONDITIONAL will.not.do 'I have to be home by five o'clock.'	
29	1_Onotsu	M	gozigarin'i muduraNba naraNmuN.	
29	1_Onotsu	K	gozimadin'i muduraNba nara:.	
29	2_Shitooke	M	gozimadin'je: muduraNba naraN.	'gozimadin'je:': 'five.o' clock-LIMITATIVE-TOPIC'.
29	2_Shitooke	O	godzimadini muduraNba {nara:/naraN}.	
29	3_Kamikatetsu	M	gozimadin'i: muduraNba naraNdo:.	
29	3_Kamikatetsu	K	gozimadi muduraNba naraN.	

	Site	Group	Standard Japanese Sentence	Notes
29	4_Nakasato	M	gozimadinje: muduraNba: naraNdo:.	'gozimadinje:': 'five.o' clock-LIMITATIVE-TOPIc'.
29	4_Nakasato	K	gozimadinji muduraNba nara:.	
29	4_Nakasato	O	godzimadeni muduraNba {naraN/nara:}.	
29	5_Araki	M	gozimadinji muduraNba naraNdo:.	
29	5_Araki	O	gozimadinji ja:kanji muduraNba: naraN do:.	Corrected from 'gazi' in the original sentence.
30	0_Standard		<i>Jiro, kono nimotsu-o ie-made katsuide i-tte-kure.</i> Jiro, this luggage-ACCUSATIVE house-TERMINATIVE to.carry.on.shoulders to.go-BENEFACTIVE-IMPERATIVE 'Jiro, please carry this luggage to the house.'	
30	1_Onotsu	M	dziro:, kuN nimutsuoba hakkIti ja:gari ʔizi kufiri.	
30	1_Onotsu	K	ziro:, huN nʔimutsujo:ba ja:gadi hatamiti ʔizi kufi.	
30	2_Shitooke	M	dziro:, ʔuN nʔimutsuɔ: ja:madi hatamIti ʔizi kufi.	
30	2_Shitooke	O	dziro: huN {nimotsɔ:/nimotsuba} ja:madi {hatamIti(C)/hatamiti(D)} ʔizi kufi.	
30	3_Kamikatetsu	M	dziro: ɸuN nʔimutsuɔ: ja:madi hatamje: {ʔize: kufi/mutse:dʒen kufi}.	'mutse:dʒen kufi': 'to.carry to.go-BENEFACTIVE- IMPERATIVE'.
30	3_Kamikatetsu	K	ziro:, ʔuN nʔimoto: ja:madi hanʔijen izeNkufi.	
30	4_Nakasato	M	dziro:, ʔuN {nʔimutsuɔ:(ba)/nʔi:} ja:madi hatamiti ʔizi kufi.	
30	4_Nakasato	K	dziro:, ʔuN nʔimutsu jo:ba ja:madi hatamiti ʔizikufi.	
30	4_Nakasato	O	dziro:, ʔuN nimutsujo:ba ja:madi hatamiti idʒi kufi(:).	
30	5_Araki	M	dziro:, ʔuN nʔimutsuɔ ja:madi hatamiti {ʔizi kufiri/mutse ʔizi kufiri}.	'mutse ʔizi kufiri': 'to.carry to.go-BENEFACTIVE- IMPERATIVE'.
30	5_Araki	O	ziro:, ʔuN nʔimotsuɔ ja:madi hatamiti ʔizi kufi.	

	Site	Group	Standard Japanese Sentence	Notes
31	0_Standard		<i>nimotsu-ga omoka-tta-node, futari-de mo-tta.</i> luggage-NOMINATIVE to.be.heavy-PAST-because, two.people-INSTRUMENTAL to.carry-PAST 'The luggage was heavy, so the two of us carried it together.'	
31	1_Onotsu	M	n'imotsuŋa ʔubussataNnati, t'aizi muttʂando:.	
31	1_Onotsu	K	n'imutsuŋa ʔubussataN nati t'aizi muttʂi.	
31	2_Shitooke	M	nii:ŋa {ʔubussati:/ʔubussataNnati} t'aizi {muttʂa:(do:)/muttʂi}.	
31	2_Shitooke	O	nimotsuŋa ʔubusataNnati t'aiɕi {muttʂa:(do:)/muttʂa:}.	
31	3_Kamikatetsu	M	n'imutunu ʔubussa muNnate: t'arje: muttʂe: ɕa:(do:).	
31	3_Kamikatetsu	K	n'imotsunu {ʔubussareN/ʔubusattaN muneN} ʔariseN muttʂa:(do:).	
31	4_Nakasato	M	nii:ŋa ʔubussataNkara t'aizi muttʂando:.	'ʔubussataNnati' is not used.
31	4_Nakasato	K	n'imutsuŋa ʔubussa(t)t'aN {ga:nii/gara} t'ai(zi) muttʂi.	
31	4_Nakasato	O	nimotsuŋa ʔubusataNŋara t'ai:ɕi {muttʂa:(do:)/muttʂa:/muttʂi}.	
31	5_Araki	M	nii:ŋa ʔubussataNkanii t'arizi {muttʂi/muttʂando:}.	
31	5_Araki	O	n'imotsuŋa ʔubusataNka:nii t'arizi muttʂa:(do:).	
32	0_Standard		<i>kono uwagi-wa konomae Okinawa-de 2000yen-de ka-tta.</i> this jacket-TOPIC recently Okinawa-LOCATIVE 2000.yen-INSTRUMENTAL to.buy-PAST 'I bought this jacket in Okinawa the other day for 2000 yen.'	
32	1_Onotsu	M	ɸuN ʔuwaŋje: kono ʔaida ʔokina:ɕi n'iseNenɕi ho:tando:.	
32	1_Onotsu	K	huN huko: hune:da ʔokina:zi n'iseNenzi ho:taN muN.	

	Site	Group	Standard Japanese Sentence	Notes
32	2_Shitooke	M	ʔuN ʔkino: ɸuNnaŋe: ʔokinawazi niʔeNeNɔɔzi {ho:taNdo:/ho:tittɕaŋ}.	‘ho:tittɕaŋ’: ‘to.buy to.come-PAST’.
32	2_Shitooke	O	huN ʔuwaŋe: ʔokinawadzi niʔeNeNɔɔzi {ho:ta:/ho: :taN}.	
32	3_Kamikatetsu	M	ɸuN ʔuwaŋe: naNma ʔokinawae: niʔeNeNŋe: ho:taNdo:.	
32	3_Kamikatetsu	K	ʔuN ʔuwaŋe: naNma:ta ʔokinawazeN niʔeNeNzeN ko:taN.	
32	4_Nakasato	M	ʔuN uwaŋe: nʔaNma ʔokinawade niʔeNeNde {ho: ti/ho:taNdo:/ho:ta}.	‘(ʔokinawa)de (niʔeNeN)de’: Standard Japanese forms.
32	4_Nakasato	K	ʔuN ʔuwaŋe: nʔaNma ʔokina:zi niʔeNeNzi ho:ti.	
32	4_Nakasato	O	ʔuN ʔuwaŋe: nʔaNma {ʔokinawa/ʔokina:} dʔi niʔeNeNɔɔzi {ho:ta/ho:ti/ho:taN}.	
32	5_Araki	M	ʔuN ʔuwaŋe: ɸune:da ʔokinawazi niʔeNeNɔɔzi {ho:tasudo:/ho:taNdo:}.	
32	5_Araki	O	ʔuN ʔuwaŋe: nʔaNma ʔokina:zi niʔeNeNzi {ho: taN/ho:tasu} do:.	‘ho:tasu do’: ‘to.buy- PAST-NOMINAL- EMPHATIC’.
33	0_Standard		<i>Okinawa-ni-wa mezurashii okashi-ga aru.</i> Okinawa-LOCATIVE-TOPIC to.be.rare sweets-NOMINATIVE to.be ‘Okinawa has unique sweets.’	
33	1_Onotsu	M	ʔokina:nʔe: mIddasanu kʔaɕiŋa ʔai(ja:).	When telling someone in a cheerful manner, ‘ʔaija:’ is appropriate.
33	1_Onotsu	K	ʔokina:nʔe: mittasanu kʔaɕinu ʔai.	
33	2_Shitooke	M	ʔokinawanʔe: mIddasan kʔaɕiŋa ʔaNdo:.	Speaker B pronounced ‘mIddasan’ as ‘middasan’.
33	2_Shitooke	O	ʔokinawanʔe: mIttasan kʔaɕiŋa ʔai.	
33	3_Kamikatetsu	M	ʔokinawaje: miNdaɕa{nu/N} kʔaɕinu (gaba) ʔaNdo :.	‘gaba’: ‘many’.
33	3_Kamikatetsu	K	ʔokinawa{zeno:/nʔe/nʔo:/jeno:} {middasan/ miNdasaN} kʔaɕinu ʔaŋ.	
33	4_Nakasato	M	nahanʔe: {miNdasaN/mizurasaN} kʔaɕiŋa {ʔai/ ʔaNdo:}.	
33	4_Nakasato	K	ʔokina:nʔe: miNdasaN kʔaɕiŋa ʔai.	

	Site	Group	Standard Japanese Sentence	Notes
33	4_Nakasato	O	ʔokina:n'ie: miNdasaN kaʕiŋa ʔaN do:.	
33	5_Araki	M	ʔokinawan'ie mizuʕasaN kʔwaʕiŋa {ʔai/ʔando:}.	The final 'i' in 'ʔai' is nasalized.
33	5_Araki	O	nahan'ie: miNdasaN kʔaʕiŋa ʔaN do:.	'nahan'ie': 'Naha-LOCATIVE-TOPIC'.
34	0_Standard		<i>mago-wa okashi-ga sukida.</i> grandchild-TOPIC sweets-NOMINATIVE to.like 'My grandchild likes sweets.'	
34	1_Onotsu	M	mago:ja kʔwaʕiŋa sukido:.	
34	1_Onotsu	K	mago:ja kʔwaʕiŋa suki.	
34	2_Shitooke	M	(mago:ja kʔwaʕiŋa {sukiʕaŋkara/sukinati}...)	The predicate does not correspond to that of the model sentence: 'to.like-because'.
34	2_Shitooke	O	mago:ja {kʔwaʕi/kaʕi}ŋa sukidʒa.	
34	3_Kamikatetsu	M	mago: kʔaʕinu {daiʕuki/ippai ʕuteiN}do:.	'ippai ʕuteiN': 'much to.like-STATIVE'.
34	3_Kamikatetsu	K	mago: kʔaʕinu suteiN do:.	
34	4_Nakasato	M	maŋa:ja kʔaʕiŋa suteuNdo:.	No form corresponding to 'sweets-ACCUSATIVE' was uttered.
34	4_Nakasato	K	mago:ja {kʔaʕi (ŋa) suki (do:)/kʔaʕi {nu/ŋa} {suteuN do:/sutʕui}.	
34	4_Nakasato	O	mago:ja: kʔaʕiŋa suki do:.	
34	5_Araki	M	maŋo:ja {kʔwaʕiŋa suki/kʔwaʕi suteuN}do:.	
34	5_Araki	O	maŋa:ja kʔaʕiŋa suki do:.	
35	0_Standard		<i>hako-no naka-ni manjuu-ga ikutsu aru-to omoo-ka?</i> box-GENITIVE inside-LOCATIVE manju-NOMINATIVE how.many to.be- QUOTATIVE to.think-INTERROGATIVE 'How many manju do you think there are in the box?'	
35	1_Onotsu	M	pakunu na:n'ji maŋdʒu:ŋa ʔikutsu ʔantei {ʔumujui/ʔumui}.	
35	1_Onotsu	K	hakuN na:n'ie: maŋʒu:ŋa ʔikutsu ʔantei ʔumujui ja.	
35	2_Shitooke	M	ʔuN ʔakunu na:n'ji (maŋdʒu:ŋa) ʔikutsu ʔantei ʔumuju {i/N}.	

