

## Descriptive Units and Categories in Irabu

Shimoji, Michinori  
The Australian National University

<https://hdl.handle.net/2324/7342421>

---

出版情報：思言：東京外国語大学記述言語学論集．4，pp.21-56，2008-11-30．東京外国語大学地域文化  
研究科・外国語学部記述言語学研究室  
バージョン：  
権利関係：



## Descriptive units and categories in Irabu

Michinori Shimoji

(The Australian National University)

Key words: Irabu Ryukyuan, phrase, word, word class, grammatical relations

### 1. Introduction

This paper aims to introduce and define the descriptive units and categories that are relevant in the grammatical description of Irabu, a north-west variety of Miyako Ryukyuan. In §2 phrase structure is overviewed. In §3 the notions word, clitic, and affix are defined. In §4 word classes are defined. In §5 grammatical relations are defined. In §6 three major argument types, i.e. core, extended core, and peripheral arguments, are introduced and defined. In §7 three major word formation processes are described, i.e. affixation, compounding, and reduplication.

### 2. Phrase structure

In this section I introduce two phrase types, a predicate phrase and a nominal phrase. It is necessary to give an overview of these structures here as they are basis for the definition of certain word classes.

#### 2.1. Predicate phrase

A predicate phrase falls into two types as shown in (1) and (2) below. A verbal predicate phrase consists of a verb phrase (VP) and its complement (if required). A nominal predicate phrase consists of a nominal phrase (NP) and a copula verb which is omitted under certain conditions (which will be described in §2.2). In each type of phrase, the relative ordering of the constituents is largely fixed. In addition to the constituents specified here, there may occur a clitic (e.g. focus clitic) that may be attached to a constituent. Also, there may occur a predicate adjunct (i.e. adverb) that modifies a predicate, which is not specified here as it does not constitute a phrase with a predicate.

(1) **Predicate phrase 1: verbal predicate**

(VP complement+) [lexical verb (+auxiliary verb/lexical verb 2)]<sub>VP</sub>

(2) **Predicate phrase 2: nominal predicate**

NP (+copula verb)

### 2.1.1. Verbal predicate

A lexical verb is the only obligatory component, which primarily determines the argument structure of the predicate. Thus the minimal predicate phrase is exemplified as follows, where there is a single lexical verb *ur* ‘exist’ in the predicate phrase.

- (3)     *pžtu=nu=du*             *ur-Ø*.  
          man=NOM=FOC     exist-NPST  
          ‘(There) is a man.’

An auxiliary verb is a verb that functions as an aspect marker or a benefactive marker (‘do for the benefit of’). As indicated in (1) above, this slot is alternatively filled by a verb from a restricted set that retain more semantic content than auxiliary verbs (e.g. directional verbs), or a second lexical verb. That is, Irabu has a Serial-Verb-Construction-like structure (see Aikhenvald 2006 for the cross-linguistic definition of SVC, which excludes the Irabu case as an SVC). Either type of the second verb carries finite inflection in a complex VP (whereas the (first) lexical verb in a complex VP obligatorily carries non-finite inflection). Thus in (4) below, the (a) example contains a simplex VP where the lexical verb *tumitar* ‘looked for’ shows finite inflection (*-tar*, past unmarked), whereas the (b) example contains a complex VP where the same lexical verb inflects for a specific non-finite verb form *tumi-i* (medial verb form), and the auxiliary verb *u-* (progressive) carries the finite inflectional affix *-tar* on behalf of the lexical verb. Likewise in the (c) example the auxiliary verb is a benefactive verb. In the (d) example, the second verb slot is filled by a second lexical verb *t-* ‘come’, which, like an auxiliary, carries finite verb inflection.

- (4)     a.     *tuz=zu=du*             *tumi-tar*.  
          wife=ACC=FOC     look.for-PST  
          ‘(I) looked for a wife.’
- b.     *tuz=zu*             *tumi-i=du*             *u-tar*.  
          wife=ACC             look.for-MED=FOC             PROG-PST  
          ‘(I) was looking for a wife.’
- c.     *tuz=zu*             *tumi-i*             *fii-tar*.  
          wife=ACC             look.for-MED             BEN-PST  
          ‘(I) looking for a wife (for someone’s benefit).’

- d. *tuz=zu*                      *tumi-i=du*                      *t-tar.*  
 wife=ACC                      look.for-MED=FOC                      come-PST  
 ‘(I) brought a wife.’ [lit. (I) looked for a wife and came back (with her).]

A VP complement is required in the following constructions: (a) the light verb construction (as shown in (5) and (6)), where the lexical verb is filled by the light verb (*a*)*sī* ‘do’, (b) the state verb construction (7), where the lexical verb is filled by the state verb *ar* ‘be (in a state)’,<sup>1</sup> and (c) the ‘become’ verb construction (8), where the lexical verb is *nar* ‘become’. In each example, the complement is a derived adverb (§4.5.2).

- (5) *kunur=ra*                      *taka=u=baa*                      *juu*                      *mii=du*                      *sī-Ø.*  
 these.days=TOP    hawk=ACC=TOP    very    looking=FOC    do-NPST  
 ‘These days (I) see hawks many times.’ [lit. these days I do looking at hawks.]
- (6) *pžtu=u*                      *mii+mii*                      *as-i+ur-Ø.*  
 man=ACC                      RED+looking    do-THM+PROG-NPST  
 ‘(He is always) staring at persons.’ [lit. He is always doing staring.]
- (7) *kari=a*                      *taka-fi=du*                      *ar-Ø.*  
 3sg=TOP    tall-AVLZ=FOC    be-NPST  
 ‘He is tall.’ [lit. he is in a tall state.]
- (8) *kari=a*                      *taka-fi=du*                      *nar-tar.*  
 3sg=TOP    tall-AVLZ=FOC    become-PST  
 ‘He became tall.’ [lit. he became in a tall state.]

### 2.1.2 Nominal predicate

A nominal predicate phrase consists of an NP as a predicate head, followed by a copula verb, which is obligatorily absent when certain conditions are met (see below).

<sup>1</sup> The state verb *ar* is distinguished from the copula *ar* on the one hand, and from the existential verb *ar* on the other. There are two major features that distinguish between the three homophonous verb forms: (a) suppletive negation (using the negative verb stem *njaan* rather than a negative suffix *-n*) and (b) animacy constraint (*ar* for inanimate subject, *ur* for animate subject).

	Existential verb	State verb	Copula verb
(a) suppletive negation	+	+	-
(b) animacy constraint	+	-	-

- (9) a. *kari=a sinsii=du a-tar.* b. *kari=a sinsii.*  
 3SG=TOP teacher=FOC COP-PST 3SG=TOP teacher  
 ‘He was a teacher.’ ‘He is a teacher.’

The copula verb is necessary when at least one of the following conditions is met: in past tense (10), when negated (11), when a conjunction clitic follows a predicate NP (12), and when focus is marked on the predicate NP (13) and (14).

- (10) *kari=a sinsii a-tam.*  
 3SG=TOP teacher COP-PST.RLS  
 ‘He was a teacher.’ [past tense]
- (11) *kari=a sinsii ar-a-n.*  
 3SG=TOP teacher COP-NEG-NPST  
 ‘He was a teacher.’ [negation]
- (12) *kari=a sinsii jar-Ø=ruga, jana+pžtu=dooi.*  
 3SG=TOP teacher COP-NPST=but evil+man=EMP  
 ‘He is a teacher, but (he is) evil.’ [conjunction clitic attachment]
- (13) *kari=a sinsii=du ar-Ø=ri.*  
 3SG=TOP teacher=FOC COP-NPST=eh  
 ‘He is a teacher, isn’t he?’ [focus marking on the predicate NP]
- (14) *kari=a sinsii=du jar-Ø.*  
 3SG=TOP teacher=FOC COP-NPST  
 ‘He is a teacher, isn’t he?’ [*jar* is more preferred than *ar*]

The copula verb has an allomorph *jar*, which is obligatorily required when (a) the copula verb appears in a non-main clause and (b) the predicate head NP is not focused, as in (12). On the other hand, *jar* may also appear when the NP is focused in non-past tense in a main clause, as in (14). The tendency here is that if there is no clitic following the copula, as in (14), *jar* is more preferred (cf. (13)).

## 2.2. Nominal phrase

A nominal phrase (NP) is a syntactic constituent that functions as an argument of a verb or a predicate head of a nominal predicate phrase. NP structure is schematised as

(modifier+) head, to which a case clitic is attached to form an extended NP. Thus case is per NP, not per constituent within an NP. Case is obligatory unless it functions as a predicate head. However, there may be case ellipsis in subject and direct object. The modifier slot may be filled by an NP itself in a recursive manner (where the case clitic attaching to the NP is a genitive case clitic), as shown in (15) and (16), or by an adnominal word, as shown in (17). It may also be filled by an adnominal clause, as shown in (18). See also §4.4 for adjectives, which may serve as head of an NP that recursively fills the modifier slot of an NP.

