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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 (by--, h V), 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
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)

( South West 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, r, l, ñ, ñ, n / k, g, ñ], prenasalization rule (/D/ → [ND]/): [m, b, d, g, ñ, n], and nonrelease rule (/T/ → [T]/): [p, t, k]. Word-final /s/ ([ñ]) can be approximantized as [ç]. Each vowel quality is stable ([i, e, 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; β, s, h; m, n, η; r, r; (y)/. The distribution of /y; ß; 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) 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) affix base → word ‘word meaning’

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</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>sombaj</td>
<td>hasombaj ~ hosombaj</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, x low], where the value x of the feature [low] is a variable. *1

(4) The feature value x must be specified in V

\[
\text{IF } x = +, \text{ THEN } V \rightarrow a \\
\text{IF } x = -, \text{ THEN } V \rightarrow o
\]

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

---

*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.

\[
\begin{aligned}
\text{(6)} &\quad \text{ -Vn-} + \left[ \begin{array}{c}
X_1 \quad \text{N} \quad X_2 \quad \ldots \\
[+\text{cons}] & [-\text{cons}]
\end{array} \right] \text{BASE} \rightarrow \left[ \begin{array}{c}
X_1 \quad -X \quad \ldots \quad X_2 \quad -X \\
[-\text{cons}] & [+\text{cons}]
\end{array} \right] \text{WORD}
\end{aligned}
\]

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 ‘-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).

\[
\begin{aligned}
\text{(7)} &\quad \text{Resyllabification following infixing (e.g. so.roj} \rightarrow \text{sv.no.roj)}
\end{aligned}
\]

\[
\begin{aligned}
\text{X}_1 \text{X}_2 \text{X X X} \rightarrow \text{X}_1 \text{X X X}_2 \text{X X X}
\end{aligned}
\]

\[
\begin{aligned}
s o r o j &\quad s V n o r o j
\end{aligned}
\]

### 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.

\[
\begin{aligned}
\text{(8)} &\quad \text{affix } + \text{ base } = \text{ word} & \text{‘word meaning’}
\end{aligned}
\]

\[
\begin{aligned}
a. \text{ bVtV- + sahpou } &\quad \text{ batasahpou } \quad \text{‘to have a roof’} \\
b. \text{ hVkV- + satuk } &\quad \text{ hakasatuk } \quad \text{‘to collide e.o.’} \\
c. \text{ pVkV- + kisuij } &\quad \text{ pakakisuij } \quad \text{‘higher/highest’} \\
d. \text{ tVpV- + kosak } &\quad \text{ tapakosak } \quad \text{‘to be cooked unexpectedly’} \\
e. \text{ tVkV- + tonih } &\quad \text{ takatonih } \quad \text{‘more/most silent’}
\end{aligned}
\]

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

\[
\begin{aligned}
a. \text{ sahpou ‘roof’} &\quad b. \text{ satuk ‘hit’} &\quad c. \text{ kisuij ‘upper’} \\
d. \text{ kosak ‘fruitage’} &\quad e. \text{ tonih ‘to be silent’}
\end{aligned}
\]

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

\[
\begin{aligned}
a. \text{ bVtV- : bata-konih ‘to fall on one’s ear’} &\quad \text{ boto-komi ‘to smile’} \\
b. \text{ hVkV- : haka-poros ‘to harm e.o.’} &\quad \text{ hoko-hafon ‘to hug’} \\
c. \text{ pVkV- : paka-doni ‘nearer/nearest’} &\quad \text{ pokoa-baa ‘stronger/strongest’} \\
d. \text{ tVpV- : tapa-diaj ‘to be elevated’} &\quad \text{ topo-darou ‘to be overdone’} \\
e. \text{ tVkV- : taka-poros ‘more/most painful’} &\quad \text{ taka-mosak ‘more/most furuitful’}
\end{aligned}
\]
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-. 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).

<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>

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’.

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).

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

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).

kaha-nduo ‘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 *ya-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 *ah⁵ 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. ihto mahku *tafaction, tuh =rih
   1+2  to nail to  boat baseplate  this ANPH
‘You and I nail to that boat baseplate’

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

In (13a), ihto ‘you and I’ functions as A, mahku ‘to nail to’ is the transitive verb, and tafaction 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 (tafaction tuh=rih).