	Site	Group	Standard Japanese Sentence	Notes
35	2_Shitooke	O	hakunu na:ni maNdz̥u:ŋa ts̥aNs̥a {ʔaŋt̥s̥i ʔumujui(D)/ʔaŋt̥s̥u ʔumujukka(C)}.	
35	3_Kamikatetsu	M	hakunu nakae: maNdz̥u:nu s̥aNs̥a ʔakka wakaraN {ka:/na:}.	
35	3_Kamikatetsu	K	hakonu nakajeno: maNzu:nu {ʔikʔutʔu/saNs̥a} ʔaŋteN ʔumi:rijo.	
35	4_Nakasato	M	hakun na:nje: maNzu:ŋa saNs̥a ʔaŋt̥s̥i ʔumujuijo.	
35	4_Nakasato	K	hakun na:nji maNzu:ŋa ʔikutʔu ʔaŋ ts̥umujui.	
35	4_Nakasato	O	hakun na:ni maNdz̥u:ŋa ʔikutu ʔaŋt̥s̥i ʔumujukko.	Uttered by speaker D.
35	5_Araki	M	hakunu {naka/na:}nji maNdz̥u:ŋa ʔikuts̥u ʔaŋt̥s̥i ʔumuiNja.	‘sansa’ would mean ‘how much’.
35	5_Araki	O	hʷakun nakanji maNzu:ŋa ʔikuts̥u ʔaŋt̥s̥i ʔuma: iNn̥ja.	
36	0_Standard		<i>mago-wa manjuu-o kawa-dake taberu.</i> grandchild-TOPIC manju-ACCUSATIVE skin-only to.eat ‘My grandchild eats only the skin of manju.’	
36	1_Onotsu	M	mago:ja maNdz̥u:joba ha:daki kamʔui.	
36	1_Onotsu	K	mago:ja maNzu:jo:ba ha:be: kamʔuN.	
36	2_Shitooke	M	mago:ja maNdz̥u:ba {hawa/ha:} be: kamʔuN.	
36	2_Shitooke	O	mago:ja maNdz̥u:ba kawa{b̥e:(C)//be:(D)} kamʔui.	
36	3_Kamikatetsu	M	mago: maNdz̥u:(o:ba) wʔabe:daki kamiŋdo:.	
36	3_Kamikatetsu	K	mago: maNzu: kawadake kamiN.	
36	4_Nakasato	M	maŋa:ja maNdz̥u:o:ba ha:dakidu kanʔui.	
36	4_Nakasato	K	mago:ja maNzu:nu kawabe: kanʔui.	
36	4_Nakasato	O	mago:ja maNdz̥u: ha:daki kanʔui.	Speaker D: also ‘kawa daki’.
36	5_Araki	M	maŋo:ja maNdz̥u: kawadaki kamiN.	
36	5_Araki	O	maŋa:ja maNzu: kawadaki kamiN do:.	

	Site	Group	Standard Japanese Sentence	Notes
37	0_Standard		<i>jiisan-wa asa-kara umi-e sakana-o tori-ni i-tta.</i> grandfather-TOPIC morning-ABLATIVE sea-ALLATIVE fish-ACCUSATIVE to.catch-DATIVE to.go-PAST 'Grandfather went to the sea to fish in the morning.'	
37	1_Onotsu	M	ʔazi:ja {ʔasa/kʔama} kara ʔumikai {ʔijujoba/ sakanajuba} {turi/ʔsuri}nʔi ʔizantei(ja).	ʔsurinʔi: 'to.fish-DATIVE'.
37	1_Onotsu	K	ʔazi:ja ʔasakara ʔumikai ʔiju tuNnʔa ʔizi.	
37	1_Onotsu	O	ʔazi:ja kʔanmakara ʔumini {ʔiju/ʔijuwo} {tuini/tuNnʔa} {ʔidzi/ʔidzando:}.	
37	1_Onotsu	T	ʔadzija ʔasakara ʔumik(?)ai {ʔiu/ʔiujo:ba} tuNnʔa {ʔidzi/ʔidzan do:}.	Fluctuation is observed in the intervocalic voiced alveo-palatal affricate between 'dʒ' and 'z'.
37	2_Shitooke	M	ʔazi:ja kʔanmakara ʔumikai ʔiju tunja ʔidzan.	
37	2_Shitooke	K	ʔazi(:)ja ʔasakara ʔumikai ʔiju(ba) {t/ʔ}uNnʔa ʔizan.	
37	3_Kamikatetsu	M	ʔazi:ja kʔanmakara {ʔumikatei/ʔumije:} jʔu:o: ba tunja ʔizando:.	
37	3_Kamikatetsu	K	zi:sano: kanmakara ʔumikatei ju tuNnʔa ʔizan.	
37	3_Kamikatetsu	O	ʔadzi:ja kʔanmakara {umikatei/umije:} ʔju: tuNnʔa ʔidza(do:).	
37	4_Nakasato	M	ʔazi:ja kʔamakara {ʔumije:/ʔumigatei} ʔiju tujnja ʔizan.	
37	4_Nakasato	K	ʔazi:ja kʔamakara ʔumigatei ʔiju {tuiNnʔa/tuNnʔa} {ʔizan/ʔizi}.	
37	5_Araki	M	ʔazi:ja kʔamakara ʔumikanʔi jʔu turinja {ʔizi /ʔizando:}.	
37	5_Araki	K	ʔazi:ja kʔamakara ʔumi:katei ju tuNnʔa ʔizi.	
37	5_Araki	O	ʔazi:ja k(?)anmakara ʔumi:zi ju {tuNnʔa/turi:nʔa} ʔizan do:.	

	Site	Group	Standard Japanese Sentence	Notes
38	0_Standard		<i>koko-wa umi-ni tsikai-node sakana-ga umai.</i> here-TOPIC sea-LOCATIVE to.be.close-because fish-NOMINATIVE to.taste.good 'This place is close to the sea, so the fish tastes good.'	
38	1_Onotsu	M	φuma: ʔumini ʔaikasaNnati ʔijuŋa ʔumasaNdo:.	
38	1_Onotsu	K	huma: ʔumi:nʔi ʔaikasaNnati ʔijuŋa ʔumasai.	
38	1_Onotsu	O	huma: ʔumini ʔaikasaNnati ʔijuŋa ʔuma{sai/saN do:}.	
38	1_Onotsu	T	φuma: ʔumini ʔaikasaNnati ʔiuŋa {ʔumasai/ʔumasaN do:}.	
38	2_Shitooke	M	ʔuma: ʔumini {ʔaikasaNkara/ʔaikasaNnati} ʔijuŋa ʔumasa{i/N}.	
38	2_Shitooke	K	ʔuma: ʔumini ʔaikasaNkara ʔijuga ʔumasaN.	
38	3_Kamikatetsu	M	ʔuma:ja ʔuminu ʔikaʔanmuNnare: jʔu:nu ʔumaʔa ʔuʔiraN.	
38	3_Kamikatetsu	K	ʔuma:ja ʔumijeN ʔikasaN munen junu masaN.	
38	3_Kamikatetsu	O	ʔuma:ja umini ʔaikasaNnati ʔjunu {ʔmasaNdo:/umasaNdo:}.	
38	4_Nakasato	M	ʔuma:ja ʔumini ʔikasaN {munʔaʔanʔi/kara} ʔijuŋa ʔ(u)masai.	The 'u' of 'ʔ(u)masai' has been elided.
38	4_Nakasato	K	ʔuma: ʔumini ʔikasaŋgara ʔijuŋa masai.	
38	5_Araki	M	ʔuma: ʔumini ʔikasaNkaNni jʔuŋa {masai/masaNdo:}.	
38	5_Araki	K	ʔuma:ja ʔumini ʔikasaNkaŋanʔi juŋa {masai/masari}.	
38	5_Araki	O	ʔuma:ja ʔumini ʔikasaNka:nʔi juŋa mʔasaN do:.	
39	0_Standard		<i>sakana-yori niku-no hoo-ga takai.</i> fish-rather.than meat-GENITIVE side-NOMINATIVE to.be.expensive 'Meat is more expensive than fish.'	
39	1_Onotsu	M	ʔijujukka nʔikunu ho:ŋa ta:saNdo:.	
39	1_Onotsu	K	ʔijujukka nʔikunu ho:ŋa ta:sa.	
39	1_Onotsu	T	ʔiu jukka mi:ŋa ta:sai.	
39	1_Onotsu	O	ʔijujukka {niku/ʔiʔi}nu {ho:/po:}ŋa {ta:sa/ta:sai}.	

	Site	Group	Standard Japanese Sentence	Notes
39	2_Shitooke	M	ʔiju {jukka/jukkamu} nʔikunu ho:ŋa ta:sai.	
39	2_Shitooke	K	ʔijujukkamu nʔikunu ho:ga ta:sa{N/i}.	
39	3_Kamikatetsu	M	{jʔujukamu/jʔujurimu} nʔikunu {ho:nu/ho:ŋa} takaʒaŋdo:.	
39	3_Kamikatetsu	K	jukkamu nʔikunu ho:nu takasa{ri/N}.	
39	3_Kamikatetsu	O	ʔju:joŋi nikudu takasa(do:).	
39	4_Nakasato	M	ʔiju:kkamu nʔikunu ho:ŋa ta:sai.	
39	4_Nakasato	K	ʔijukkamu nʔikunu ho:ŋa ta:sa.	
39	5_Araki	M	jʔukamu nʔikunu ho:ŋa {ta:sai/ta:saŋdo:}.	
39	5_Araki	K	jukamu nʔikunu ho:ŋa ta:sai.	
39	5_Araki	O	jujoŋe: ʒiʒinu ho:ŋa ta:saŋ do:.	
40	0_Standard		<i>ore-wa tako-no sashimi-ga tabe-tai.</i> I-TOPIC octopus-GENITIVE sashimi-NOMINATIVE to.eat-DESIDERATIVE 'I want to eat octopus sashimi.'	
40	1_Onotsu	M	wano: to:nu saʒimiŋa kaŋbusa(ja:).	
40	1_Onotsu	K	wano: to:nu saʒimiŋa kaŋbusai.	
40	1_Onotsu	T	wano: to:nu saʒimiŋa {kaŋbusa/kaŋbusai}.	
40	1_Onotsu	O	wano: to:nu saʒimiŋa {kaŋbusa/kaŋbusai}.	
40	2_Shitooke	M	wano: to:nu saʒimiŋa kaŋbusai.	
40	2_Shitooke	K	wano: to:nu saʒimiŋa kaŋbusai.	
40	3_Kamikatetsu	M	wano: to:nu ʒaʒiminu kaŋbuʒa ʔuʒiŋa:.	
40	3_Kamikatetsu	K	wanu: to:nu saʒiminu {kamibusaŋ/kaŋbusaŋ}.	
40	3_Kamikatetsu	O	wano: to:nu sasuminu {kaŋbusaŋ/kaŋbusaŋiŋa:}.	
40	4_Nakasato	M	wano: to:nu saʒimiŋa {kaŋbusai(A)//kaŋbusaja:(B)}.	
40	4_Nakasato	K	wano: to:nu {saʒimŋa/saʒimidu/saʒimi} kaŋbusa(i).	
40	5_Araki	M	wano: to:nu saʒimiŋa kami busai.	
40	5_Araki	K	wano: to:nu saʒimiŋa kaŋbusai.	
40	5_Araki	O	wano: to:nu namasuŋa {kaŋbusaiŋ/kaŋbusaiŋ/kaŋbusai}.	

