A GRAMMAR OF TAJIO

A LANGUAGE SPOKEN IN CENTRAL SULAWESI

INAUGURAL-DISSERTATION

ZUR ERLANGUNG DES DOKTORGRADES DER PHILOSOPHISCHEN FAKULTÄT DER

UNIVERSITÄT ZU KÖLN IM FACH ALLGEMEINE SPRACHWISSENSCHAFT

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KÖLN, 22. NOVEMBER 2013

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Datum der mündlichen Prüfung: 22. Januar 2014

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List of Abbreviations

1	first person
2	second person
3	third person
A	actor
A	answer
AG	agentive
APPL	applicative
AV	actor voice
Bi-RDP	bisylabic reduplication
C	consonant
CAUS	causative
CLF	classifier
COMP	completive
CONT	continuative
CPR	comparative marker
DEF	definite
DIR	directional
DIST	distal
DY	dynamic
EX	exclusive
EXIST	existential
FOC	focus
GEN	genitive
COLL	group/collective activity
HON	honorific
IN	inclusive
INJ	interjection
LIG	ligature
lit.	literal
LOC	locative
MED	medial
N	noun
NEG	negation
NM	noun marker
NOM	nominalizer
NP	noun phrase
NP	noun phrase
NRLS	non-realis
O	object
OBJ_1	primary object
OBJ_2	secondary object
OBL	oblique
OBL-O	oblique-object
P	predicate
PL	plural
PN	proper name
POL	politeness marker

POSS	possessive
PP	prepositional phrase
PROX	proximal
Q	question
RCP	reciprocal
RDP	reduplication
REP	repetitive
REQ	requestive
REL	relative marker
RLS	realis
S	subject
s.o.	someone
SEQ	sequential
SF	stem former
SG	singular
ST	stative
sth.	something
SVC	serial verb construction
U	undergoer
UV	undergoer voice
V	verb
V	vowel
VP	verb phrase
VBLZ	verbalizer

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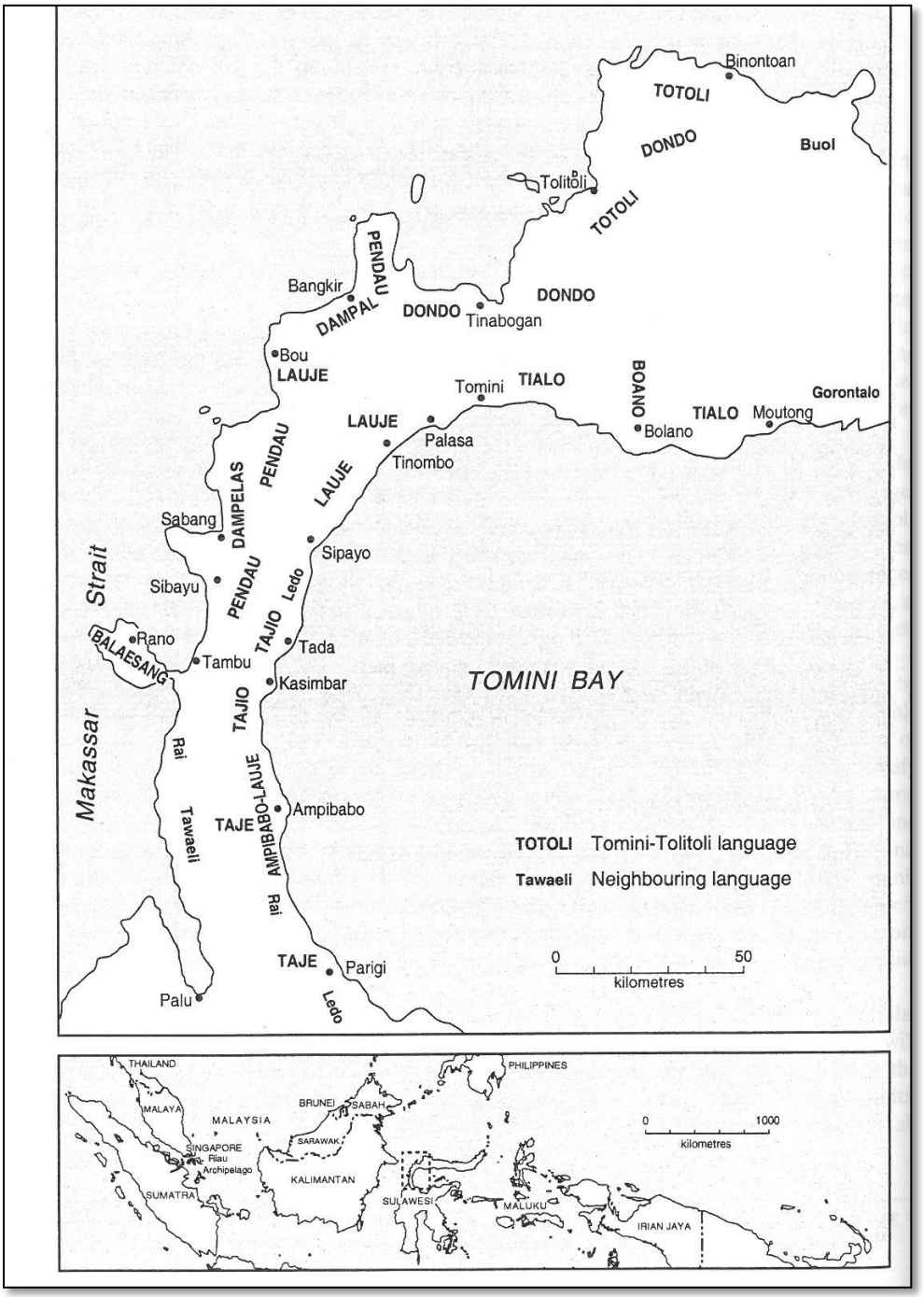
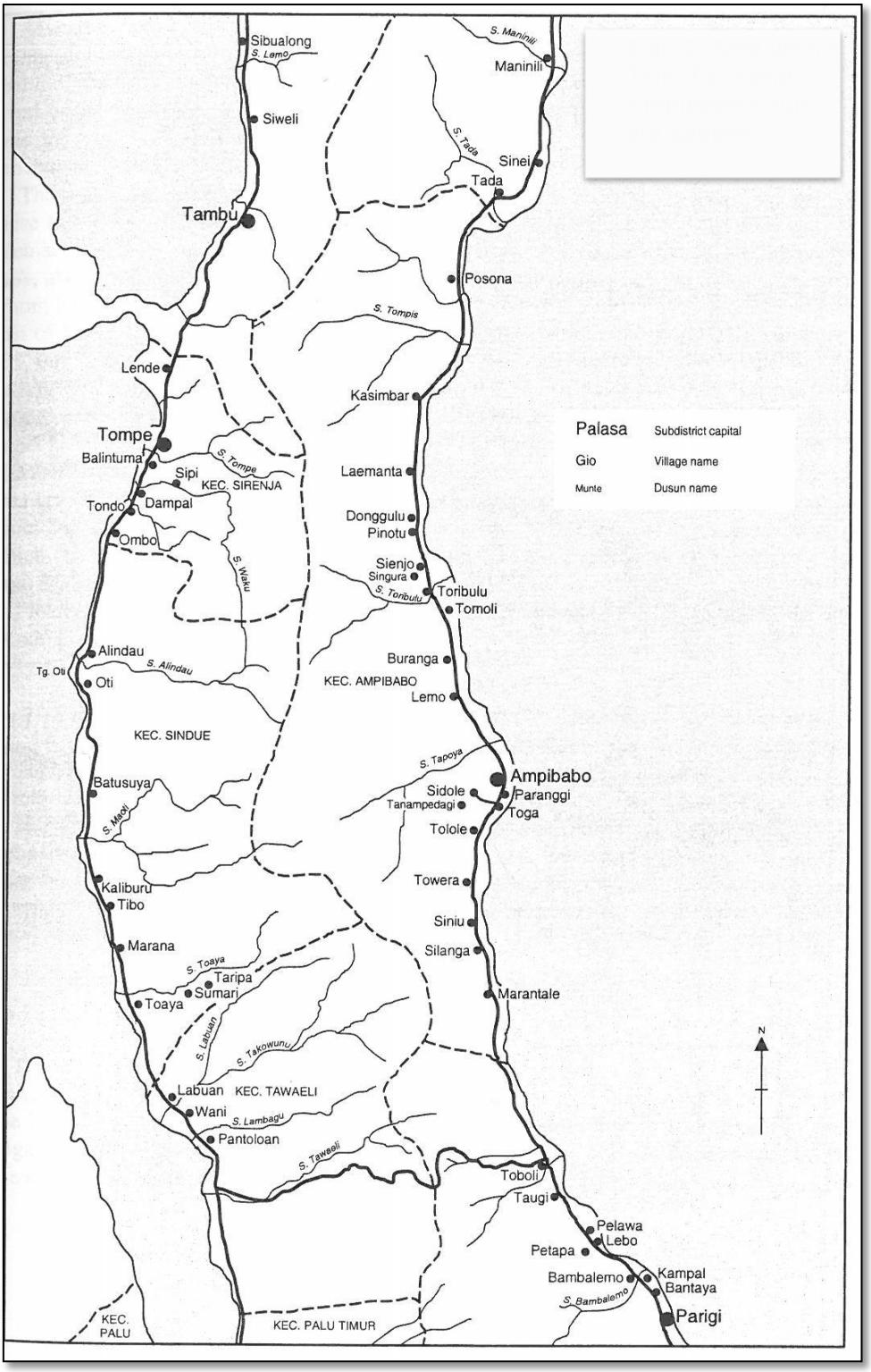


Map 1: Language area of Tajio (Himmelmann 2001)



Map 2: Location of Tajio speech community (Himmelmann 2001)

1 Introduction

This work is a description of Tajio, a Western Malayo-Polynesian language spoken in Central Sulawesi, Indonesia. It covers the essential aspects of Tajio grammar without being exhaustive.

This chapter provides basic information on Tajio, the speech community and the data corpus used for my analysis. In Section 1.1.1 I present some general information about the language and its genetic affiliation. Concerning dialectal variation, I briefly compare the Tajio data I collected in Kasimbar with data collected by Himmelmann in the village of Sienjo in the 1990s. Section 1.1.2 turns to the sociolinguistic situation and provides information about the Tajio speech community, with particular attention paid to the villages of Kasimbar and Kasimbar Barat. Section 1.2 lists previous works and scholars who have conducted research on other Tomini-Tolitoli languages in the area. Section 1.3 concerns my fieldwork and the type of data that I have collected and analyzed. Finally, Section 1.4 offers a typological profile of Tajio.

1.1 Language and speech community

1.1.1 The Tajio language

Tajio is an Austronesian language and belongs to the Tomini-Tolitoli language group[1]. The term Tomini-Tolitoli was introduced by Masyhuda (1975/81) in order to indicate a certain subgrouping, and also as an alternative to the East Coast-centered term 'Tomini', which was first used by Adriani and Kryut (1941) (Himmelmann 2001:14−16).

To date, it is still unclear whether the Tomini-Tolitoli languages for a low-level genetic subgroup of Western Malayo-Polynesian or whether they are just geographically related (Himmelmann 2001:19). Based on an extensive linguistic survey conducted from August 1988 to January 1989 and from February 1993 to April 1993, Himmelmann (2001) classifies eleven languages as belonging to this group: Totoli, Buano, Ampibabo-Lauje, Lauje, Tialo, Dondo, Balaesang, Pendau, Dampelas, Taje and Tajio.

Within the Tomini-Tolitoli language group, Himmelmann makes a further distinction between the Tolitoli subgroup and the Tomini subgroup. Tolitoli and Tomini in this subgrouping are primarily used as geographical terms rather than genealogical ones. This is based on observations concerning lexical and phonological similarities and dissimilarities between Tomini-Tolitoli languages. The tentative subgrouping of the Tomini-Tolitoli languages proposed by Himmelmann is as follows:

Tolitoli subgroup
- Totoli
- Buano

Tomini subgroup
- Northern Tomini
  - Ampibabo-Lauje
  - Lauje
  - Tialo
  - Dondo
- Southern Tomini
  - Balaesang
  - Pendau
  - Dampelas
  - Taje
  - **Tajio**

(Himmelmann 2001:19−20)

Note that the Tomini subgroup proposed by Himmelmann is fairly similar to the one proposed by Adriani and Kryut (1914) and Barr and Barr (1979).

Based on Himmelmann's tentative subgrouping, Tajio thus belongs to the Southern Tomini subgroup together with Balaesang, Pendau, Dampelas and Taje.

[1] Sneddon (1993) refers to this group as the Tomini languages.

In the 1990s, Himmelmann recorded the Sulawesi Umbrella Word list (SUW) in the village of Sienjo and about 300 items were cross-checked in Maninili for dialectal variation, as McKenzie (1991) mentions that a different dialect is spoken in that village. McKenzie (1991:24) includes Kasimbar and Sienjo in one dialect group, which he calls the 'central dialect', although he admits that there is a difference between them. In 2011 and 2012, I recorded the same word list in the village of Kasimbar. Comparing the data collected by Himmelmann in Sienjo and the data that I collected in Kasimbar, it seems that there is a dialectal difference between the Tajio varieties spoken in these two villages. For example, /g/ in some words in Sienjo is found as /k/ in Kasimbar. Some words which occur with a glottal stop /ʔ/ in Sienjo appear without a glottal stop in Kasimbar. Examples are given in Table 1.