(14) a. *Sanumang *mondui anan Sangumang took a bath there
   PSN to take a bath there


In (14a), *Sanumang 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 aan rohpou atuh ‘Racahaci lives in that house’
   PSN to live PREP house that

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

---

*ah also functions as a possessive marker.

a. *tahtu=ah ‘his/her grandfather’

b. *buṣu=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. *ihto [ mahku negah ] =ah ‘You and I nail to it and strengthen it’
   1+2  to nail to  to strengthen  AH
In (15a), *mohcon* ‘to live’ is a semi-transitive verb, *Racahaci* is the subject and *(aat)* *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 (*ihto 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* (*Sagumay 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*
   
   dish PSN to wash AH
   ‘The dishes, Awo washed them’

   b. *pinjan panuhi Afo kai*
   
   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 Abo kai *6 pinjan
    to be washed PSN POST 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-forms (§ 3.1.1) and hV-forms (§ 3.1.2) are the forms with 1st slot prefixes.

3.1.1 bV-forms

bV-forms are used as non-volitional intransitive verbs. *7 Anticausative constructions can be made from the bV-forms. In such constructions, bV-foi---ins can be used as predicates in URI clauses with the constituent order [SV].

- NON-VOLITIONAL INTRANSITIVE bV-forms

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

(19) a. ba-porok ‘to be broken’ (porok ‘broken’ )
    ba-posak ‘to be cracked’ (posak ‘crack’ )
    ba-tutus ‘to be pierced’ (nutus ‘to pierce’ )

b. ba-dohon ‘to be strong’ (dohon ‘strong’ )
    ba-rasut ‘to be hot’ (rasut ‘hotness’ )
    ba-romu ‘to be weak’ (ko-romu ‘tolerance’ )

*6 Kadorih mainly uses prepositions, but the postposition kai may be used for the purpose of marking the actor in ANI/URI clauses.

Taba (Austronesian: VO language) mainly uses prepositions, but the postposition li ‘LOCATIVE’ exists. This postposition is regarded as a byproduct of a genitive noun phrase (GEN-lalo ‘in the X’) (Bowden, 2001, p. 145). Dom (Papuan: OV language) mainly uses postpositions, but the prepositional particle li‘DIRECTION’ exists. This particle is considered to be the first part of a fossilized idiomatic serial verb construction (where the second part is ‘go’ or ‘come’) (Tida, 2006, pp. 66–68).

In addition to these ‘special’ adpositions, kai might be a secondary diachronic product of a certain construction. However, this is an unresolved problem and needs further research.

*7 Following Dixon (1999), the terms ‘unaccusative’ and ‘unergative’ are not used in the present paper.

The labels ‘unaccusative’ and ‘unergative’ are used for quite different things in languages of opposite types — type A, with non-strict transitivity and consistent S marking, and type B, with strict transitivity and split-S-marking. (Dixon, 1999, p. 326)
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- ba-altoi ‘to have heart’ (altoi ‘heart’)
- ba-baras ‘to be sandy’ (baras ‘sand’)
- ba-doroi ‘to get scalded’ (doroi ‘blisters’)
- ba-duri ‘to be prickly’ (duri ‘thorn’)
- ba-henda ‘to be yellow’ (henda ‘turmeric’)
- ba-honan ‘to be divided’ (honan ‘boundary’)
- ba-kirap ‘to be lightning’ (kirap ‘lightning’)
- ba-ruhpak ‘to get blistered’ (ruhpak ‘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. rohpou=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’
[AVO]

b. arut Yahudi baposak
boat PSN to crack
‘Yahudi’s boat cracked’
[SV]_{ANTC}

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 [SV (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.'
   
   *ha-konih* 'to listen to'
   
   *ho-kosono* 'to get acquainted with'
   
   *ho-kosono* 'acquainted'
   
   *ha-posak* 'to crack s.t. e.o.'
   
   *posak* 'crack'
   
   *ha-punu* 'to kill e.o.'
   