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41	0_Standard		<i>omae-wa kono sakana-no namae-o si-tteiru-ka?</i> you-TOPIC this fish-GENITIVE name-ACCUSATIVE to.know-STATIVE-INTERROGATIVE 'Do you know the name of this fish?'	
41	1_Onotsu	M	daja φuN ʔijunu na:joba ɕittɕuNja.	
41	1_Onotsu	K	daja huN ʔijunu na:jo:ba ɕittɕuNnʲa.	
41	1_Onotsu	T	daja {φuN/φunu} ʔiunu namai ɕittɕuN nʲa.	
41	1_Onotsu	O	{da:da:}ja hunu ʔiju:nu na:ja ɕittɕuNnʲa.	
41	2_Shitooke	M	daja: ʔuN ʔijunu na:(ba) ɕittɕuNja.	
41	2_Shitooke	K	daja ʔuN ʔijunu na:ja ɕittɕuNnʲa.	
41	3_Kamikatetsu	M	da: φuN jʲunu namae: {ɕironja/ɕirokkai}.	
41	3_Kamikatetsu	K	da: ʔuN junu namae ɕironnʲa.	
41	3_Kamikatetsu	O	da: ʔuN junu na: ɕironnʲa:.	
41	4_Nakasato	M	da:(ja) ʔuN ʔiju:nu na: ɕittɕuN {ja/nʲa}.	
41	4_Nakasato	K	{da:/tʰa:} ʔuN ʔijunu na: ɕittɕuN {nʲa(:)/na}.	
41	5_Araki	M	da: ʔuN jʲunu namaeba ɕittɕuNja.	
41	5_Araki	K	da: ʔuN junu namae ɕittɕuNnʲa.	
41	5_Araki	O	da: ʔuN junu namae {ɕittɕuNnʲa/wakaruNnʲa}.	
42	0_Standard		<i>kore-wa katsuo-da-roo.</i> this-TOPIC skipjack.tuna-COPULA-CONJECTURAL 'Surely, this is a skipjack tuna.'	
42	1_Onotsu	M	φure: katsuo dzaddo:ga.	
42	1_Onotsu	K	hure: katsuo zaddo:ga.	
42	1_Onotsu	T	φure: katsuo {dzaro:/do: ɲa}.	
42	1_Onotsu	O	hure: katsuo {do:/do:ɲa}.	
42	2_Shitooke	M	ʔure: katsu: {dzaro:/dzaddo:ɲa}.	
42	2_Shitooke	K	ʔure: katsu zo:ro:.	
42	3_Kamikatetsu	M	{φure:/φurje:} katsuo zo:ro:.	
42	3_Kamikatetsu	K	ʔure: katsuo zo:ro:ja:.	
42	3_Kamikatetsu	O	ʔure: katsuo dzaho:.	
42	4_Nakasato	M	ʔure: katsuodo:ɲa.	
42	4_Nakasato	K	ʔure: katsu do:ga.	
42	5_Araki	M	ʔure: katsuodo:ɲa.	

	Site	Group	Standard Japanese Sentence	Notes
42	5_Araki	K	ŋure: kaʦuo do:ŋa.	
42	5_Araki	O	(h)ure: kaʦuo ʒafo(:).	‘katsuo’: also ‘katsu’.
43	0_Standard		<i>sake-wa dooyatte tsukuru-ka omae-wa si-tteiru-daroo?</i> sake-TOPIC how to.make-INTERROGATIVE you-TOPIC to.know-STATIVE-CONJECTURAL ‘You know how sake is made, right?’	
43	1_Onotsu	M	se:ja kia:ʕi ʦukujukka daja ʕit{ʦ/ʦ}uddo:ga.	
43	1_Onotsu	K	se:ja kiaʕiʕi ʦukujukka daja ʕittʦutaro:.	
43	1_Onotsu	O	se:ja kiaʕiʕi ʦukujukka daja ʕittʦundo:ŋa.	‘se’: also ‘ʕe’.
43	1_Onotsu	T	se: ja kiaʕiʕi {ʦukujukka/ʦukkʕukka} daja {ʕittʦuro:/ʕittʦuN do:ŋa}.	
43	2_Shitooke	M	se:ja ʦa(:)ʕiʕi {ʦukujukka/ʦukkʕukka} daja {ʕittʦuro:(ŋa)/ʕittʦundo:ŋa/ʕittʦundʒaro:}.	
43	2_Shitooke	K	se:ja ʦa:ʕiʕi {ʦukkʕukka/ʦukujukka} daja {ʕittʦuddo:ga/ʕittʦuro:ga}.	
43	3_Kamikatetsu	M	ʕe:ja sa:je: tukurikka da: {ʕironja/ʕirokkaja:}.	‘sa:je:’ also sounds like ‘ʕa:je:’.
43	3_Kamikatetsu	K	se:ja sa:enseN tʕukurikka da: {ʕiro:ro:ja:/ʕiro:tto:ga}.	
43	3_Kamikatetsu	O	se:ja sa:hense: {ʦʕuttʕikka/tʕuttʕinka} ʕironnia:.	
43	4_Nakasato	M	{se:/ʕe:}ja saʕiʕi {tʕukujukka(A)/tʕukujusuka(B)} da: ʕittʦuN{do:ŋa/nia}.	Speaker B, in addition to ‘ʕittʦuN’: also ‘wakatoN’.
43	4_Nakasato	K	se:ja saʕiʕi tʕuttʕukka da: ʕittʦuN do:ga.	
43	5_Araki	K	se:ja saʕiʕi ʦukurukka da: ʕittʦuN do:ŋa.	
43	5_Araki	O	ʕe:ja saʕiʕi ʦukurusujo da: ʕittʦundo:ŋa.	
44	0_Standard		<i>sake-wa kome-kara tsukuru.</i> sake-TOPIC rice-ABLATIVE to.make ‘Sake is made from rice.’	
44	1_Onotsu	M	se:ja ʕumɪkara {ʦukujui/ʦukku su}.	
44	1_Onotsu	K	se: ja ʕumɪkara ʦukui.	
44	1_Onotsu	O	se:ja humɪkara {ʦukujui/ ʦukujuN do:}.	‘se’: also ‘ʕe’.
44	1_Onotsu	T	se: ja ʕumɛkara {ʦukuju(:)i/ʦukui}.	

	Site	Group	Standard Japanese Sentence	Notes
44	2_Shitooke	M	se:ja ϕ umIka:ra tsukk'usu(do:).	Speaker B pronounced ' ϕ umi' as ' ϕ umi'.
44	2_Shitooke	K	se:ja ϕ umiZi tsukk'ui.	
44	3_Kamikatetsu	M	se:ja ϕ umika:ra tukuri:ndo:.	
44	3_Kamikatetsu	K	se:ja ϕ umika:ra t'uttaiN.	
44	3_Kamikatetsu	O	se:ja humika:radu {tutai:ndo:/tutai:}.	
44	4_Nakasato	M	se:ja ϕ umiZi {t'ukujui(A)/t'ukujusudo:(B)}.	
44	4_Nakasato	K	se:ja ϕ umika:ra t'ukujusu do:.	
44	5_Araki	K	se:ja ϕ umika:ra tsukurui.	
44	5_Araki	O	se:ja humika:ra tsukurusudo:.	
45	0_Standard		<i>sake-sae are-ba nanimo ira-nu.</i> alcoholic.beverage-even.only to.be-CONDITIONAL anything to.be.necessary-NEGATIVE 'As long as I have liquor, I will be fine.'	
45	1_Onotsu	M	se:se: η ariba nu:mu η ijaN.	
45	1_Onotsu	K	se:se: η ariba nu:mu η ija:.	
45	1_Onotsu	O	se: η a η arIba nu:mu η ija.	'se:': also 'ae:'.
45	1_Onotsu	T	se:se: η ariba nu:mu { η ijaN/ η iaN}.	
45	2_Shitooke	M	se:se: η ariba nu:mu { η iraN/ η ira:}.	
45	2_Shitooke	K	se:se: η arIba nu:mu η iraN.	
45	3_Kamikatetsu	M	se:se: η ariba nu:mu η ira:ndo:.	
45	3_Kamikatetsu	K	se:se:(ka) η ariba nu:mu η iraN.	
45	3_Kamikatetsu	O	se:se:ka η ariba: nu:mu η iraN.	
45	4_Nakasato	M	se:se: η ariba: nu:mu η iraN.	
45	4_Nakasato	K	se:se: η ariba nu:(mu) η ira:.	
45	5_Araki	K	se:se:(ka) η ariba nu:mu { η ira:/ η iraN}.	
45	5_Araki	O	se:se:ka η ariba wano: nu:mu η iraN do:.	'wano:': 'I-TOPIC'.
46	0_Standard		<i>utsino jiisan-wa sake-mo tabako-mo noma-nai.</i> our grandfather- TOPIC alcoholic.beverage-too tobacco-too to.drink/to.smoke-NEGATIVE 'Our grandfather neither drinks nor smokes.'	
46	1_Onotsu	M	waNna: ja:nu η aZija se:mu tabakumu numaN(do:).	
46	1_Onotsu	K	waNna: ja:nu η aZija se:mu tabakumu numa:.	

	Site	Group	Standard Japanese Sentence	Notes
46	1_Onotsu	O	ja:nu ʔadzi(:)ja se:mu tabakumu numa:.	
46	1_Onotsu	T	waNna: ʔadzi:ja se:mu tabakumu {numa:/numaN do:}.	
46	2_Shitooke	M	waNna: ʔazi:ja se:mu tabakumu numaN(do:).	‘ʔazi:’ has undergone vowel shortening.
46	2_Shitooke	K	ja:nu ʔazi:ja se:mu tabakumu numaN.	
46	3_Kamikatetsu	M	j’a:nu {ʔazi:ja/dzi:sanu:} ʔe:mu tabakumu numaNdo:.	
46	3_Kamikatetsu	K	ja:nu zi:sanu se:mu tabakumu numaN.	
46	3_Kamikatetsu	O	{ja:nu ʔadzi:/waNna: ʔadzi:}ja ʔe:mu tabakumu numaN do:.	
46	4_Nakasato	M	waNna: ja:nu ʔazi:ja ʔe:mu tabakumu numaNdo:.	
46	4_Nakasato	K	waNna: ʔazi:ja se:mu tabakumu numa:.	
46	5_Araki	K	ja:nu ʔazi:ja se:mu tabakumu numa:.	
46	5_Araki	O	wa: ja:nu ʔazi:ja ʔe:mu tabakumu numaN do:.	
47	0_Standard		<i>sono mizu-wa nomu-na. nomu-nara kono mizu-o nom-e.</i> that water-TOPIC to.drink-PROHIBITIVE; to.drink-CONDITIONAL this water-ACCUSATIVE to.drink-IMPERATIVE ‘Do not drink that water. If you want to drink, drink this water.’	
47	1_Onotsu	M	ʔuN mizuʔo: numuna, {numʔuNnaʔa/numʔute:} ʔuN mizu(oba) numi.	
47	1_Onotsu	K	hunu mizo: numuna. numʔuNnaʔa huN mizujo:ba numi.	
47	1_Onotsu	O	hunu miɕzo: numuna, {nuNbusaʔiba/numʔute:} hunu miɕzu(wo) numi.	
47	1_Onotsu	T	{ʔuN/ʔunu} mēzo: numuna jo:.. numēte: ʔuN mēzu numē jo:.	Speaker D pronounced these forms as ‘mizo:’ and ‘mizu’, respectively.
47	2_Shitooke	M	ʔuN mizuʔo: numuna, numʔut(?)e: ʔuN mizu(ba) numi.	
47	2_Shitooke	K	ʔuN mizo: numuna. {numi suN naʔaba/numute:} ʔuN mizu numi.	
47	3_Kamikatetsu	M	ʔuN mizuʔo: numuna, numiba ʔaN mizu numi(jo:).	

