A sketch on the morphosyntax of Kadorih
(Dohoi: Austronesian) *

Kazuya INAGAKI

0 Overview

This paper describes Kadorih morphology and morphosyntax, which have never before been sufficiently documented or analyzed.

Starting with the phonological identification of affix forms and affixation processes (§ 2.1), some complex affixes will be analyzed from a morpho-phonological perspective, resulting in the division of Kadorih morphosyntactic affixes into 4 types (§ 2.2), 1st slot prefix (bV-, hV-), infix (-Vn-), 2nd slot prefix (kV-) and plain prefix (N-, pV-, tV-).

At the end of the preliminary section § 2.3, syntactic transitivity and three clause types in Kadorih will be discussed in order to explore each affixed form morphosyntactically (§ 3).

This paper’s summary in § 4 includes a concise table of the affixes, focusing on each affix type, affix form, transitivity, volition and possible clause type.

1 Introduction

1.1 Background

Kadorih (‘Dohoi’ or ‘Ot Danum’) is spoken in the upper areas of Central Kalimantan, Republic of Indonesia by about 25,000 people according to Gordon (2005).

It is unclear where Kadorih is spoken, however Inagaki (2005b, p. 16) provided some possible areas of Kadorih speakers by summarizing the previous studies of a wordlist (Stokhof, 1986), a comparative study (Hudson, 1967), sociolinguistic reports (Meyers et al. 2003 and Riwut 1993) and language documentation (Santoso et al. 1984 and Taib et al. 1990). (1) shows the village names that have been referred to in these

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* This work was in part supported by Japan Society for the Promotion of Science. I would like to express my gratitude to Kusmawan, Linais, Nemi, Paulus, Simah, Tarisman, Yahudi (Kadorih language consultants); Anne Straub, Lydia Robisch and many local people for their moral support; Matt Berends and Priya Ananth for their pointing out errors in an earlier version of this paper. Needless to say, all the remaining errors and mistakes in this paper are entirely my own.
previous studies.
The genetic affiliation of Kadorih language is assumed to be that in (2).

1. Central Kalimantan, Indonesia

2. A provisional mapping of Kadorih (and Ngaju) in Austronesian languages

Austronesian
Malayo-Polynesian
Barito
West Barito
Northwest Barito
Kadorih (Dohoi)
(Southwest Barito)
Ngaju

Kadorih people speak Ngaju, a prestige language in the upriver regions of Central Kalimantan as their second language (for the genetic affiliation of Ngaju, see (2)). Furthermore, some Kadorih people speak Indonesian as another second language. Therefore, all members of the Kadorih community have acquired more than one language (all of which are Austronesian languages). On the contrary, almost no non-Kadorih people in the region speak Kadorih.

Native speakers of Kadorih use the Kadorih language for communication only among themselves. When Kadorih people speak with non-Kadorih people, they employ Ngaju or Indonesian for communicative purpose. In a religious context (Hindu- Kaharingan [traditional religion] or Christianity), Ngaju or Indonesian are predominant and Kadorih is not used in rituals.

Most loanwords are borrowed from Ngaju (bahandang `red'; cf. Kad. marjan `red (red
pepper)' [archaic]). Recently, however, many words have come from Indonesian via TV.

The morphological/morphosyntactic descriptions in this paper are based on wordlists (about 2500 words), texts (about 1200 sentences) and elicited sentences (about 300 sentences) which were collected by the author in T[umbang] Marikoi (Kahayan: see map in (1) ) during 2005–2006.

1.2 Phonetic and phonological sketches

According to Inagaki (2005b), the phonetics and phonology of Kadorih can be summarized as follows.

PHONETICS

There are three allophonic rules in Kadorih, fronting rule (/C/ → [C/C]: [t, d, n, s, r, t', d', s', k, g, q, y]), prenasalization rule (/D/ → [ND]: [mb, nd, nd', nd', gh, y]), and nonrelease rule (/T/ → [T']: [p, f', k']). Word-final /s/ ([s]) can be approximantized as [c]. Each vowel quality is stable ([i, e, a, o, u]), and each acoustic space is independently distributed in F1–F2 coordinate. Suprasegmental cues, such as loudness, pitch, etc., serve only as boundary markers of words, phrases, etc.

PHONOLOGY

The Kadorih phonemic inventory includes vocalic /i, e, a, o, u/ and consonantal /p, t, k; b, d, g; c, j; s, h; m, n, ng; r, r; (y)/. The distribution of /y; β; d, n; e/ in words is restricted in terms of phoneme frequency. Phonetic diphthongs are predictable from their characteristics: (i) the second element must be a high vowel (i/u), (ii) they must occur in word-final position and (iii) they cannot compose a word by themselves. Inagaki (2005a) recognizes (C)V(C)(C)V(C/V) as the basic well-formed phonological word.

2 Preliminaries

In § 2.1, the forms of the affixes and some affixation processes in Kadorih will be examined phonologically. In § 2.2, affix sequences will be analyzed morphophonologically, after which Kadorih affixes (N-, bV-, hV-, pV-, tV-, kV-, -Vn-) will be classified in terms of their distribution within affixal slots. § 2.3 describes information about transitivity phenomena, three clause types, and a note on volitionality.

2.1 Affixes

This paper will deal mainly with the Kadorih prefixes N-, bV-, hV-, pV-, tV-, kV- and the infix -Vn-. There are other affixes, for example, inflectional suffixes -n ‘(linker)’, -k ‘1st person singular’, -m ‘2nd person singular’, -i/-u ‘3rd person singular’, but these affixes will not be discussed.

Affix forms, base forms and example words derived by combining them are listed in (3). The symbol ‘~’ indicates that the forms on both sides are in free variation.
A sketch on the morphosyntax of Kadorih (Dohoi: Austronesian)

(3)

<table>
<thead>
<tr>
<th>affix</th>
<th>base</th>
<th>→</th>
<th>word</th>
<th>‘word meaning’</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>N-</td>
<td>konih</td>
<td>yonih</td>
<td>‘to listen to’</td>
</tr>
<tr>
<td>b.</td>
<td>bV-</td>
<td>ruhpak</td>
<td>baruhpak ~ boruhpak</td>
<td>‘to blister’</td>
</tr>
<tr>
<td>c.</td>
<td>hV-</td>
<td>sombaŋ</td>
<td>hasombaŋ ~ hosombaŋ</td>
<td>‘to meet’</td>
</tr>
<tr>
<td>d.</td>
<td>pV-</td>
<td>kosak</td>
<td>pakosak ~ pokosak</td>
<td>‘to ripen’</td>
</tr>
<tr>
<td>e.</td>
<td>tV-</td>
<td>tiruh</td>
<td>tatiruh ~ totiruh</td>
<td>‘to fall asleep’</td>
</tr>
<tr>
<td>f.</td>
<td>kV-</td>
<td>duon</td>
<td>kaduon ~ koduon</td>
<td>‘ability’</td>
</tr>
<tr>
<td>g.</td>
<td>-Vn-</td>
<td>sororj</td>
<td>sanororj ~ sonororj</td>
<td>‘to be intruded’</td>
</tr>
<tr>
<td>h.</td>
<td>—</td>
<td>turak</td>
<td>turak</td>
<td>‘to depart’</td>
</tr>
</tbody>
</table>

In (3a), the prefix ‘N-’ is attached to the base ‘konih’, yielding the word yonih ‘to listen to’. Similarly, every affix is attached to the respective base in (3a–g).