Phonological differences	**Tajio Sienjo**	**Tajio Kasimbar**
/g/ vs /k/	*langgai* 'male'	*langkai* 'male'
	barenggong 'to throw'	*barengkong* 'to throw'
	teonggong 'arm'	*teongkong* 'arm'
	teulingga 'coconut'	*teulingka* 'coconut'
	ganing 'time(s)'	*kaning* 'time(s)'
/ʔ/ vs Ø	*vu'u* 'bone'	*vuu* 'bone'
	ti'ol 'bamboo'	*tiol* 'bamboo'
	tu'u 'knee'	*tuu* 'knee'
	va'i 'head'	*vai* 'head'
	-a'o 'APPL'	*-ao* 'APPL'

Table 1: Phonological differences in Tajio Sienjo and Tajio Kasimbar

In addition to phonological differences, Tajio Sienjo and Tajio Kasimbar also show morphological differences. Tajio Sienjo and Tajio Kasimbar make use of a different prefix to mark the non-realis of the undergoer voice. In Sienjo it is marked by the prefix *ro-*, whereas in Kasimbar it occurs as *nu-*. The locative preposition used in Tajio Sienjo is *ri* 'at, in', whereas in Tajio Kasimbar there are two forms that are used, *i* and *ri*. *Ri*, which is used to mark prepositional phrases and spatial deictics in Tajio Sienjo, has a more limited distribution in Tajio Kasimbar. In Kasimbar, prepositional phrases are mostly marked by the preposition *i*, whereas *ri* is limited to mark spatial deictics. Furthermore, there are also some lexical variants between demonstratives and spatial deictics, which are used in Tajio Sienjo and Kasimbar as listed in Table 2[2].

	Tajio Sienjo	**Tajio Kasimbar**
Demonstratives	*eini, he'ee* 'this (PROX)'	*eini* 'this (PROX)'
	eitu, ha'aa 'that (MED)'	*eitu* 'that (MED)'
	amai/amai'ee 'that (DIST)'	*eua* 'that (DIST)'
Spatial deictics	*riini* 'over here'	*riini* 'over here'
	ri'aa, riitu 'over there'	*riitu* 'over there'
	riamai 'over there (DIST)'	*riua* 'over there (DIST)'

Table 2: Demonstratives and spatial deictics in Tajio Sienjo and Tajio Kasimbar

[2] The list of demonstratives and spatial deictics in Tajio Sienjo is based on Himmelmann (2001:99 − 100).

1.1.2 The speech community

Tajio is spoken by approximately 12,000−18,000 speakers (figures taken from (Himmelmann 2001) and (McKenzie 1991) respectively) in Central Sulawesi province. Tajio people inhabit a continous stretch of villages on the East Coast (*Pantai Timur*), extending from the village of Toribulu in the Kecamatan Ampibabo (Ampibabo subdistrict) to the village of Sipayo in the Kecamatan Tinombo (Himmelmann 2001:32) (see Map 2). Under the Indonesian decentralization policy, which encouraged emerging independent subdistricts from within the provinces, Kasimbar formerly belonging to the Ampibabo subdistrict has now become a new subdistrict called Kasimbar subdistrict since 2004. Thus, Tajio is now spoken in four subdistricts, i.e., Ampibabo, Kasimbar, Tinombo and Sindue. The neighbouring languages of Tajio are Ampibabo-Lauje, Pendau and Lauje (see Map 1).

The geographic center of the Tajio speech community is Kasimbar and, perhaps unsurprisingly, Kasimbar is an alternative name for the Tajio language, or at least its main dialect (see Himmelmann 1991, 2001). Kasimbar is located ca. 200km north of Palu, the capital of the province of Central Sulawesi.

According to folk memory, the old name for Kasimbar is *Tanainolo*, which also referred to the area inhabited by the Tajio and Pendau people. Its inhabitants lived in groups led by leaders called *Toi Bagis*, each ruling an area called *boya*. There were seven *boya* in *Tanainolo*: *Boya Mayapo*, *Boya Vintonung*, *Boya Liovung*, *Boya Sambali*, *Boya Tagali*, *Boya Apes* and *Boya Ranang*. Each *boya* had its own local wisdom, thus there were *pitu pole* or *sanja pitu* 'seven values' known and practiced by the *Tanainolo* people[3]. This information seems to be related to a narrative told by my contributor, Bapak Jafar Tanggulado, in the village of Kasimbar. As he told me about the harvest ceremony *tevunja*, he said that in this ceremony, people made seven dolls out of sago branches. These dolls symbolize the seven owners of Tajio village.

The settlements of the *Tanainolo* people in *boya* changed when Mandar[4] traders came to this area: at the end of the 17th century, powerful Bugis and Mandar Kingdoms in South Sulawesi took control of the Tomini-Tolitoli coastlines along with their Kaili allies whom they had subjugated some time before (Himmelmann 2001:51).

According to Bapak Olumsyah Saehana, the former head of the Kasimbar subdistrict, the word *Kasimbar* is claimed to be derived from *simbar* 'dawn; rise' and *ka-* as a shortened form of *karajaan* 'kingdom' (p.c. 2010). Kasimbar thus originally means 'the rising kingdom'. The name was given to the village in the middle of the 14th century by a Mandar trader, Arajang Petta Karikacci, as he moored his ship at the shore of the river *Tanainolo* as dawn was breaking.

Today the subdistrict Kasimbar consists of the following eight villages: Donggulu, Laemanta, Kasimbar Selatan (South Kasimbar), Kasimbar, Kasimbar Barat (West Kasimbar), Tovalo, Posona and Silampayang. Unfortunately, there are no official data which give reliable information about the number of Kasimbar inhabitants who speak Tajio as their first language. The only data available for the Kasimbar subdistrict is the population breakdown, based on the 2010 census; this is presented in Table 3.

Name of village	**Number of inhabitant**
Donggulu	3,611
Laemanta	2,169
Kasimbar Selatan	3,043

[3] This information is found in a blog *Randa nu Tajio* 'a Tajio young woman' posted on 12th March 2012 at the following address: http://randanutajio.blogspot.co.id/2012/03/sejarah-singkat-kecamatan-kasimbar.html. This blog is written by Nur Iftitah Rini, a young woman from Kasimbar. I have tried to get in contact with her, but have not received any response.

[4] Mandar is the name of an ethnic group that spreads over the island of Sulawesi.

Kasimbar	4,526
Kasimbar Barat	1,249
Tovalo	1,882
Posona	2,620
Silampayang	1,831
Total	**20,931**

Table 3: Population in the Kasimbar subdistrict (2010 census)

In addition to the two native groups of the Tajio and the Pendau, Kasimbar is inhabited by other indigenous groups such as the Kaili people, especially Kaili Ledo and Rai. Mandar and Bugis are early migrants originally from South Sulawesi; other migrants from North Sulawesi come from Minahasa, Sangir and Manado. Due to a transmigration project by the Indonesian government, which re-located inhabitants from over-populated parts of Indonesia to less populated areas, migrants from Bali and Java came to Kasimbar in the 1970s.

As the Tajio area is inhabited by different ethnic groups, Indonesian serves as a lingua franca used in interaction between speakers of local Sulawesi languages and the non-Sulawesi migrants. Among speakers of the local languages (i.e., Kaili and Tomini people), Kaili is used as the main language for social interaction.

Among the older Tajio people, Tajio is still used in everyday communication. Tajio elders are either bilingual in Tajio and, to different degrees, in Indonesian, or multilingual in Indonesian and at least one further language they have come in contact with. For example, one of my language consultants, Bapak Jafar Tanggulado (at the time 69 years old), speaks Indonesian, Kaili and Pendau, in addition to Tajio.

During my stay in Kasimbar and West Kasimbar, I hardly heard the younger generation (i.e., people under the age of 20) speak Tajio. Tajio children are no longer learning their native language. Instead, they use Indonesian within the family as well as in school.

In mixed marriages, Indonesian is frequently chosen by the parents as the lingua franca. Consequently, their children grow up in an Indonesian-speaking environment. But, even in native Tajio families, I found that even parents who do speak Tajio rarely do so with their children. The children usually prefer to speak Indonesian with each other, although most of them still understand Tajio.

These observations are in line with the findings reported by Mead (2013), who has conducted a study on the vitality of the indigenous languages in Sulawesi.[5] According to his classification, which is based on the vitality/endangerment rating scale from UNESCO, Tajio is a "definitely endangered language" (Mead 2013:113). According to the EGIDS scale, Tajio is on level 7, which means it is shifting. A language is rated as shifting when the speakers of the child-bearing generation know the language well enough to use it among themselves but no longer transmit it to their children.

Another factor which speeds up the language shift from Tajio to Indonesian is a general change in lifestyle. Members of Tajio's younger generation who have received a higher level of education than their parents tend to become *pegawai* (public servant) rather than working as rattan drawers, farmers or fishermen. As a consequence, they tend to leave the village and search for work in the cities.

Furthermore, as in most other parts of Sulawesi, the majority of the population in the Tajio area are now Muslims (Balinese migrants, who kept their Hindu beliefs, are an exception). Thus, religious ceremonies such as weddings and funerals follow mainstream Indonesian Islam. While in many ceremonies Muslim tradition intermingles with traditional Tajio elements, knowledge of the origins of these practices is restricted to a few older people and has been effectively lost within the younger

[5] The rating system used in this research is the UNESCO rating system and the EGIDS (the Expanded Graded Intergenerational Disruption Scale) rating system. The vitality of Tajio is based on evidence from recent fieldwork and direct observation in a representative sampling of locations (Mead 2013:113).

generation. Religious ceremonies thus do not serve as a domain where the local language could survive.

During my last visit in Kasimbar, for example, Bapak H.M. Pamasi (then 73 years old), who could spontaneously make *pantuns* (a kind of traditional rhyme) for wedding proposals, passed away. With his death, this tradition, which had not been properly transmitted to the younger generations, ceased to be remembered. Likewise, other traditional practices, such as playing the traditional instrument *santum*, making *sumpit* (a kind of blowing spear) and weaving rattan to craft *bingga* or *tambobo'* (a traditional container to carry goods or paddy), are today rarely practiced in Tajio villages (at least not in the two villages I visited, Kasimbar and Kasimbar Barat).

1.2 Previous works

There are only two scholars who have conducted research on Tajio. In addition to Himmelmann (2001), who has collected data on Tajio as a part of his survey study on the Tomini-Tolitoli languages, the sociolinguistic situation in Tajio has been investigated by McKenzie (1991). Using lexicostatistics, McKenzie (1991:24) identifies three dialects: northern, central and western.

Other scholars have conducted research on neighboring languages of Tajio. Quick (2007) has written a comprehensive grammar of Pendau; Moro (2010) has written a sketch grammar on Dampelas for her Master's thesis; Riesberg (2014) has conducted research on symmetrical voice systems in western Austronesian languages and analyzed Tolitoli together with three other languages (Indonesian, Balinese and Tagalog); Himmelmann and Riesberg (2013) have published a paper on symmetrical voice and applicative alternations in Totoli.

Other works on languages in Sulawesi include, among others, a grammar of Muna written by Van den Berg (1989), a sketch grammar of Toratán (Ratahan) by Himmelmann and Wolff (1999) and Donohue's grammar of Tukang Besi (1999).

1.3 Fieldwork

Before going into the field, I had already started to build a database of Tajio based on the recordings of the Sulawesi word lists (Himmelmann 2001) and sentence lists (Himmelmann 1992 unpublished) compiled by Nikolaus Himmelmann, who conducted fieldwork on Tajio in the villages of Sienjo and Maninili in the 1990s. Having performed a preliminary analysis of this material, I decided to do my fieldwork in the villages of Kasimbar and Kasimbar Barat (West Kasimbar) in order to verify and increase the amount of data. My first fieldtrip took place for eight weeks from 12th April to 12th June 2011, the second was conducted in the same villages for four weeks between 21st July and 21st August 2012. During my fieldwork I stayed in Kasimbar Barat, which was chosen for me by the head of the Kasimbar subdistrict. Kasimbar Barat and Kasimbar are about eight kilometers apart and are connected by an asphalt road.

My data comprise recordings of the Sulawesi word lists and elicited data, as well as narratives, conversations and stimulus data such as a pear film (Chafe et al. 1980) and a frog story (Mayer 1969) recording.

The age of my language consultants ranges between 31–73 years. They work as farmers, teachers, rattan drawers and school administrative staff.

The elicited and recorded lexical items were compared with the data compiled by Himmelmann in the 1990s. In addition to the lexical items, I also elicited and recorded phonological and intonational data which were used to validate the phonological analysis I had done based on Himmelmann's data. Most of the morphosyntactic data were recorded based on the research questions prepared before going into the field. These data capture a wide range of morphosyntactic issues, such as word classes, aspect and mood, voice and valency, basic clause structure, grammatical relations, noun phrases, and clause combining. I also collected data which was elicited by using video stimuli developed by the Max Planck Institute for Psycholinguistics in Nijmegen. The word lists and elicited data were − in addition to being recorded − written directly in a field note book and transcribed by myself. The transcription of elicited data was then checked by my language consultants.