- (15) *vva=ga jaa=n asib-a-di.*  
 2SG=GEN house=ACC play-THM-NPST.INT  
 ‘Let’s play at your house’ [[simplex NP+case]<sub>modifier</sub> + head + case]
- (16) *vva=ga jaa=nu naka=n asib-a-di.*  
 2SG=GEN house=GEN inside=ACC play-THM-NPST.INT  
 ‘Let’s play inside of your house’ [[complex NP +case]<sub>modifier</sub> + head + case]
- (17) *kanu jaa=n asib-a-di.*  
 that house=ACC play-THM-NPST.INT  
 ‘Let’s play at that house’ [[adnm w]<sub>modifier</sub> + head + case]
- (18) *ba=ga agu=nu ur-Ø jaa=n asib-a-di.*  
 1SG=GEN friend=NOM exist-NPST house=DAT play-THM-NPST.INT  
 ‘Let’s play at a house where my friend lives.’ [[adnm c]<sub>modifier</sub> + head + case]

A head is obligatory in principle, but there exists a headless adnominal clause structure.

- (19) *nafi-tar=ra taru=ga?*  
 cry-PST=TOP who=Q  
 ‘Who cried?’ [lit. Who was (the person who) cried?]

### 3. Word, clitic, and affix

#### 3.1. Word

A word is a free form centering on a root. There are no prefixes or proclitics, so that a word always commences with a root. A word and a clitic (chain) constitute a single morphosyntactic unit called *word-plus*, which is the orthographic word in this paper.

A word-plus is in most cases a coherent phonological unit in terms of phonotactics

and prosody. Thus, a word-plus corresponds to a single ‘phonological word’, i.e. a clitic is phonological part of the host word to which it is attached. Prosodically, for example, a word-plus is a single domain of rhythmic alternation of tone features (see Shimoji 2008c. for the notion of rhythmic alternation, and Shimoji and Hayashi 2008 for exceptional cases where a word-plus is not the domain of rhythmic alternation).

The following section is concerned with morphosyntactic criteria for deciding which morpheme is a suffix and which morpheme is an enclitic within a sequence of morphemes beginning with a root.

### 3.2. Affix vs clitic

The useful criteria for distinguishing between affixes and clitics are (a) whether the unit in question can be attached to a bound stem and (b) whether the unit in question is stem-specific.

With respect to (a), since a clitic comes outside of a word in terms of morphology, and since a word is a free form, a clitic cannot be attached to a bound stem. Thus if a putative affix or clitic may attach to a bound stem, it is an affix. By this, most verbal affixes and property concept affixes are identified as such. However, nominal affixes cannot, since a nominal stem is a free form by itself. For example, *ffa* ‘child’ is a free form, and *ffa-mmi* (child-PL) is also a free form. Thus we cannot tell whether the plural *-mmi* is an affix or a clitic if we rely on (a) only. However, *-mmi* turns out to be an affix with criterion (b), as discussed below.

With respect to criterion (b), affixes are clearly stem-specific, mostly occurring with only one type of stem (the exceptions to this will be discussed in §3.3.3 below). Thus we refer to nominal affixes, verbal affixes, property concept stem affixes, etc. For example, the above-mentioned *-mmi* is a nominal affix. On the other hand, clitics occur with at least two phonological hosts, even if their syntactic host is only one type. For example, the case clitic *=u* (accusative) is syntactically attached to an NP only, but without respect to whether the phonological host is a nominal word, as shown in (20), or the verb of an adnominal clause in a headless structure, as shown in (21).

- (20) *kai=ga ssagi asi-tar kutu=u=du cifi-tar.*  
 3SG=NOM bridal do-PST fact=ACC=FOC hear-PST  
 ‘(I) heard the fact that he did a bridal.’

- (21) *kai=ga ssagi asi-tar=ru=du cifi-tar.*  
 3SG=NOM bridal do-PST=ACC=FOC hear-PST  
 ‘(I) heard (the news that) he did a bridal.’

The focus clitic =*du* shows an even freer combinability. As its syntactic host may be an argument NP, an adjunct, a subordinate clause, VP complement, lexical verb of a complex VP, and so on, so its phonological host varies considerably.

- (22) *pav=nu=du*          *juu*          *idi-i*          *t-tar*.  
 snake=NOM=FOC    very          exit-MED    come-PST  
 ‘SNAKES came out very (frequently).’ [syntactic host: subject argument]
- (23) *pav=nu*          *juu=du*          *idi-i*          *t-tar*.  
 snake=NOM    very=FOC          exit-MED    come-PST  
 ‘Snakes came out VERY (FREQUENTLY)’ [syntactic host: predicate adjunct]
- (24) *pav=nu*          *juu*    *idi-i=du*          *t-tar*.  
 snake=NOM    very    exit-MED=FOC    come-PST  
 ‘Snakes CAME OUT very (frequently).’ [syntactic host: lexical verb of a VP]
- (25) *pav=nu*    *idi-i*          *t-ta=iba=du*,          *uturusī-ka-tar*.  
 snake=NOM    exit-MED          come-PST=so=FOC          fearful-VLZ-PST  
 ‘Snakes came out, so (it) was fearful.’ [syntactic host: adverbial clause]

### 3.3. Problematic cases

The above criteria mostly work well to identify a word, an affix, and a clitic in a given string of morphemes. However, there are a few problematic cases, where we encounter ‘clitic-like’ words (i.e. bound words), ‘affix-like’ clitics, and ‘clitic-like’ affixes.

#### 3.3.1. Bound words

Even though most words are free forms, there exist a few bound words, i.e. words that cannot be uttered on their own. In Zwicky’s (1977) terms, these may be called ‘simple clitics’, as opposed to ‘special clitics’ which correspond to our notion of clitic here.

In (26) below, a free word *pžtu* ‘man’ heads an NP consisting of the modifier (adnominal clause) *taja nu ar* and the head *pžtu*. As is illustrated in (27), the head slot filled by *pžtu* may be replaced by a bound word nominal *su(u)* ‘man; thing’, even though *su(u)* cannot stand alone. This form may undergo an assimilation process whereby /s/ turns into /t/.

- (26) *taja=nu*          *ar-Ø*          *pžtu=nu=du*          *masi*.  
 strength=NOM    exist-NPST          man=NOM=FOC          better



‘The man who is strong is better.’

- (27) *taja=nu*      *ar-Ø*      *ruu=nu=du*      *masi*.  
 strength=NOM exist-NPST      man=NOM=FOC      better  
 ‘The man who is strong is better.’

As is illustrated in (28), the light verb designating ‘do’ has two variants, the free word form *asi* and the bound word form *si*. Both fill the lexical verb slot of a VP.

- (28) a. *kair+kair*      *as-i-i=du*      *ur-Ø*.  
 RED+turn.round      do-THM-MED=FOC      PROG-NPST  
 ‘(He) is turning round a lot.’
- b. *kair+kair*      *s-i-i=du*      *ur-Ø*.  
 RED+turn.round      do-THM-MED=FOC      PROG-NPST  
 ‘(He) is turning round a lot.’

A bound word may be derived, as a derived adverb. In (29) below, *ibi* ‘planting’ is a bound word, which is a zero-converted verb stem (§4.5.2) and fills the VP complement slot. Note that it carries a clitic, which indicates that it is a word.

- (29) *buuc=cu=baa*      *mmja*      *ibi=du*      *si-tar*.  
 sugarcane=ACC=TOP INTJ      planting=FOC do-PST  
 ‘(I) have planted sugarcanes.’

### 3.3.2. ‘Affix-like’ clitics

There are ‘affix-like’ clitics, which are specifically conjunction clitics such as *=suga* ‘but’ in (30) below. These can be justified as clitics not by the criterion of the degree of combinability, but only indirectly. Even though the phonological host of a conjunction clitic is a verb only (thus like a verbal affix), the word boundary of a verb can be independently justified by the presence of inflection: in Irabu, inflection makes a verb a free-standing unit, and any bound element that follows an inflected verb (e.g. hearsay *=ca* in (30b)) other than a conjunction clitic is not stem-specific (i.e. it may also attach to a noun, an adjective, as in (30c, d)), thus can be treated as a clitic rather than an affix. For these reasons, the verb *nakiutar* in (30) is a word, and so a conjunction clitic that follows is analysed as a clitic rather than an affix, even though its own property (verb-specific property) makes it rather like an affix.

- (30) a. *ffa=nu      nak-i+u-tar=ruga,      nau=mai      as-irai-ttar.*  
 child=NOM cry-THM+PROG-PST=but what=even do-POT-NEG  
 ‘(My) child was crying, but (I) couldn’t do anything.’
- b. *ffa=nu      nak-i+u-tar=ca*  
 child=NOM cry-THM+PROG-PST=HS  
 ‘(My) child was crying, they say.’
- c. *kari=a      sinsii=ca.*  
 3SG=TOP teacher=HS  
 ‘He is a teacher, they say.’
- d. *kari=a      ukuu+uku=ca.*  
 3SG=TOP RED+big=HS  
 ‘He is big, they say.’

### 3.3.3. ‘Clitic-like’ affixes

There are three ‘clitic-like’ affixes: *-gi* ‘seem’, *-gama* (diminutive), and *-ja* (agent nominaliser). These affixes are not stem-specific, but can be attached to more than one stem types, as summarised below.