Two types of bases should be distinguished in Kadorih with respect to whether or not the relevant base form can occur independently, i.e. there exist free bases and bound bases. For instance, ‘turak’ is a free base since ‘turak’ in (3h) can occur as the independent word turak ‘to depart’ (cf. nurak ‘to push’, {N-}+{turak}). On the other hand, ‘konih’ is a bound base since ‘konih’ in (3a) cannot occur independently.

The derived words in (3b–g) show that the affixes have morphophonemic variants with different vowel quality, a ~ o (represented by ‘V’), and never i/u/e. Using binary features, the phonological specification of ‘V’ would be marked as [—high, —front, ±low], where the value ± of the feature [low] is a variable. *1

\[
\begin{align*}
& \text{IF } x = +, \text{ THEN } V \rightarrow a \\
& \text{IF } x = -, \text{ THEN } V \rightarrow o
\end{align*}
\]

In (3a), the onset of the base /k/ changes to /r/ through the process of ‘N’-affixation. What is involved in this process is the shift of feature values from [—sonorant, —voice, —nasal] to [+sonorant, +voice, +nasal]. The feature [+nasal] in Kadorih phonology entails [+sonorant, +voice]. Thus it is enough for ‘N’ to be specified as [+nasal]. Notice that ‘V’ in (4) is considered to have a skeletal slot (‘X’ in Goldsmith 1976) because it is a full-fledged segment, while ‘N’ in (3a) is not. In short, ‘V’ consists of skeletal slots and features, while ‘N’ consists only of the feature [+nasal]. *2

(5) N: [+nasal] (associated to the feature geometry of the leftmost C within a base)

In (3g), the base sororj can be divided into s- and -ororj since the affix ‘-Vn-’ is placed between the first part and the second part (s-Vn-ororj), hence the process is one of infixation. Here ‘-Vn-’ requires an ‘anchoring point’, that is, a point where it can break

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*1 If the ‘V’ in (3, 4) is assumed to be an epenthetic vowel employed for the sake of avoiding word-initial CC sequences, then the required lexical information for V-including affixes in (3) will only be consonantal ones (i.e. b-, h-, p-, t-, k-, n-).

*2 The autosegmental morpheme N- ([+nasal]-) is similar to the so-called tonal morphemes (“tone may be a morpheme in its own right” Yip, 2002, p. 105).
into a base. The segment which is most likely to yield an anchoring point is the one bearing the features leftmost \([-\text{cons}]\) within the base.

\[
(6) \quad \text{\textbf{-Vn-} } + \left[ \begin{array}{c} X_1 \hspace{1em} \text{[+cons]} \hspace{1em} X_2 \hspace{1em} \text{[-cons]} \end{array} \ldots \right] \text{BASE } \rightarrow \left[ \begin{array}{c} X_1 \hspace{1em} \text{[-cons]} \hspace{1em} X \hspace{1em} \text{[-cons]} \hspace{1em} X_2 \hspace{1em} \text{[-cons]} \end{array} \ldots \right] \text{WORD}
\]

First, the association line between the skeletal slot \(X_1\) which links to the leftmost \([+\text{cons}]\) within a base and the \(X_2\) which links to the leftmost \([-\text{cons}]\) is delinked (=6i). Second, the infix \('\text{-Vn-}'\) locates its skeletal slots (‘X-X’) at this delinked point (=6ii), after which ‘-V’ associates with \(X_1\) (=6iii), and ‘n-’ with \(X_2\) (=6iv).

Along with the process (6), the prosodic structure changes, in other words, the segments are resyllabified as in (7).

(7) Resyllabification following infixing (e.g. so.roj \(-\text{Vn-}\) \(\rightarrow\) so.\text{n.roj})

\[
\sigma \sigma \sigma \sigma \rightarrow \sigma \sigma \sigma \sigma
\]

\[
\begin{array}{ccc}
X_1 & X_2 & X & X & X & X & X & X & X
\end{array}
\rightarrow
\begin{array}{ccc}
X_1 & X & X_2 & X & X_1 & X_2 & X & X & X
\end{array}
\]

s o r o j s V n o r o j

2.2 Affix sequences

There are more complex affixes which consist of two syllables as in (8), different from the one-syllable affixes introduced in (3). Only complex prefixes are examined in the following examples.

(8) affix + base = word ‘word meaning’

- a. bVtV- + sahpou = batasa’hpou ‘to have a roof’
- b. hVkV- + satuk = hakasa’tuk ‘to collide e.o.’
- c. pVkV- + kisuq = pakakisuq ‘higher/highest’
- d. tVpV- + kosak = tapakosak ‘to be cooked unexpectedly’
- e. tVkV- + tonih = takatonih ‘more/most silent’

All bases in (8) are free base forms, as can be seen from (9a–e).

(9) a. sahpou ‘roof’ b. satuk ‘hit’ c. kisuq ‘upper’ d. kosak ‘fruitage’ e. tonih ‘to be silent’

The affixes in (8a–e) can also be used for derivation of other words as in (10a–e).

(10) a. bVtV- : bata-konih ‘to fall on one’s ear’ boto-koni ‘to smile’
- b. hVkV- : haka-poros ‘to harm e.o.’ hoko-hafo’n ‘to hug’
- c. pVkV- : paka-don(i) ‘nearer/nearest’ pokoa-bas ‘stronger/strongest’
- d. tVpV- : taka-diag ‘to be elevated’ topo-darou ‘to be overdone’
- e. tVkV- : taka-poros ‘more/most painful’ taka-mosak ‘more/most furuitful’
Complex prefixes show some phonological characteristics of their own: (i) they include two syllables at the most, i.e. there are no CVCVCV(...)-type prefixes, (ii) they include only open syllables (CV), and (iii) the vowels must be identical in their quality, i.e. there is no CaCo- or CoCa-. *3 These characterizations are true even if N- and -Vn- are taken into account. Thus, the general shape of complex affixes can be formalized as (CV₁)CV₂.

Possible combinations of first and second syllables (‘σ₁’ - ‘σ₂’) for complex affixes are summarized as (11: ‘√’ = exists; ‘*’ = unacceptable; ‘(√)’ = very few, but exists).

(11)

<table>
<thead>
<tr>
<th>‘σ₁’</th>
<th>bV-</th>
<th>hV-</th>
<th>pV-</th>
<th>tV-</th>
<th>kV-</th>
</tr>
</thead>
<tbody>
<tr>
<td>bV-</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>hV-</td>
<td></td>
<td>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pV-</td>
<td></td>
<td></td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tV-</td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>kV-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*</td>
</tr>
</tbody>
</table>

(boko-renaq ‘(eyes) to be opened wide’) (hata-rihkit ‘to be back to back’)

It should be noted that kVCV/CVbV/CVhV syllable sequences in complex prefixes are not permitted. In other words, no kV syllables are possible for ‘σ₁’ position, and no bV/hV are possible for ‘σ₂’. *4

It appears that the complex affixes in (8), (10) bear certain semantic similarities to the simple ones in (3). Both the bV- prefixed words and the bVtV- /bVkV- prefixed words refer to some kinds of static events, hV- and hVkV-/hVtV- to reciprocal ones, and tV- and tVpV- to non-volitional ones. These similarities suggest that the complex affixes bVkV-, hVtV- and tVpV- can be analyzed as consisting of two affixes, bV-kV-, hV-tV- and tV-pV-. Therefore, these complex affixes may not be just syllable sequences but affix sequences. This would justify the representation of ‘σ₁’ and ‘σ₂’ as affix slots (1st and 2nd one respectively).