The narrative topics are mostly related to speakers' daily lives and activities, the villages' histories, and procedures explaining how to make traditional instruments or foods. Every topic in the narratives was recorded after I conducted short interviews. The contributors of the narratives had been recommended by my language consultants based on the topic mastered by the contributors. For example, the contributor of the narrative *Teompas* 'pandanus mat' is a mat-weaver; the contributor of the narrative *Sejarah Kasimbar* 'History of Kasimbar' is an elder of Kasimbar village. In addition to those narratives, the stimulus data, i.e., the pear story and the frog story, are also in the form of narratives. The conversations were recorded when speakers were sitting together discussing certain topics or talking about their routines. Both narrative and conversational data were transcribed with the help of the following native speakers: Bapak Asman (42 years old), Ibu Rosmin H. Tjako (32 years old) and Ibu Rosnawati, H. Tjako, S.Pd. (31 years old), my co-workers during both stays. Table 4 summarizes the different types of data that make up my corpus.
Over the two years between 2011−2013 I kept in touch with my language consultants by telephone, short message service (SMS) and social media, such as Facebook in order to check grammatical points.

No.	**Type of data**	**Duration**
1.	Lexical items	11:24:56
2.	Phonetic elicitation	02:45:21
3.	Prosodic data	00:22:21
4.	Morphosyntactic elicitation	01:05:44
5.	Songs (3)	00:10:26
6.	Narrative stories (20)	01:11:20
7.	Conversations (5)	01:44:50
8.	Frog story (1)	00:05:15
9.	Pear film (1)	00:02:24
10.	Pantun (Rhyme) (1)	00:05:40
	Total	18:58:17

Table 4: Types of data recorded during the fieldwork

1.4 Typological profile of the language

This section gives a brief overview of the main typological characteristics of Tajio with a focus on those topics that take center stage in this grammar. These include phonological features, morphology and syntax.

Tajio has a medium sized phoneme inventory consisting of twenty consonants and five vowels. The language does not have lexical (word) stress; rather, it has a phrasal accent. This phrasal accent regularly occurs on the penultimate syllable of an intonational phrase, rendering this syllable auditorily prominent through a pitch rise.

Possible syllable structures in Tajio are (C)V(C). V and CV syllables occur in all positions in a word: initially, medially and finally. VC and CVC syllable structures featuring a non-nasal consonant are restricted to word-final position. In other positions only CVN structures are allowed as closed syllables, but CVN syllables in word-medial position are not frequent. As in other languages in the area, the only sequence of consonants allowed in native Tajio words are sequences of nasals followed by a homorganic obstruent. The homorganic nasal-obstruent sequences found in Tajio can occur word-initially and word-medially but never in word-final position. Evidence from timing (i.e., the time needed to produce a consonant) and reduplication support the analysis of nasal-obstruent sequences as clusters.

As in many Austronesian languages, word class classification in Tajio is not straightforward. As will be discussed in Chapter 4, the classification of words in Tajio must be carried out on two levels: the morphosyntactic level and the lexical level. The open word classes in Tajio consist of nouns and verbs. Verbs are further divided into intransitive verbs (dynamic intransitive verbs and statives) and dynamic transitive verbs.

Based on their morphological potential, lexical roots in Tajio fall into three classes: single-class roots, dual-class roots and multi-class roots.

A noun phrase in Tajio minimally consists of a noun. A non-minimal NP contains a head noun and its modifier(s). Modifiers can either precede or follow the head noun. Of the two possible structures, [**head noun** modifier] and [modifier **head noun**], the former is considered to be the basic NP structure (representing unmarked information structure). Demonstratives found in Tajio are *eini/ini* 'this', *eitu/itu* 'that' and *eua/ua* 'that (distal)'. As modifiers, they always occur at the very end of the noun phrase. Morphological processes involved in nominalization are affixation, reduplication and compounding. Regarding the types of the derived nouns, nominalizations can be classified into agentive, action/state, instrumental, locative and objective nominalizations.

Tajio has singular and plural pronouns for the first, second and third person. A further distinction is made between first-person plural inclusive (which includes addressee) and first-person plural exclusive (which excludes addressee). Personal pronouns in Tajio do not inflect for gender. The discussion of the singular pronouns is separated from plural pronouns as both are formed differently. Singular pronouns can be expressed by independent forms, clitics and prefixes depending on their function. They occur as genitive clitics when functioning as possessors or as objects in undergoer voice constructions. First and second person singular pronouns occur as prefixes when used to express actors in non-realis undergoer-voice constructions. The plural forms of the personal pronoun, however, are analyzed as bound roots. Morphologically they consist of bound forms which attach to either the honorific prefix *si-* or the genitive prefix *ni-*. There is no syntactic context where these prefixes can be omitted and only the bare roots are used.

Tajio has two noun markers, the proclitics *si=* and *te=*, which occur as pre-head modifiers. The choice between *si=* and *te=* depends on the animacy of their host. The analysis of *te=* poses some difficulties in that it shows characteristics of both an article and a noun marker.

There are two basic transitive constructions in Tajio: Actor Voice and Undergoer Voice, where the actor or undergoer argument respectively serves as subjects. It shares many characteristics with symmetrical voice languages, yet it is not fully symmetric, as arguments in AV and UV are not equally marked. Neither subjects nor objects are marked in AV constructions. In UV constructions, however, subjects are unmarked while objects are marked either by prefixation or clitization.

Evidence from relativization, control and raising constructions supports the analysis that AV and UV are in fact transitive, with subject arguments and object arguments behaving alike in both voices. Only the subject can be relativized, controlled, raised or function as the implicit subject of subjectless adverbial clauses. In contrast, the objects of AV and UV constructions do not exhibit these features.

In addition to the basic voice alternation, Tajio has a number of productive valence changing affixes. It has two applicative suffixes to increase the valency of a given predicate: the goal applicative suffix *-i* and the benefactive suffix *-ao*. Another valence increasing affix is the causative prefix *PO-*. This causative marker can be attached to a root by itself or in combination with applicative suffixes. Constructions which indicate valency-decrease include reciprocals and resultatives. Another way to decrease valence is reduplication, but this is not very productive. Reduplication changes transitive verbs into intransitive verbs, but it cannot be applied to all transitive verbs.

Tajio is a predominantly head-marking language with basic A-V-O constituent order. V and O form a constituent, and the subject can either precede or follow this complex. Thus, basic word order is S-V-O or V-O-S. Subject, as well as non-subject arguments, may be omitted when contextually specified. Verbs are marked for voice and mood, the latter of which is is obligatory. The two values distinguished are realis and non-realis.

Tajio has two aspectual markers: completive and continuative. Aspectual marking in Tajio is found in the form of enclitics which are attached to a predicate host. The aspectual markers have two functions: their primary function relates to temporal properties of events, and their secondary functions are functions other than temporal specification, for instance, to mark focus, politeness or comparative constructions.

Depending on the type of predicate involved in clause formation, three clause types can be distinguished: verbal clauses, existential clauses and non-verbal clauses. Existential clauses are distinguished from verbal clauses by the fact that the existential verb *amai* 'exist' does not occur with any verbal inflection. Non-verbal clauses occur without a copula; such verbless clauses consist of a nominal subject and a predicate, which can be a noun phrase (NP) or a prepositional phrase (PP).

Tajio has a small number of multi-verbal structures that appear to qualify as serial verb constructions. SVCs in Tajio always include a motion verb or a directional. The directional verb or the motion verb always comes first and can be followed by any other verb. Unlike other verbal predicates that obligatorily occur with mood marking, these directionals in SVCs never take any inflection.

2 Phonetics and phonology

This chapter is concerned with the basic phonetic and phonological features of Tajio. Apart from giving a description of the basic phoneme inventory of Tajio, it deals with aspects of Tajio phonology that require special treatment: vowel sequences, nasal-obstruent sequences, syllable structure, intonation and stress and phonological alternations (morphophonology).

2.1 Orthographic conventions

In the following sections, examples are represented phonetically, phonemically and orthographically where necessary; in the remainder of this work they are usually only written in the practical orthography introduced here. The phonetic representation makes use of IPA symbols and is given in square brackets ([ ]). Phonemic representations are given in between slashes (/ /). When contrasted with phonetic or phonemic representation, orthographic representations are specifically marked by angled brackets (< >).

The practical orthography differs from the IPA-based phonemic representation for the following sounds:

/ŋ/ = <ng>
/ɲ/ = <ny>
/tʃ/ = <c>
/dʒ/ = <j>
/β/ = <v>
/ʔ/ = <’>
/j/ = <y>

2.2 Consonant phonemes

The consonant phoneme inventory of Tajio consists of the twenty consonants presented in Table 2-1. Parentheses indicate a special phonemic status, i.e., the distribution of the sounds thus marked is limited and/or only occurs in loans. The phonemes are represented by standard IPA symbols. The voiced and voiceless phonemes appear side by side, voiceless ones on the left and voiced ones on the right.

	Bilabial	Dental-alveolar	Palato-alveolar	Velar	Glottal
Plosive	p b	t d		k g	ʔ
Affricate			(tʃ) dʒ		
Fricative	β	s			(h)
Nasal	m	n	ɲ	ŋ	
Trill		r			
Lateral		l			
Approximant	(w)		(j)		

Table 2-1: Consonant phonemes of Tajio

In order to describe the allophonic variation of consonantal phonemes in Tajio, word-initial, word-final and intervocalic (word-medial) contexts must be distinguished. As further discussed in Section 2.5, the phonology of Tajio does not generally permit consonant clusters, except where sequences consist of a nasal followed by an obstruent (e.g. /mb/, /nd/, etc.) or where they occur at clitic boundaries.

2.2.1 Plosives

There are seven plosives in Tajio: /p/, /t/, /k/ and /ʔ/ are voiceless; /b/, /d/ and /g/ are voiced. Plosives in Tajio are generally not aspirated. The glottal stop poses a special analytic problem as phonemic and non-phonemic glottal stops must be distinguished: It is treated separately in Section 2.2.1.4.

2.2.1.1 Oral voiceless plosives

The voiceless plosives /p/, /t/ and /k/ in Tajio are unaspirated and they have two principal allophones: a released and an unreleased form. The released form occurs word-initially and word-medially. In word-final position, the unreleased allophone is produced. Table 2-2 provides some examples.

		Word-initial	**Word-medial**	**Word-final**
/p/	[p]	<**p**ita'> /**p**itaʔ/ [**p**itaʔ] 'thread'	<tai**p**ang> /tai**p**aŋ/ [tai**p**aŋ] 'mango'	-
	[p̚]	-	-	<soro**p**> /soro**p**/ [sorɔ**p̚**] 'to suck (not nurse)'
/t/	[t]	<**t**onung> /**t**onuŋ/ [**t**ɔnuŋ] 'to weave cloth'	<u**t**us> /u**t**us/ [ʔu**t**us] 'to hit; beat'	-
	[t̚]	-	-	<vuvu**t**> /βuβu**t**/ [βuβu**t̚**] 'hair'
/k/	[k]	<**k**inde> /**k**inde/ [**k**inde] 'to nod'	<po**k**i> /po**k**i/ [po**k**i] 'eggplant'	-
	[k̚]	-	-	<kobo**k**> /kobo**k**/ [kobɔ**k̚**] 'to fall: various sounds'

Table 2-2: Distribution of oral voiceless plosives

2.2.1.2 Voiced plosives

As is the case with the voiceless plosives, their voiced counterparts /b/, /d/ and /g/ also have two principal allophones: released and unreleased. The released allophone occurs word-initially and word-medially, the unreleased allophone occurs word-finally, as illustrated in Table 2-3.

		Word-initial	**Word-medial**	**Word-final**
/b/	[b]	<**b**osoi> /**b**osoi/ [**b**ɔsɔi] 'to paddle'	<ti**b**as> /ti**b**as/ [ti**b**as] 'to cut (wood, across grain)'	-
	[b̚]	-	-	<lata**b**>/lata**b**/ [lata**b̚**] 'oil'
/d/	[d]	<**d**iit> /**d**iit / [**d**iit̚] 'to pull'	<tu**d**a> /tu**d**a/ [tu**d**a] 'to plant'	-
	[d̚]	-	-	<vulu**d**> /vulu**d**/ [βulu**d̚**] 'shinbone'
/g/	[g]	<**g**ipis> /**g**ipis/ [**g**ipis] 'to pinch'	<lo**g**o> /lo**g**o/ [lo**g**o] 'rice barn'	-
	[g̚]	-	-	<tutu**g**> /tutu**g**/ [tutu**g̚**] 'ember, live coal'

Table 2-3: Distribution of voiced plosives

2.2.1.3 Delayed release plosives

In addition to unreleased allophones, Tajio plosives–both voiced and voiceless–allow delayed release in word-final position. Delayed release sporadically occurs when speakers pronounce single words during elicitation. There is no phonemic contrast between unreleased and delayed release allophones, i.e., there is free variation between these two options.