TABLE 1. ‘Clitic-like’ affixes and stem types

	Nominal stem	Property concept stem	Verb stem
<i>-gi</i>	-	+	+
<i>-ja</i>	-	+	+
<i>-gama</i>	+	+	-

The affix *-gi* ‘seem’ is primarily attached to a property concept stem such as *pisi-* ‘cold’, *ssu-* ‘white’, and so on, but may also be attached to a verb stem to derive a property concept stem, e.g. *par-gi* ‘seem to leave’, *mii-gi* ‘seem to look’ and so on. The verbal affix *-ja* in most cases attaches to a verb stem but may additionally attach to a property concept stem such as *kagi-* ‘beautiful’ (*kag-ja* ‘beautiful person’). The nominal affix *-gama* is primarily attached to a nominal stem, but may additionally be attached to an adjective (encoding a modest degree, e.g. *ssuu+ssu-gama* ‘whitish’).

Thus in terms of the freedom of combinability, these morphemes are like clitics. However, they are justified as affixes on the following grounds. First, *-gi* is attached to a bound stem. Except for very limited cases where a word is bound, an element that

may be attached to a bound stem is *not* a clitic (and the host of *-gi* cannot be considered a bound word). Thus *-gi* is an affix. The agent nominaliser *-ja* is an affix for the same reason. The diminutive suffix *-gama* may be attached to a free form, since its major host is a nominal stem. However, this affix always precedes other nominal affixes when they co-occur in an affix chain, as in *ffa-gama-mmi* (child-DIM-PL) ‘little children’, not *\*ffa-mmi-gama*. The plural *-mmi* is nominal-specific. Thus, if *-gama* were a clitic, then *ffa=gama-mmi* would be an exceptional ‘endoclititic’ structure. For this reason I treat *-gama* as an affix.

#### 4. Word classes

Irabu has four major word classes, i.e. nominals, verbs, adjectives, and adnominals, of which nominals, verbs, and adjectives are large and open classes. The suggested criteria for word class assignment are listed in (31), which are either syntactic (A-B) or morphological (C-D). The ‘minor word class’ is negatively defined as those parts-of-speech that do not satisfy any of the criteria, and this minor class falls into three subdivisions (adverbs, conjunctions, and interjections). From a given property concept stem (e.g. *taka-* ‘high’, *ssu-* ‘white’, etc.) it is possible to create nominals, verbs, adjectives, and adverbs.

#### (31) Criteria for word class assignment

- (A) Heads an NP
- (B) Directly fills the dependent slot of an NP
- (C) Inflects
- (D) Is a reduplicated form with the input-stem-final phoneme lengthened

**TABLE 2. Word classes: distinctive criteria**

	(A)	(B)	(C)	(D)
Nominal	+	-	-	-
Adnominal	-	+	-	-
Verb	-	-	+	-
Adjective	+	-	-	+
Minor word class	-	-	-	-

##### 4.1. Nominals

A nominal is a word that can only head an NP. There is another word class, or adjective, that may head an NP (§4.4), but a nominal and an adjective may be unambiguously distinguished by the morphological criterion (D), and by the fact that an adjective may

also appear in a VP. Since a nominal exclusively heads an NP, if a nominal is to modify another nominal in an NP, it must first head an NP, which then fills the modifier slot of a larger NP recursively (§2.2).

There are six major subclasses of nominals: nouns, pronouns (personal, demonstrative, reflexive), numerals, interrogatives, indefinites, and non-pronominal demonstratives.

- (32) *jarabi=nu=du*      *nak-i+ur-Ø*.  
 child=NOM=FOC cry-THM+PROG-NPST  
 ‘A child is crying.’ [noun]
- (33) a. *vva=ga=du*      *naugara=ti*      *až-ži+u-tar=ruda*  
 2SG=NOM=FOC something=QT say-THM+PROG-PST=ASR  
 ‘You said something (about it), didn’t you?’ [personal pronoun]
- b. *kari=a*      *mmja,*      *daizina*      *s-sja=dooi*.  
 3SG=TOP INTJ great know-NLZ=EMP  
 ‘He<sup>2</sup> is quite a wise man.’ [demonstrative pronoun: as 3<sup>rd</sup> person form]
- c. *vva=a*      *naa=ga*      *kjavdai=mai*      *s-sai-n=nu?*  
 2SG=TOP RFL=GEN sibling=even know-POT-NEG.NPST=Q  
 ‘Can’t you recognise your siblings?’ [reflexive pronoun]
- (34) *mž-taar=nu*      *pžtu*  
 three-CLF.HUMAN=GEN man  
 ‘Three persons’ [numeral]
- (35) *nau=ju=ga*      *fau-tar=ga?*  
 what=ACC=FOC eat-PST=FOC  
 ‘What (did you) eat?’ [interrogative]
- (36) *taugagara=nu*      *sin-tar=ca*  
 someone=NOM die-PST=HS  
 ‘Someone has died, they say.’ [indefinite]

<sup>2</sup> Pronouns in Irabu are neutral in gender. I gloss either ‘he’ or ‘she’ depending on the context in which the example was uttered. Otherwise, I use ‘he’ as an unmarked choice.

- (37) *kuma=n=du*                      *ur-Ø=dooi*,                      *uja*.  
 this.place=DAT=FOC              exist-NPST=EMP              father  
 ‘(We’re) in this place, daddy.’ [non-pronominal demonstrative: locative]

- (38) *ai=nu*                      *kutu=u=baa*  
 that.way=FOC              thing=ACC=TOP

*ba=a*              *ubui+u-m=mu*.  
 1SG=TOP      remember+PROG-NPST.RLS=FOC  
 ‘I cannot remember things like that.’ [non-pronominal demonstrative: manner]

Note that demonstratives distribute across two nominal subclasses. Furthermore, as noted in §4.2 below, there is a class of demonstratives that belongs to the adnominal word class (adnominal demonstrative).

A compound nominal may consist of a property concept stem + a head nominal. Unlike an ordinary nominal, this type of compound can attract adverbial modification (39a) as well as adnominal modification (39b). Note that in (39a) the adverb is focus-marked, whereas in (39b) the adnominal cannot. This is because an adnominal fills the modifier slot of an NP, and focus marking cannot occur within an NP.

- (39) a. *kunur=ra*              *ati=du*              *pisi+dukja=i*.  
           today=TOP            very=FOC            cold-season=eh  
           ‘These days (we have) a very cold season, isn’t it?’
- b. *kunur=ra*              *daizina*              *pisi+dukja=i*.  
           today=TOP            great              cold-season=eh  
           ‘These days (we have) quite a cold season, isn’t it?’

There is a special sub-type of the above compound structure, or a ‘dummy compound’, in which the head nominal stem is *munu* ‘thing’, which is undergoing a grammaticalisation process whereby its semantic content is becoming less and less substantive (‘thing’ > Ø), becoming a mere structural head. I use the gloss (+thing) to represent this intermediate status of semantic abstraction.

- (40) *kjuu=ja*              *pisi+munu=i*.  
           today=TOP            cold(+thing)=eh  
           ‘Today (it) is cold, isn’t it?’ [rather than ‘today (it) is a cold thing, isn’t it?’]

## 4.2. Adnominals

An adnominal is a word that only serves as modifier of an NP. Thus an adnominal cannot function as an argument or a predicate head of a nominal predicate. And since it does not head an NP, it never carries case when functioning as a modifier of an NP (In the examples below an adnominals is underlined).

- (41) a. unu      *jaa=n=du*      *asuv-tar*.  
           that      house=DAT=FOC    play-PST  
           ‘(I) played at that house.’
- b. daizina    *jarabi=du*      *jar-Ø*.  
           great      child=FOC      COP-NPST  
           ‘(He) is an awesome child.’

The list of adnominals is given below. As seen, the native adnominals are all demonstratives. *daizina* ‘great’ is a recent loan from Japanese (Karimata 2002).

**TABLE 3. Adnominals**

<b>Demonstrative</b>	<i>kunu</i>	‘this’
	<i>unu</i>	‘that (medial)’
	<i>kanu</i>	‘that (distal)’
<b>Japanese loan</b>	<i>daizina</i>	‘great; awful’

## 4.3. Verbs

A verb is a word that inflects. Inflection is marked verb-finally, as in *mii-tam* (look-PST.RLS) ‘looked’ (past realis), *mii-tar* (look-PST) ‘looked’ (past unmarked), and *mii-ri-ba* (look-THM-NPST.INT) ‘since (I) look’ (causal converb).<sup>3</sup> Inflectional categories vary depending on whether a verb is a finite verb (inflecting for tense (and mood)) or a non-finite verb (inflecting for neither). Negative polarity may be inflectional in either type of verb form. See Shimoji (2008a) for more detail.

A verb may be derived from a given property concept stem, with the verbaliser *-ka(r)*. This derived verb (PC verb) carries inflection from the same set of inflectional affixes that is for ordinary verbs. For example, the property concept stem *taka-* ‘high’ turns into a verb stem *taka-ka(r)*, which then carries a verb inflectional affix as shown below (compare it with (43) which illustrates the inflection of the verb stem *kak-*

<sup>3</sup> The gloss THM represents a thematic vowel, which is a stem extender, appearing before a certain set of inflectional affixes (Shimoji 2008a)

‘write’).