	Site	Group	Standard Japanese Sentence	Notes
47	3_Kamikatsutsu	K	ʔuN mido: numuna. numisu naʔiba ʔuN midu numi.	
47	3_Kamikatsutsu	O	ʔuN mido: numunajo: . numisunaʔiba ʔuN midu {numijo:/numi:}.	
47	4_Nakasato	M	ʔuN mizuɔ: numuna, numʔusu naʔiba: ʔuN mizuɔ(ba) numi(jo:).	
47	4_Nakasato	K	ʔuN mido: numuna. numʔusu naʔiba ʔuN midu(joba) numi.	‘numʔusu’: perhaps ‘numʔusu’.
47	5_Araki	K	ʔuN mizo: numuna. numisu naʔiba ʔuN mizu numi.	
47	5_Araki	O	ʔuN {mizo:/mizuɔ} numunajo:, numisu naʔiba ʔuN mizu numijo:.	
48	0_Standard		<i>naze omae-wa tabe-nai-no-ka?</i> why you-TOPIC to.eat-NEGATIVE-NOMINAL-INTERROGATIVE ‘Why will you not eat?’	
48	1_Onotsu	M	nuŋaɕɕi daja {kamaNso:/kamaNso: {nuŋa/nuŋaɕɕi}}.	
48	1_Onotsu	K	nuŋa daja kamaN so:.	
48	1_Onotsu	O	nuŋa daja: kamaNso:.	
48	1_Onotsu	T	nuŋa daja kamaN so:.	
48	2_Shitooke	M	nuŋaɕɕi daja kamaNso:.	
48	2_Shitooke	K	nuŋa daja kamaN so:.	
48	3_Kamikatsutsu	M	nu:naʔe: da: kamaNɕuka.	
48	3_Kamikatsutsu	K	{nuŋa/nua} da: kamanu.	
48	3_Kamikatsutsu	O	nu:wa da: {kamanu/kamaNso:}.	
48	4_Nakasato	M	nuŋa da: {kamaNsujo/kamaNso: nuŋajo}.	
48	4_Nakasato	K	nuŋa da: kamaNso:.	
48	5_Araki	K	nuŋa da: {kama:/kamaNso:}.	
48	5_Araki	O	nuŋa da: kamaNso:iNŋa.	
49	0_Standard		<i>ore-wa satsumaimo-nanka tabe-nai-zo.</i> I-TOPIC sweet.potato-something to.eat-NEGATIVE-EMPHATIC ‘I will not eat sweet potatoes!’	
49	1_Onotsu	M	wano: paNsu:Nkʲa kamaNdo:.	
49	1_Onotsu	K	wano: paNsuNkʲa kamaN do:.	
49	1_Onotsu	O	wano: haNsuNkʲa kamaNdo:.	‘hansu’: also ‘pansu’.

	Site	Group	Standard Japanese Sentence	Notes
49	1_Onotsu	T	wano: {p ^h aNsʉ:/ɸaNsʉ:}Nk ^h a: kamaN do:.	
49	2_Shitooke	M	wano: paNsʉNtɕa: kamaNdo:.	
49	2_Shitooke	K	wano: paNsʉ:ja kamaN.	
49	3_Kamikatetsu	M	wano: haNɕʉNtɕa: kamaNdo:.	'haNɕʉ:' has undergone vowel shortening.
49	3_Kamikatetsu	K	wano: haNsʉwa kamaN do:.	
49	3_Kamikatetsu	O	wano: haNsʉNtɕa: kamaNdo:.	
49	4_Nakasato	M	wano: haNsʉ:Ntɕa: kamaNdo:.	
49	4_Nakasato	K	wano: haNsʉNtɕa kamaN do:.	
49	5_Araki	K	wano: haNsʉNtɕa: kamaN do:.	
49	5_Araki	O	wano: haNsʉNtɕa kamaN do:.	
50	0_Standard		<i>moo tabe-rareru mono-wa zembu tabe-ta.</i> already to.eat-POTENTIAL thing-TOPIC completely to.eat-PAST 'I already ate all the things I like.'	
50	1_Onotsu	M	n ^h a: kamaɾiN muno: ɕɛNbu kadaNdo:.	
50	1_Onotsu	K	n ^h a: kamaɾiN muno: ɕiNn ^h a kadi.	
50	1_Onotsu	O	n ^h a: {kamaɾiN/kaN} muno: {ʔaɾukani(:)} {kada/kadi}.	
50	1_Onotsu	T	n ^h a: {kamaɾiN/kamaɾaɾiN} muno: ɕiNn ^h a {kada/kadaN do:}.	
50	2_Shitooke	M	n ^h a: kamaɾiN muno: ɕiNn ^h a {kadi/kadaN}.	'kadi' makes it clear that the first person has eaten it themselves.
50	2_Shitooke	K	n ^h a: kamaɾiN muno: ɕiNn ^h a kadaN do:.	
50	3_Kamikatetsu	M	nama: {kamaɾiN/kamiN} muno: ɕiNja kadaNdo:.	
50	3_Kamikatetsu	K	na:, kamaɾiN muno: ɕiNn ^h a kada.	
50	3_Kamikatetsu	O	na: kamaɾiN muno: ɕiNn ^h a: kadaNdo:.	
50	4_Nakasato	M	n ^h a: {kam ^h ʉN/kamaɾʉN} muno: {ɕiNn ^h ja/nu:Nki :} {kadaN/kadi}.	'kadi': 'ate (it) myself'. 'nu:Nki': 'anything and everything'.
50	4_Nakasato	K	n ^h a: kamaɾʉN muno: puNtu kadi.	
50	5_Araki	K	n ^h a: kamaɾʉN muno: ɕiNn ^h a kadi.	
50	5_Araki	O	n ^h a: kamaɾʉN muno: ɕɛNbu kadaN do:.	

	Site	Group	Standard Japanese Sentence	Notes
51	0_Standard		<i>tabete neru-dake-nara inu-ya neko-to onaji-da.</i> to.eat to.sleep-only-CONDITIONAL dog-and cat-COMITATIVE the.same-COPULA 'If you only eat and sleep, you will be no different from dogs and cats.'	
51	1_Onotsu	M	kadi: n'ibbiuN{daki/bakkai} ʔariba ʔiNŋa:Nkia maja:tu {ʔiɕɕoʔa/tʔitsʊʔa:}.	
51	1_Onotsu	K	kadi n'ippjuNdaki nara ʔiNŋa:ja maja:tu tʔitsʊ muN ʔa so:.	
51	1_Onotsu	O	kadi {nibbiuN/nibbiu/nibbi}bē ʔariba ʔiNna:ja maja:tu tʔitsʊ.	
51	1_Onotsu	T	kadi(kara) nibbibē: {ʔariba/ja} ʔiNŋa:tu maja:tu {tʔitsʊ dʔa/ʔiNmuN do:}.	
51	2_Shitooke	M	kadi: n'ippunde: ʔariba ʔiNŋa:ja maja:tu {tʔitsʊ/jiN} muN.	
51	2_Shitooke	K	kadi n'ibbiusu narIba ʔiNŋa:ja maja:tu ʔissu.	
51	3_Kamikatetsu	M	kame: n'iNbiN{daki/muN} nariba ʔiNŋa:ja maja: tu tʔitumuNdo:.	
51	3_Kamikatetsu	K	kameN n'iNbidaki nariba ʔiNŋa:ja guru:tu {jiNmuN/ʔissu} ʔa.	
51	3_Kamikatetsu	O	{kadi: niNbenbakkai/kameN niNbenbakkai} ʔuriba: ʔiNŋa:tu guru:tu iɕɕudo:.	
51	4_Nakasato	M	kadi niTtuN dakinariba: ʔiNŋa:ja guru:tu {ʔissu/tʔitu} ʔa:.	
51	4_Nakasato	K	kadi nittuNdaki nariba ʔiNŋa:ja guru:tu ʔissu ʔa.	The 'n' in 'nittuN' has not undergone palatalization.
51	5_Araki	K	kadi niNbiNdaki nariba: ʔiNŋʷa:ja guru:tu {ʔiɕɕo/tiʔsumuN/jiNmuN} ʔa ŋa.	'ʔiNŋʷa:': also 'ʔiNŋ̃a:'. 'nigasa': 'to be bitter'.
51	5_Araki	O	kadi niNbiNdaki nariba ʔiNŋʷaja guru:tu ʔoNnaʔi do:.	
52	0_Standard		<i>satoo-wa amai. kusuri-wa amaku-nai.</i> sugar-TOPIC to.be.sweet; medicine-TOPIC to.be.sweet-NEGATIVE 'Sugar is sweet. Medicine is not sweet.'	
52	1_Onotsu	M	sata:ja ʔamasa, suje: ʔamasa neN.	Also: nāttea 'to be bitter'.
52	1_Onotsu	K	sata:ja ʔamasa. suje: niŋgasa.	'nigasa': 'to be bitter'.