   *munu* 'to kill'
   
   *ha-sombay* 'to meet'
   
   *sombay* '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 Iban]* ha[poros]
   
   *Iking, with Iwan, harmed each other*

b. *[ahku]* hoko[sono]
   
   *I met a little prince*

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

(24) a. *Kusmañan doro Tarisman haposak arut*
   
   *Kusmawan, with Tarisman, cracked the opponent’s boat e.o.*

b. *Herman haturak rogo umba Kasuya*
   
   *Herman pushed e.o.’s arm with Kazuya’*

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

(25) a. *arut, Kusmañan doro Tarisman haposak =ah*
b. Kusma\text{\textsection}an doro Tarisman haposak arut. *arut =rih ...

c. *Herman haturak rogo=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\text{\textsection}an ... arut.] and the succeeding [arut=rih ...]. arut=rih ‘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 mahu\text{\textsection}u ta\textbf{\textsection}ay tuh=rih. ta\textbf{\textsection}ay=rih ...).

(25c) and (25d) show that O-like nouns after an hV-form (here, rogo) 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-poros 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).

\begin{equation}
\text{(26) Non-volitional intransitive hV-forms: } \text{ha-baras ‘to be sandy’ (baras ‘sand’)} \text{ } \text{ha-duhi ‘to be prickly’ (duhi ‘thorn’)}
\end{equation}

\begin{equation}
\text{(27) Non-volitional intransitive bV-forms: } \text{ba-baras ‘to be sandy’ (baras ‘sand’)} \text{ } \text{ba-duhi ‘to be prickly’ (duhi ‘thorn’)}
\end{equation}

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 rikhut ‘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 rikhut ‘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’ (gitot ‘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 pinjan functions as O in (29a), and the corresponding argument functions as S in the passive construction (29b). In addition, the actor argument Aβo functions as A in (29a), while the corresponding argument functions as OBL that is expressed by a postpositional phrase in (29b).

(29) a. 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’

(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: Aβo 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.

---

*9 sorog ‘(person) possessed by an evil spirit’ is a possible base of sanorog in (28c). The free base sorog is used as a word with this specific meaning.

*10 In (28), -Vn-forms with a /t/-initial base are not given since the formal contrast between -Vn- and tV-N-forms is lost when they are attached to /t/-initial bases (see §3.4.3: tV-N-forms).

*11 puhi ‘used (water) for washing hands’ is a possible base of panuhi in (28c, 29b) and of muhi in (29a). The free base puhi is used as a word with this specific meaning.
(30) a. "[Afo kai] [pinjan] [panuhi] (*[OBL S V])
  b. "[Afo kai] [panuhi] [pinjan] (*[OBL V S])
  c. "[pinjan] [Afo kai] [panuhi] (*[S OBL V])
  d. "[panuhi] [pinjan] [Afo 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 aag pranet ‘on the planet’ with mohcon. This oblique argument is relativized in (31b).

(31) a. karunon mohcon aag pranet [NPAR V OBL]
  human to live PREP planet
  ‘Human beings live on the planet’

b. pranet ijo panohcon karunon [NP REL V NPAR]
  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-isuy ‘height’ ( isuy ‘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 \( \rightarrow \) gapios ‘to improve’ (pios ‘good’)
    [N]-ka-rasut \( \rightarrow \) garasut ‘to warm up’ (rasut ‘hotness’)
   ii. [N]-ko-rofoj \( \rightarrow \) gorofoj ‘to bury’ (rofoj ‘grave’)
    [N]-ka-ruhca \( \rightarrow \) garuhca ‘to spit on’ (ruhca ‘saliva’)

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 \( \rightarrow \) meseu \~ mambeseu ‘to paddle’
    ( beseu ‘oar’ )
[N]-ka-bufo \( \rightarrow \) mufo \~ mambufo ‘to use a fish trap’
    ( bufo ‘fish trap’ )
[N]-ka-duhi \( \rightarrow \) mduhi ‘to smooth away thorns’
    ( duhi ‘thorn’ )
[N]-ka-bohkon \( \rightarrow \) mohkon ‘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)  