- (42) a. *taka-ka-tam*                      b. *taka-ka-tar*                      c. *taka-ka-i-ba*  
           high-VLZ-PST.RLS            high-VLZ-PST                      high-VLZ-THM-CVB.CSL  
           ‘was high’                      ‘was high’                      ‘since (it) was high’
- (43) a. *kafi-tam*                              b. *kafi-tar*                              c. *kak-i-ba*  
           write-PST.RLS                      write-PST                              write-THM-CVB.CSL  
           ‘wrote’                              ‘wrote’                              ‘since (I) write’

#### 4.4. Adjectives

An adjective is a word that is created by the reduplication of a property concept stem where the final phoneme of the input stem is lengthened by one mora. In addition, a few noun stems such as those in (45) can also be input stems of adjectives (Motonaga 1978; Karimata 2002).

	Input stem		Output word
(44)	PC stem	>	Adjective
	<i>taka-</i> ‘high’		<i>takaa+taka</i> ‘high’
	<i>kiban-</i> ‘poor’		<i>kibann+kiban</i> ‘poor’
	<i>pjaa-</i> ‘fast’		<i>pjaaa+pjaa</i> ‘fast’
(45)	Noun stem	>	Adjective
	<i>avva</i> ‘oil’		<i>avvaa+avva</i> ‘oily’
	<i>jarabi</i> ‘child’		<i>jarabii+jarabi</i> ‘childish’

The morphological definition here is iron-clad, i.e. we can identify an adjective without ambiguity by this criterion.

Syntactically, there is no class of adjective phrases. Rather, as shown in TABLE 4, adjectives are ‘parasitic’ on NP structure and on VP structure, able to appear in either.

**TABLE 4. Nominal, verb, and adjective in phrase structure**

	In NP structure	In VP structure
<b>Nominal</b>	+	-
<b>Adjective</b>	+	+
<b>Verb</b>	-	+

In particular, an adjective primarily functions as head of an NP that fills the modifier slot of a larger NP (46a) recursively (see §2.2 for recursiveness). That is, the attributive function is typical. Note that the adjective in (46a) carries genitive case, just as in the case of a nominal word (46b), demonstrating that the adjective heads an NP (rather than directly filling the modifier slot of an NP like an adnominal)

- (46) a. *ujakii+ujaki=nu*    *pžtu=tu*    *kibann+kiban=nu*    *pžtu*  
 RED+rich=GEN    man=ASC    RED+poor=GEN    man  
 ‘A rich man and a poor man’
- b. *irav=nu*    *pžtu=tu*    *pžsara=nu*    *pžtu*  
 Irabu=GEN    man=ASC    Hirara=GEN    man  
 ‘A man from Irabu and a man from Hirara.’

When appearing in a VP, an adjective only fills the slot for lexical verb of a complex VP. Second, the verb that follows the lexical verb must be the progressive auxiliary.

- (47) *hira,*    *kama=a*    *imii+imi=du*    *ur-Ø=ri.*  
 INTJ    that.place=TOP    RED+small=FOC    PROG-NPST=eh  
 ‘You see, that place is small, eh?’ [lit. you see, that place is small-ing.]
- (48) *cinuu=ja*    *cīci=nu*    *akaa+aka=du*    *u-tar=iba...*  
 yesterday=TOP    moon=NOM    RED+bright=FOC    PROG-PST=so  
 ‘Yesterday, the moon was bright, so...’ [lit. yesterday, the moon was bright-ing, so...]
- (49) *kantja=a*    *jarabii+jarabi=du*    *ur-Ø=dara.*  
 3SG=TOP    RED+child=FOC    PROG-NPST=EMP  
 ‘They are childish, you see.’ [lit. they are childish-ing, you see.]

Note that the verb *ur* (or *utar*) here cannot be regarded as the existential verb *ur* ‘(animate subject) exists’: the existential verb *ur* only co-occurs with an animate subject (e.g. *pžtu=nu=du ur* ‘there is a man’, *waa=nu=du ur* ‘there is a pig’, but \**jama=nu=du ur* ‘there is a mountain’), whereas the auxiliary verb *ur* has no such restriction (Shimoji 2006: 91). Examples (47) and (48) then clearly show that the *ur* is an auxiliary, and we can say that the adjective fills the lexical verb slot of a VP.



#### 4.5. Minor word class

The minor word class is a set of words that do not satisfy any of criteria (A) to (D). They do not share any morphological or syntactic features. It is possible to divide this minor word class into several subclasses depending on their syntactic distribution: underived adverbs, derived adverbs, conjunctions, and interjections.

##### 4.5.1. Underived adverbs

An underived adverb is a root word that serves as a predicate adjunct, directly modifying a predicate. There are just a small number of underived adverbs in Irabu, most of which are adverbial quantifiers.

- (50) *cīnuu=ja*                      *saki-gama=u*                      *juu=du*                      *num-tar.*  
 yesterday=TOP                      sake-DIM=ACC                      a.lot=FOC                      drink-PST  
 ‘Yesterday (I) drank sake a lot.’

- (51) *mazimunu-mmi=a*                      *ati*                      *uturusī-ka-i-ba=i...*  
 devil-PL=TOP                      very                      fearful-VLZ-THM-CVB.CSL=eh  
 ‘devils are very fearful, so, you know...’

- (52) *ba=a*                      *mmja*                      *maadaa*                      *s-sai-n=dooi.*  
 1SG=TOP                      INTJ                      not.very                      know-POT-NEG=EMP  
 ‘I don’t know (that) well.’

The table below lists adverb roots that are frequently used in natural discourse. Adverb roots that are suspected to be recent loans from Japanese (e.g. *taigai* ‘normally’ < Japanese *taigai*) are excluded. As is shown, *maada* has its negative form *maadaa*, which can be analysed as *maada* + *=a* (topic marker).

**Table 5. Adverb roots**

Form	Gloss	Related form (if any)
<i>juu</i>	very; frequently	
<i>ati</i>	very	
<i>maada</i>	very	( <i>maadaa</i> ‘not very’)
<i>murtu</i>	almost	
<i>mmja(hi)</i>	more	
<i>aur</i>	only	
<i>sugu</i>	immediately	

### 4.5.2. Derived adverbs

A derived adverb is a word that functions as (a) a predicate adjunct just like an underived adverb, or (b) a VP complement in a verbal predicate phrase (§2.1.1). There are three kinds of word form in this class depending on the stem from which the word is derived: PC adverb, zero-converted verbal stem, and reduplicated verbal stem.

A PC adverb is derived from a property concept stem. It may function either as (a) or (b). As a predicate adjunct, the PC adverb in (53) can be omitted, since it is not part of the predicate phrase. Also, its position may not be contiguous with the predicate. On the other hand, as a VP complement the PC adverbs in (54) cannot be omitted, and is contiguous with the other predicate components.

(53) As a predicate adjunct

<i>taka-fi=du</i>	<i>tuv-tar.</i>
high-AVLZ=FOC	fly-PST
'(He) jumped high'	

(54) As a VP complement

a.	<i>taka-fi=du</i>	<i>a-tar.</i>	b.	<i>taka-fi=du</i>	<i>nar-tar.</i>
	high-AVLZ=FOC	be-NPST		high-AVLZ=FOC	become-PST
	'(He) was (in a ) tall (state).'			'(He) became tall.'	

A zero-converted verbal stem is a bound word, and only serves as (b). The complement-taking verb is the light verb *(a)si* 'do'. The zero conversion takes place to accommodate focus marking on the verb stem. When the focus clitic is attached to a predicate, it must be attached to a VP complement or a lexical verb, and it cannot directly attach to a stem or an affix within a word (by its very nature as a clitic; §3.2). Thus zero conversion takes place to extract a verb stem from a verb word and put it into the VP complement slot (converting the stem into a derived adverb word). The undocked inflection of the original verb (*-tar* below) is attached to the light verb.

(55)	<i>mii-tar.</i>	>	<i>mii=du</i>	<i>si-tar.</i>
	look-PST		look=FOC	do-PST
	VP		VP comp=FOC	VP
	'looked'		'did looking.'	

Reduplicated verbal stems are also derived adverbs, but their syntactic status is somewhat difficult to analyse. It mostly functions as a VP complement, as shown in

(56) below, and can be treated as a derived adverb in this regard. However, in a number of instances they can terminate a sentence (57), encoding habitual aspect, but unlike verbs cannot carry any verb inflection, failing to satisfy the criterion for the verb word class. Thus reduplicated verbal forms seem to be intermediate between verb and derived adverb (VP complement).

- (56) *tu-i+c-ci-i*                      *fau+fau*      *s-i-i*,  
 take-THM+come-THM-MED RED+eat      do-THM-MED  
  
*ai=du*                      *asī-tar*  
 that.way=FOC      do-PST  
 ‘Bringing (the food), eating, (we) would do like that (in those days).’

- (57) *unagaduu=nu*    *tami=tii*                      *asī+asī*.  
 oneself=GEN    benefit=QT                      RED+do  
 ‘(He) would do (i.e. say) “(That’s) our own benefit”.’