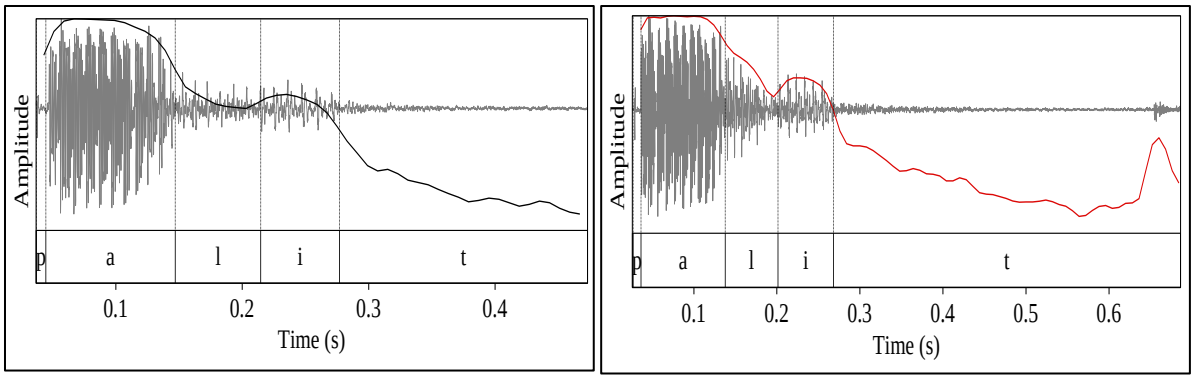


Figure 1: Unreleased [palit̚] and delayed release [palit:]

Figure 1 illustrates the difference between an unreleased realization (black) and a delayed-release realization (red) of the word /palit/ 'around all'. The delayed release is distinguished by the appearance of a small wave at the end of the intensity curve for [palit:]. In addition, the time shows that the delayed-release allophone needs about 0,2 seconds longer than the unreleased one.

In word elicitation, I found variants with delayed release for all plosives except for /p/. For example:

<pali**t**> /pali**t**/ [pali**t**:] 'all around; surrounding'
<kojo**k**> /kodʒo**k**/ [kɔdʒɔ**k**:] 'mushroom'
<taa**b**> /taa**b**/ [ta:**b**:] 'high tide'
<keke**d**> /keke**d**/ [kekɛ**d**:] 'framboesia'
<buniа**g**> /buniа**g**/ [buniʲa**g**:] 'coral reef'

In order to get at least a rough idea of the frequency of the delayed release option, the following six sentences ending in a plosive were elicited from six speakers.

(1) *sisia* *nongoli* ***telatab***
sisia *noN-oli* ***te=latab***
1PL AV.RLS-buy **NM=oil**
'They bought oil.'

(2) *tepue* *eua* ***netekoud***
te=pue *eua* ***nete-koud***
NM=stick DIST **RES.RLS-crooked**
'That stick is crooked.'

(3) *sisia* ***nolayag***
sisia ***no-layag***
1PL **DY.RLS-sail**
'They sailed.'

(4) *nyaa* ***nisaup***
nyaa ***ni-saup***
IMP.NEG **UV.RLS-rub**
'Don't rub!'

(5) *sisia* *nomenek* ***tebuut***
sisia *noN-penek* ***te=buut***
1PL AV.RLS-climb **NM=mountain**
'They climbed the mountain.'

(6) *toonya* *eua* ***nopuduk***
too=nya *eua* ***nV-puduk***
person=DEF DIST **ST.RLS-short**
'That person is short.'

The six speakers, four females and two males, produced these sentences once. Table 2-4 illustrates that delayed-release variants are rather infrequent overall, and that considerable variation in the production of word-final plosives exists at the level individual speakers.

Speaker	Voiced plosives						Voiceless plosives					
	/b/		/d/		/g/		/p/		/t/		/k/	
	[b̚]	[bː]	[d̚]	[dː]	[g̚]	[gː]	[p̚]	[pː]	[t̚]	[tː]	[k̚]	[kː]
1st speaker (F)	+		+			+	+		+		+	
2nd speaker (F)	+		+		+		+		+		+	
3rd speaker (F)	+		+		+		+		+		+	
4th speaker (M)	+		+		+		+		+		+	
5th speaker (M)	+			+		+	+		+		+	
6th speaker (F)	+			+	+		+		+			+

Table 2-4: Plosives in word-final position

2.2.1.4 Glottal stop

The glottal stop /ʔ/ in Tajio occurs in word-initial, word-medial and word-final position, as illustrated in Table 2-5.

		Word-initial	Word-medial	Word-final
/ʔ/	[ʔ]	<'aug> /**ʔ**aug/ [**ʔ**aug̚] 'to paddle'	<sara**'**e> /sara**ʔ**e/ [sara**ʔ**e] 'comb'	<sulepe**'**> /sulepe**ʔ**/ [sulɛpɛ**ʔ**] 'waist belt'

Table 2-5: Distribution of the glottal stops

The phonemic glottal stop can be difficult to distinguish from a non-phonemic glottal stop which frequently occurs word-initially.

(7) <ambur> /ambur/ [**ʔ**ambur] 'to sow (scattering the rice seeds)'
(8) <ojot> /ojot/ [**ʔo**jɔt̚] 'to cut'

Examples (7) and (8) show words that do not have a phonemic glottal stop in initial position. In contrast, the example /**ʔ**aug/ in Table 2-5 has a phonemic glottal stop in initial position. However, from a phonetic perspective all the three words may be produced with a glottal stop in word-initial position, as documented in Figure 2 to Figure 4. The red arrow points to the segment in the spectrogram where a glottal stop occurs word-initially.

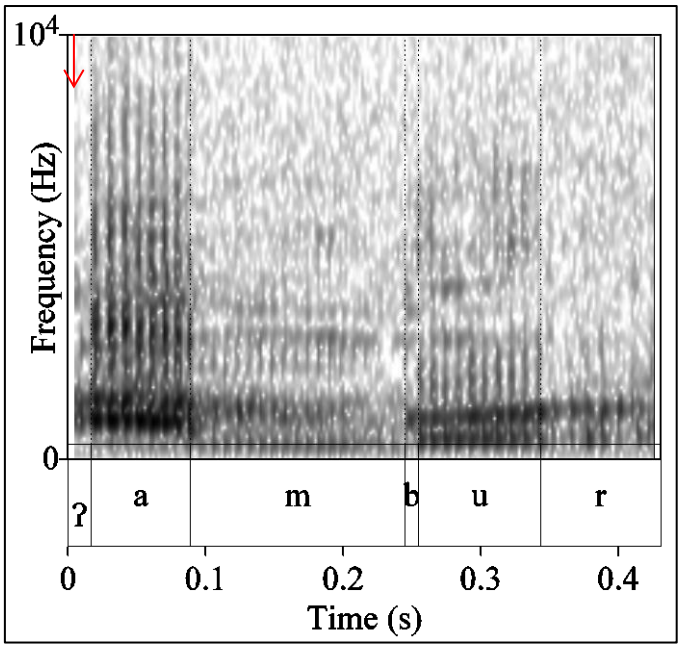


Figure 2: Spectrogram of the word *ambur*

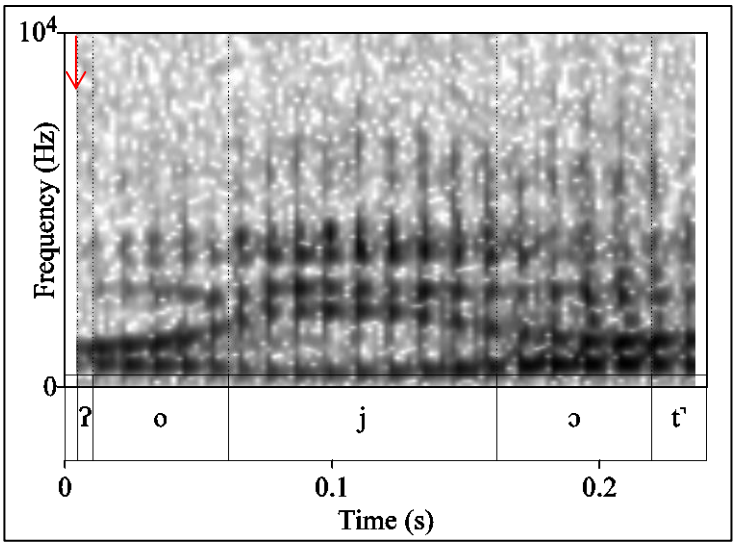


Figure 3: Spectrogram of the word *oyot*

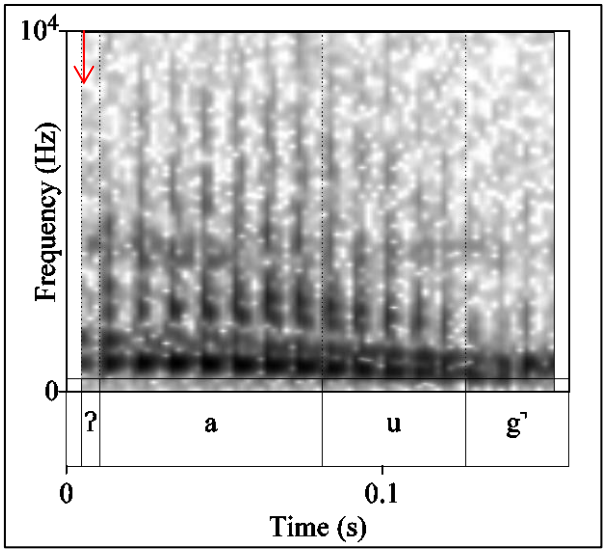


Figure 4: Spectrogram of the word *'aug*

In order to be able to clearly identify the phonemic status of the glottal stop in word-initial position, reduplication and prefixation can be used as diagnostic tests. The diagnostic test that is applied here is prefixation, in which a base whose initial phoneme is a vowel and a base whose initial phoneme is a glottal stop behave differently when interacting with vowel-final prefixes.

If a vowel-final prefix is added to a vowel-initial root, the result is a sequence of two vowels with no intervening glottal stop. If the vowels are identical, they are pronounced as a single long vowel. Consider examples (9)–(11) (see also Section 2.4 for details on vowel sequences).

(9)	*nV-* + /**a**na/ [ʔ**a**na]	→	/n**aa**na/	[n**a**:na]	'to be right'
(10)	*ni-* + /ambing/ [ʔambing]	→	/n**ia**mbing/	[n**ia**mbiŋ]	'to carry in a sarong'
(11)	*ne-* + /**i**nsoŋ/ [ʔ**i**nsɔŋ]	→	/n**ei**nsoŋ/	[n**ei**nsɔŋ]	'to gather'

Figure 5 shows the spectrogram of the word /niambing/ 'to carry in a sarong', in which there is no glottal stop between the two vowels; the red arrow again highlights the relevant segment.

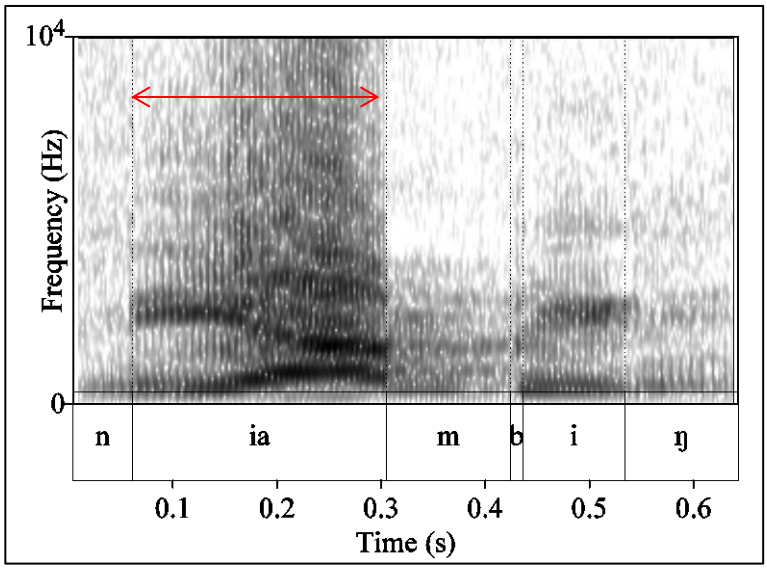


Figure 5: Spectrogram of the word *niambing*

These examples have to be compared to a phonemic initial glottal stop as in example (12). Here the glottal stop is clearly audible and visible in the spectogram as illustrated by Figure 6.

(12)	*ro-* + /**ʔ**aug/ [**ʔ**aug̃] + *-i*	→	/ro**ʔa**ugi/	[ro**ʔa**ugi]	'to paddle'

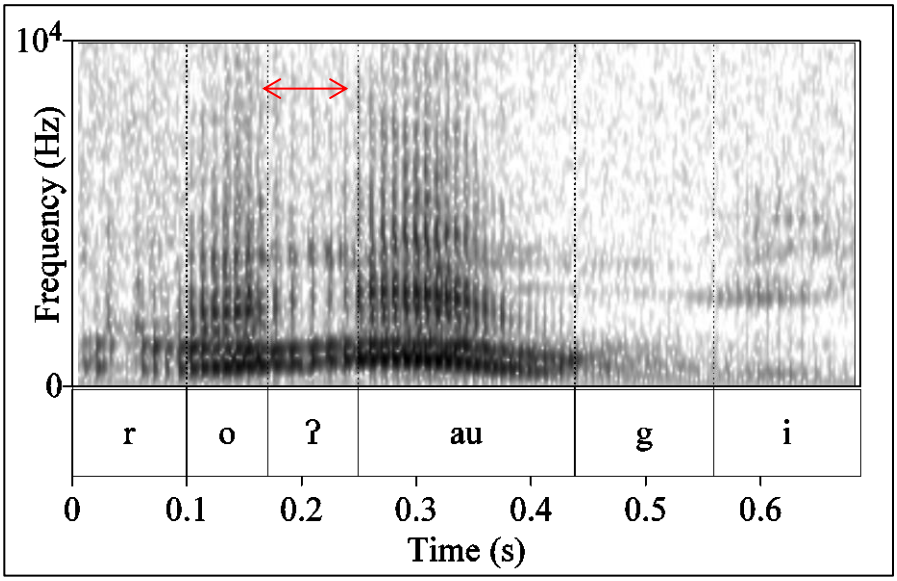


Figure 6: Spectrogram of the word *ro'augi*

Another prefix that can be used as a diagnostic for a phonemic glottal stop in word-initial position is the nasal prefix *noN-*/*moN-*/*poN-* (see Section 2.8.1 for further details on nasal assimilation). If a nasal prefix is attached to a vowel-initial root, the homorganic nasal of the prefix will appear as velar [ŋ] while the initial segment of the root (i.e., the vowel in the onset) remains unchanged, as in examples (13) and (14). However, if the prefix is attached to a root starting with a phonemic glottal stop, the glottal stop /ʔ/ in word-initial position is changed to [k], as shown by example (15).