Considering the respective distributions of syllables in (11) and the analysis of bV-(CV-) and hV-(CV-), it can be assumed that Kadorih morphology imposes certain restrictions on the occurrence of bV-/hV-/kV-, which are described in (12).

(12)  

<table>
<thead>
<tr>
<th>1st slot □ 2nd slot □ base</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. bV and hV: cannot occur at the 2nd slot position</td>
</tr>
<tr>
<td>b. kV : cannot occur at the 1st slot position</td>
</tr>
</tbody>
</table>

*3 Complex affixes also have morphophonemic variants CaCa- ~ CoCo- as examples showed in (3b–g). For instance, boto-konih ‘to fall on one’s ear’ is attested as well as bata-konih in (10a).

*4 kaha-ndo × ‘the second time’, kaha-toru ‘the third time’ (duo ‘two’, toru ‘three’) have been attested and seem to act as two counterexamples. However, the syllable sequences kVCV and CVhV have not been attested in any other examples.
The notion of ‘slot’ in (12) is defined in phonological terms as a syllable. Two affixes can occur simultaneously in the same slot (syllable), for example, the verb *ga-ruhca* ‘to spit on’ has two affixes (*N- + kV-*) in one slot (base: *ruhca* ‘saliva’).

Thus, *bV- and *hV- can be called 1st slot prefix and *kV- 2nd slot prefix. Morphologically, the 1st slot prefixes (*bV-/hV*) and the infix (*-Vn*) cannot have a base as their output.

It is generally accepted that derivational affixes are in positions closer to bases than inflectional affixes. In that respect, *kV- is derivational. In addition, it mainly has bases as output (see § 3.3).

2.3 Transitivity of verbs and three types of clauses

In this section, the anaphoric marker *ah*5 and three types of clauses will be introduced. This paper presupposes the primitive relations *S* (intransitive subject), *A* (transitive subject), and *O* (transitive object) as discussed in Dixon (1994).

The syntactic transitivity and the core argument of verbs can be confirmed by using *ah*.

(13) a. *ihito mahku taŋay tuh =rih*  
1+2 to nail to boat baseplate this ANPH  
‘You and I nail to that boat baseplate’

b. *taŋay tuh=rih, ihito mahku=ah*  
‘That boat baseplate, you and I nail to it’

In (13a), *ihito* ‘you and I’ functions as *A*, *mahku* ‘to nail to’ is the transitive verb, and *taŋay tuh=rih* ‘that boat baseplate’ functions as *O*, i.e. the clause is an *[AVO]* construction. If the *O* argument is placed in the initial position of the clause (=13b: *[O, AV]* construction), *V* must be immediately followed by *ah* which refers to the *O* argument (*taŋay tuh=rih*).

(14) a. *Sanumarā mondui anan*  
PSN to take a bath there

b. *anan, Sanumarā mondui=ah* (OK. anan, Sanumarā mondui)

In (14a), *Sanumarā* functions as *S*, *mondui* ‘to take a bath’ is the intransitive verb and *anan* ‘there’ is an adverb, i.e. the clause is an *[SV ADV]* construction. If the adverb is placed in the initial position of the clause (=14b: *[ADV, SV]*), *V* cannot be followed by *ah*.

(15) a. *Racahaci mohcon aŋŋ rohpou atuh*  
PSN to live PREP house that  
‘Racahaci lives in that house’

b. *aŋŋ rohpou atuh, Racahaci mohcon=ah*  
‘In that house, Racahaci lives’

---

5 *ah* also functions as a possessive marker.

a. *tahtu=ah* ‘his/her grandfather’

b. *buʃu=ah* ‘his/her fish trap’

c. *husuk=ah* ‘its surface’

d. *uhpah=ah* ‘its reward’

*ah* is a kind of an inflectional enclitic whose hosts are words or phrases.

e. *ihito [ mahku negah ]=ah*  
1+2 to nail to to strengthen AH  
‘You and I nail to it and strengthen it’
In (15a), *mohcon* ‘to live’ is a semi-transitive verb, *Racahaci* is the subject and *(aaj) rohpou atuh* ‘(in) that house’ is a prepositionally marked (i.e. oblique) core argument. The base of this semi-transitive verb can be used in passive form when the oblique core argument undergoes relativization (see §3.2). When the oblique core argument is placed in the initial position of the clause (=14b), V can be immediately followed by *ah* which refers to the location expressed by *rohpou atuh*.

If the undergoer or the location is implied in the preceding context, the (semi-) transitive verb (e.g. *mahku, mohcon*) can be followed by *ah*, in which case the relevant argument is elided in the clause (*ihlo mahku=ah* ‘You and I nail to it’, *Racahaci mohcon=ah* ‘Racahaci lives there’). On the other hand, intransitive verbs like *mondui* can never be followed by *ah* (*Sagumag mondui=ah*).

In addition to transitivity, verb properties can also be analyzed in terms of volition. Generally, a verb with an agentive subject is a volitional verb, and, inversely, a verb which cannot take an agentive subject is a non-volitional verb. Volitional verbs can be used in the imperative mood. However, if non-volitional verbs are used in the imperative mood, that usage would be unnatural or, alternatively, would be construed to express the peripheral optative mood. This paper assumes that when a verb can be used in the imperative mood, the verb in question is a volitional one.

The constructions introduced in (13b) and (15b) should be distinguished from undergoer-first constructions like (16b).

(16) a. *pinjan, Afo muhi =ah* [O, AV]
    dish       PSN   to wash AH
‘The dishes, Awo washed them’

b. *pinjan panuh* Afo kai [SV OBL]
    dish       to be washed PSN POST
‘The dishes were washed by Awo’

*pinjan* ‘dish’ in (16a) is moved to the clause-initial position as the O argument, but in (16b) *pinjan* is the S argument. Additionally, a pause can be placed after the O argument, but there is no such pause in the case of (16b).

In this paper, three types of clauses are defined depending on the semantic properties of the clause-initial constituents as follows.

(17) a. ActoR-Initial (ARI): a clause is ARI iff
    the clause-initial constituent refers to the ACTOR of the event

b. ActioN-Initial (ANI): a clause is ANI iff
    the clause-initial constituent refers to the ACTION of the event

c. UndergoeR-Initial (URI): a clause is URI iff
    the clause-initial constituent refers to the UNDERGOER of the event

Examples of ARI clauses are given in (13a), (14a) and (15a). A URI clause is shown in (16b).
The clause illustrated by (18) is an ANI clause.

\[(18)\] panuhi Afo kai *\textsuperscript{6} pinjan

\[\text{to be washed} \quad \text{PSN} \quad \text{POST} \quad \text{dish}\]

‘Washed by Awo, the dishes were’

3 Descriptions

In this section, each affixed form will be described according to the types introduced in § 2.2, i.e. 1st slot prefix / infix / 2nd slot prefix / plain prefix. Each of the affixes is analyzed in terms of transitivity, volition, possible clause type, etc.