<table>
<thead>
<tr>
<th>a.</th>
<th>mondui ‘to take a bath’</th>
<th>pondui ‘bathing’</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>naag ‘to fly’</td>
<td>taaq ‘fly(ing)’</td>
</tr>
<tr>
<td></td>
<td>ŋaran ‘to walk’</td>
<td>jalan ‘road’</td>
</tr>
<tr>
<td>b.</td>
<td>mahtoi ‘to die’</td>
<td>pahtoi ‘death’</td>
</tr>
<tr>
<td></td>
<td>nondu ‘to crow (cock)’</td>
<td>tondu ‘crowng voice’</td>
</tr>
<tr>
<td></td>
<td>notut ‘to fart’</td>
<td>kotut ‘fart’</td>
</tr>
</tbody>
</table>

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

(36)  

<table>
<thead>
<tr>
<th>a.</th>
<th>Sagumag monduianan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PSN to take a bath there</td>
</tr>
<tr>
<td></td>
<td>‘Sangumang took a bath there’</td>
</tr>
<tr>
<td>b.</td>
<td>io mahtoi aar3 rohpou amai Busun</td>
</tr>
<tr>
<td></td>
<td>3sG to die PREP house father PSN</td>
</tr>
<tr>
<td></td>
<td>‘He died in the house of Amai Busun’</td>
</tr>
</tbody>
</table>

**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)  

<table>
<thead>
<tr>
<th>a.</th>
<th>forms requiring goal O arguments:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mahku ‘to nail to’</td>
</tr>
<tr>
<td></td>
<td>masap ‘to visit’</td>
</tr>
<tr>
<td></td>
<td>mutah ‘to answer s.o.’</td>
</tr>
<tr>
<td></td>
<td>njisok ‘to question s.o.’</td>
</tr>
<tr>
<td>b.</td>
<td>forms requiring patient O arguments:</td>
</tr>
<tr>
<td></td>
<td>munu ‘to kill’</td>
</tr>
<tr>
<td></td>
<td>norok ‘to chop’</td>
</tr>
<tr>
<td></td>
<td>notok ‘to cut off’</td>
</tr>
<tr>
<td></td>
<td>nofoŋ ‘to cut down’</td>
</tr>
</tbody>
</table>

Example sentences with these transitive verbs are given in (38). In (38a), the ‘questioning’ event njisok ‘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 umba in (38b), and therefore njisok 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’.

—56—
(38) a. ihko ŋisok arop =mu
   2SG to question s.o. self =2SG
   ‘You may question yourself’

   b. iroh eam puji ŋisok 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’ (taarl 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 karimoi Uhko in (41a) function as O and OBL respectively in (41b). A new causer argument Yahudi which functions as A is added in (41b).
(41) a. Tarisman \textit{yonih karimo}i Uhko
\text{PSN} \quad \text{to listen to story} \quad \text{PSN}
‘Tarisman listened to the Uhko Story’

b. Yahudi \textit{pakonih} Tarisman \textit{umba karimo}i Uhko
\‘Yahudi made Tarisman listen to the Uhko Story’

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

(42) a. \textit{ahku pakosak puti} \quad \text{[AVO]CAUS}_{\text{ARI}}
\text{1SG} \quad \text{to ripen banana}
‘I ripened the banana’

b. \textit{pakosak ku kai puti} \quad \text{[V OBL NP}_{\text{UR}}\text{]CAUS}_{\text{ANI}}
to ripen 1SG POST banana
‘I ripened the banana’

In clauses with ditransitive \textit{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 \textit{Botan} is obligatorily marked by \textit{ahkan} (43a), while this marking is optional in (43b). The theme argument \textit{sara\text{"{a}f}ar\text{"{a}h} ‘his/her trousers’ is unmarked in (43a), however, it must be marked by \textit{umba} in (43b).