(13) *moN-* + /**o**jot/ [**ʔo**jɔt̚] → /mo**ŋo**jot/ [mɔ**ŋ**ɔjɔt̚] 'to cut'
(14) *moN-* + /**u**tus/ [**ʔu**tus] →/mo**ŋu**tus/ [mɔ**ŋu**tus] 'to hit/beat'
(15) *moN-* + /**ʔ**aug/ [**ʔ**aug̚] → /mɔ**ŋk**aug/ [mɔ**ŋk**aug̚] 'to paddle'

Phonemic glottal stops in word-final position may be equally hard to detect in terms of auditory evidence because, like the other plosives, they are usually unreleased. Affixation can be used to distinguish vowel-final roots from roots ending in a glottal stop. If a vowel-initial suffix is attached to a glottal-final root, the glottal stop is clearly audible, as in examples (16) and (17).

(16) *ni-* + /tuba**ʔ**/ [tuba**ʔ**] + *-i* → /nituba**ʔ**i/ [nituba**ʔ**i] 'to pick (the tips of leaves)'
(17) /turu**ʔ**/ [turu**ʔ**] + *-i* → /turu**ʔ**i/ [turu**ʔ**i] 'to imitate'

The glottal stop in root-final position in example (16), which interrupts the sequence of the two vowels /a/ and /i/, can be clearly seen from the spectrogram presented in Figure 7.

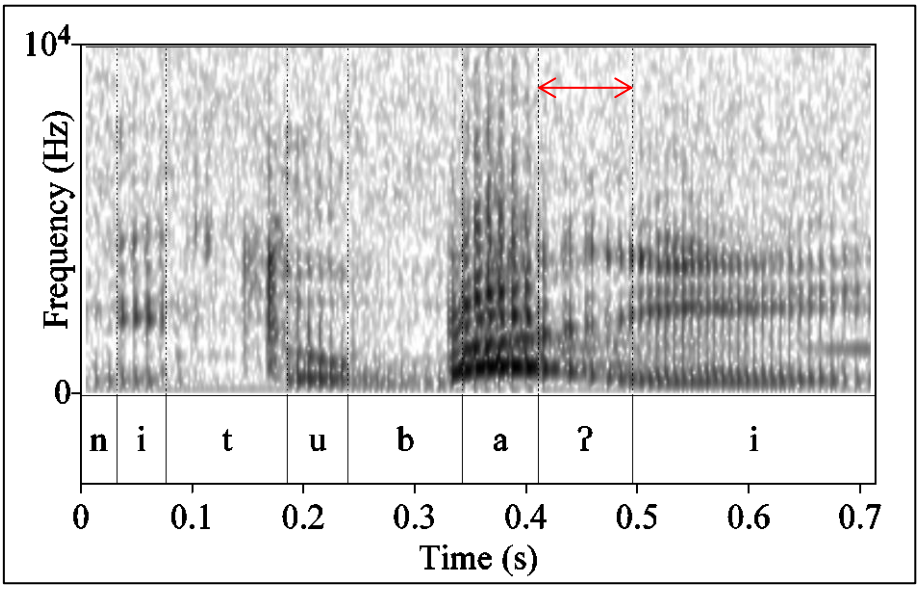


Figure 7: Spectrogram of the word *nituba'i*

In contrast, if the root has no final glottal stop, no glottal stop will separate the vowels, as seen in examples (18) and (19).

(18) *moN-*+ /tuda/ [tuda] + *-i* → /monudai/ [monudai] 'to burn'
(19) /tud^{3}u/ [tud^{3}u] + *-i* → /tud^{3}u/ [tud^{3}ui] 'to order/command'

Figure 8 presents the spectrogram of the word *monudai*, in which there is no glottal stop interrupting the sequence of the vowels /a/ and /i/.

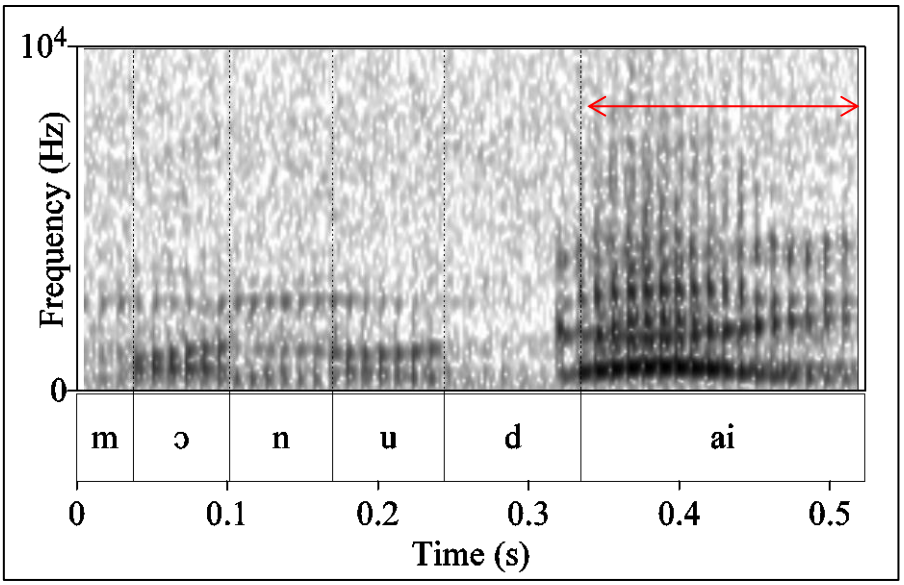


Figure 8: Spectogram of the word *monudai*

2.2.2 Affricates

/tʃ/ and /dʒ/ are palato-alveolar affricates that occur word-initially and word-medially, but never word-finally. Neither of them has further allophones.

		Word-initial	Word-medial	Word-final
/tʃ/	[tʃ]	<**c**olo'> /**tʃ**oloʔ/ [**tʃ**oloʔ] 'matches'; 'to dye'	<vulu**c**umi'> /βulu**tʃ**umiʔ/ [βulu**tʃ**umiʔ] 'mustache'	-
/dʒ/	[dʒ]	<**j**ilo'> /**dʒ**iloʔ/ [**dʒ**iloʔ] 'to lick'	<tu**j**u> /tu**dʒ**u/ [tu**dʒ**u] 'to order/command'	-

Table 2-6: Distribution of affricates

/tʃ/ is a phoneme with limited distribution. It is mostly found in loan words, in particular in words of Indonesian origin. For example, the word *cahaya* 'light' in Indonesian has been borrowed as *caya* [tʃaja] and the Indonesian word *merica* 'pepper' is *marica* [maritʃa] in Tajio.

Affricates in Tomini-Tolitoli languages have been analyzed differently by different researchers. The differences pertain both to the place and manner of articulation. Concerning manner of articulation, the two sounds have been classified as plosives as well as affricates. With respect to place of articulation, they have been analyzed as dental, alveolar or palatal sounds.

Himmelmann (1991) considers <c> and <j> in the Tomini-Tolitoli languages as palatal stops and represents them phonetically as [c] and [ɟ]. Quick (2007) classifies <c> and <j> in Pendau as [tʃ] (voiceless dental sibilant affricate) and [dʒ] (voiced alveolar sibilant affricate) respectively. Similar differences in analysis are also found in the literature on Indonesian. Alwi et al. (1998) classify <c> and <j> in Indonesian as palatal affricates and represent them as [tʃ] and [dʒ] while Soderberg and Olson (2008) analyze them as post-alveolar affricates and represent them as [tʃ] and [dʒ]. Given the controversial status of affricates in these languages, the following sections are concerned with a close examination of manner and place of articulation of the affricates in Tajio.

2.2.2.1 Manner of articulation of [tʃ] and [dʒ]

Spectrographic analysis supports the claim that these sounds are affricates rather than plosives. Figure 9 shows the spectrogram of the Tajio word *kacang* [katʃaŋ] 'bean' and Figure 10 the spectrogram of the word *ujang* [udʒaŋ] 'rain'. These can be compared to spectrograms of palatal plosives such as [c] and [ɟ] in the Hungarian words [ɔcɔ] and [ɔɟɔ] (Figure 11) as given in Ladefoged (2001:148).

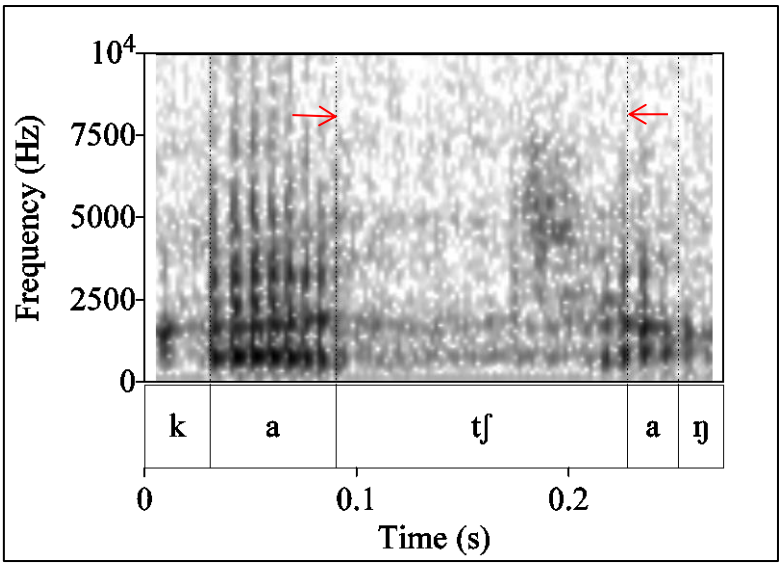


Figure 9: Spectrogram of the word *kacang* 'bean'

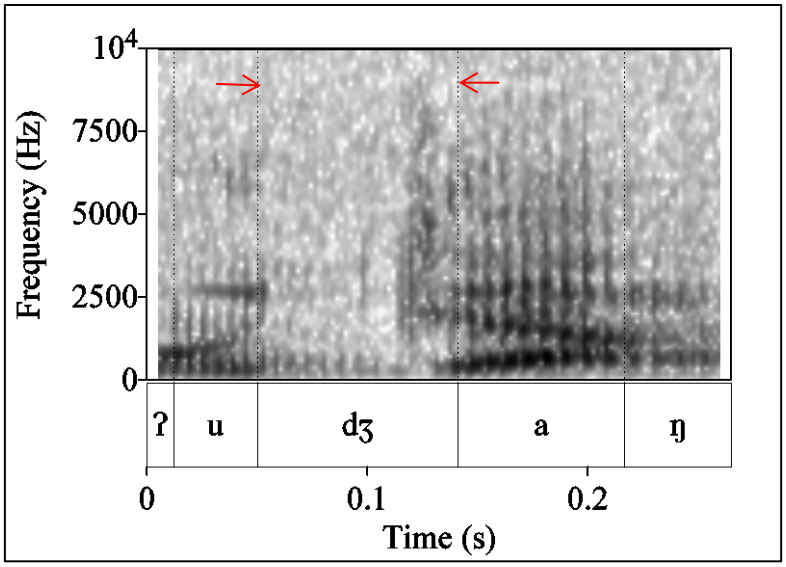


Figure 10: Spectrogram of the word *ujang* 'rain'

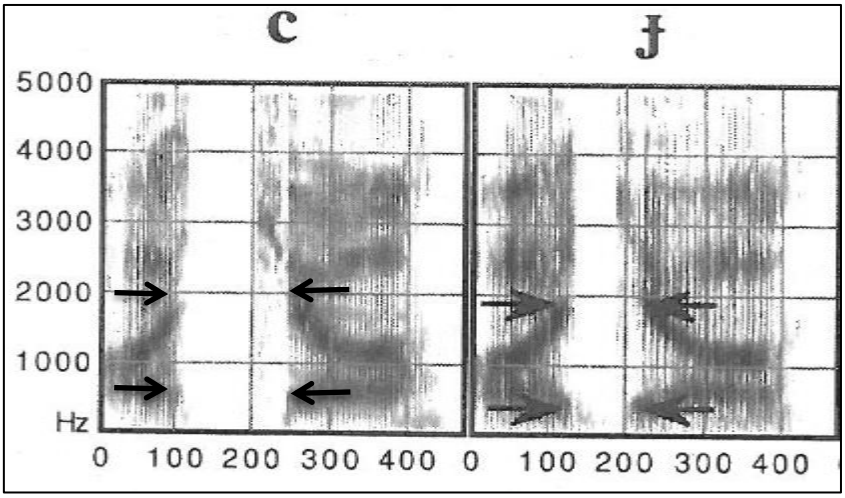


Figure 11: Spectrogram of [c] and [ɟ] in Hungarian

Figure 11 shows that each of the two plosives ([c] and [ɟ]) in Hungarian has a clear-cut boundary. The arrows indicate the location of the first and the second formants as the closure is formed and released (Ladefoged 2001:140). By contrast, while there is also a clearly delimited closure in Tajio (Figure 9 and Figure 10), the closure is followed by a marked friction as indicated by the arrows. The spectrograms thus provide clear evidence for an analysis as affricates.