3.1 1st slot prefix

\[bV\text{-forms (§ 3.1.1) and } hV\text{-forms (§ 3.1.2) are the forms with 1st slot prefixes.}\]

3.1.1 \[bV\text{-forms}\]

\[bV\text{-forms are used as non-volitional intransitive verbs.}^7 \text{ Anticausative constructions}\]

\[\quad \text{can be made from the } bV\text{-forms. In such constructions, } bV\text{-forms can be used as predicates}\]

\[\quad \text{in URI clauses with the constituent order } [SV].\]

\[\text{NON-VOLITIONAL INTRANSITIVE } bV\text{-forms}\]

All the bases in (19c) are free bases, while those in (19a, 19b) can only be bound bases.

\[(19)\]

\[a. \quad \text{ba-porok } \text{‘to be broken’} \quad (\text{porok } \text{‘broken’})\]

\[\quad \text{ba-posak } \text{‘to be cracked’} \quad (\text{posak } \text{‘crack’})\]

\[\quad \text{ba-tutus } \text{‘to be pierced’} \quad (\text{nutus } \text{‘to pierce’})\]

\[b. \quad \text{ba-dohon } \text{‘to be strong’} \quad (\text{dohon } \text{‘strong’})\]

\[\quad \text{ba-rasut } \text{‘to be hot’} \quad (\text{rasut } \text{‘hotness’})\]

\[\quad \text{ba-romu } \text{‘to be weak’} \quad (\text{ko-romu } \text{‘tolerance’})\]

\[^6\text{Kadorih mainly uses prepositions, but the postposition } kai \text{ may be used for the purpose of}\]

\[\text{marking the actor in ANI/URI clauses.}\]

\[\text{Taba (Austronesian: VO language) mainly uses prepositions, but the postposition } li \text{ ‘LOCATIVE’ exists. This postposition is regarded as a byproduct of a genitive noun phrase}\]

\[\text{(GEN-lalo ‘in the X’)} \quad (\text{Bowden, 2001, p. 145}). \text{ Dom (Papuan: OV language) mainly}\]

\[\text{uses postpositions, but the prepositional particle } \text{‘ere ‘DIRECTION’ exists. This particle}\]

\[\text{is considered to be the first part of a fossilized idiomatic serial verb construction (where the}\]

\[\text{second part is ‘go’ or ‘come’) (Tida, 2006, pp. 66–68).}\]

\[\text{In addition to these ‘special’ adpositions, } kai \text{ might be a secondary diachronic product of}\]

\[\text{a certain construction. However, this is an unresolved problem and needs further research.}\]

\[^7\text{Following Dixon (1999), the terms ‘unaccusative’ and ‘unergative’ are not used in the present}\]

\[\text{paper.}\]

\[\text{[T]he labels ‘unaccusative’ and ‘unergative’ are used for quite different things in}\]

\[\text{languages of opposite types — type A, with non-strict transitivity and consistent S}\]

\[\text{marking, and type B, with strict transitivity and split-S-marking.} \quad (\text{Dixon, 1999, p. 326})\]
c. ba-altoi ‘to have heart’ (altoi ‘heart’)  
ba-baras ‘to be sandy’ (baras ‘sand’)  
ba-doroi ‘to get scalded’ (doroi ‘blisters’)  
ba-duhi ‘to be prickly’ (duhi ‘thorn’)  
ba-henda ‘to be yellow’ (henda ‘turmeric’)  
ba-horaj ‘to be divided’ (horaj ‘boundary’)  
ba-kirap ‘to be lightning’ (kirap ‘lightning’)  
ba-rupak ‘to get blistered’ (rupak ‘blisters’)  
ba-pahkat ‘with friends’ (pahkat ‘friend’)  
ba-sahpou ‘to be roofed’ (sahpou ‘roof’)  

Sentences with non-volitional intransitive verbs are given in (20).

(20) a. tohkon=ku baporok  
       bamboo stick=1SG to be broken  
       ‘My bamboo stick is broken’  

b. kambarl-kamban orih baromu  
       flower-flower DEM to be weak  
       ‘The flowers are weak’

c. rohoup=ku basahpou =ndai  
       house=1SG to be roofed already  
       ‘My house has already been roofed’

**ANTICAUSATIVE bV-forms**

bV-forms can also have the meaning of anticausative verbs. Both mosak ‘to crack (tr.)’ in (21a) and baposak ‘to crack (intr.)’ in (21b) are derived from the same base ‘posak’. While the former is an N-form (N-posak), the latter is a bV-form (bV-posak). The undergoer argument arut Yahudi ‘Yahudi’s boat’ functions as O in (21a), and the corresponding argument functions as S in the anticausative construction (21b).

(21) a. Kasuya mosak arut Yahudi  
       PSN to crack boat PSN  
       ‘Kazuya cracked Yahudi’s boat’

b. arut Yahudi baposak  
       boat PSN to crack  
       ‘Yahudi’s boat cracked’

bV-forms in (19a) are anticausative verbs whose bases are used to derive transitive N-forms (morok ‘to break s.t.’, nutus ‘to pierce s.t.’). Anticausative bV-forms probably share their bases with transitive N-forms.

### 3.1.2 hV-forms

hV-forms are used mainly as volitional intransitive verbs which refer to reciprocal (or cooperative) actions. They can be used as predicates of ARI clauses with the constituent order [S V (OBL)]. In addition, hV-forms may also be used as non-volitional intransitive verbs.
• RECIPROCAL hV-forms

Some bases in (22a) are bound bases, while all bases in (22b) are free bases.

(22) Volitional intransitive hV-forms (reciprocal/cooperative)

a. ha-konih ‘to listen to e.o.’ (konih ‘to listen to’)
   ho-kosono ‘to get acquainted with’ (kosono ‘acquainted’)
   ha-posak ‘to crack s.t. e.o.’ (posak ‘crack’)
   ha-punu ‘to kill e.o.’ (punu ‘to kill’)
   ha-sombaŋ ‘to meet’ (sombaŋ ‘meet’)
   ha-suduk ‘to fight with knife’ (suduk ‘to slash/cut’)
   ha-tapar ‘to fight by slapping’ (tapar ‘to slap’)
   ha-tuhui ‘to quarrel’ (tuhui ‘words’)
   ha-turak ‘to push e.o.’ (turak ‘to depart’)

b. ha-barai ‘to stay (together)’ (barai ‘meeting place’)
   ha-pahkat ‘to go together’ (pahkat ‘friend’)
   ho-pupuy ‘to gather’ (pupuy ‘peak, meeting’)
   ha-tikos ‘to ask a riddle’ (tikos ‘riddle’)

A reciprocal or cooperative participant argument is obligatorily marked by one of the prepositions doro and umba, i.e. the participants of the event can be marked in different ways. doro is used to make a pair of arguments as NP (23a: [NP N doro N]). umba is used to mark an argument as in (23b: oblique PP [PP umba N]). Reciprocal hV-forms are used as predicates of ARI clauses with the constituent order [S V (OBL)].

(23) a. [Ikiy doro Ij3an] haporas
   PSN PREP PSN to harm e.o.
   ‘Iking, with Iwan, harmed each other’

b. [ahku] hokosono [umba pageran koik]
   1SG to get acquainted PREP prince small
   ‘I met a little prince’

In the following example, arut ‘boat’ in (24a) and royo ‘arm’ in (24b) seem to be the O arguments of the respective clauses.

(24) a. Kusmañan doro Tarisman haposas arut
   PSN PREP PSN to crack s.t. e.o. boat
   ‘Kusmawan, with Tarisman, cracked the opponent’s boat e.o.’

b. Herman haturak royo umba Kasuya
   PSN to push s.t. e.o. arm PREP PSN
   ‘Herman pushed e.o.’s arm with Kazuya’

However, arut and royo show different properties from those of regular O arguments. Consider the following elicited ungrammatical examples.