#### 4.5.3. Conjunctions

A conjunction is a word that appears clause-initially and marks an inter-clausal relation. In example (58) the two clauses are connected by the conjunctive *ttjaa* ‘then; if so’ which is put at the initial position of the second clause.

- (58) *kuma=a*                      *punici-ka-i-ba*,                      *niv-vai-n=nju*.  
 this.place=TOP      rocky-VLZ-THM-CVB.CSL      sleep-POT-NEG=COR  
 ‘This place is so rocky that I cannot sleep (here).’  
  
*ttjaa* *ba=ga*                      *uma=n=na*                      *niv-va-di*.  
 then 1SG=NOM    that.place=DAT=TOP                      sleep-THM-NPST.INT  
 ‘Then I’ll sleep there.’

TABLE 6 gives a list of conjunction roots. As is shown, *aidu* appears to contain =*du* (focus). However, there is evidence that =*du* is not functioning as a focus marker here: there may occur another focus marker within the same clause, and it would be odd if both were treated as focus markers, since a focus marker appears only once within the same clause. Thus I treat *aidu* as a single conjunction morpheme. Likewise, *assiba* and *assuga* can be decomposed into the light verb *asī* + the conjunction clitic =*siba* ‘so’ and =*suga* ‘but’ respectively. However, I treat them as single morphemes

since the *asi* here does not inflect and cannot take any argument or complement.

**TABLE 6. Conjunction roots**

Form	Gloss	Related form (if any)
<i>aidu</i>	And then,	<i>ai</i> ‘that way’ + = <i>du</i> (focus)
<i>mata</i>	And,	
<i>ttjaa</i>	(If so) then,	
<i>assiba</i>	So,	<i>asi</i> ‘do’ + = <i>siba</i> ‘so’
<i>assuga</i>	But,	<i>asi</i> ‘do’ + = <i>suga</i> ‘but’

#### 4.5.4. Interjections

An interjection is a word that (a) constitutes an utterance by itself, as illustrated in (59), and (b) must be followed by a quotative clitic =*ti(i)* if it is embedded to another clause, as shown in (60).

- (59) *gammja!*      *vva=ru*      *a-tar=ru!?*  
 oh.my.god      2SG=FOC      COP-PST=Q  
 ‘Oh my god! Was (it) you!?’

- (60) *kari=a*      *gammja=tii*      *až-tar=ca.*  
 3SG=TOP      oh.my.god=QT      say-PST=HS  
 ‘S/he said, “Oh my god!”’

Onomatopoeic words are classified as interjections in these two regards.

- (61) *dumma*, *dumma=ti*, *ai=nu*      *utu=u*      *cik-i-i...*  
 ONM      ONM=QT      that.way=GEN      sound=ACC      hear-THM-MED  
 ‘*Dumma! dumma!* Hearing such a sound...’

- (62) *doofi=ti*      *uti-i=i*,      *tooriike=n*      *nar-tar=ca.*  
 ONM=QT drop-MED=eh      tooriike=DAT      become-PST=HS  
 ‘(The ground) collapsed (with the sound like *doofi*), (the collapsed area) became (what we now call) *tooriike*.’

TABLES 7 and 8 list are interjection roots.

**TABLE 7. Interjection roots (non-onomatopoeic)**

Form	Gloss	Related form (if any)
<i>hai</i>	‘Hey!’	
<i>hira</i>	‘You see?’	
<i>ahaa</i>	‘I see...’	
<i>agai</i>	(when surprised; impressed)	<i>agaitandi!</i>
<i>ugui</i>	(when surprised)	
<i>mmja</i>	(when upset; afraid)	<i>mmja</i> (see above)
<i>(a)gammja</i>	(when highly upset; afraid)	
<i>tandi</i>	I’m sorry!	<i>tandi</i> ‘begging’ (nominal root)
<i>tandigaatandi</i>	‘Thank you!’	
<i>ttaaree</i>	‘No way!’	
<i>ugutaajubaa</i>	‘It’s fucked!’	

**TABLE 8. Interjection roots (onomatopoeic)**

Form	Gloss
<i>guffa</i>	sound of stabbing, hitting, etc.
<i>zaffa</i>	sound of falling down
<i>zavva</i>	sound of falling down
<i>dumma</i>	sound of light striking
<i>bamma</i>	sound of severe striking
<i>doofi</i>	sound of collapsing (of building, etc.)
<i>bžžbžž</i>	sound of crying
<i>kjaakjaa</i>	sound of noisy situation
<i>pacipaci</i>	sound of fire burning
<i>putuputu</i>	sound of rain spotting; state of shivering

## 5. Grammatical relations

In this section I define subject, direct object, and indirect object, of which the last category is not a grammatical relation (see below). Irabu lacks cross-reference morphology that would serve as strong evidence for subject and/or direct object relation in many languages. However, as will be shown in the sections below, there are several syntactic tests that allow us to identify these two grammatical relations. On the other hand, as is typical cross-linguistically (cf. Comrie 1981; Payne 1997), the evidence for ‘indirect object’ as a grammatical relation is weak, as it is identified not by a syntactic characteristic but by a semantic role and a morphological case. I will not include it as a grammatical relation.

### 5.1. Subject

The grammatical relation subject is defined as an NP that shows the following two syntactic characteristics.

(A) HONORIFIC CONTROL

(B) REFLEXIVE CONTROL

In terms of (A), only the subject NP triggers honorification (the suffix *-(s)ama* on verb). Thus in (63), the subject NP *sinsii* ‘teacher’ triggers honorification. Likewise, in (64) the honorific controller must be the subject NP *siitummi* ‘students’ even when such an interpretation is pragmatically odd.

- (63) *sinsii=nu*      *siitu-mmi=u=du*      *jurab-i-i*      *ur-ama-r.*  
 teacher=NOM student-PL=ACC=FOC call-THM-MED PROG-HON-NPST  
 ‘The teacher is calling the students.’

- (64) *siitu-mmi=nu*      *sinsii=ju=du*      *jurab-i-i*      *ur-ama-r.*  
 student-PL=NOM teacher=ACC=FOC call-THM-MED PROG-HON-NPST  
 ‘The students are calling the teacher.’

The reflexive controller is also a subject NP. In (65) below, this requires the interpretation (a) rather than (b), even when (a) is absolutely non-sense. This suggests that reflexive control is an abstract and purely syntactic phenomenon, only explainable in terms of the grammatical relation subject.

- (65) *žžkuja=a*      *ujaki+sjuu=kara*      *naa=ga*      *zin=nu=du*      *ž-ži-tar.*  
 beggar=TOP rich+old.man=ABLRFL=GEN money=ACC=FOC get-THM  
 -PST  
 (a) ‘From the rich man, the beggar got his (i.e. the beggar’s) money’  
 \*(b) ‘From the rich man, the beggar got his (i.e. the rich man’s) money’

### 5.2. Direct object

Direct object is a grammatical relation in which the following characteristics cluster:

- (A) PASSIVE SUBJECT: direct object may become subject in a passivised clause.  
 (B) SPECIAL TOPIC MARKING: only a direct object may be marked by a special topic marker *=ba(a)*, as opposed to a general (non-direct-object) topic *=a*.

Direct object is less easy to define than subject, as the availability of criterion (A) is heavily dependent on the transitivity of a verb. For example, in the following transitive clause, the NP *hon* ‘book’ cannot be passivised.<sup>4</sup> However, this nominal satisfies criterion (B), as shown in the example.

- (66) *hon=nu=baa jum-tam. \*hon=na jum-ai-tam.*  
 book=ACC=TOP read-PST.RLS book=TOP read-PASS-PST.RLS  
 ‘(I) read the book.’ [intended] ‘The book was read’

Thus, in Irabu criterion (B) is a more reliable and regularly applicable criterion for direct object. The NP that satisfies criterion (A) always satisfies criterion (B).

### 5.3. Indirect object

There is no syntactic behaviour that justifies the postulation of indirect object as a grammatical relation. Rather, indirect object is defined with case marking and semantic role: indirect object is a dative-marked or allative-marked NP that encodes recipient, goal, or in a causative, causee agent.

- (67) *ukka=u=mai tur-a-da, ui=n fii-tar=ca.*  
 debt=ACC=even take-THM-NEG.MED 3SG=DAT give-PST=HS  
 ‘(He) did not take the debt, but gave (it) to him.’
- (68) *fini=kara=du pžsara=nkai kuruma=u ufii-kutu.*  
 ship=ABL=FOC Hirara=ALL car=ACC send-NPST.OBL  
 ‘(I) am supposed to send a car to Hirara (place name) by ship.’
- (69) *nara=a ah-u-da, pžtu=nkai=du sigutu=u*  
 RFL=TOP do-THM-NEG.MED man=ALL=FOC work=ACC  
  
*as-imi-tar=ca.*  
 do-CAUS-PST=HS  
 ‘(It is said that he) did not do (the work), but told others to do the job.’