Note that the friction in Tajio affricates (see Figure 12 and Figure 13) is less strong than the friction found in English affricates illustrated in Figure 14 from Ladefoged (2001:59).

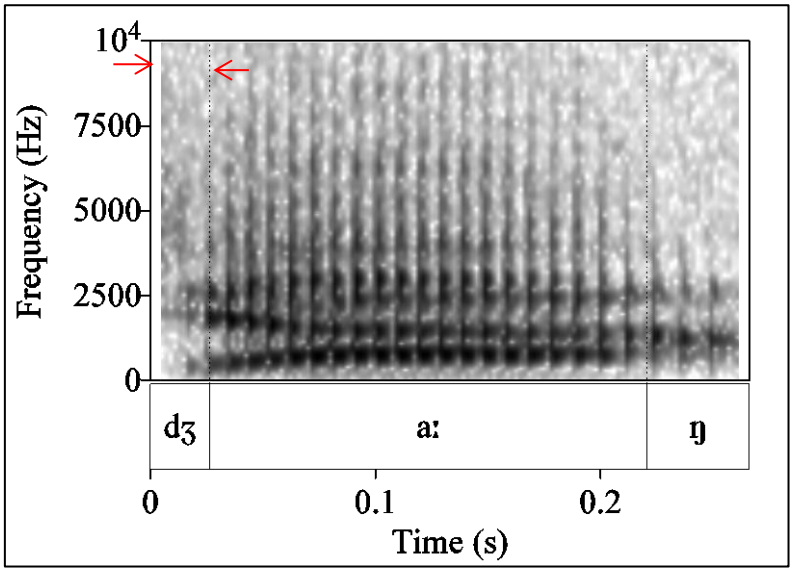


Figure 12: Spectrogram of [dʒ] in the word *jaang* 'boil'

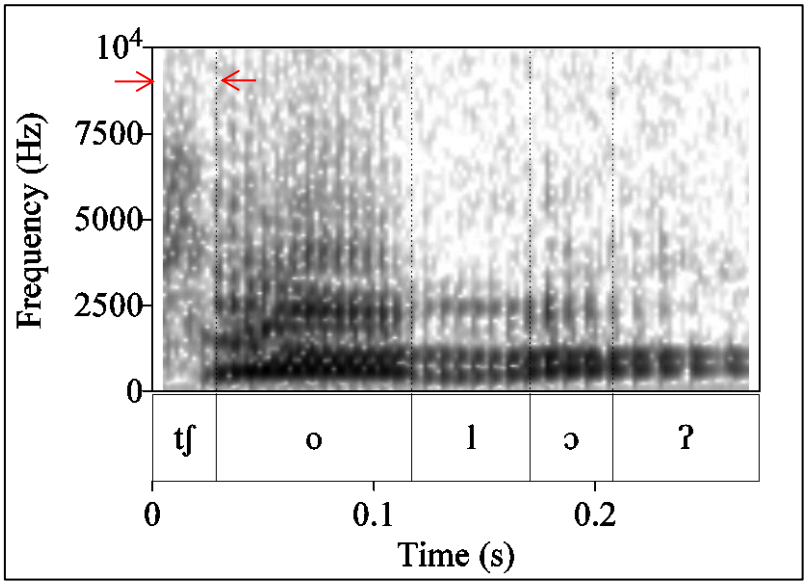


Figure 13: Spectogram of [tʃ] in the word *colo'* 'matches'

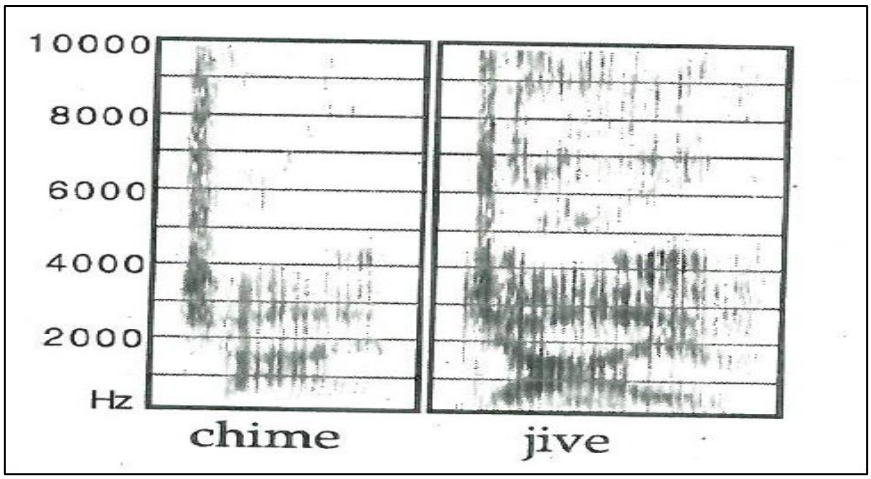


Figure 14: Spectrogram of [tʃ] and [dʒ] in English

As can be seen from Figure 12 and Figure 13, the friction of the Tajio affricates is not clearly visible up in the 10.000Hz range, in contrast to the English affricates. The spectral range of the friction in Tajio affricates would rather appear to be similar to the ones found in Nunggubuyu, a language spoken in Australia (compare Figure 15).

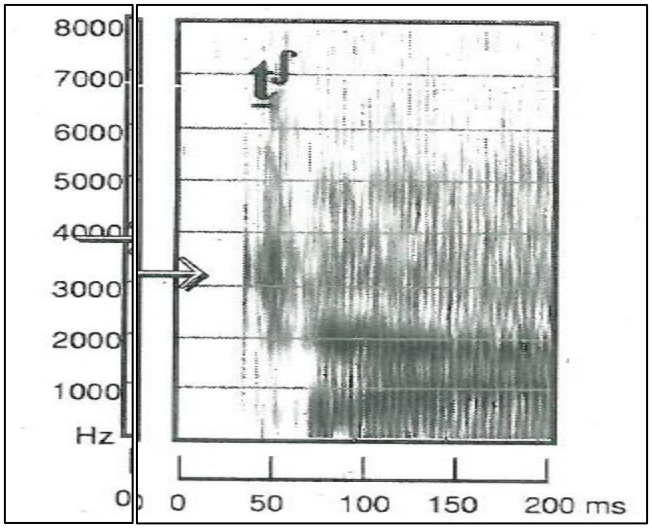


Figure 15: Spectrogram of [tʃ] in Nunggubuyu (Ladefoged 2001:143)

Due to this lesser spectral extension, Tajio affricates are represented phonetically with a raised smaller symbol denoting the fricative part: [tʃ] and [dʒ] respectively.

2.2.2.2 Place of articulation of [tʃ] and [dʒ]

With regard to the place of articulation, Ladefoged (1996 and 2001) illustrates the difference between palatal plosives and palato-alveolar affricates with the pictures given in Figure 16.

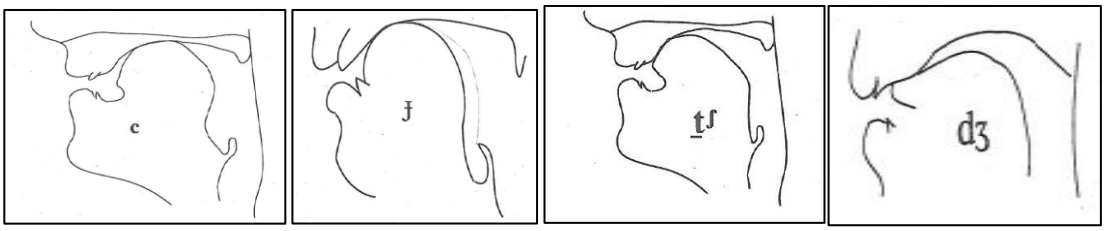


Figure 16: Place of articulation of palatal plosives and palato-alveolar affricates (Ladefoged 1996:32; 2001:144,147)

Ladefoged (1996:32) defines palatal sounds as being made with the front of the tongue approaching or touching the hard palate. Palato-alveolars involve the hard palate as well as the back part of the alveolar ridge (Ladefoged 2001:147).

The distinction discussed above can best be diagnosed with the help of palatography and linguagraphy (cf. Ladefoged 2001:144).

For the analysis of the Tajio affricates, the speaker's tongue was painted with a mixture of coconut oil and cacao powder. After the tongue had been prepared in this way, the speaker was asked to say *aja*. The result is shown in Figure 17.

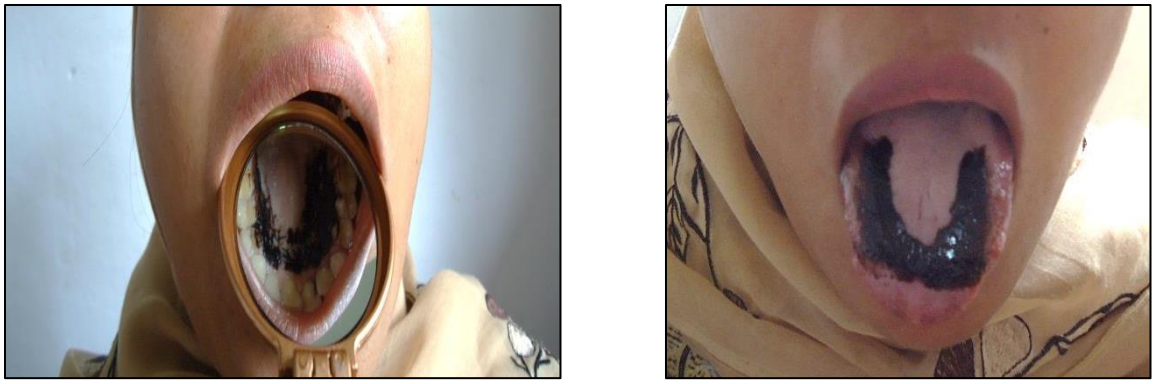


Figure 17: A palatogram (on the left) showing the roof of the speaker's mouth and a linguagram (on the right) showing the tongue after producing [dʒ] between two [a] (i.e., *aja*) in Tajio.

The palatogram shows that [dʒ] in Tajio is articulated by the blade of the tongue touching the hard palate and the back part of the alveolar ridge. The linguagram demonstrates that the part of the tongue involved is behind the tip and the blade. This points to the conclusion that [dʒ] in Tajio is a palato-alveolar affricate. Given that the only difference between [dʒ] and [tʃ] is the type of phonation (i.e., [dʒ] is voiced and [tʃ] is voiceless), it is safe to assume that [tʃ] is also palato-alveolar.

2.2.3 Nasals

There are four nasals in Tajio, namely the bilabial nasal /m/, the dental-alveolar nasal /n/, the palatal nasal /ɲ/ and the velar nasal /ŋ/. /m/, /n/ and /ŋ/ can occur in word-initial, word-medial and word-final position whereas /ɲ/ can only occur word-initially and word-medially. Compared to /n/ and /ŋ/, the occurrence of /m/ in final position is very limited. Among the 1,646 lexical items in my corpus, there are only six lexical items with final /m/: *ancam* 'to threaten', *lolom* 'to swim', *santum* 'music instrument from bamboo', *soyom* 'ant' and *ulam* 'medicine'. Each nasal has a single allophone, given in the second column of Table 2-7.

		Word-initial	**Word-medial**	**Word-final**
/m/	[m]	<**m**eluwa> /**m**eluwa/ [**m**eluwa] 'vomit'	<se**m**pa'> /se**m**paʔ/ [se**m**paʔ] 'to kick'	<onggo**m**> /oŋgo**m**/ [ɔŋgɔ**m**] 'to be cold'
/n/	[n]	<**n**asu> /**n**asu/ [**n**asu] 'to be angry'	<ma**n**uk> /ma**n**uk/ [ma**n**u̱k] 'chicken'	<bulago**n**> /bulago**n**/ [bulagɔ**n**] 'rattan'
/ŋ/	[ŋ]	<**ng**aje> /**ŋ**adʒe/ [**ŋ**adʒe] 'chin'	<ta**ng**a> /ta**ŋ**a/ [ta**ŋ**a] 'back'	<pimpi**ng**> /pimpi**ŋ**/ [pimpi**ŋ**] 'cheek'
/ɲ/	[ɲ]	<**ny**au> /**ɲ**au/ [**ɲ**au] 'to go down'	<o**ny**o'> /o**ɲ**oʔ/ [ʔɔ**ɲ**ɔʔ] 'to swallow'	-

Table 2-7: Distribution of nasals

2.2.4 Fricatives

Three fricative phonemes found in Tajio are the voiced bilabial fricative /β/, the voiceless dental-alveolar fricative /s/, and the voiceless glottal fricative /h/.

The voiced bilabial fricative /β/ occurs in word-initial, word-medial and word-final position. It should be noted that the occurrence of /β/ in word-final position is very limited. The database records only one word with /β/ in this position: <soov> /sooβ/ [sɔɔβ] 'close'.

/β/ has two allophones: [β] and [b]. The allophone [β] occurs in word-initial, word-medial and word-final position, whereas the allophone [b] occurs if /β/ occurs after the bilabial nasal [m]. In this case, /m/+/β/ becomes a cluster [mb].

In addition to the two positionally conditioned allophones, [β] has also a third allophone, [ɸ] which occurs in free variation in word-initial and word-medial position. For example, /kalaβata/ 'causeway' may either be pronounced [kalaβata] or [kalaɸata]; /βalaoŋ puse/ 'belly button' is both recorded as [βalaɔŋ puse] and [ɸalaɔŋ puse].