(25) a. *arut, Kusmañan doro Tarisman haposas =ah
b. *Kusma jan doro Tarisman haposak arut. *arut = rh ...

c. *Herman haturak royo = ah umba Kasuya

d. *Herman haturak rogo tuh umba Kasuya

(25a) shows that O-like nouns after an hV-form (here, arut) cannot move to clause-initial position. This fact contradicts the mobility of O arguments in other clauses (cf. 13b).

In (25b), there are two sentences, namely [Kusma jan ... arut.] and the succeeding [arut = rh ...]. arut = rh ‘that boat’ in the second sentence is ungrammatical because its intended usage is as a reference to ‘the boat’ in the reciprocal event. Nevertheless, this kind of reference is possible for O arguments in other clauses (for example, 13a: ihto mahku taason tuh = rh. taason = rh ...).

(25c) and (25d) show that O-like nouns after an hV-form (here, royo) cannot be modified by either the possessive marker ah (see fn. *5) or the demonstrative tuh. O arguments in other clauses can be freely modified by ah (cf. 40b) or tuh (cf. 13a), if necessary.

This paper assumes that an O-like element is incorporated into the co-occurring hV-form, and that they together constitute one verb. *8 This assumption means that all hV-forms are used as intransitive verbs and therefore ha-posak and ha-turak in (24a, 24b) are intransitive verbs as ha-posak and ho-kosono in (23a, 23b).

NON-VOLITIONAL INTRANSITIVE hV-forms

Like bV-forms, hV-forms can be used as non-volitional intransitive verbs. Notice that hV-forms can never be interpreted as anticausative verbs (cf. bV-form: 21b).

(26) Non-volitional intransitive hV-forms: 
- ha-baras ‘to be sandy’ (baras ‘sand’)
- ha-duhi ‘to be prickly’ (duhi ‘thorn’)

(27) Non-volitional intransitive bV-forms: 
- ba-baras ‘to be sandy’ (baras ‘sand’)
- ba-duhi ‘to be prickly’ (duhi ‘thorn’)

Some speakers view habaras, haduhi in (26) as native words, and babaras, baduhi in (27) as analogical (or calque) forms of words in Ngaju (bapasir ‘to be sandy’).

3.2 Infix -Vn-forms

-Vn-forms are used as non-volitional intransitive verbs, and more specifically as passive verbs. They can be used as predicates of URI clauses with the constituent order [S V OBL] or of an ANI clause with the constituent order [V OBL S].

*8 'There is an idiomatic expression, haturak rihkut ‘to start e.o.’s journey from one departure point simultaneously for different destinations’, whose meaning cannot be derived from its constituents (haturak ‘to push e.o.’ and rihkut ‘back’).
PASSIVE -Vn-forms

All the bases in (28a) are free bases while some bases in (28c) are bound bases. *9 Some complex -Vn-forms as seen in (28d) have been found. *10

(28) a. p-an-ahkat ‘(s.o.) to be taken’ (pahkat ‘friend’)  
    s-an-ahpou ‘(s.t.) to be roofed’ (sahpou ‘roof’)  
  b. p-an-ohcon ‘to be inhabited’ (pohcon ‘something left behind’)  
  c. k-an-itot ‘to be delivered’ (jitot ‘to deliver’)  
    p-an-uhi ‘to be washed’ (puhi ‘used (water)’)  
    s-an-oror3 ‘to be intruded’ (noror3 ‘to intrude into’)  
  d. k-on-oruhca ‘to be spat on’ (ko-ruhca ‘spitting’)  
    p-an-akosak ‘to be cooked/ripen’ (pa-kosak ‘to cook/ripen’)  

Both muhi ‘to wash’ in (29a) and panuhi ‘to be washed’ in (29b, 29c) are derived from the same base puhi. *11 While the former is a N-form (N-puhi), the latter is a -Vn-form (p-Vn-uhi). The undergoer argument pijnan functions as O in (29a), and the corresponding argument functions as S in the passive construction (29b). In addition, the actor argument Abō functions as A in (29a), while the corresponding argument functions as OBL that is expressed by a postpositional phrase in (29b).

(29) a. Abō muhi pijnan  
    PSN to wash dish  
    ‘Awo washed the dishes’  
  b. pijnan panuhi Abō kai  
    ‘The dishes were washed by Awo’  
  c. panuhi Abō kai pijnan  
    ‘Washed by Awo, were the dishes’

(29b) shows a URI clause with the constituent order [S V OBL], while (29c) shows an ANI clause with the constituent order [V OBL S].

Postpositionally marked actor arguments (e.g. 29b: Abō kai) cannot be used in anticausative constructions due to the fact that anticausative constructions, by definition, cannot imply the existence of an actor.

Possible constituent orders within passive constructions are [S V OBL] and [V OBL S]. Any other options are unacceptable, as is seen from the following elicited ungrammatical examples.

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A sketch on the morphosyntax of Kadorih (Dohoi: Austronesian)

(30) a. *[Aj3o kai] [pinjan] [panuhi] (*[OBL S V])
b. *[Aj3o kai] [panuhi] [pinjan] (*[OBL V S])
c. *[pinjan] [Aj3o kai] [panuhi] (*[S OBL V])
d. *[panuhi] [pinjan] [Aj3o kai] (*[V S OBL])

It is clear from these observations that only the order [V-OBL] is permitted. The examples (30a), (30b) and (30c) reveal that the order [OBL-V] is unacceptable, and (30d) shows that [V-OBL] cannot be separated by the S argument. Thus, actor arguments in -Vn-form clauses are restricted to postverbal positions. This description holds true not only for passive constructions, but also for non-ARI clauses of other prefixed forms, namely ANI clauses of pV-forms (§ 3.4.2: 42b) and of tV-forms (§ 3.4.3: 49b, 51c), and URI clause of tV-forms (§ 3.4.3: 51b).

As shown in (28b), pohcon, the base of the semi-transitive verb mohcon ‘to live’, can be passivized as panohcon ‘to be inhabited’. In (31a), there is an oblique core argument aan pranet ‘on the planet’ with mohcon. This oblique argument is relativized in (31b).

(31) a. karunon mohcon aan pranet [NP,REL V OBL]
    human to live PREP planet
    ‘Human beings live on the planet’
b. pranet ijo panohcon karunon [NP,REL V NP,REL]
    planet REL to be inhabited human
    ‘The planet which is inhabited by human beings’

3.3 2nd slot prefix  kV-forms

kV-forms are the forms with 2nd slot prefixes. They form abstract nouns or function as bases for further affixation. Most kV-forms are non-predicative.

(32) lists examples of abstract nouns. The bases of these nouns are all free bases. kV-forms in (32a) and (32b) are derived by attaching kV- and k- respectively. *12

(32) a. ka-bahat ‘weight’ (bahat ‘heavy’)
    ka-biou ‘youth’ (biou ‘young’)
    ka-koik ‘smallness’ (koik ‘small’)
    ka-hajo ‘size’ (hajo ‘big’)
    ka-kahpan ‘slenderness’ (kahpan ‘thick’)
    ka-satah ‘tilt’ (satah ‘tilted’)
    ka-tahi ‘length (time)’ (tahi ‘long (time)’)
b. k-aro ‘abundance’ (aro ‘many/much’)
    k-isuq ‘height’ (isuq ‘high’)
    k-ombu ‘length (space)’ (ombu ‘long (space)’)

*12 The examples (32b) motivate the systematic analysis in which V is regarded as an inserted vowel as mentioned in f.n. *1.
KV-forms and k-forms in (33) function as bases to which the prefix N- is attached. (33a) and (33b) show KV-forms and k-forms respectively.