	Site	Group	Standard Japanese Sentence	Notes
52	1_Onotsu	O	sata:ja {ʔamasai/ʔamasai}, {sue:/sui} ʔamasane:.	
52	1_Onotsu	T	sata:ja ʔamasai, sue: ʔamasai(:) ne:.	
52	2_Shitooke	M	sat'a:ja ʔamasai, kusue: ʔamasai:neN.	'kusui': 'medicine'. Also: n'igasa 'to be bitter'.
52	2_Shitooke	K	satta:ja ʔamasai. kusufe: ʔamasai ne:.	
52	3_Kamikatetsu	M	sata:ja ʔamasai:do:, kusufe: ʔamaku ne:ra:do:.	
52	3_Kamikatetsu	K	sata:ja nufusa{ri/N}. kusufe: nufuku neN.	
52	3_Kamikatetsu	O	sata:ja ʔamasai. {kusufi:ja/kusufiwa/kusufe:ja} ʔamasai {ne:ra:/ne:}.	
52	4_Nakasato	M	sat'a:ja ʔamasai, kusufi: ʔamasai:neN.	
52	4_Nakasato	K	sat'a:ja ʔamasai. kusufe: ʔamasai ne:.	
52	5_Araki	K	sata:ja ʔamasai{i/N}. kusufe: ʔamasai ne:ra:.	
52	5_Araki	O	sata:ja ʔamasai do: kusufe: ʔamasai: ※.	※'ne:' or the like missing at the end of the sentence?
53	0_Standard		<i>kyonen itoko-ga tyuugaku-no sensee-ni na-tta.</i> last.year cousin-NOMINATIVE junior.high.school-GENITIVE teacher-DATIVE to.become-PAST 'Last year, my cousin became a junior high school teacher.'	
53	1_Onotsu	M	ʔuzu ʔitukunja tsu:gakko:nu ʔinse:n'i nataN{tsi/do:}.	
53	1_Onotsu	K	huzu ʔitukunja tsu:ŋakko:nu seNse:n'i nati.	
53	1_Onotsu	O	huczu: ʔitukunja tsu:gakko:nu ʔinse:ni nati.	'tsu:gakko:': also 'se: tsu:ŋakko:'.
53	1_Onotsu	T	ʔuzu ʔitukunja tsu:gakko:nu ʔinse:n'i {nataN do:/nati}.	
53	2_Shitooke	M	ʔuzu: ʔitukunja tsu:gakko:nu ʔinse:n'i {nat'a/nataN}.	
53	2_Shitooke	K	huzu ʔitukunja tsu:gakko:nu ʔinse:n'i nataN.	
53	3_Kamikatetsu	M	ʔudu ʔitukunu tsu:gakko:nu ʔinse:n'i nataNdo:.	
53	3_Kamikatetsu	K	kudo: ʔituku{nu/ga} tsu:gakko:nu ʔinse:n'i nataN.	
53	3_Kamikatetsu	O	hudu: ʔitokunja tsu:gakko:nu ʔinse: nataN(do:).	
53	4_Nakasato	M	ʔudu ʔitukunja tsu:gakko:nu ʔinse:n'i nat'ando:.	'ʔinse:': also 'ʔinse:'.
53	4_Nakasato	K	hudu ʔitukunja tsu:ŋakko:nu ʔinse:n'i nati.	

	Site	Group	Standard Japanese Sentence	Notes
53	5_Araki	K	{φuzu/φuzo:} ʔitukunja tsu:gakko:nu ɕinse:nji nati.	‘tsu:gakko:’: also ‘tsu:ŋakko:’.
53	5_Araki	O	huzu ʔitukunja tsu:ŋakko:nu ɕinɕe:nji natan do:.	‘natando’: ‘natando:’?
54	0_Standard		<i>itoko-wa eego-no hon-ga yom-eru.</i> cousin-TOPIC English-GENITIVE book-NOMINATIVE to.read-POTENTIAL ‘My cousin can read English books.’	
54	1_Onotsu	M	ʔituko: jeigonu honŋa jumi dikʷundo:.	
54	1_Onotsu	K	ʔituko: jeigonu honjo:ba jumi dikʷui.	
54	1_Onotsu	O	ʔituko: {ʔamerika jumIta/jʔe:go}nu honŋa jumI {dɪkujui/dɪkui}.	
54	1_Onotsu	T	ʔituko: je:gonu ɕimutsunja {jumi dikuN/jumarin/jumʷuN} do:.	
54	2_Shitooke	M	ʔituko: je:gonu honŋa jʷumi ʔusui.	
54	2_Shitooke	K	ʔituko: jeigonu honba jumʷu: suN.	
54	3_Kamikatetsu	M	ʔituko: jeigonu honnu {jumiNdo:/jumarindo:}.	
54	3_Kamikatetsu	K	ʔituko: je:gonu honnu jumiNɕin.	
54	3_Kamikatetsu	O	ʔituko: e:gonu sumutu jumi: {ɕin/ɕin}do:.	
54	4_Nakasato	M	ʔituko: jeigunu sumutunja jumijuN.	
54	4_Nakasato	K	ʔituko: je:gonu honŋa junʷunsui.	
54	5_Araki	K	ʔituko: je:gonu {honŋa jumi:su/hondu {jumi:/jumi: sui}}.	
54	5_Araki	O	ʔituko: jeigonu hon jumiNsun do:.	
55	0_Standard		<i>ano hito-koso hontoo-no kanemotsi-da.</i> that person-FOCUS true-GENITIVE wealthy.person-COPULA ‘That person is truly wealthy.’	
55	1_Onotsu	M	ʔaN tsukusa φunto:nu hanImutɕi{za/do:}.	
55	1_Onotsu	K	ʔaN tsukusa huNto:nu hanʷimutɕi.	
55	1_Onotsu	T	ʔaN tsukusa: pʰunto:nu hanimutɕi do:.	‘pʰunto:’: also ‘φunto:’.
55	1_Onotsu	O	ʔaN tsʷukusa huNtu:nu hanimutɕi do:.	‘hanimutɕi’: also ‘kanimutɕi’.
55	2_Shitooke	M	ʔaN tsukusa φunto:nu hanImutɕizaja.	
55	2_Shitooke	K	ʔaN {ts/ʔ}ukusa huNto:nu {h/k}anʷimutɕi.	
55	3_Kamikatetsu	M	ʔaN {tsukusa/tsuφudu} φunto:nu hanimutɕido:.	

	Site	Group	Standard Japanese Sentence	Notes
55	3_Kamikatetsu	K	ʔaŋ tɕʰukusu huŋto:nu hanʲimutɕi za.	
55	3_Kamikatetsu	O	ʔaŋ {tɕʰukusaja:/tɕʰu:kusa:} huŋto:nu {hanemutɕi/hanimutɕi} do:.	
55	4_Nakasato	M	ʔaŋ tɕʰukusa ɸuŋto:nu hanImutɕi za:.	
55	4_Nakasato	K	ʔaŋ tɕʰu ku{su/sa} ɸuŋto:nu hanimutɕi (do:).	The 'n' in 'hani' has not undergone palatalization.
55	5_Araki	K	ʔaŋ tɕʰukusa huŋto:nu han(ʲ)imutɕi za(:).	
55	5_Araki	O	ʔaŋ tɕʰudu huŋto:nu hanimutɕido:.	
56	0_Standard		<i>sono hanashi-wa tsuma-ni-dake kik-ase-ta.</i> that story-TOPIC wife-DATIVE-only to.hear-CAUSATIVE-PAST 'I only told that story to my wife.'	
56	1_Onotsu	M	ɸuŋ hanase: tuzinʲibē: kikatsaŋ(do:).	The sound of 'ē' is somewhat ambiguous.
56	1_Onotsu	K	huŋ panase: tuzinʲidaki kikatsi.	
56	1_Onotsu	O	hunu {hanaɕe:/jumita} tuczinibē: {kʰitatsi/kʰikatsaŋ do:}.	
56	1_Onotsu	T	ɸunu jumētʰa: tuczinʲibē: {kikatsi/kikatsaŋ} do :.	
56	2_Shitooke	M	ʔuŋ panase: tuzinʲibē: kʰikatsaŋ.	
56	2_Shitooke	K	ʔuŋ hanase: tuzinʲi bē: {kikatsaŋ/hatataŋ}.	The sound of 'ē' is ambiguous, also sounding like 'e'.
56	3_Kamikatetsu	M	ʔuŋ hanaɕje: tuzidakeje: tɕikatsaŋdo:.	'tuzidakeje': 'wife-only-DATIVE'; 'wife-DATIVE' would be 'tuzinʲi'.
56	3_Kamikatetsu	K	ʔuŋ hanase: {tuzeŋ/tuzien}daki kikatsaŋ.	'kikatsaŋ': also 'tɕikatsaŋ'.
56	3_Kamikatetsu	O	ʔuŋ jumita: tuczijendaki: {tɕikatsaŋ/tɕikatsi}.	
56	4_Nakasato	M	ʔuŋ hanasje: tuzinʲibe:i tɕikatsa(N).	
56	4_Nakasato	K	ʔuŋ hanase: tuzinʲi {daki/be:} {tɕʰikʰatsi/tɕʰikʰatsaŋ do:}.	
56	5_Araki	K	ʔuŋ hanase: tuzinʲidake tɕikatsaŋ.	
56	5_Araki	O	ʔuŋ hanaɕe: tuzinʲidaki {tɕikatsaŋ/hanatsaŋ} do :.	
57	0_Standard		<i>tsuma-ni yuuhan-o tukur-aseru.</i> wife-DATIVE dinner-ACCUSATIVE to.make-CAUSATIVE 'I will have my wife cook dinner.'	

	Site	Group	Standard Japanese Sentence	Notes
57	1_Onotsu	M	tu ^z ini {ji:joba/ji:ban ⁱ iuba} tsukkasuN(do:).	
57	1_Onotsu	K	tu ^z ini ji:jo:ba tsukura ^{ci} .	
57	1_Onotsu	O	tud ^z ini ji:jo:ba {ts ^ʰ ukura ^{tsi} /ts ^ʰ ukka ^{tsa} N/ts ^ʰ ukka ^{tsi} }	
57	1_Onotsu	T	tud ^z ini ji:jo:ba {tsukura ^{ci} /tsukka ^{ci} }	
57	2_Shitooke	M	tu ^z ini ju:baN(ba) {tsukura ^{tsa} N/tsukurasuN/ tsukkasuN}.	
57	2_Shitooke	K	tu ^z ini ju:baN {ts/}ukkasuN.	
57	3_Kamikatetsu	M	tu ^z ie: ji:oba t ^ʰ ukura ^{ci} ndo:.	
57	3_Kamikatetsu	K	tu ^z e:N ji: {tukka ^{tsa} /tukka ^{ci} N}.	‘ji:’ also sounds like ‘zi:’.
57	3_Kamikatetsu	O	tud ^z ieN ji:jo:ba {tsukka ^{tsi} /tukka ^{ci} N}.	
57	4_Nakasato	M	tu ^z ini ji:(o:ba) t ^ʰ ukurasui.	
57	4_Nakasato	K	tu ^z ini ji:(jo:ba) {t ^ʰ ukura ^{tsi} /t ^ʰ ukura ^{tsui} }.	
57	5_Araki	K	tu ^z ini ji:{jo:ba/wo:ba} {tsukura ^{ci} /tsukurasui}.	
57	5_Araki	O	tu ^z ini ji:ja tsukurasuN do:.	
58	0_Standard		<i>otto-wa take-de kago-o tuku-tta.</i> husband-TOPIC bamboo-INSTRUMENTAL basket-ACCUSATIVE to.make-PAST ‘My husband made a basket out of bamboo.’	
58	1_Onotsu	M	ʔutu ^o : de:dz ⁱ kagu{joba/oba} tsukut ^a N.	
58	1_Onotsu	K	uto: de:zi so:ʔijo:ba tsukuti.	
58	1_Onotsu	O	{ʔuto:/uto:} de:dz ⁱ {kago:/so:ʔi} {ts ^ʰ ukuta/ ts ^ʰ ukuti}.	‘so:ʔi’ also sounds like ‘so:βi’.
58	1_Onotsu	T	ʔuto: de:dz ⁱ kagujo:ba {tsukutaN do:/ʔadan}.	‘ʔadan’: ‘to.weave-PAST’.
58	2_Shitooke	M	uto: {de:de:/de:zi} magu:(ba) {tsukut ^a /tsukuti}.	
58	2_Shitooke	K	uto: de:zi kago: {tsutta/tsutta ^{tsa} N}.	
58	3_Kamikatetsu	M	utu ^o : de:e: kagooba t ^ʰ ukut ^a ando:.	
58	3_Kamikatetsu	K	ʔu(t)to: de:seN kago: {t ^ʰ ukka ^{tsa} N/t ^ʰ ukutaN}.	
58	3_Kamikatetsu	O	utto: de:he: so:bi tukutaNdo:.	
58	4_Nakasato	M	uto: de:zi so:ʔink ^a :(o) t ^ʰ ukut ^a N.	‘basket’: ‘so:ʔiNka’ (small); ‘so:ʔi’ (large).
58	4_Nakasato	K	uto: de:zi kagujo:ba {t ^ʰ ukuti/t ^ʰ ukutaN}.	
58	5_Araki	K	ʔuto: de:zi kagujo:ba tsukut(?)i.	
58	5_Araki	O	uto: de:zi kagu tsukutaN do:.	