Just like /β/, /s/ has a complete distribution. It occurs in word-initial, word-medial and word-final position. /h/ on the other hand can only occur in word-initial and word-medial positions.

		Word-initial	**Word-medial**	**Word-final**
/β/	[β]	<**v**osu>/**β**osu/ [**β**osu] 'to be satisfied'	<vuvut> /βu**β**ut/ [βu**β**ut] 'hair of head'	<soo**v**> /soo**β**/ [soo**β**] 'to close'
	[b]	-	*moN-* + /βaβa/ → /mom**b**aβa/ [mɔm**b**aβa] 'to bring/carry (in the hand)' *noN-* + [βiar] + *-i* → /nom**b**iari/ [nom**b**iari] 'to look at'	-
	[ɸ]	<**v**alaong puse> /**β**alaoŋ puse/ [**β**alaɔŋ puse] or [**ɸ**alaɔŋ puse] 'belly button'	<kala**v**ata> /kala**β**ata/ [kala**β**ata] or [kala**ɸ**ata] 'causeway'	-
/s/	[s]	<**s**umpi> /**s**umpi/ [**s**umpi] 'sprout, shoot'	<pa**s**i**s**i> /pa**s**i**s**i/ [pa**s**i**s**i] 'winnow'	<oyo**s**> /ojo**s**/ [ojɔ**s**] 'to trample over paddy'
/h/	[h]	<**h**amma'> /**h**ammaʔ/ [**h**ammaʔ] 'Lord! (as interjection)'	<a**h**a'> /a**h**aʔ/ [ʔa**h**aʔ] 'Sunday'	-

Table 2-8: Distribution and allophonic variants of the fricatives

Words with voiceless glottal fricatives are rather rare in Tajio and most are loan words from Indonesian. In addition to *a**h**a'* 'Sunday' in Table 2-8, Tajio ***h**arapan* 'wish, hope' (same in Indonesian) and *pa**h**ang* 'understand' are also loans from Indonesian, the later being *paham* in Indonesian.

In elicitation, speakers occasionally add [h] in word-final position. For example, /palati/ 'loom (weft)' [palati] is also pronounced [palati**h**]; /namanta/ 'unripe' [namanta] is recorded as [namanta**h**]; /pimpi/ 'arrow for blow gun' [pimpi] can be articulated as [pimpi**h**]. However, the suffixation test used to distinguish between phonemic and non-phonemic glottal stops in word-final position also shows that this [h] is non-phonemic (cp. Section 2.2.1.4). For example, the word <umbe> 'to open/uncover' [ʔumbe] is also pronounced as [ʔumbɛ**h**], but when the suffix *-i* is attached to the root, the newly formed word is [ʔumbei] not *[ʔumbehi]. The word <lapi> 'spouse' may be recorded both [lapi] and [lapi**h**], but when the suffix *-nya* is attached to the root, the newly formed word is [lapiɲa] not *[lapihɲa].

2.2.5 Trill and lateral

There are two liquid phonemes in Tajio: the alveolar trill /r/ and the alveolar lateral /l/. Both phonemes occur word-initially, word-medially and word-finally, and they both have a single allophone.

		Word-initial	Word-medial	Word-final
/r/	[r]	<**r**agab> /**r**agab/ [**r**agab̄] ‘to lie prone’	<po**r**ok> /po**r**ok/ [po**r**ɔk̄] ‘fork’	<livu**r**> /liβu**r**/ [liβu**r**] ‘to pursue’
/l/	[l]	<**l**adi> /**l**adi/ [**l**adi] ‘knife’	<ba**l**isa> /ba**l**isa/ [ba**l**isa] ‘to be anxious/worry’	<ada**l**> /ada**l**/ [ada**l**] ‘to be hard’

Table 2-9: Distribution of liquids

2.2.6 Approximants

Approximants in Tajio have three different phonological interpretations: (a) as phonemic glides, (b) as non-phonemic glides and (c) as allophonic glides of the vowels /i/ and /u/.

2.2.6.1 Phonemic glides

There are two glide phonemes in Tajio, the bilabial approximant /w/ and the palatal approximant /j/. Both phonemes occur in relatively few words and are limited to word-initial and word-medial positions.

		Word-initial	Word-medial	Word-final
/w/	[w]	<**w**ato'> /**w**atoʔ/ [**w**atɔʔ] ‘step-parents/children’ <**w**igi> /**w**igi/ [**w**igi] ‘left side’	<u**w**ere> /u**w**ere/ [u**w**ere] ‘misfortune, bad luck’ <ca**w**at> /ca**w**at/ [ca**w**at̄] ‘underpants’	-
/j/	[j]	<**y**uvu’> /**j**uβuʔ/ [**j**uβuʔ] ‘very small (object)’	<mo**y**ak> /mo**j**ak/ [mo**j**ak̄] ‘to yawn’ <a**y**apo> /a**j**apo/ [a**j**apo] ‘itch caused by dust and the like’	-

Table 2-10: Distribution of approximants

Despite their limited distribution, it is clear that the approximants in these examples are phonemic: they cannot be omitted and there are no alternative realizations.

Their status as a phoneme can be supported by the syllabification test. Phonemic glides also occur when syllables are pronounced in isolation which provides support for analyzing them as phonemes, in particular in the case of medial glides.

(20) /**w**atoʔ/ ‘step-parents/children’ → /**w**a-toʔ/
(21) /**j**uβuʔ/ ‘very small (object)’ → /**j**u-βuʔ/
(22) /a**j**apo/ ‘itch caused by dust and the like’ → /a-**j**a-po/

2.2.6.2 Non-phonemic glides

Unlike phonemic glides, non-phonemic glides will disappear when syllables are pronounced in isolation. Examples (23), (24) and (25) illustrate this.

(23) /von**ua**/ ‘house’ [βon**uwa**] → /βo-n**u-a**/
(24) /tangk**ua**ng/ ‘to carry on shoulder by one person’ [taŋk**uwa**ŋ] → /taŋ-k**u-a**ŋ/
(25) /lab**ia**/ ‘sago porridge’ [lab**ija**] → /la-b**i-a**/

As seen from these examples, the non-phonemic glides [w] and [j] are found in between vowel sequences. The non-phonemic bilabial glide [w] tends to split vowel sequences (VV) where the first vowel is a back vowel, (/u/ or /o/.) Compare examples (23), (24), (26) and (27).

(26) /l**u-i**s/ ‘pillow tied to the waist’ [l**ui**s] is also pronounced [l**uwi**s]
(27) /la-n**o-a**ŋ/ ‘bee’ [lan**ɔa**ŋ] is also pronounced [lan**ɔwa**ŋ]

The non-phonemic palatal glide [j] tends to disrupt vowel sequences (VV) in which the first vowel is a front vowel, (/i/ or /e/). See examples (25), (28)–(30).

(28) /ra-k**e-a**n/ ‘attic (space underneath the roof)’ [rak**ea**n] is also pronounced [rak**eja**n]
(29) /ne-m**e-a**s/ ‘white’ [nɛm**ɛa**s] is also pronounced [nɛm**ɛja**s]

(30) /si-s**i-o**ʔ/ ‘mosquito’ [sis**iɔ**ʔ] is also pronounced [sis**ijɔ**ʔ]

In this environment, non-phonemic glides also occur at morpheme boundaries, as shown by examples (31) and (32).

(31) *po--ong* + /aŋanaʔ/ ‘womb’ →/p**o-a**-ŋa-naʔ-oŋ/ [p**oa**ŋanaʔɔŋ] is also pronounced [p**owa**ŋanaʔɔŋ]
(32) *ni-* + /ambiŋ/ ‘to carry in a sarong’ →/n**i-a**m-biŋ/ [n**ia**mbiŋ] is also pronounced [n**ija**mbiŋ]

2.2.6.3 Allophonic glides

In vowel sequences, the high vowels /i/ and /u/ can also be realized as glides. This is further discussed in Section 2.3.

2.3 Vowel phonemes

2.3.1 Vowel phoneme inventory

There are five vowel phonemes in Tajio: /i/, /u/, /e/, /o/ and /a/. Table 2-11 presents the vowel inventory of Tajio classified by height (high, mid and low), backness (front, central and back) and rounding (rounded and unrounded).

	Front	**Central**	**Back**
	Unrounded	**Unrounded**	**Rounded**
High	i		u
Mid	e		o
Low		a	

Table 2-11: Vowel phonemes of Tajio

2.3.2 Vowel phoneme distribution

2.3.2.1 Vowel /i/

/i/ is a high front unrounded vowel and has two allophones, namely [i] and [j]. The allophone [i] occurs in word-initial, word-medial and word-final position. The allophone [j] may occur if /i/ is part of a vowel sequence.

		Word-initial	**Word-medial**	**Word-final**
/i/	[i]	<**i**ngka> /**i**ŋka/ [**i**ŋka] ‘to be ashamed’	<pac**i**ng> /pat̪**i**ŋ/ [pat̪**i**ŋ] ‘to be clean’	<salil**i**> /salil**i**/ [salil**i**] ‘to carry with sarong’
	[j]	<**i**oring> /**i**oriŋ/ [**i**oriŋ] or [**j**oriŋ] ‘Jew’s-harp’	<s**i**a’u> /s**i**aʔu/ [s**i**aʔu] or [s**j**aʔu] ‘1SG’	<pua**i**> /pua**i**/ [pua**i**] or [pua**j**] ‘to dry’

Table 2-12: Distribution of the vowel /i/

2.3.2.2 Vowel /u/

The high back rounded vowel /u/ has two allophones, [u] and [w]. The allophone [u] occurs in word-initial, word-medial and word-final position. The allophone [w] may occur if /u/ is part of a vowel sequence.

		Word-initial	**Word-medial**	**Word-final**
/u/	[u]	<**u**tu> /**u**tu/ [**u**tu] ‘louse (head)’	<t**u**ma> /t**u**ma/ [t**u**ma] ‘louse (cloth)’	<nav**u**> /naβ**u**/ [naβ**u**] ‘to be falllen’
	[w]	<**u**a̲t> /**u**at/ [**u**a̲t] or [**w**a̲t] ‘vein, tendon’	<t**u**ai> /t**u**ai/ [t**u**aj] or [t**w**aj] ‘younger sibling’	<dampela**u**> /dampela**u**/ [dampela**u**] [dampela**w**] ‘young man’

Table 2-13: Distribution of the vowel /u/

2.3.2.3 Vowel /e/

The vowel /e/ is a mid front unrounded vowel and has two allophones, [e] and [ɛ]. [ɛ] occurs before nasals and in closed syllables and [e] elsewhere, as illustrated by the examples given in Table 2-14 and Table 2-15, respectively.

Position	Examples
Before nasals	<**e**.mis> /**e**mis/ [**ɛ**mis] ‘to be sweet’
	<**e**.nge> /**e**ŋe/ [**ɛ**ŋe] ‘nose’
	<l**e**.mo> /l**e**mo/ [l**ɛ**mɔ] ‘citrus fruit’
	<n**e**.ngi.si> /n**e**ŋisi/ [n**ɛ**ŋisi] ‘to laugh’
Closed syllables with final nasal	<tam.b**e**n> /tamb**e**n/ [tamb**ɛ**n] ‘to sit by crossing legs’
	<d**e**ng.k**e**ng> /d**e**ŋk**e**ŋ/ [d**ɛ**ŋk**ɛ**ŋ] ‘to be skinny’
	<**e**m.bo> /**e**mbo/ [**ɛ**mbo] ‘wave’
	<**e**n.de>/**e**nde/ [**ɛ**nde] ‘to be long’
Closed syllables with other final consonants	<pe.n**e**k> /pen**e**k/ [p**ɛ**n**ɛ̰**k̚] ‘to climb’
	<le.s**e**t> /les**e**t/ [les**ɛ̰**t̚] ‘to be slippery’
	<bo.l**e**’> /bol**e**ʔ/ [bol**ɛ**ʔ] ‘stingray’
	<bu.s**e**g> /bus**e**g/ [bus**ɛ̰**g̚] ‘to be queasy’
	<ke.k**e**d>/kek**e**d/ [kek**ɛ̰**d̚] ‘framboesia’
	<ga.b**e**l> /gab**e**l/ [gab**ɛ**l] ‘to take from above’
	<ke.k**e**r> /kek**e**r/ [kek**ɛ**r] ‘to shoot’
	<ge.g**e**s> /geg**e**s/ [geg**ɛ**s] ‘to rub’

Table 2-14: Distribution of the allophone [ɛ]

		Word-initial	Word-medial	Word-final
/e/	[e]	<**e**pe> /**e**pe/ [**e**pe] ‘to listen’	<t**e**ke> /t**e**ke/ [t**e**ke] ‘to be frozen’	<rond**e**> /rond**e**/ [rɔnd**e**] ‘to cry’

Table 2-15: Distribution of the allophone [e]

2.3.2.4 Vowel /o/

The mid back rounded vowel /o/ has two allophones, [o] and [ɔ]. [ɔ] occurs before nasal and in closed syllables and [o] elsewhere, as listed in Table 2-16 and Table 2-17, respectively.