<sup>4</sup> With the passive morphology it is possible to derive a malefactive clause (or ‘adversative passive’ clause; Shibatani 1990) from any verb (including an intransitive verb), as this is a valence-increasing operation (adding a malefactive, i.e. the person who suffers from the event described by the verb) and is not concerned with transitivity. Malefactive cannot be used for the criterion of direct object, as the subject in a malefactive does not correspond to a direct object of an underived clause, but encodes a newly introduced role (i.e. malefactive) as in the case of causative. Malefactive and passive are thus distinct voice phenomena, and a distinction should be made. See Shimoji (*in.prep.*) for detail.

## 6. Argument structure

In the layering of the clauses, a distinction is made between core arguments (S/A, O), extended core arguments (or ‘extension to core’; E), and peripheral arguments (cf. Dixon 1994: 122-124; Dixon and Aikhenvald 2000: 3). As Irabu is a nominative-accusative language, it is unnecessary to distinguish between S and A, and I will instead refer to S/A. Core arguments are part of the argument structure of the verb (i.e. are required by the inherent meaning of the verb) and bear a grammatical relation to the verb. Thus core arguments contribute to both semantic and syntactic valences (Payne 1997: 170). Extended core arguments are also part of the argument structure of the verb but do not bear a grammatical relation to the verb (only contributing to semantic valence); peripheral arguments are not part of the argument structure of the verb and do not bear a grammatical relation to the verb.

**TABLE 10. Core, extended core, and peripheral arguments**

	<b>Core</b> <b>S/A, O</b>	<b>Extended core</b> <b>E</b>	<b>Peripheral</b>
<b>Part of the argument structure</b>	+	+	-
<b>Grammatical relation</b>	+	-	-

**TABLE 11. Transitivity and valency**

<b>Transitivity</b>	<b>Argument structure</b>		
Intransitive	S		
Extended intransitive	S		E
Transitive	A	O	
Extended transitive	A	O	E
Syntactic valence	+	+	-
Semantic valence	+	+	+

### 6.1. Core arguments

Typically, nominative case is used for marking a subject NP, and accusative case for marking a direct object NP. However, there are two non-canonical constructions. One is the dative subject construction, as illustrated in (70), and the other is the second accusative construction, as illustrated in (71).



- (70) *vva=n=na pžtu=nkai naa=ga tuz=zu=ba*  
 2SG<sub>i</sub>=DAT=TOP man=ALL RFL<sub>i</sub>=GEN wife=ACC=TOP

*fii-rai-rm=mu?*

‘Can you give others your own wife?’ [dative subject: controlling reflexive]

- (71) *budur=ra mii-Ø, kagi+munu=i, aparagi+munu=i=tii,*  
 dance=ACC2 look-MED beautiful(+thing)=eh beuatiful(+thing)=eh  
 =QT

*uccja=du*

*a-tar.*

that.much=FOC

COP-PST

‘Watching a dance, (I thought like) “(It’s) beautiful”; (it) was like that.’

The dative marking on subject is always triggered by the potential suffix *-(r)ai* on the verb, as shown in (70) above. Alternatively, the subject may be marked by nominative (which is replaced by the topic marker *=a* if it is present):

- (72) *vva=a pžtu=nkai naa=ga tuz=zu=ba*  
 2SG<sub>i</sub>=TOP man=ALL REF<sub>i</sub>=GEN wife=ACC=TOP

*fii-rai-rm=mu?*

give-POT-NPST.RLS=Q

‘Can you give others your own wife?’ [dative subject: controlling reflexive]

The second accusative marking on direct object mostly takes place in clause chaining constructions, as illustrated in (71) above (where the chained clause is marked by the medial verb inflection). The second accusative is a marker of low transitivity, a typological analogue of which is found in non-canonical object marking in so-called Altaic-type languages. See Shimoji (2008b) for a more detail.

## 6.2. Extended core arguments

Extended core arguments may appear both in intransitive and transitive clauses, constituting extended subtypes of each clause. In an extended intransitive clause, the E argument is required by such verbs as *nar* ‘become’, *atar* ‘get hit by’, *av* ‘meet’, *nuur* ‘ride’, etc., of which we will examine the first three below. In an extended transitive clause, the E argument is an indirect object NP. In either clause type, the E argument is dative-marked as an unmarked choice. In an extended transitive clause, however, the E

argument may alternatively be marked by allative, which entails a physical movement of a patient to a recipient/goal.

### 6.2.1. The verb ‘become’

The ‘become’ verb may be intransitive or extended intransitive. As an extended intransitive verb, its syntactically obligatory element is an E argument NP, which is not part of a predicate but an argument of the predicate. As an intransitive verb, its syntactically obligatory element is a VP complement, which is part of a predicate and not an argument of the predicate (see §2.1 for the structure of a verbal predicate).<sup>5</sup>

- (73) *kari=a        sinsii=n=du        nar-tar.*  
 3SG=TOP    teacher=DAT=FOC    become-PST  
 ‘He became a teacher.’ [Extended intransitive containing an E argument]

- (74) *kari=a        aparagi-fi=du        nar-tar.*  
 3SG=TOP    beautiful-AVLZ=FOC    become-PST  
 ‘He became beautiful’ [Intransitive containing a VP complement]

### 6.2.2. The verb ‘get hit by’

The verb *atar* ‘get hit by’ requires two semantic arguments, (a) the one who gets hit and (b) the thing that hits him. The (a) is coded as an S argument, and the (b) as an E argument (underlined).

- (75) *tama=n        atar-i-i,        sìn-i-i        njaa-n.*  
 bullet=DAT    get.hit.by-THM-MED    die-THM-MED    PRF-NPST  
 ‘(He) got hit by a bullet, and has died.’

This dative-marked NP cannot be seen as a direct object, since it cannot be passivised, or cannot be topic-marked by =*ba(a)* (§5.2). If it is topic-marked, it is marked by non-object topic =*a*.

- (76) *tama=n=na        atar-tar=ruga,        sìn-a-ttar.*  
 bullet=DAT=TOP    get.hit.by-PST=but    die-THM-NEG.NPST

<sup>5</sup> The light verb (*a*)*sī* is similar in this regard: it may take an O argument, constructing a transitive clause, or a VP complement, constructing an intransitive clause. Thus *budur=ru=du asī* ‘(I) do a dance’ is a transitive clause where a noun *budur* ‘dance’ is a direct object NP, marked by accusative =*ru*. On the other hand, the light verb construction *budur=du sī* (where the verb root *budur* ‘(to) dance’ is zero-converted to serve as a VP complement) is an intransitive clause.

‘(He) got hit by a bullet, but did not die.’ [topic: contrastive reading]

### 6.2.3. The verb ‘meet’

The verb *av* ‘meet’ requires two semantic arguments, (a) the one who meets someone, and (b) the one who is met by him. The (a) is coded as an S argument, and the (b) as an E argument (underlined).

- (77) *ssjugaci=tii ik-i-i, ujaku-mmi=n av-Ø=dara.*  
 Obon.festival=QT go-THM-MED relative-PL=DAT meet-NPST=CRTN  
 ‘When it comes to the Obon festival, (we) go (to the relatives’ place) and meet the relatives.’

This dative-marked NP cannot be seen as a direct object, since it cannot be passivised, or cannot be topic-marked by *=ba(a)*. If it is topic-marked, then it is marked by non-object topic *=a*.

- (78) *ujaku-mmi=n=na a-a-ttam.*  
 relative-PL=DAT=TOP meet-THM-PST.RLS  
 ‘As for the relatives, (I) didn’t meet (them).’

### 6.3. Indirect object

In an extended transitive clause, the E argument is an indirect object NP, and is marked by dative case as the unmarked choice. However, it may be marked by allative case if the speaker focuses on, or emphasises the fact that the event described involves movement of the patient/theme towards the recipient/goal. The transitive verbs that take an E argument are *fii* ‘give’, *ufii* ‘send’, *nuusir* ‘lift (sth) on (sth)’, and so on, and verbs derived from transitive verbs by morphological causative.

- (79) a. *ba=a kai=n=du zin=nu fii-tar.*  
 1SG=TOP 3SG=DAT=FOC money=ACC give-PST  
 ‘I gave him/her money.’ [unmarked choice: dative marking]
- b. *ba=a kai=nkai=du zin=nu fii-tar.*  
 1SG=TOP 3SG=ALL=FOC money=ACC give-PST  
 ‘I gave him/her money.’ [marked: movement of the theme is emphasised]

- (80) a. *ba=a sinsii=n nengazjoo=ju=du ufii-tar.*  
 1SG=TOP teacher=DAT new.year.card=ACC=FOC send-PST  
 ‘I sent a New Year card to (my) teacher.’ [unmarked choice: dative marking]
- b. *ba=a sinsii=nkai nengazjoo=ju=du ufii-tar.*  
 1SG=TOP teacher=ALL new.year.card=ACC=FOC send-PST  
 ‘I sent a new year card to (my) teacher.’ [marked: movement of the theme is emphasised]
- (81) *ba=a kai=n=du pisir=ru cif-fasi-tar.*  
 1SG=TOP 3SG=DAT=FOC lunch=ACC make-CAUS-PST  
 ‘I made him prepare lunch.’

