

Chapter 2

Phonology

Irabu phonology is characterised by rather complex syllable structures which are dependent on their position in words, gemination and length contrast sensitive to the notion mora, and a non-contrastive and rhythmic tone system where the High tone appears iteratively based on foot structure. Several major phonological rules are effectively described by referring to the underlying and the surface levels of the phonological system. Thus this chapter employs the following symbols for different representational levels:

- Square brackets ‘[]’: phonetic representation
- Slashes ‘/ /’: surface phonemic representation
- Double slashes ‘// //’ underlying phonemic representation (where necessary)

2.1. Segmentation

A frequent reference will be made to the notion ‘word’ in describing both the phonology and the grammar. There are two kinds of word, i.e. grammatical word and phonological word. The grammatical word will be described in Chapter 3 in detail, and it is sufficient here to note the basic definition and terminology of the grammatical word and its related units, i.e. the affix, the clitic and the word-plus (a construction that consists of a word and a whole number of clitics).

2.1.1. Grammatical word

A grammatical word (henceforth simply ‘word’ unless an explicit distinction between a grammatical word and a phonological word is necessary) is an independent unit both in terms of morphology and phonology (See §3.2 for the notions of morphological and phonological dependency). As a morphologically independent unit, a word heads a phrase or functions as a member of a phrase (as a modifier, complement, auxiliary, etc.). A word may be a bare root or may be morphologically complex with compounding and/or affixation.

A clitic is like a word in that it is morphologically independent, occurring as a member of phrase/clause structure. It usually occurs phrase-finally (e.g. a case marker) or clause-finally (e.g. a discourse marker), designating a grammatical feature of the phrase/clause they syntactically attach to. Unlike a word, a clitic is phonologically dependent, always occurring with its host word to which it is phonologically attached.

A word-plus (or *bunsetsu* ‘syntagma’ in traditional Japanese grammar) is a morphosyntactic unit that consists of a word and a whole number of clitics that attach to the host word. A phrase consists of one or more word(-plus)es. Below are illustrative examples of word and word-plus.

- (2–1) a. Word (root)
jarabi
 child
 ‘child’
- b. Word (with affixes)
jarabi-gama-mmi
 child-DIM-PL
 ‘little children’
- c. Word-plus
jarabi-gama-mmi=kara=mai
 child-DIM-PL=from=even
 ‘even from little children’

An affix boundary and a clitic boundary are represented by a hyphen ‘-’ and equal sign ‘=’ respectively. Plus sign ‘+’ represents a root boundary as in compounding and full reduplication (e.g. *biki+jarabi* ‘male child’; *jarabii+jarabi* ‘childish’). A word-plus is the orthographic word throughout this grammar.

2.1.2. Phonological word

A word-plus is in most cases a phonologically coherent unit, or a phonological word in terms of (1) syllable structure, (2) the applicability of phonological rules, and (3) prosody. Note that a word-plus, which consists of one or more morphologically independent units (a word and optionally clitic(s)), corresponds to a single phonological word. This is due to the fact that a clitic is not phonologically independent, and is always attached to the preceding host to constitute a phonological word (§3.2).

Most compound stems are separate phonological words in (1) and (3), and the compound structure will be described in §2.10 after introducing all

these relevant phonological criteria for the phonological wordhood (§2.4, §2.5, §2.7, and §2.9). There are more complex cases where the different phonological criteria yield different phonological word boundaries. That is, certain affixes and clitics are separate phonological words in terms of (1) and (2) but not of (3), and certain phrases may be phonological words in terms of (3) but not of (1) and (2). These specific cases will be noted where necessary.

2.2. Classes of phonemes

Irabu phonemes can be divided into three classes based on their distribution in larger phonological structures and their behaviour in (morpho-)phonological processes: **Consonants**, **Glides**, and **Vowels**.

2.2.1. Consonants

TABLE 2–1 below shows the inventory of consonant phonemes. There are three phonemic places of articulation (labial, alveolar, velar(/glottal)) and three phonemic manners of articulation (stop, fricative, resonant).

TABLE 2–1. Inventory of consonant phonemes

		LABIAL	ALVEOLAR	VELAR/GLOTTAL
STOPS	voiceless	p	t	k
	voiced	b	d	g
Fricatives	voiceless	f	s, c	(h)
	voiced		z	
Resonants	nasal	m	n	
	approximant	v	ʒ	
	tap		r	

Note:

- (A) Stops and fricatives have voice opposition.
- (B) Resonants may be lengthened (e.g. /mna/ [mna] ‘shellfish’ vs. /mmna/ [m:na] ‘all’), and the long consonants are phonemically treated as sequences of the identical consonant segments.
- (C) /c/ [ts] and /z/ [dz] are phonemically classified as fricatives because of their phonotactic and morphophonemic behaviours. See below.
- (D) Resonants may be syllabic. For example, a resonant is syllabic in a special type of syllable, or the presyllable (e.g. /m.ta/ [m̩ta] ‘mud’; see §2.4.1).
- (E) The phonetic symbol [ʒ], the major allophone of /ʒ/, is meant to cover a range of sounds from [z] with less friction to a [z]-like approximant.
- (F) The phoneme /r/ is pronounced as [r] as an open syllable single onset, as in /kuri/ [kuri] ‘this’ (CV.CV), and [ʀ] otherwise (e.g. /urir/ [uriʀ] ‘go down’).