	Site	Group	Standard Japanese Sentence	Notes
59	0_Standard		<i>Ji-roo-wa o-tooto-no Sa-bu-roo-to ken-kashi-ta.</i> Jiro-TOPIC younger.brother-GENITIVE Saburo-COMITATIVE to.quarrel-PAST 'Jiro quarreled with his brother Saburo.'	
59	1_Onotsu	M	dz̥i-ro:ja ʔuttu:nu sabu-ro:tu ɕikkitaN(do:).	In the case of hearsay, 'tiNŋa', meaning 'it seems', or the quotative particle 'tei' is suffixed.
59	1_Onotsu	K	zi-ro:ja ʔuttu:nu sabu-ro:tu ɕikkiti.	
59	1_Onotsu	O	dz̥i-ro:ja ʔuttunu sabu-ro:tu ɕikkitaN do:.	
59	1_Onotsu	T	dz̥i-ro:ja {ʔuttu(:)/ʔuttubo:}nu sabu-ro:tu ɕikkitaN do:.	'ʔuttubo:': 'younger brother'.
59	2_Shitooke	M	dz̥i-ro:ja ʔuttu:nu sabu-ro:tu {ɕikkit'a/ɕikkiti}.	
59	2_Shitooke	K	zi-ro:ja ʔuttu:nu sabu-ro:tu ɕikkitaN.	
59	3_Kamikatetsu	M	dz̥i-ro:ja ʔuttunu sabu-ro:tu ɕittɕit'aN(do:).	
59	3_Kamikatetsu	K	zi-ro:wa ʔuttunu sabu-ro:tu ɕittɕitaN.	
59	3_Kamikatetsu	O	dz̥i-ro:ja ʔuttunu sabu-ro:tu ɕittɕitaN do:.	
59	4_Nakasato	M	dz̥i-ro: ʔuttunu sabu-ro:tu ɕittɕit'a(N).	
59	4_Nakasato	K	dz̥i-ro:ja ʔuttunu sabu-ro:tu ɕittɕiti.	
59	5_Araki	K	dz̥i-ro:ja ʔuttunu sabu-ro:tu ɕittɕiti.	
59	5_Araki	O	zi-ro:ja ʔuttunu sabu-ro:tu ɕittɕitaNdo:.	
60	0_Standard		<i>Sa-bu-roo-wa Ji-roo-ni boo-de nagu-rare-ta.</i> Saburo-TOPIC Jiro-DATIVE stick-INSTRUMENTAL to.hit-PASSIVE-PAST 'Saburo was hit by Jiro with a stick.'	
60	1_Onotsu	M	sabu-ro:ja dz̥i-ro:n̄i bo:zi ʔutattaN(do:).	When directly observed: the emphatic particle 'do:.'; in the case of hearsay: the quotative particle 'tei'.
60	1_Onotsu	K	sabu-ro:ja zi-ro:n̄i bo:zi tatakatti.	
60	1_Onotsu	T	sabu-ro:ja dz̥i-ro:n̄i bo:dz̥i ʔutattaN do:.	
60	1_Onotsu	O	sabu-ro:ja dz̥i-ro:ni {bo:/butto:} dz̥i {ʔutatta/ʔutatti}.	
60	2_Shitooke	M	sabu-ro:ja dz̥i-ro:n̄i {bo:/butto:} dz̥i {ʔutatti/ʔuttakuratti/ʔuttakurattaN}.	
60	2_Shitooke	K	sabu-ro:ja zi-ro:n̄i bo:zi ʔutattaN.	

	Site	Group	Standard Japanese Sentence	Notes
60	3_Kamikatsesu	M	saburo:ja dʒi:ro:e: {bo:/guʒi:}e: ʔutʔatʔaN.	
60	3_Kamikatsesu	K	saburo:wa ziro:{nʲi/eN} bo:seN ʔutattan.	
60	3_Kamikatsesu	O	saburo:{wa/ja} dʒi:ro:ni guʒi:{de/heN/jen} ʔutattan do:.	
60	4_Nakasato	M	saburo:ja dʒi:ro:nʲi butto:dʒi ʔutattan.	Speaker B: also 'ʔuttakuratta'.
60	4_Nakasato	K	saburo:ja dʒi:ro:nʲi butto:zʲi ʔutatti.	
60	5_Araki	K	saburo:ja dʒi:ro:nʲi butto:zʲi ʔutatti.	
60	5_Araki	O	saburo:ja ziro:nʲi butto:zʲi ʔutattaNdo:.	
61	0_Standard		<i>Ji-roo-wa jiisan-ni shika-rare-ta.</i> Jiro-TOPIC grandfather-DATIVE to.scold-PASSIVE-PAST 'Jiro was scolded by his grandfather.'	
61	1_Onotsu	M	dʒi:ro:ja ʔazʲinʲi butirattan(ʔei).	'butirarin': 'to.scold-PASSIVE'.
61	1_Onotsu	K	zʲi:ro:ja ʔazʲinʲi butiratti.	
61	1_Onotsu	O	dʒi:ro:wa ʔadʒi:ni {buteratta/buteratti}.	
61	1_Onotsu	T	dʒi:ro:ja ʔadʒi:nʲi butirattan do:.	
61	2_Shitooke	M	dʒi:ro:ja ʔazʲinʲi {butiratta/butiratti}.	'butirarin': 'to.scold(verbally)-PASSIVE'.
61	2_Shitooke	K	zʲi:ro:ja ʔazʲinʲi butirattan.	
61	3_Kamikatsesu	M	dʒi:ro:ja: ʔazʲi:e: butʲirattan.	
61	3_Kamikatsesu	K	zʲi:ro:wa zʲi:saNnʲi ʔunasattan.	'ʔunasattan': also 'kunasattan'.
61	3_Kamikatsesu	O	dʒi:ro:ja: ʔadʒi:ni kurasattan.	
61	4_Nakasato	M	dʒi:ro:ja ʔazʲi:kara {butirattan/butiratti}.	
61	4_Nakasato	K	dʒi:ro:ja ʔazʲi:nʲi butiratti.	
61	5_Araki	K	dʒi:ro:ja ʔazʲi(:)nʲi butiratti.	
61	5_Araki	O	zʲi:roja {azʲi:kara/azʲi:nʲi} {butirattan/butiratti}.	'zʲi:roja': 'zʲi:ro:ja'?
62	0_Standard		<i>ore-wa kinoo-wa shimbun-o yoma-naka-tta.</i> I-TOPIC yesterday-TOPIC newspaper-ACCUSATIVE to.read-NEGATIVE-PAST 'I did not read the newspaper yesterday.'	
62	1_Onotsu	M	wano: kinʲu:ja ʒinbuNjuba {jumaNtaja/jumaNtaN(do:)}.	'jumaNtaja' connotes that the first person should have read it.
62	1_Onotsu	K	wano: kinʲu:ja ʒinbuNjo:ba jumaNti.	

	Site	Group	Standard Japanese Sentence	Notes
62	1_Onotsu	O	wano: kin'u:ja ɕinbuN jomaNti.	
62	1_Onotsu	T	wano: kin'u:ja {ɕinbuno:/ɕinbuN} jumaNtaN do :.	
62	2_Shitooke	M	wano: kin'u:ja ɕinbuN {juda:ra:/juda:raN/ jumaNti}.	
62	2_Shitooke	K	wano: kin'u:ja ɕinbuN jumaNtaN.	
62	3_Kamikatetsu	M	wano: kiju:ja ɕinbuN miraNt'aNdo:.	Not used in this case: jumaNt'aN 'to.read- NEGATIVE-PAST'.
62	3_Kamikatetsu	K	wanu: su:wa ɕinbuN jumaNtaN.	
62	3_Kamikatetsu	O	wano: tɕiju:ja ɕinbuN jumaNtaN do:.	
62	4_Nakasato	M	wano: tɕin'u:ja ɕinbuN {jumaNta/jumaNti}.	
62	4_Nakasato	K	wano: tɕin'u:ja ɕinbuN jumaNti.	
62	5_Araki	K	wano: tɕin'u:ja {ɕinbuno:/ɕinbuNno:/ɕinbuN} jumaNti (ja:).	
62	5_Araki	O	wano: tɕin'u:ja ɕinbuNno: jumaNtaN do:.	
63	0_Standard		<p><i>sono shimbun-wa kyoo-no-da. kinoo-no-wa kore-da.</i> that newspaper-TOPIC today-GENITIVE-COPULA; yesterday-GENITIVE-TOPIC this-COPULA 'That newspaper is today's. This is yesterday's.'</p>	
63	1_Onotsu	M	ɸuN ɕinbuno: k'ju:(nu) muNɕa. kin'u: muno: ɸuriɕa.	'ʔaŋma:': 'grandmother'.
63	1_Onotsu	K	huN ɕinbuno: k'ju:nu muN. kin'u:nu muno: huri ɕa.	
63	1_Onotsu	O	hunu ɕinbuno k'ju:nu muN ɕa. kin'u:nu muno: huri {ɕa/do:}	
63	1_Onotsu	T	ɸuN ɕinbuno k'ju:nu (muN) {do:/ɕa}. {kin'u:no :/kin'u:nu muno:} ɸuri do:	
63	2_Shitooke	M	ʔuN ɕinbuno: k'ju:nu muNɕaja, kin'u:nu {ɕinbuno:/muno:} ʔuriɕa(ja:).	
63	2_Shitooke	K	ʔuN ɕinbuNja k'ju:nu muN ɕa. kin'u:nu muno: ʔuri ɕa.	
63	3_Kamikatetsu	M	ɸuN ɕinbuno: ɕu:nu {ɕinbuN/muN}do:, kiju:nu {ɕinbuno:/muno:} ɸurido:.	'kiju:' also sounds like 'tɕiju:'.