(33) a. i. [N]-ka-pios → gapios ‘to improve’ (pios ‘good’)
   [N]-ka-rasut → qarasut ‘to warm up’ (rasut ‘hotness’)
   ii. [N]-ko-roboq → qoroboq ‘to bury’ (roboq ‘grave’)
   [N]-ka-ruhca → qaruca ‘to spit on’ (ruhca ‘saliva’)

   b. [N]-k-anak → qanak ‘to have a child’ (anak ‘child’)
   [N]-k-ihay → qihay ‘to dry in the sun’ (ihay ‘sun-dried thing’)
   [N]-k-okcin → qohcin ‘to fish’ (ohcin ‘fish’)
   [N]-k-oruh → qoruh ‘to take a wife’ (oruh ‘wife’)
   [N]-k-uhpak → quhpak ‘to peel’ (uhpak ‘skin’)
   [N]-k-umo → qumo ‘to farm’ (umo ‘rice field’)

In (34), there are KV-forms derived from free bases with voiced stop onsets. When these KV-forms function as bases for the derivation of N-forms, their onsets can be replaced or preceded by nasal consonants.

(34) [N]-ka-beseu → qameseu ~ qambeseu ‘to paddle’ (beseu ‘oar’)
[N]-ka-buβu → qamubuu ~ qambuu ‘to use a fish trap’ (buβu ‘fish trap’)
[N]-ka-duhi → qanduhi ‘to smooth away thorns’ (duhi ‘thorn’)
[N]-ka-bohkon → qomohkon ‘to differentiate’ (bohkon ‘different’)

Notice that, for example, kabahat and kabiou in (32a) also have voiced stop onsets within their bases, but they cannot become *kamahat/*kambahat or *kamiou/*kambiou. This fact suggests that the alternations in question are triggered by N-affixation as in (34), that is, the voiced stop onsets of the bases can be replaced or preceded nasal consonants only when the prefix N- is attached to the relevant derived KV-forms. Thus, N- is considered to be a kind of floating feature morpheme ‘[+nasal]-’ which can affect non-adjacent segments beyond the syllable kV.

3.4 Plain prefix

N-forms (§ 3.4.1), pV-forms (§ 3.4.2) and tV-forms (§ 3.4.3) are the forms with plain prefixes.

3.4.1 N-forms

N-forms can be intransitive or transitive verbs. They can be used as predicates of ARI clauses with the constituent order [SV] or [AVO].
A sketch on the morphosyntax of Kadorih (Dohoi: Austronesian)

■ INTRANSITIVE N-forms

N-forms can be volitional or non-volitional intransitive verbs. The examples in (35a) are volitional verbs, while those in (35b) are non-volitional ones.

(35) a. **mondui** ‘to take a bath’  (pondui ‘bathing’)
   **naaq** ‘to fly’  (taaq ‘fly(ing)’)
   **naran** ‘to walk’  (jalan ‘road’)
   b. **mahtoi** ‘to die’  (pahtoi ‘death’)
   **nondu** ‘to crow (cock)’  (tondu ‘crowing voice’)
   **notut** ‘to fart’  (kotut ‘fart’)

Example sentences including some of the above (non-)volitional intransitive verbs are given in (36).

(36) a. **Sagumag** **mondui** **anan**
   PSN to take a bath there
   ‘Sangumang took a bath there’
   b. **io** **mahtoi** **aaq** **rohpou** **amai** **Busun**
   3SG to die PREP house father PSN
   ‘He died in the house of Amai Busun’

■ TRANSITIVE N-forms

N-forms can be volitional transitive verbs. These transitive N-forms can be divided into two groups based on the semantic role of the O argument. In (37a), the O argument in each relevant event refers to its goal point, while (37b), the O arguments refer to the patient objects.

(37) a. forms requiring goal O arguments:
   **mahku** ‘to nail to’  (pahku ‘nail’)
   **masap** ‘to visit’  (pasap ‘visit’)
   **mutah** ‘to answer s.o.’  (putah ‘answer’)
   **gisok** ‘to question s.o.’  (kisok ‘questioning’)
   b. forms requiring patient O arguments:
   **munu** ‘to kill’  (hapunu ‘to kill e.o.’)
   **norok** ‘to chop’  (torok ‘chopping’)
   **notok** ‘to cut off’  (totok ‘cut’)
   **nofog** ‘to cut down’  (tofog ‘cutting down’)

Example sentences with these transitive verbs are given in (38). In (38a), the ‘questioning’ event **gisok** ‘to question s.o.’ is addressed to the goal **arop=mu** ‘yourself’. On the other hand, the addressee **ihko** ‘you’ is marked by the preposition **unba** in (38b), and therefore **gisok** in this example is a semi-transitive verb without an O argument. In (38c), the ‘chopping’ event **norok** ‘to chop’ affects the patient **sondak barai atuh** ‘that big squash’.

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(38) a. *ihko gisok arop =mu*  
2SG to question s.o. self =2SG  
‘You may question yourself’

b. *iroh eam puji gisok umba ihko*  
3PL NEG AUX to question s.o. PREP 2SG  
‘They will never question you’

c. *ihko norok sondak barai atuh*  
2SG to chop squash big one that  
‘You chop that big squash’

3.4.2  $pV$-forms

$pV$-forms can be causative verbs or nouns. Causative $pV$-forms are used as volitional transitive verbs. They can be used as predicates of $ARI$ clauses with the constituent order [AVO (OBL)] or of $ANI$ clauses with [V OBL NP] order. Nominal $pV$-forms denote abstract concepts or ‘habitual-activity-doers’.

CAUSATIVE $pV$-forms

(39a) and (39b) show transitive $pV$-forms and ditransitive $pV$-forms respectively.

(39) a. *pa-kosak ‘to cook/ripen’ (kosa-kosak ‘bearing full fruit’)*  
*po-taar7 ‘to cause s.t. to fly’ (taar7 fly(ing))  
pa-tonih ‘to silence’ (tonih ‘to be silent’)  

b. *pa-kinjam ‘to lend’ (ginjam ‘to borrow’)  
pa-konih ‘to cause s.o. to listen to’ (yonih ‘to listen to’)  
pa-tohto ‘to show’ (tohto ‘(nice) looking’)

$tonih$ in (40a) is a free base and $patonih$ in (40b) is a derived $pV$-form of that base. The $S$ argument $anak=ah$ ‘his/her child’ in (40a) functions as $O$ in (40b). A new causer argument $Junaidii$ which functions as $A$ is added in (40b).

(40) a. *anak =ah tonih*  
child AH to be silent  
‘His/her child was quiet’

b. *Junaidii patonih anak =ah*  
‘Junaidii made his child be quiet’

Both $yonih$ ‘to listen to’ in (41a) and $pakonih$ ‘to cause s.o. to listen to’ in (41b) are derived from the same bound base $konih$. The former is an $N$-form ($N$-konih), the latter is a $pV$-form ($pV$-konih). The $A$ argument $Tarisman$ and the $O$ argument $karimoj $Uhko$ in (41a) function as $O$ and OBL respectively in (41b). A new causer argument $Yahudi$ which functions as $A$ is added in (41b).
A sketch on the morphosyntax of Kadorih (Dohoi: Austronesian)

(41) a. Tarisman  rlonih karimoi Uhko
    PSN to listen to story PSN
    ‘Tarisman listened to the Uhko Story’

b. Yahudi  pakonih Tarisman unba karimoi Uhko
    ‘Yahudi made Tarisman listen to the Uhko Story’

It should be noted that grammatical relations in a clause with a pV-form predicate depend on which clause type (ARI/ANI) is present. (42a) shows that the actor argument ahku ‘I’ functions as A in ARI clauses, while in ANI clauses (=42b) the corresponding argument, though the form is reduced to ku, functions as OBL (ku kai). The undergoer argument puti ‘banana’ functions as O in ARI clauses (=42a), but the function of the corresponding argument in (42b) is different. The grammatical role of puti in (42b) cannot be determined in this case (it is represented as NPur). There are no hints as to whether puti functions as the subject or the object in (42b).