#### 6.4. Peripheral arguments

Peripheral arguments encode optional roles such as instrument (82), spatial-temporal limit (83), accompaniment (84), spatial-temporal location (85), goal (86), and source (87).

- (82) *kari=a fici=sii icu=u kir-tar.*  
 3SG=TOP mouth=INST thread=ACC cut-PST  
 ‘S/he cut thread with his/her mouth.’ [instrumental]<sup>6</sup>
- (83) *aca=gami ur-i.*  
 tomorrow=LMT exist-THM  
 ‘Stay until tomorrow.’ [limit]
- (84) *agu-mmi=tu asuv-tar.*  
 friend-PL=ASC play-PST  
 ‘(I) played with friends.’ [accompaniment]
- (85) *ba=a uma=n žžu=u cii-tam.*  
 1SG=TOP that.place=DAT fish=ACC catch-PST.RLS  
 ‘I got fish at that place.’ [location]

<sup>6</sup> In Irabu, the instrumental subject construction (e.g. ‘The teeth cut the thread’ or ‘The key opened the door’) is not allowed. Rather, the verbs *kir* ‘cut’ and *akir* ‘open’ require an agent and a patient/theme, which are coded as an A argument and an O argument respectively (in active voice).

- (86) *gakkoo=nkai=du*                      *ifi-tar.*  
 school=ALL=FOC                      go-PST  
 ‘(He) went to school.’ [goal]
- (87) *im=kara*      *sidasī+kazi=nu*      *idi-i*                      *fīi-Ø.*  
 sea=ABL      cool+wind=NOM      come.out-MED                      come-NPST  
 ‘Cool wind comes through from the sea.’ [source]

It is sometimes difficult to draw a clear line between an E argument, which is an NP whose referent is part of the argument structure of the verb, and a peripheral argument, whose referent is not part of the argument structure of the verb, given that this distinction is semantic. For example, the deictic directional verb *ifi* ‘go’ in (86) might be argued to have its goal argument NP as part of the argument structure, and the verb *idir* ‘come out’ in (87) might also be argued to have its source argument NP as part of the argument structure.

What is important here is the fact that E arguments and peripheral arguments are not part of the *syntactic* valence of the verb, and that in terms of *semantic* valence, there is a continuum between prototypical peripheral arguments (such as an instrumental NP (82)) and prototypical core arguments, and along this continuum lie the arguments which are more or less relevant to the event that a verb describes. Among such intermediate cases, I limit the use of the E argument to cases (a) where such a distinction is useful in describing valency (changing) phenomena, *and* (b) where NPs show a homogenous formal property, i.e. dative case.<sup>7</sup>

In terms of (a), a causee agent, for example, is better characterised as an E argument rather than simply as a peripheral argument, as this formulation allows us to generalise that the causative operation is to increase (semantic) valence. On the other hand, there is no advantage in treating the goal role and the source role of deictic verbs as E arguments in describing valency (changing) phenomena. For example, there is no valency changing operation whereby a non-directional verb becomes a directional verb, in the same sense that a non-causative verb becomes a causative verb.

In terms of (b), all kinds of E argument noted in the above sections demonstrate a homogenous formal treatment of E arguments in the Irabu case system (i.e. dative as an unmarked choice), and this indicates that an E argument is a real category, not a mere descriptive facilitator. On the other hand, the goal role or source role of the deictic

<sup>7</sup> This narrow definition of an E argument is cross-linguistically plausible as well. For example, Dixon and Aikhenvald (2000: 3) argue that extended intransitives and extended transitives are greatly outnumbered by plain intransitives and transitives. Also, they generalise that an E argument is dative-marked (if such a case is available).

verbs is not coded homogenously.

## 7. Morphological typology

A word may consist minimally of a root, but may be morphologically complex. There are three major types of processes that produce morphologically complex structures: affixation, compounding and full reduplication.

### 7.1. Affixation

Affixation in Irabu is suffixation. Even though there are a few cases in which a verb appears to contain a prefix-like element, e.g. *pic-* ‘off’ in *pic-cjaŋi* ‘tear apart’ and *pic-ciŋ* ‘pluck away’, the prefix-like element is highly lexicalized and has no productive use. Thus *pic-* above is only observed in the above-mentioned words. Diachronically, such prefix-like elements must have developed from compound stems (e.g. *pic-* can be traced back to a verb stem whose contemporary form is *pžk-*).

On the other hand, there are a few cases in which a compound stem shows prefix-like characteristics, though it is argued that they are stems rather than affixes. For example, *mi-* ‘female’ is always bound and always appears before another stem, thus looks like a prefix only in these regards. However, there is evidence that *mi-* is a compound stem: it is always lengthened to satisfy the minimality constraint (*mi-* + *uttu* ‘younger sibling’ > *mii+uttu* ‘younger sister’).<sup>8</sup> The obligatory lengthening may be observed in a compound stem (Shimoji 2007) but is never found in affixes.

### 7.2. Compounding

Compounding is a morphological process whereby two (or more) roots are connected to form a single word stem. In many cases a compound is made up of two roots, though longer compounds as shown below are also well attested in free texts in my data. Examples (91) to (93) have clause-like syntax in the compound structure, as if it were a structure consisting of an adnominal clause and a head nominal, though, as will be shown in §7.2.2, it is easy to distinguish between a compound word and a phrase.

- (88) *uku+bata+giin+sinsii*  
 big+belly+congress.man+gentleman  
 ‘Mr. big belly congress man’

<sup>8</sup> There is a fossilized compound *mi-* + *-dum* ‘person’ > *mi+dum* ‘woman’. This is not treated as a compound since the second stem is not used in other contexts, i.e. is only used when combining with *mi-* ‘female’ or *biki-* ‘male’. I treat *midum* and *bikidum* as single morphemes.

- (89) *umukutu+nkjaan+banasī*  
 implicational+old.days+talk  
 ‘implicational folktale’
- (90) *agar+patiruma+baka+aza*  
 east+Hateruma+young+big.brother  
 ‘The Brother East Hateruma’ [legendary person]
- (91) *ami+fīī+bammai*  
 rain+falling+dish  
 ‘a special meal for rainy days’
- (92) *juu+fau+busī*  
 dinner+eating+star  
 ‘the star that is observed in evening’
- (93) a. *waa+kurusī+bžž*                      b. *asi+idi+pžtu*  
 pig+killing+day                              sweat+coming.out+man  
 ‘New Year’s Eve’                              ‘person who tends to have a lot of sweat’

### 7.2.1. Structure

The possible patterns for two-root compounds are listed below, where lower case n, v, and pc represent nominal, verb, and PC roots respectively, and the upper case N, V, and PC represent derived nominal, verbal, and PC stems respectively. Of the logically possible nine combinations, two are unattested: pc-v and v-pc. The verb root must be converted into a nominal stem when followed by a nominal root, as is indicated by v > N (see Shimoji 2006 and 2008a for the account of such a morphophonemic process).

(94)	Root 1	Root 2	Stem	Example	Frequency
	n	n	N	<i>midum+vva</i> woman+child ‘daughter’	High
	n	v > N	N	<i>munu+kacī</i> thing+writing ‘writing’	High
	v > N	n	N	<i>pataracī+munu</i> working+man	High

v	v	V	‘hard worker’ <i>jum+pazimi-r</i> read+start-NPST ‘start to read’	High
pc	n	N	<i>aparagi+midum</i> beautiful+woman ‘beautiful woman’	High
n	pc	PC	<i>cimu+daka</i> heart+high ‘difficult (person)’	Low
pc	pc	PC	<i>uku+naga</i> big+long ‘big and long’	Low

### 7.2.2. The word (as opposed to phrasal) status of the compound

There are two kinds of compound: (a) productive compounds and (b) lexicalised compounds. Most compounds are of type (a), with a compositional semantic structure and derived by a highly productive process of word formation. In productive compounds, each stem is in most cases a separate phonological word (an exception is illustrated in (97a), where the first stem is monomoraic and cannot be treated as a phonological word; Shimoji 2007). This type of compound is exemplified in (95) to (97) below. On the other hand, as is illustrated in (98), there are just a few compounds which are lexicalized in meaning and are derived from an unproductive word formation process, and an entire compound behaves as a word in terms of phonology.

- (95) a. *biki+kjavdai*      b. *biki+uttu*      c. *biki+vva*  
male+sibling      male+younger.sibling      male+child  
‘brother’      ‘younger brother’      ‘son’
- (96) a. *uku+pžtu*      b. *uku+jaa*      c. *uku+gan*  
big+man      big+house      big+crab  
‘big man’      ‘big house’      ‘big crab’
- (97) a. *mi+gaa*      b. *siba+gaa*      c. *mim+gaa*  
eye+skin      lip+skin      ear+skin  
‘eye ridge’      ‘skin around lips’      ‘earlap’



- (98) a. *mi+pana*                      b. *irav+ci*                      c. *aka+ccir*  
          eye+nose                      Irabu+mouth                      red+pipe  
          ‘face’                      ‘the Irabu language’                      ‘angry person’

All compounds are distinguished from phrases by two criteria: (a) the potential presence of sequential voicing, and (b) the inability to be intervened by a word.