	Site	Group	Standard Japanese Sentence	Notes
63	3_Kamikatetsu	K	ʔuN ɕiNbuno: su:nu muN ʒa. dʒiʝo:nu muno: ʔuriʒa.	
63	3_Kamikatetsu	O	ʔuN {ɕiNbuNwa/ɕiNbuno:} su:nu muNdo. tɕiʝu: nu muno: ʔuri do:.	
63	4_Nakasato	M	ʔuN ɕiNbuno: su:nuda, kinʝu:nu muno: ʔuriʒa.	
63	4_Nakasato	K	ʔuN ɕiNbuno: su:nu muN do:. tɕinʝu:nu muno: ʔuri do:.	
63	5_Araki	K	ʔuN ɕiNbuNno: su:nu muN (ʒa). tɕinʝu:nu muno: ʔuri ʒa.	
63	5_Araki	O	ʔuN ɕiNbuNno: su:nu muNdo: tɕinʝu:nu muno: ʔuri do:.	
64	0_Standard		<i>ame-no furu hi-ni-wa baasan-wa ie-de terebi-bakari mi-teiru.</i> rain-NOMINATIVE/GENITIVE to.fall day-LOCATIVE-TOPIC grandmother-TOPIC house-LOCATIVE TV-just to.watch-PROGRESSIVE ‘On rainy days, grandmother just watches TV at home.’	
64	1_Onotsu	M	ʔamInu ɸujuNte:, ʔaNmaja ja:ʒi terebibakkai mitɕuNdo:.	
64	1_Onotsu	K	ʔamIŋa hujun pe: ʔaNmaja ja:ʒi terebibe: mitɕui.	
64	1_Onotsu	O	{ʔami/ʔamI/ʔaNme} nu hujun pi:ja ʔaNmaja ja: ɕʒi terebi bakkai mitɕui.	
64	1_Onotsu	T	ʔaminu ɸujuN {pʰi:ja/pʰɛ:/pʰinʝe:} ʔaNma: terebi bɛ: mitɕuN do:.	‘pʰi:(ja)’: also ‘ɸi’.
64	2_Shitooke	M	{ʔamIɸui nʝe:/ʔamInu ɸujuN pinʝe:} ʔaNma:ja {ja:ɕʒi/ja:Nti} terebi {bɛ:/bakkai} mitɕuN.	
64	2_Shitooke	K	ʔamInu hujun {p/ɸ}inʝe: ʔaNmaja ja:ʒi terebibe: mitɕuN.	
64	3_Kamikatetsu	M	ʔaminu ɸurʝuN tʰukinʝe: ʔanʝi:ja ja:e: terebibakkai mirondo:.	
64	3_Kamikatetsu	K	ʔaminu ɸurin ɕi:ja ja:{jɛN/ʒi} terebibakkari miruN.	‘ʔami’ also sounds like ‘ʔamI’. ‘ɸurin’ also sounds like ‘ɸuri:’. ‘miruN’: also ‘miron’.

	Site	Group	Standard Japanese Sentence	Notes
64	3_Kamikatsutsu	O	ʔaminu huɾiN ɕi:ja aNma:ja ja: {de/dʒe:/jeN} terebibakkai miɾoNdo:.	
64	4_Nakasato	M	ʔaminu ɕujuN ɕi:nʲiɕe: ʔani:ja ja:dʒi terebi {be:ri/bakka(r)i} mitʂui.	
64	4_Nakasato	K	ʔaminu hujuN he: {ʔaNma/ʔani:}ja ja:ʒi terebibe: mitʂui.	The 'n' in 'ʔani:' has not undergone palatalization.
64	5_Araki	K	ʔaminu ɕuɾuN he: ʔaNmaja ja:ʒi terebiba:ri mitʂui.	
64	5_Araki	O	ʔamiŋa huɾuN ɕi:ja ʔaNmaja ja:ʒi terebibakkai mitʂuN do:.	
65	0_Standard		<i>oiwai-no toki-ni-wa baasan-made odo-tta.</i> celebration-GENITIVE time-LOCATIVE-TOPIC grandmother-TERMINATIVE to.dance-PAST 'During the celebration, even grandmother danced.'	
65	1_Onotsu	M	juwe:N dukinʲiɕe: ʔaNma:gaɾi ʔudutaNdo:.	
65	1_Onotsu	K	ju:we:nu tukie: ʔaNma:gadi ʔuduti.	
65	1_Onotsu	O	ju:wē:nu {tukini/tuke:} ʔaNmamadi {udutaN/ ʔudutaN} do:.	
65	1_Onotsu	T	ju:we:nu {duke:/dukinʲe:} ʔaNma:gaɾi ʔudutaN do:.	
65	2_Shitooke	M	ju:we:nu tukine: ʔaNma:madi {udutʔaNdo: /udutʲi}.	
65	2_Shitooke	K	juwe:nu tukinʲe: ʔaNma:{madi/gadi} ʔudutaN.	
65	3_Kamikatsutsu	M	ju:we:nu tʰukinʲe: ʔani:madi(mu) ʔudutaNdo:.	
65	3_Kamikatsutsu	K	ju:we:nu dutʂi(:)ja ba:saNmadi ʔudutaN.	
65	3_Kamikatsutsu	O	ju:e:nu dukija ʔaNma:madi udutaNdo:.	
65	4_Nakasato	M	ju:we:nu tukinʲiɕe: ʔani:madi {uduti/udutʔa}.	
65	4_Nakasato	K	ju:we:nu take: ʔani:madi ʔuduti.	The 'n' in 'ʔani:' has not undergone palatalization.
65	5_Araki	K	ju:we(:)nu take: ʔaNma:madi ʔuduti.	
65	5_Araki	O	ju:e:nu tukinʲe: ʔani: madi udutaN do:.	'ani:': 'ani:'?

	Site	Group	Standard Japanese Sentence	Notes
66	0_Standard		<i>Hanako-wa kinoo-kara byooki-de ne-teiru.</i> Hanako-TOPIC yesterday-ABLATIVE illness-INSTRUMENTAL to.sleep-PROGRESSIVE 'Hanako has been ill in bed since yesterday.'	
66	1_Onotsu	M	hanako: kin'ʉ:kara jadi {nittui/nittuNdo:}.	
66	1_Onotsu	K	hanako: kin'ʉ:kara jamaizɪ nittui.	
66	1_Onotsu	O	hanakowa kin'ʉ:kara jadi {nittui/nittuN do:}.	
66	1_Onotsu	T	hanako: kin'ʉ:kara {jadi/jamidʒi} nittuN do:.	'jadi': 'to.be.ill'; 'jamidʒi': 'illness-INSTRUMENTAL'.
66	2_Shitooke	M	hanako: kin'ʉ:kara jadi nittui.	
66	2_Shitooke	K	hanako: kin'ʉ:kara bio:kizɪ nittu{i/N}.	
66	3_Kamikatetsu	M	hanako: kiju:kara jamaɣe: n'ɪnbondo:.	
66	3_Kamikatetsu	K	hanako: su:kara jameN n'ɪnbuN.	'jameN' also sounds like 'jamuN'.
66	3_Kamikatetsu	O	hanako: tɕiju:kara jamai{sen/se:} nɪnbON do:.	
66	4_Nakasato	M	hanako: tɕin'ʉ:kara jadi nittui.	
66	4_Nakasato	K	hanako: tɕin'ʉ:kara jamaizɪ nittui.	The 'n' in 'nittui' has not undergone palatalization.
66	5_Araki	K	hanako: tɕin'ʉ:kara {wanbe:/jami}zɪ nittu{i/N}.	
66	5_Araki	O	hanako: tɕin'ʉ:kara bjo:kizɪ nittuN do:.	
67	0_Standard		<i>Hanako-wa kaasan-ni gohan-o tabe-sasete mora-tta.</i> Hanako-TOPIC mother-DATIVE meal-ACCUSATIVE to.eat-CAUSATIVE to.receive-PAST 'Hanako had her mother feed her meals.'	
67	1_Onotsu	M	hanako: ʔokkanɪ gohanjoba kamatsɪ muratando:.	When only white rice is referred to: 'ʔubanɪ'.
67	1_Onotsu	K	hanako: ʔokkanɪ muNjo:ba kamasatti.	
67	1_Onotsu	O	hanako wa ʔokkani muNjoba {kamasattan/kamatsɪ muratan} do:.	
67	1_Onotsu	T	hanako: ʔokkanɪ muNjo:ba kamasattan do:.	
67	2_Shitooke	M	hanako: ʔokkanɪ muN kamatsɪ {mura:tan/mura:ti}.	
67	2_Shitooke	K	hanako: ʔokka(N)ɪ muNba kamatsɪ mura:tan.	

	Site	Group	Standard Japanese Sentence	Notes
67	3_Kamikatsesu	M	hanako: ʔaŋma:e: muNoba kamaɕe: muratʔando:.	
67	3_Kamikatsesu	K	hanako: {ʔokkaŋni/ka:tɕaŋni/ɛN/ba:ni/ba:(j)ɛN} muN kamasareN murataN.	
67	3_Kamikatsesu	O	hanako: {ʔokka:/ʔokkaN}ni muN{woba/joba} kamasarondo:.	
67	4_Nakasato	M	hanako: ʔokkaŋni muNo(:ba) kamatsɕi {murata(N)/murati}.	
67	4_Nakasato	K	hanako: ʔokkaŋni gohanjo:ba kamatsɕi mura(t)tʔi.	
67	5_Araki	K	hanako:ja ʔokkaŋni ʔuban:i(wo) {kamasatti/kamatsɕi murati}.	
67	5_Araki	O	hanako: ʔaŋman:i muN kamatsɕi murataN do:.	
68	0_Standard		<i>isha-ga kure-ta kusuri-o nome-ba naoru-daroo.</i> doctor-NOMINATIVE to.give-PAST medicine-ACCUSATIVE to.take- CONDITIONAL to.get.well-CONJECTURAL 'You should get well if you take the medicine the doctor gave you.'	
68	1_Onotsu	M	ʔiɕasamaŋa kʔuritanu suijoba numIba no:juddo.	
68	1_Onotsu	K	ʔiɕaŋa kuritanu suiyo:ba numIba no:jufo:.	
68	1_Onotsu	O	ʔiɕaŋa {kuritaN/kuritanu} suijoba numIba no: juN do:.	
68	1_Onotsu	T	ʔisaŋa kuritanu suiyo:ba numēba no:jufo:.	
68	2_Shitooke	M	ʔiɕaŋa kurita{N/nu} kusui numIba no:jufo:.	
68	2_Shitooke	K	ʔisaŋa kuritaN kusui(ba) numIba no:jufo:.	
68	2_Shitooke	O	ʔiɕa{ŋa/nu} kuritaN kusuri numiba: {no:riN/ no:rikkamu} do:	'no:rikkamu do:': 'to.get.well-may.be- EMPHATIC'.
68	3_Kamikatsesu	M	ʔiɕanu kuritaN kuɕurɕe: numiba: no:rikkamu wakaraŋdo:.	
68	3_Kamikatsesu	K	ʔisanu kuritaN kusuri numiba {no:rikkaja:/ no:riro:}.	
68	4_Nakasato	M	ʔiɕaŋa kuritaN kusurio(:ba) numiba: no:jufo:.	
68	4_Nakasato	K	ʔisaŋa kuritaN kusui numiba no:jufo:.	