(43) a. \textit{I\text{"{e}f}an patohto sara\text{"{a}f}ar \text{"{a}h} ahkan Botan} \quad \text{[AVO]CAUS}_{\text{ARI}}
\text{PSN} \quad \text{to show trousers AH PREP PSN}
‘Iwan showed his trousers to Botan’

b. \textit{I\text{"{e}f}an patohto (ahkan) Botan umba sara\text{"{a}f}ar \text{"{a}h}} \quad \text{[V OBL NP}_{\text{UR}}\text{]CAUS}_{\text{ANI}}
‘Iwan showed Botan his (Iwan’s) trousers’

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

(44) a. \textit{sara\text{"{a}f}ar tuh, I\text{"{e}f}an patohto \text{"{a}h} ahkan Botan} \quad \text{[AVO]CAUS}_{\text{ARI}}
\‘This trousers, Iwan showed it to Botan’

b. *\textit{Botan orih, I\text{"{e}f}an patohto \text{"{a}h} umba sara\text{"{a}f}ar \text{"{a}h}} \quad \text{[V OBL NP}_{\text{UR}}\text{]CAUS}_{\text{ANI}}
\‘*Botan, Iwan showed him his trousers; \textit{orih ‘REF’}

\[\text{c. Botan orih, I\text{"{e}f}an patohto io umba sara\text{"{a}f}ar \text{"{a}h}} \quad \text{[V OBL NP}_{\text{UR}}\text{]CAUS}_{\text{ANI}}
\‘Botan, Iwan showed him his trousers’ (\textit{io ‘3SG’})\]
In (44a), *sarafar tuh* behaves as a regular O argument in a clause initial position, which is referred to by *ah*, \(^{13}\) but in (44b) the goal argument *Botan orih* does not. Like *sarafar=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; *nisok umba ihko* ‘to question you’).

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**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

<table>
<thead>
<tr>
<th>N-form</th>
<th>P-form</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>pa-mahku</em></td>
<td><em>mahku</em> to nail to</td>
</tr>
<tr>
<td><em>pa-gomo</em></td>
<td><em>gomo</em> to feel</td>
</tr>
<tr>
<td><em>pa-kuman</em></td>
<td><em>kuman</em> to eat s.t.</td>
</tr>
</tbody>
</table>

2. ‘habitual-activity-doer’

<table>
<thead>
<tr>
<th>N-form</th>
<th>P-form</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>pa-mander</em></td>
<td><em>mander</em> to say s.t.</td>
</tr>
<tr>
<td><em>pa-mihkoh</em></td>
<td><em>mihkoh</em> to be afraid</td>
</tr>
<tr>
<td><em>pa-moros</em></td>
<td><em>moros</em> to suffer from</td>
</tr>
<tr>
<td><em>pa-nonih</em></td>
<td><em>nonih</em> to take into heart</td>
</tr>
<tr>
<td><em>pa-yanuhca</em></td>
<td><em>yanuhca</em> to spit on</td>
</tr>
<tr>
<td><em>pa-namuju</em></td>
<td><em>namiju</em> to use fish trap</td>
</tr>
<tr>
<td><em>pa-jumo</em></td>
<td><em>jumo</em> to farm</td>
</tr>
</tbody>
</table>

b. *pa-homboh* ‘passenger’ ( *omboh* 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. \(^{14}\)

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

(46)  
- ta-baras  ‘to get sand’  
- ta-diay  ‘to rise’  
- ta-kariq  ‘to be sprawled on one’s back’  
- ta-poros  ‘(body) to hurt’  
- ta-tiruh  ‘to fall asleep’  

( baras  ‘sand’  
( diag  ‘above’  
( kariq  ‘to lie down’  
( poros  ‘ill/ache’  
( tiruh  ‘to sleep’  

(47)  
- io turus takariq turus tatiruh  
  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’  
- ta-ruhca  ‘to spit on uncauciously’  
- ta-tonih  ‘to be silent for’  

( gonih  ‘to listen to’  
( ruhca  ‘saliva’  
( tonih  ‘to be silent’  

The actor argument (here a ‘perceiver’) Kusmaβan 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. Kusmaβan takonih auh orih  
  [AVO]SPON[ARI]PSN to hear voice REF  
  ‘Kusmawan heard the voice’  
- b. takonih Kusmaβan kai auh orih  
  [V OBL NP_{UR}]SPON[ANI]  
  ‘Kusmawan 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, n/-initial bases  
- ta-mahkat  ‘to be taken (by)’  
- ta-moros  ‘to be harmed’  
- ta-muhi  ‘to be washed’  
- ta-γaruha  ‘to be spat on’  
- ta-gonih  ‘to be listened to’  