(42) a. ahku pakosak puti
    1SG to ripen banana
    ‘I ripened the banana’

b. pakosak ku kai puti
    to ripen 1SG POST banana
    ‘I ripened, the banana’

In clauses with ditransitive pV-forms, at least one of the two non-causer arguments must be marked by a preposition. In the following examples featuring a ‘showing’ event, the causee argument Botan is obligatorily marked by ahkan (43a), while this marking is optional in (43b). The theme argument sarañar =ah ‘his/her trousers’ is unmarked in (43a), however, it must be marked by umba in (43b).

(43) a. If3an patohto sarañar =ah ahkan Botan
    PSN to show trousers AH PREP PSN
    ‘Iwan showed his trousers to Botan’

b. If3an patohto (ahkan) Botan umba sarañar =ah
    ‘Iwan showed Botan his (Iwan’s) trousers’

In clauses with ditransitive pV-forms, only theme arguments are referred to by ah, as in the case of sarañar tuh ‘this trousers’ in (44a). Goal arguments can be referred to only by pronouns such as io ‘him/her/it’ as in (44c).

(44) a. sarañar tuh, If3an patohto =ah ahkan Botan
    ‘This trousers, Iwan showed it to Botan’

b. *Botan orih, If3an patohto =ah umba sarañar =ah
    (*Botan, Iwan showed him his trousers; orih ‘REF’)  

c. Botan orih, If3an patohto io umba sarañar =ah
    ‘Botan, Iwan showed him his trousers’ (io ‘3SG’)
In (44a), *saraʃar tuh* behaves as a regular O argument in a clause initial position, which is referred to by *ah*, but in (44b) the goal argument *Botan orih* does not. Like *saraʃar=ah* in (43a), a postverbal undergoer argument is unmarked if its semantic role is theme, while such an argument can be marked by prepositions if its semantic role is to represent a goal (e.g. 43b: *ahkan Botan*). The prepositionally marked goal argument can also be seen in (§ 3.4.1: 38b; *jisok uma ʃar* ‘to question you’).

**NOMINAL pV-forms**

Most nominal pV-forms contain N-forms as in (45a) with a few exceptions as seen in (45b).

(45) a. 1. abstract concepts
   
   *pa-mahku* ‘nailing’ (*mahku* ‘to nail to’)
   
   *pa-ŋomo* ‘sense’ (*ŋomo* ‘to feel’)
   
   *pa-ʃuman* ‘meal’ (*ʃuman* ‘to eat s.t.’)

   2. ‘habitual-activity-doer’
   
   *pa-ʃander* ‘chatty person’ (*ʃander* ‘to say s.t.’)
   
   *pa-ʃiŋlo* ‘coward’ (*ʃiŋlo* ‘to be afraid’)
   
   *pa-ʃoros* ‘ill person’ (*ʃoros* ‘to suffer from’)
   
   *pa-ʃoniŋ* ‘person of few words’ (*ʃoniŋ* ‘to take into heart’)
   
   *pa-ʃaruhca* ‘spitter’ (*ʃaruhca* ‘to spit on’)
   
   *pa-ʃamuʃu* ‘fish trap user’ (*ʃamuʃu* ‘to use fish trap’)
   
   *pa-ʃuno* ‘farmer’ (*ʃuno* ‘to farm’)

   b. *pa-homboh* ‘passenger’ (*homboh* ‘together’)
   
   *pa-rombut* ‘arrival’ (*rombut* ‘to come’)

**3.4.3 tV-forms**

tV-forms are used as non-volitional verbs. tV-N-forms have a passive meaning, while tV-forms without an N-form have a spontaneous meaning.

**SPONTANEOUS tV-forms**

Spontaneous tV-forms are used as non-volitional intransitive/transitive verbs. They can be used as predicates of ARI clauses with the constituent order [SV] or [AVO], and as predicates of ANI clauses with [V OBL NPur] order. (46) lists examples of intransitive verbs, and example sentences including some of them are given in (47).

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*13 A regular O argument in Kadorih is a non-oblique core argument, that is, it is not marked by adpositions. It functions as S when its predicate is passivized, and is referred to by *ah* when it is in a clause initial position.

*14 (Shibatani, 1985, p. 827) defines ‘spontaneous occurrence’ as ‘an event that automatically occurs, or a state that spontaneously obtains without the intervention of an agent’.
A sketch on the morphosyntax of Kadorih (Dohoi: Austronesian)

(46) ta-baras 'to get sand' (baras 'sand')
ta-diag 'to rise' (diag 'above')
ta-kariq 'to be sprawled on one’s back' (kariq 'to lie down')
ta-poros '(body) to hurt' (poros 'ill/ache')
ta-tiruh 'to fall asleep' (tiruh 'to sleep')

(47) io turus takariq turus tairuh
3SG then to be sprawled then to fall asleep
‘He was then sprawled, then fell asleep’

Examples of transitive $tV$-forms are given in (48).

(48) ta-konih 'to hear' (nonih 'to listen to')
ta-ruhca 'to spit on uncauciously' (ruhca 'saliva')
ta-tonih 'to be silent for' (tonih 'to be silent')

The actor argument (here a ‘perceiver’) Kusmafan functions as A in (49a), and the corresponding argument functions as OBL in (49b). The undergoer (here a ‘stimulus’) argument auh orih ‘the voice’ functions as O in (49a), and corresponds to the final $NP_{UR}$ in (49b).

(49) a. Kusmafan takonih auh orih
   PSN to hear voice REF
   ‘Kusmafan heard the voice’

b. takonih Kusmafan kai auh orih
   ‘Kusmafan heard, the voice’

The grammatical relations in $tV$-form clauses depend on the clause type as in the case of $pV$-form clauses in (§ 3.4.2: 42).

■ PASSIVE $tV$-$N$-forms

$tV$-$N$-forms are used as passive verbs, or in other words, non-volitional intransitive verbs. They can be used as predicates of URI clauses with the constituent order [SV (OBL)] and as predicates of ANI clauses with [V OBL S] order. It is not obvious whether $tVn$-forms in (50b) are derived from $tV$-$N$- and $t/-$initial bases, or from infix -$Vn$- and $t/-$initial bases. The contrast between $tV$-$N$- and -$Vn$- is lost when $tV$- or -$Vn$- is attached to $t/-$initial bases.