With respect to (a), sequential voicing is a morphophonemic process whereby a non-initial stem of a compound undergoes the alternation of its initial voiceless onset by the voiced counterpart. In (96c), for example, the stem /gan/ is underlyingly //kan//, which undergoes sequential voicing. This process is not obligatory, as (96a) does not undergo this process (if it were, then we would get \*/uku+bžtu/). Thus sequential voicing can be a sufficient condition for a given constituent being treated as a compound as opposed to phrase, but not a necessary condition.

Criterion (b) is more regularly applicable. A given compound, whether it be a productive or lexicalised one, cannot be broken up by the insertion of another word, whereas a phrase can. To avoid circularity, let us use the adnominal *unu* ‘that (medial)’, which is independently justifiable as a word since it is a free standing unit, and it never carries an affix. Now, if a constituent A+B is an NP, it is possible for an adnominal word to be inserted between A and B, as in:

- (99) *banti=ga      jaa*                      >                      *banti=ga      unu      jaa*  
          1PL=GEN    house                      1PL=GEN    that                      house  
          ‘our house’                      ‘that house of ours’

On the other hand, if A+B constitute a compound, the insertion is disallowed, as in:

- (100) *uku+jaa*                      >                      \**uku- unu -jaa*  
          big+house                      big- that -house  
          ‘big house’                      ‘that big house’ [intended meaning]

Here, if the stem *uku-* ‘big’ is reduplicated to become an adjective (i.e. if the compound is transformed into an NP), the insertion becomes possible, as in:

- (101) *ukuu+uku=nu      unu      jaa*  
          RED+big=GEN    that                      house  
          ‘that big house’

In (93a) we observed the compound *waa+kurusi+bžž* (pig+killing+day) ‘New Year’s Eve’, which shows a clause-like syntax within the compound. Here, the final stem undergoes the sequential voicing (*pžž* > *bžž*), thus it is clearly a compound. Also, no word can intervene between the two boundaries between the three stems. If it is actually turned into a phrase, then the insertion of a word becomes possible (or, the insertion of a word turns it into a phrase):

- (102) a. *waa=ju*      *kurusi-Ø*      *pžž*  
           pig=ACC      kill-NPST      day  
           ‘The day when (one) kills a pig.’ [NOT New Year’s eve]
- b. *waa=ju*      *kurusi-Ø*      *unu*      *pžž*  
           pig=ACC      kill-NPST      that      day  
           ‘That day when (one) kills a pig.’ [NOT New Year’s eve]

Note that *waa* now carries accusative case, as it is a direct object NP, and that the sequential voicing is absent in the final stem *pžž*, which is now a head nominal word of an NP. Also, since it is a phrase, its semantics is compositional, unlike its compound counterpart *waa+kurusi+bžž* ‘New Year’s eve’.

### 7.3. Full reduplication

Reduplication in Irabu is mostly full reduplication. There are just a few examples of partial reduplication: *niv* ‘sleep’ > *ni-niv* ‘snooze’, *maar* ‘around (n)’ > *ma-maar* ‘around (n)’. These attested examples indicate that the partial reduplication targets the stem-initial mora, rather than the stem-initial syllable (*\*niv-niv* or *\*maar-maar*).

There are two major types of full reduplication: property concept stem reduplication, which creates an adjective (103), and verbal reduplication, which creates an adverb (104). These two can be distinguished by the fact that in property concept stem reduplication the final phoneme of the input stem is lengthened by one mora.

#### (103) Property concept stem reduplication

Input stem	Output word
<i>taka-</i>	<i>takaa+taka</i> ‘high’
<i>pjaa-</i>	<i>pjaaa+pjaa</i> ‘fast’
<i>zau-</i>	<i>zaau+zau</i> ‘good’
<i>kiban-</i>	<i>kibann+kiban</i> ‘poor’
<i>mm-</i>	<i>mmm-mm</i> ‘similar’

**(104) Verbal reduplication**

<b>Input stem</b>	<b>Output word</b>
<i>asī-</i> ‘do’	<i>asī+asī</i> ‘do iteratively; do as a custom’
<i>mīi-</i> ‘look’	<i>mīi+mīi</i> ‘stare’
<i>kair-</i> ‘turn round’	<i>kair+kair</i> ‘turn round iteratively’
<i>vv-</i> ‘sell’	<i>vv+vv</i> ‘sell iteratively: sell as a custom’

As shown in (104), the input stem of verbal reduplication is always bimoraic or longer. Thus if a root is monomoraic, it must be augmented to serve as an input. For example, in (104) above, three input stems are derived from monomoraic roots: *sī* ‘do’, *mī-* ‘look’, and *v-* ‘sell’, each of which undergoes augmentation to serve as an input stem of the verbal reduplication above.

**8. Conclusion**

This study has provided the definition of the descriptive units and categories that are considered to be primarily important in the description of Irabu grammar. Thus this study is merely a preliminary description, based on which a more detailed description should be made in future researches.

**Abbreviations**

ABL: ablative	FOC: focus	PL: plural
ACC: accusative	GEN: genitive	POT: potential
ALL: allative	HS: hearsay	PROG: progressive
ASC: associative	INST: instrumental	RED: reduplication
ASR: assertive	INT: intentional	Q: question
AVLZ: adverbializer	INTJ: interjection	QT: quotative
BEN: benefactive	LMT: limitative	RFL: reflexive
CAUS: causative	MED: medial verb	RLS: realis
COP: copula	NEG: negative	SG: singular
CRTN: certainty	NLZ: nominalizer	THM: thematic vowel
CVB: converb	NOM: nominative	TOP: topic
DAT: dative	(N)PST: (non-)past	VLZ: verbalizer
DIM: diminutive	OBL: obligative	
EMP: emphatic	PASS: passive	

### References

- Aikhenvald, Alexandra Y. 2006. Serial verb constructions in typological perspective. In Aikhenvald, Alexandra Y., and R.M.W. Dixon, eds., *Serial verb constructions*, 1-68, Cambridge: CUP.
- Comrie, Bernard. 1981. *Language universals and linguistic typology: syntax and morphology*. Oxford: Blackwell and Chicago: University of Chicago Press.
- Dixon, R.M.W. 1994. *Ergativity*. Cambridge: CUP.
- Dixon, R.M.W., and Alexandra Y. Aikhenvald. 2000. Introduction. In Dixon, R.M.W., and Alexandra Y. Aikhenvald, eds., *Changing valency*, 1-29, Cambridge: CUP.
- Karimata, Shigehisa. 2002. Notes on adjectives in Miyako dialects of the Ryukyuan language. In Karimata, Shigehisa, Toshiko Tsuhako, Shinichi Kajiku, and Shunzoo Takahashi, eds., *Preliminary research on endangered Ryukyuan language*, 44-69, Tokyo: ELPR.
- Motonaga, Moriyasu. 1978. Miyako Hiraahoogen no keiyoosi. In Inoue, Fumio, Koichi Shinozaki, Takashi Kobayashi, and Takuichiroo Oonishi, eds., *Ryuukyuuhoogen koo 7*, 351-359. Tokyo: Yumani Shoboo.
- Payne, Thomas E. 1997. *Describing morphosyntax*. Cambridge: CUP.
- Shibatani, Masayoshi. 1990. *The languages of Japan*. Cambridge: CUP.
- Shimoji, Michinori. 2006. Minami Ryuukyugo Miyako Irabujimahooogen. In Nakayama, Toshihide, and Fuyuki Ebata, eds., *Bunpoo o egaku 1*, 85-117, Tokyo: ILCAA.
- Shimoji, Michinori. 2007. Irabu phonology. *Shigen* 3: 35-83.
- Shimoji, Michinori. 2008a. Irabujimahooogen no dooshikusetsukeitairon. *Ryuukyuu no hoogen* 32: 69-114.
- Shimoji, Michinori. 2008b. Ajiagatafukudooshi no danwakino to keitaitoogoron. In Shibasaki, Reijirou, ed. *Gengobunka no kurosuroodo*, 85-110, Okinawa: Bunshin insatsu.
- Shimoji, Michinori. 2008c. Minami Ryuukyuu Miyako Irabujimahooogen ni okeru foot koozoo. *The proceedings of the 137th Conference of Linguistic Society of Japan*.
- Shimoji, Michinori. *in prep.* A grammar of Irabu, a Southern Ryukyuan language. A PhD thesis in progress at Department of Linguistics, the Australian National University.
- Shimoji, Michinori, and Yuka Hayashi. 2008. Tonal alternation and rhythmic structure in Irabu Ryukyuan. Paper presented at the third Atami Phonology Festa.
- Zwicky, Arnold M. 1977. *On clitics*. Indiana University Linguistic Club.

## 伊良部島方言の文法記述の諸単位

下地理則

(オーストラリア国立大学大学院)

本稿は、南琉球語宮古伊良部島方言の文法記述のための基礎的な研究であり、文法記述の「単位」と「カテゴリー」の定義と記述を行うことを目的とする。本稿で定義・記述する単位とカテゴリーは①句（述語句，名詞句），②語，③品詞，④文法関係（主語，直接目的語，間接目的語），⑤項構造（核項，拡大核項，周辺項），⑥形態プロセス（接辞化，複合，重複）の6つである。