	Site	Group	Standard Japanese Sentence	Notes
68	5_Araki	K	ʔisaŋa kuritaN kusuriŋo numiba {no:ruN dʒaro:/no:ruŋo: afaŋka (ja:)}.	
68	5_Araki	O	ʔisaŋa kuritaN kusuri numiba: no:ruNdaŋo:.	
69	0_Standard		<i>kaasan-wa itsiba-e kaimono-ni i-tta.</i> mother-TOPIC market-ALLATIVE groceries-DATIVE to.go-PAST 'Mother went to the market to buy some groceries.'	
69	1_Onotsu	M	ʔokkaja {ʔitsiba/miɕija} kai {kaimununi/ho:imuN/ho:nja} ʔizaŋdo:.	'miɕija': 'store'; this is the more archaic of the two expressions.
69	1_Onotsu	K	ʔokkaja miɕijakai muN hoNnɪa ʔizi.	
69	1_Onotsu	O	ʔokkaja miɕikai mu:hoNnɪa ʔidʒaŋ do:.	
69	1_Onotsu	T	ʔokkaja {miɕija/miɕa} kai ho:Nnɪa ʔidʒaŋ do:.	
69	2_Shitooke	M	ʔokkano: ʔitsibakai ho:i muN ɕiNnɪa {ʔizaŋ/ʔizi}.	
69	2_Shitooke	K	ʔokkano: ʔitsibakai ho:imuNnɪ ʔizaŋ.	
69	3_Kamikatetsu	M	ʔaŋma:(ja) itsibaje: ho:imuNkʔatei ʔizaŋdo:.	
69	3_Kamikatetsu	K	ka:teano: miɕijakatei kaimononɪ ʔizaŋ.	
69	3_Kamikatetsu	O	ʔokka:ja waŋkatei muN ho:ija ʔidʒaŋ do:.	'Wan' is used here instead of 'market' because there is a market in the village of Wan.
69	4_Nakasato	M	ʔokkano: ʔitsibagatei {ho:imuN ɕiNnɪa/ho:imuNnɪ} ʔizaŋ.	
69	4_Nakasato	K	ʔokkano: ʔitsibagatei ɕina ho:iNnɪa ʔizi.	
69	5_Araki	K	ʔokkaŋno: {ʔitsiba/miɕija}nɪ muN ho:iNnɪa ʔizi.	
69	5_Araki	O	ʔaŋmaja ʔitsibakanɪ {kaimuNkanɪ/ho:imuN ɕi:nɪa} ʔizaŋ do:.	'ho:imuN ɕi:nɪa': 'groceries to.do-DATIVE'.
70	0_Standard		<i>mitsi-de gakkō-no sensee-ni a-tta.</i> road-LOCATIVE school-GENITIVE teacher-DATIVE to.meet-PAST 'I ran into my school teacher on the street.'	
70	1_Onotsu	M	mitsidʒi gakkō:nu ɕiŋse:nɪ ʔo:taŋdo:.	
70	1_Onotsu	K	mitsizi gakkō:nu seŋse:nɪ ʔo:ti.	
70	1_Onotsu	O	mitsidʒi gakkō:nu ɕiŋse:nɪ {ʔo:taŋ do: {ʔ/'}o:taŋ.}	'ʔo:taŋ': also 'ɸ:taŋ'.
70	1_Onotsu	T	mitsidʒi gakkō:nu ɕiŋse:nɪ ʔo:taŋ do:.	

	Site	Group	Standard Japanese Sentence	Notes
70	2_Shitooke	M	mit _{ɕi} zi gakko:nu ɕinse:nji {ʔo:ti/ʔo:taN}.	'mit _{ɕi} zi' connotates that the first person and the teacher met and spoke on the street.
70	2_Shitooke	K	mit _{ɕi} zi gakko:nu ɕinse:nji {ʔo:taN/ʔo:ti}.	
70	3_Kamikatetsu	M	mit _{ɕe} gakko:nu ɕinse:{tu/e} o:tʔaN(do:).	
70	3_Kamikatetsu	K	mit _{ɕe} gakko:nu ɕinse:tu ʔo:ta.	
70	3_Kamikatetsu	O	mit _{ɕe} gakko:nu ɕinse:tu o:taNdo:.	
70	4_Nakasato	M	mit _{ɕi} zi gakko:nu ɕinse:nji {ʔo:ta(N)/ʔo:ti/ʔa:ta(N)}.	
70	4_Nakasato	K	mit _{ɕi} zi gakko:nu ɕinse:nji ʔo:tʔi.	
70	5_Araki	K	mit _{ɕi} zi gakko:nu ɕinse:nji ʔo:ti.	
70	5_Araki	O	mit _{ɕi} zi gakko:nu ɕinse:nji ʔo:taNdo:.	
71	0_Standard		<i>nani-o ka-oo-ka?</i> what-ACCUSATIVE to.buy-VOLITIONAL-INTERROGATIVE 'What shall I buy?'	
71	1_Onotsu	M	nu:{joba/juba} ho:ro:ka.	
71	1_Onotsu	K	nu:jo:ba ho:ro:ka.	
71	1_Onotsu	O	nu: ho:ro:ka.	
71	1_Onotsu	T	nu:(jo:ba) ho:ro: ka.	
71	2_Shitooke	M	nu: ho:jukkaja:.	
71	2_Shitooke	K	nu: {ho:jukka/ho:(i)kka}.	
71	3_Kamikatetsu	M	{nu:muN/nu:/diru} ho:o:kʔa.	
71	3_Kamikatetsu	K	nu: ho:ka(ja:).	
71	3_Kamikatetsu	O	nu: {ho:ija:/ho:oka(ja:)}.	
71	4_Nakasato	M	nu: ho:jukka.	
71	4_Nakasato	K	nu: ho:oka.	
71	5_Araki	K	nu: ho: o:ka.	
71	5_Araki	O	nu: ho:o:ka.	
72	0_Standard		<i>Kazuko-no-to onaji geta-o Hanako-ni-mo katte-yar-oo.</i> Kazuko-GENITIVE-COMITATIVE the.same geta-ACCUSATIVE Hanako-DATIVE- too to.buy-BENEFACTIVE-VOLITIONAL 'Let me buy the same geta as Kazuko's for Hanako, as well.'	

	Site	Group	Standard Japanese Sentence	Notes
72	1_Onotsu	M	kazuko:tu jiNsa:nu ʔassa: {juba/oba} hanako: n'imu ho:ti kurifo:.	
72	1_Onotsu	K	kazukonutu tʰiʔsu muNnu getajo:ba hanakon'imu ho:ti hurifo:ka.	
72	1_Onotsu	O	kazukonutu ʔinu: {geta/ʔassa:} oba hanakonimo ho:ti kurifo:.	
72	1_Onotsu	T	kazukonutu tʰiʔsu ʔassa:jo:ba hanakon'imu ho:ti {kurifo:/kuriraNba ja:}.	
72	2_Shitooke	M	kazukotu jiN ʔassa:(juba) hanakon'imu ho:ti kurifo:.	
72	2_Shitooke	K	kazuko muNtu jiN muNnu ʔassa:ba hanakon'imu ho:ti kurijuN.	
72	3_Kamikatetsu	M	kazukonu muNtu tʰitumuN assa:(o:ba) hanakoemu ho:e: kuririjo:.	
72	3_Kamikatetsu	K	kazukonu muNtu jiNmuN getao hanakon'imu ho: eN tuʔaso:.	
72	3_Kamikatetsu	O	kadzuotu niNmuNnu ʔassa: hanakojeNmu {ho: okaja/ho:o:ja}.	
72	4_Nakasato	M	{kazukonutu/kazuko assa:tu} {jiN muN/tʰitu ʔassa:} o:ba hanakon'imu ho:ti {tuʔaso:/kurifo:}.	
72	4_Nakasato	K	kazukonu muNtu titu geta(jo:ba) hanakon'imu ho:ti tuʔaso:.	
72	5_Araki	K	kazukonu muNtu tiʔsu muNnu ʔassa hanakon'imu ho:ti kurifo:.	
72	5_Araki	O	kazukonu muNtu ʔonnaʔi ʔassa hanakon'imu ho:ti kurifo:.	
73	0_Standard		<i>Kazuko-to Hanako-wa tomodatsi-da.</i> Kazuko-and Hanako-TOPIC friend-COPULA 'Kazuko and Hanako are friends.'	
73	1_Onotsu	M	kazukotu hanako: duʕiʔa.	'agu' is not used.
73	1_Onotsu	K	kazukotu hanako: duʕi.	
73	1_Onotsu	O	kazukoto hanako: duʕi do:.	
73	1_Onotsu	T	kazukotu hanako: duʕi do:.	
73	2_Shitooke	M	kazukotu hanako: duʕinati (ʔa).	In the past, 'ho:bē:' was also used for 'friend'.

	Site	Group	Standard Japanese Sentence	Notes
73	2_Shitooke	K	kazukotu hanako: ho:bē:.	The sound of ‘ē’ is ambiguous, also sounding like ‘e’.
73	3_Kamikatetsu	M	kazukotu hanako: tʰidduɕido:.	‘tʰidduɕi’: ‘friend of the same age’?
73	3_Kamikatetsu	K	kazukotu hanako: duɕi.	
73	3_Kamikatetsu	O	kadzukotu hanako: duɕi do:(ja).	
73	4_Nakasato	M	kazukotu hanako: duɕintɕa:do:.	
73	4_Nakasato	K	kazukotu hanako: duɕi (do:).	
73	5_Araki	K	kazukotu {hanakojā/hanako:} duɕi do:ja.	
73	5_Araki	O	kazukotu hanako: {duɕintɕa:/duɕi} do:.	
74	0_Standard		<i>Hanako-wa kao-ga kaasan-ni yoku ni-teiru.</i> Hanako-TOPIC face-NOMINATIVE mother-DATIVE well to.resemble-STATIVE ‘Hanako looks a lot like her mother.’	
74	1_Onotsu	M	hanako: tsuraŋa ʔokka:n̄i ju: n̄itsuija:.	
74	1_Onotsu	K	hanako: tsuraŋa ʔokkan̄i ju: n̄itsui.	
74	1_Onotsu	O	hanako: tsʰuraŋa ʔokkan̄i ʔippai n̄itsui.	‘tsʰura’: also ‘tʰura’.
74	1_Onotsu	T	hanako: tsuraŋa ʔokkan̄i ju: n̄itsun do:.	
74	2_Shitooke	M	hanako: tsuraŋa ʔokkan̄i ju: {n̄itsui/n̄itsun}.	
74	2_Shitooke	K	hanako: tsuraŋa ʔokka(n̄)i ju: n̄itsun.	
74	3_Kamikatetsu	M	hanako: ʔanma: {e:/n̄i} tura: tʰitumundo:.	The speaker gave ‘hanakonu tura:...’, so the model sentence was altered.
74	3_Kamikatetsu	K	hanako: tʰuranu ka:tsantu joku n̄ijun.	
74	3_Kamikatetsu	O	hanako: tʰuranu ʔokkan̄e: ju: {ni:jo:ri/ni:o:ri} ja:.	
74	4_Nakasato	M	hanako: tʰuraŋa ʔokkan̄i ju: n̄itsuija:.	
74	4_Nakasato	K	hanako: tʰuraŋa ʔokkan̄i ju: n̄itsui.	
74	5_Araki	K	hanakojā tsuraŋa ʔokkan̄i ju: n̄itsui.	
74	5_Araki	O	hanako: tsuraŋa ʔanman̄i ju n̄itsun do:.	In isolation, ‘tsura’ sounds clearly glottalized: ‘tsʰura’.

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NINJAL Collaborative Research Project Reports 11-01

General Research for the Study and Conservation of Endangered Dialects in Japan

Research Report on the Kikaijima Dialects

First Published: August 15, 2011

English Edition: May 23, 2019

Edited by Nobuko KIBE (NINJAL)

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ISBN:978-4-906055-13-5

ISSN: 2185-0127