(50) a. $tV$-forms with /m, ny/-initial bases

ta-mahkat ‘to be taken (by)’ (mahkat ‘to ask s.o. to go’)
ta-moros ‘to be harmed’ (moros ‘to harm’)
ta-muhi ‘to be washed’ (muhi ‘to wash’)
ta-naruhca ‘to be spat on’ (naruhca ‘to spit on’)
ta-nonih ‘to be listened to’ (nonih ‘to listen to’)

– 60 –
b. tV/n/-forms (tV-N- or -Vn-)

<table>
<thead>
<tr>
<th>tV/N-form</th>
<th>Meaning</th>
<th>-Vn-form</th>
</tr>
</thead>
<tbody>
<tr>
<td>tanonih</td>
<td>‘to be taken into heart’</td>
<td>(tonih ‘to be silent’)</td>
</tr>
<tr>
<td>tanotok</td>
<td>‘to be cut off’</td>
<td>(totok ‘cut’)</td>
</tr>
<tr>
<td>tanutui</td>
<td>‘to be said’</td>
<td>(tutui ‘words’)</td>
</tr>
<tr>
<td>tonapa</td>
<td>‘to be made’</td>
<td>(tapa ‘making’)</td>
</tr>
<tr>
<td>tonohto</td>
<td>‘to be looked at’</td>
<td>(tohto ‘looking’)</td>
</tr>
</tbody>
</table>

The actor argument Aβo functions as A in (51a), and the corresponding argument functions as OBL in (51b) and (51c). The undergoer argument pinjan ‘dish’ functions as O in (51a), while the corresponding argument functions as S in (51b) and (51c).

(51) a. Aβo muhi pinjan  
PSN to wash dish  
‘Awo washed the dishes’

b. pinjan tamuhi Aβo kai  
‘The dishes were washed by Awo’

c. tamuhi Aβo kai pinjan  
‘Washed by Awo, were the dishes’

Aβo muhi pinjan  
PSN to wash dish  
‘Awo washed the dishes’

b. pinjan panuhi Aβo kai  
‘The dishes were washed by Awo’

c. panuhi Aβo kai pinjan  
‘Washed by Awo, were the dishes’

4 Conclusion

This paper provides a descriptive classification of affixes in Kadorih, which can be summarized in table form as in (53). Affix types (1st slot, infix, 2nd slot and plain) and clause types (actor-initial, action-initial and undergoer-initial) were introduced in order to systematize affix forms and to describe each clause.
A sketch on the morphosyntax of Kadorih (Dohoi: Austronesian)

(53) a. *A descriptive classification of affixes in Kadorih*

<table>
<thead>
<tr>
<th>affix type</th>
<th>1st slot</th>
<th>infix</th>
<th>2nd slot</th>
<th>plain</th>
</tr>
</thead>
<tbody>
<tr>
<td>affix form</td>
<td>bV-</td>
<td>hV-</td>
<td>-Vn-</td>
<td>kV-</td>
</tr>
<tr>
<td>construction type</td>
<td>(ANTC)</td>
<td>RECP</td>
<td>PASS</td>
<td>(NOUN)</td>
</tr>
<tr>
<td>transitivity</td>
<td>in</td>
<td>in</td>
<td>in</td>
<td>in</td>
</tr>
<tr>
<td>volition</td>
<td>no</td>
<td>no</td>
<td>vo</td>
<td>no</td>
</tr>
<tr>
<td>ARI clause</td>
<td>*</td>
<td>*</td>
<td>✓</td>
<td>*</td>
</tr>
<tr>
<td>ANI clause</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>✓</td>
</tr>
<tr>
<td>URI clause</td>
<td>✓</td>
<td>✓</td>
<td>*</td>
<td>✓</td>
</tr>
</tbody>
</table>

(\text{tr\[ansitive\]}, \text{in\[transitive\]}, \text{vo\[litional\]}, \text{no\[n-volitional\]})

b. \(bV\)- and \(hV\)- are 1st slot prefixes
c. \(-Vn\)- is an infix
d. \(kV\)- is a 2nd slot prefix
e. \(N\)-, \(pV\)- and \(tV\)- are not restricted to 1st or 2nd slot positions
   (i.e. they are plain prefixes)
f. \(hV\)-/\(N\)-forms can be used as volitional intransitive verbs
g. \(bV\)-/\(hV\)-/\(-Vn\)-/\(N\)-/\(tV\)-forms can be used as non-volitional intransitive verbs
h. \(N\)-/\(pV\)-forms can be used as volitional transitive verbs
i. \(tV\)-forms can be used as non-volitional transitive verbs
j. \(kV\)-/\(pV\)-forms can be used as nominals
k. \(hV\)-/\(N\)-/\(pV\)-/\(tV\)-forms can be used as predicates of actor-initial clauses
l. \(-Vn\)-/\(pV\)-/\(tV\)-forms can be used as predicates of action-initial clauses
m. \(bV\)-/\(hV\)-/\(-Vn\)- (and \(tV\)-\(N\))- forms can be used as predicates of undergoer-initial clauses

From a phonological perspective, \(N\)- is considered to be an autosegmental prefix morpheme, unlike other affixes. It was observed that, in the case of \(N\)-\(kV\)-forms (§ 3.3), \(N\)- behaves like a floating feature [+nasal].

From a grammatical perspective, intransitive, semi-transitive and transitive predicates were described using \(ah\), which refers anaphorically to a core argument. \(pV\)- and \(tV\)-forms can be used as predicates of actor-initial or action-initial clauses (53k, 53l). They are extraordinary in the respect that the grammatical relations of the arguments depend on the clause type.
List of abbreviations

✓ ........................ exists  AUX  ..................... auxiliary  PP–  .......... Prepositional Phrase
* ........................ unacceptable  C  ......................... Consonant  PREP  .......... preposition
1 ........................ 1st person  CAUS ................. causative  PSN ........ person name
1+2 ..................... inclusive 1  DEM  ............... demonstrative  RECP  .......... reciprocal
2 ........................ 2nd person  e.o. .................. each other  REL  ........ relativizer
3 ........................ 3rd person  (in)tr. ............... (in)transitive  S  .......... intransitive subject
A  .......... transitive subject  N  .......... Nasal feature/Noun  SG  .......... singular
ADV  .............. adverb  NEG  ................ negatives  s.o. ........ someone
AH  .................. action initial  NP  ................ Noun Phrase  s.p. ........ spontaneous
ANI  .......... action initial  O  .......... transitive object  s.t. .......... something
ANPH  .......... anaphoric marker  OBL .............. oblique element  UR  .......... undergoer
ANTC .......... anticausative  PASS .................. passive  URI .... undergoer initial
AR  ...................... actor  PL .................. plural  V  .......... Vowel/Verb
ARI  .......... actor initial  POST ................. postposition  VP  .......... Verb Phrase

References


カドリ語形態統語法の概略

稲垣 和也 (INAGAKI Kazuya)

Abstract

本論文は、これまで明らかにされていなかったカドリ語の形態法と形態
統語法を記述したものである。

§2.1では、接辞の形式と、接辞添加のプロセスを音韻論的に同定し
た。続く§2.2で、複合的な接辞を形態音韻論的に分析し、この分析を
基にした接辞の4分類を提案した。即ち、語尾の左側にスロットを認
め、i)第1スロットの接頭辞、ii)接中辞、iii)第2スロットの接頭辞、
iv)特に制限のない接頭辞の4タイプ分けた。§2.3では、語順による
節の3分類を提案した。即ち、動作主構成素を節の先頭に置く動作主先
置節や、動作先置節、被動作主先置節の3タイプ分けた。

§3では、それぞれの接辞のタイプや形式、他動性、意志性、可能な節
タイプ等の点から、接辞が形成する語の記述をこなかった。特に、pV-
形とtV-形は、それがする節のタイプによって文法関係のありあてが異
なることを指摘した。

§3における記述の要約として、§4で、接辞を特徴別にまとめた一覧
をしめした。

（受理日 2006年7月28日）