( mahkat  ‘to ask s.o. to go’  
( moros  ‘to harm’  
( muhi  ‘to wash’  
( γaruha  ‘to spit on’  
( gonih  ‘to listen to’  

(51)  
- io turus takaγaruha turus gotaruhca  
  3sG then to be spat on then to spit on  
‘He was then spat on, then spat on someone’

(52)  
- io turus takamahkat turus gotaruhca  
  3sG then to be asked (by) then to spit on  
‘He was then asked (by) to spit on someone’

(53)  
- io turus takamahkat turus gotaruhca  
  3sG then to be asked (by) then to spit on  
‘He was then asked (by) to spit on someone’

(54)  
- io turus takamahkat turus gotaruhca  
  3sG then to be asked (by) then to spit on  
‘He was then asked (by) to spit on someone’

(55)  
- io turus takamahkat turus gotaruhca  
  3sG then to be asked (by) then to spit on  
‘He was then asked (by) to spit on someone’

(56)  
- io turus takamahkat turus gotaruhca  
  3sG then to be asked (by) then to spit on  
‘He was then asked (by) to spit on someone’

(57)  
- io turus takamahkat turus gotaruhca  
  3sG then to be asked (by) then to spit on  
‘He was then asked (by) to spit on someone’

(58)  
- io turus takamahkat turus gotaruhca  
  3sG then to be asked (by) then to spit on  
‘He was then asked (by) to spit on someone’

(59)  
- io turus takamahkat turus gotaruhca  
  3sG then to be asked (by) then to spit on  
‘He was then asked (by) to spit on someone’

(60)  
- io turus takamahkat turus gotaruhca  
  3sG then to be asked (by) then to spit on  
‘He was then asked (by) to spit on someone’
b. tVn/-forms (tV-N- or -Vn-)

- **tanonih** ‘to be taken into heart’ (tonih ‘to be silent’)
- **tanotok** ‘to be cut off’ (totok ‘cut’)
- **tanutui** ‘to be said’ (tutui ‘words’)
- **tonapa** ‘to be made’ (tapa ‘making’)
- **tonohto** ‘to be looked at’ (tohto ‘looking’)

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
   `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’

   tV-N-passives are functionally and semantically similar to -Vn- passives. The tV-N-form tamuhi ‘to be washed’ in (51b) can be substituted for the -Vn-form panuhi ‘to be washed’ as in (52b) without altering the grammatical relations or the meaning. In other words, the correspondences A—OBL (Aβo) and O—S (pinjan) in (51a–51b) are preserved in (52a–52b). In addition, the possible clause types of tV-N- passive and -Vn- passive are identical (URI/ARI).

(52) a. Aβo muhi pinjan
   `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.
(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>*</td>
</tr>
<tr>
<td>volition</td>
<td>no</td>
<td>no</td>
<td>vo</td>
<td>no</td>
</tr>
</tbody>
</table>

| ARI clause | * | * | ✓ | * | ✓ | ✓ | ✓ | * | ✓ | ✓ | ✓ | ✓ |
| ANI clause | * | * | * | ✓ | * | — | — | — | ✓ | * | ✓ | ✓ |
| URI clause | ✓ | ✓ | * | ✓ | — | — | — | * | * | * | * | * |

(by- 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
* unacceptable
1 1st person
1+2 inclusive 1
2 2nd person
e.o. each other
3 3rd person
(in)tr. (in)transitive
A transitive subject
ADV adverb
AH ah
ANI action initial
ANPH anaphoric marker
ANTC anticausative
AR actor
ARI actor initial
AUX auxiliary
C Consonant
CAUS causative
dem
DEm demonstrative
e.o. each other
PASS Passive
PL plural
POST postposition
PP Prepositional Phrase
PREP preposition
PSN person name
RECP reciprocal
REL relativizer
S intransitive subject
SG singular
SPN spontaneous
s.o. someone
s.t. something
s.o. someone
SPN spontaneous
s.t. something
s.o. someone
s.t. something
T transitive
Tn transitive
O transitive object
OBL oblique element
UR undergoer
URI undergoer initial
V Vowel
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、語基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 タイプに分けた。§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 タイプに分けた。

§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おこなった。特に、pV-形と tV-形は、それがとする節のタイプによって文法関係のわ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)