Position	Examples
Before nasals	<**o.**nit> /**o**nit/ [**ɔ**nḭt̚] ‘to expand (rope)’
	<**o.**mus> /**o**mus/ [**ɔ**mus] ‘fist’
	<**o**.mok>/**o**mok/ [**ɔ**mɔ̰k̚] ‘grass’
	<m**o**.me.nek> /m**o**menek/ [mɔmɛnɛ̰k̚] ‘to climb’
Closed syllables with final nasal	<to.v**o**ng> /tov**o**ŋ/ [tov**ɔ**ŋ] ‘to cut down’
	<**o**ng.g**o**m> /**o**ŋg**o**m/ [**ɔ**ŋg**ɔ**m] ‘to be cold’
	<**o**n.jo> /**o**nd^{3}o/ [**ɔ**nd^{3}o] ‘to sit legs straight’
	<vi.tu.**o**ng> /vitu**o**ŋ/ [βitu**ɔ**ŋ] ‘star’
Closed syllables with other final consonants	<te.u.t**o**’> /teut**o**ʔ/ [teut**ɔ**ʔ] ‘brain’
	<so.k**o**k> /sok**o**k/ [sok**ɔ̰**k̚] ‘to catch’
	<o.l**o**g> /ol**o**g/ [ol**ɔ̰**g̚] ‘to cut’
	<o.y**o**t> /oj**o**t/ [oj**ɔ̰**t̚] ‘to be tight’
	<sang.g**o**b>/saŋg**o**b/ [saŋg**ɔ̰**b̚] ‘forked end of blow gun’
	<ka.ka.t**o**l> /kakat**o**l/ [kakat**ɔ**l] ‘to be itchy’
	<pa.ma.y**o**r> /pamaj**o**r/ [pamaj**ɔ**r] ‘main root’
	<bo.b**o**s> /bob**o**s/ [bob**ɔ**s] ‘bad smell’

Table 2-16: Distribution of the allophone [ɔ]

		Word-initial	Word-medial	Word-final
/o/	[o]	<**o**vo> /**o**βo/ [**o**βo] ‘to incubate’	<v**o**nua> /β**o**nua/ [β**o**nua] ‘house’	<sip**o**> /sip**o**/ [sip**o**] ‘to spoon-feed’

Table 2-17: Distribution of the allophone [o]

2.3.2.5 Vowel /a/

The vowel /a/, which is a low central vowel, occurs in word-initial, word-medial and word-final position. Unlike the vowels and mid vowels, /a/ does not have multiple allophones.

		Word-initial	Word-medial	Word-final
/a/	[a]	<**a**to’> /**a**toʔ/ [**a**tɔʔ] ‘roof’	<s**a**lo’> /s**a**lɔʔ/ [s**a**lɔʔ] ‘cobweb’	<lamp**a**> /lamp**a**/ [lamp**a**] ‘to walk’

Table 2-18: Distribution of the vowel /a/

2.4 Vowel sequences

Given the five monophthongs /i, e, a, o, u/, there are 25 logically possible vowel sequences, as shown in Table 2-19. All of them are attested in Tajio.

/ii/	/ie/	/ia/	/io/	/iu/
/ei/	/ee/	/ea/	/eo/	/eu/
/ai/	/ae/	/aa/	/ao/	/au/
/oi/	/oe/	/oa/	/oo/	/ou/
/ui/	/ue/	/ua/	/uo/	/uu/

Table 2-19: Logically possible vowel sequences

Table 2-20 presents examples of all these 25 vowel sequences. The vowel sequences mostly occur in word-medial and word-final position, but also occasionally occur in word-initial position. They are attested both within roots (morpheme-internally) and across morpheme boundaries.

Position	**/ii/**	**/ie/**	**/ia/**	**/io/**	**/iu/**
Word-initial				/**io**riŋ/ ‘Jew’s-harp’	
Word-medial	/d**ii**t/ ‘pull’	/n**ie**tiŋ/ ‘one small volume’	/sambal**ia**ŋ/ ‘front porch’	/sis**io**ʔ/ ‘mosquito’	/n**iu**lam/ ‘to cure’
Word-final	/nitap**ii**/ ‘to winnow’		/lab**ia**/ ‘sago’	/ses**io**/ ‘nine’	/sim**iu**/ ‘you’
	/ei/	**/ee/**	**/ea/**	**/eo/**	**/eu/**
Word-initial					
Word-medial	/rer**ei**ʔ/ ‘cricket’	/β**ee**k/ ‘choke (bone)’	/salin**ea**ŋ/ ‘wasp’	/n**eo**ndaʔ/ ‘to have breakfast’	/ner**eu**s/ ‘to be wet’
Word-final	/l**ei**/ ‘vagina’	/sis**ee**/ ‘who’	/v**ea**/ ‘rice’	/el**eo**/ ‘sun’	
	/ai/	**/ae/**	**/aa/**	**/ao/**	**/au/**
Word-initial					/**au**da/ ‘goat’
Word-medial	/kak**ai**t/ ‘hook’	/s**ae**sor/ ‘to sweep’	/n**aa**dal/ ‘to be hard’	/s**ao**l/ ‘to steam cookies’	/ʔ**au**g/ ‘to paddle’
Word-final	/pal**ai**/ ‘to leave’	/al**ae**/ ‘body’	/s**aa**/ ‘snake’	/sar**ao**/ ‘betelnut’	/ɲ**au**/ ‘to go down’

	/oi/	**/oe/**	**/oa/**	**/oo/**	**/ou/**
Word-initial		/**oe**ʔ/ ‘bleat, moo’		/**oo**ru/ ‘space below floor of boat’	
Word-medial	/g**oi**si/ ‘to turn around’		/lan**oa**ŋ/ ‘bee’	/s**oo**g/ ‘to stop by’	/t**ou**ʔ/ ‘after’
Word-final	/lap**oi**/ ‘a kind of leaf’	/tam**oe**/ ‘tailbone (coccyx)’	/b**oa**/ ‘to be empty’	/dʒod**ʒoo**/ ‘all’	/β**ou**/ ‘to be new’
	/ui/	**/ue/**	**/ua/**	**/uo/**	**/uu/**
Word-initial	/**ui**s/ ‘left (hand/side)’		/**ua**t/ ‘tendon, vein’		
Word-medial	/k**ui**t/ ‘to pick out; scratch’	/nol**ue**d/ ‘to be soft’	/taŋk**ua**ŋ/ ‘to carry on back’	/βit**uo**ŋ/ ‘star’	/b**uu**t/ ‘mountain’
Word-final	/ronab**ui**/ ‘to climb a coconut tree’	/land**ue**/ ‘storage shelf above hearth’	/βon**ua**/ ‘house’		/p**uu**/ ‘tree’

Table 2-20: Sequences of two vowels in Tajio

In addition to the sequences of two vowels, sequences of three and four vowels can also be found in Tajio. However, it should be noted such sequences are extremely rare. The examples in Table 2-21 all occur morpheme-internally.

Sequences of three vowels	**Sequence of four vowels**
/k**aio**/ ‘rice porridge’	/n**oiao**ŋ/ ‘why’
/l**eia**/ ‘ginger’	
/t**uai**/ ‘younger sibling’	
/s**oia**/ ‘how many/much’	
/al**aio**ŋ/ ‘owl’	
/β**uou**/ ‘to be new’	
/s**iia**/ ‘she/he’	

Table 2-21: Sequences of three and four vowels in Tajio

2.4.1 Sequences of identical vowels

Table 2-19 above contains sequences of identical vowels /aa/, /ii/, /uu/, /ee/ and /oo/. The pronunciation of such sequences varies between a phonetically long vowel and a sequence of two short vowels. Figure 18 shows the intensity curve of the word *diiti* ‘to pull’ with two different pronunciations. The red line shows that the sequence /ii/ forms two small peaks. /ii/ in this case is pronounced as two vowels, with each vowel having its own peak. The black line does not show any decrease, rather an overall increase in intensity throughout the production of /ii/. That is to say, the black line shows that /ii/ in this case is pronounced as a phonetically long vowel.

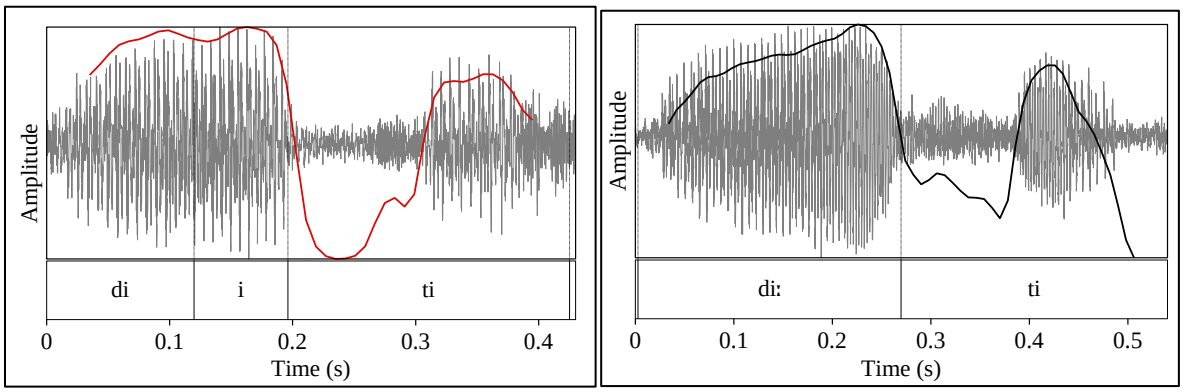


Figure 18: Intensity curve of the word *diiti* ‘to pull’

Evidence from accent placement supports the analysis that the /ii/ sequence phonemically consists of two short vowels. Note that Tajio does not have word-level stress, but rather a phrasal accent, which is regularly placed on the penultimate syllable (see Section 2.7). Regardless of whether the /ii/ sequence in *diiti* is pronounced as a long vowel or a sequence of two short vowels, fundamental frequency in phrase-final examples shows the same intonational pattern. There is a rising pitch on the penultimate syllable and a falling pitch on the final syllable (see Figure 19 and Figure 20). Accent placement thus shows that the second /i/ of the /ii/ sequence or the second half of a phonetically long vowel [i:] counts as the penultimate syllable of *di**i**ti*, which in turn provides evidence for an analysis of [ii] as containing two vowel phonemes.

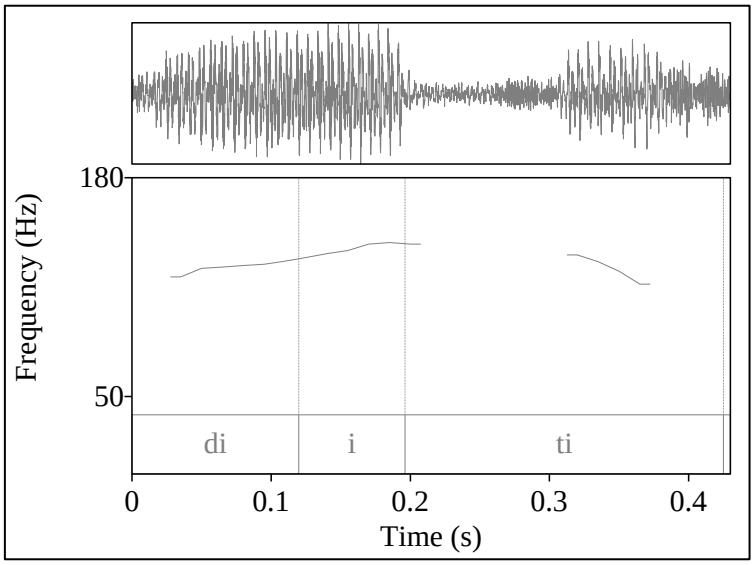


Figure 19: F_0 contour of the word *diiti* ‘to pull’ in which /ii/ is pronounced as two short vowels [ii]

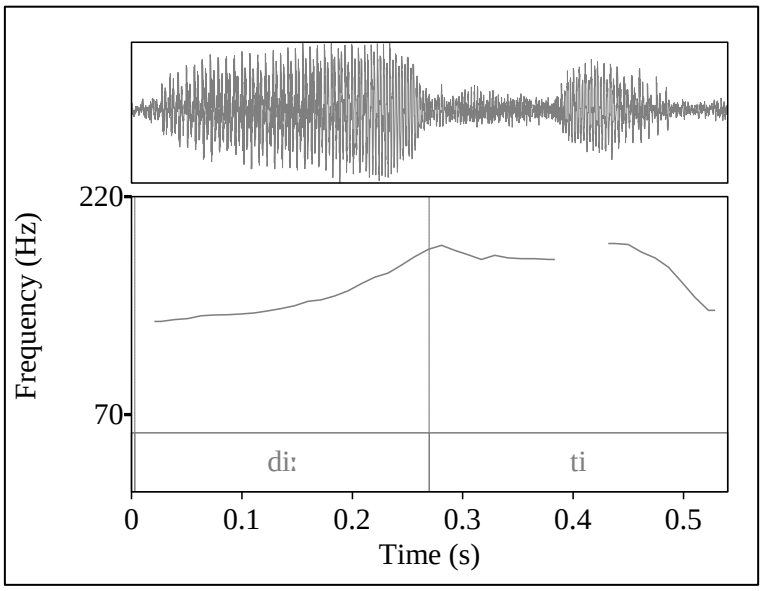


Figure 20: F_0 contour of the word *diiti* ‘to pull’ in which /ii/ is pronounced as a long vowel [i:]

A second reason for considering identical vowel sequences to phonemically be two short vowels is that Tajio readily allows vowel sequences of any kind, as illustrated in Table 2-19.

A third type of evidence is provided by reduplication. When CV reduplication is applied to the word *diit* ‘to pull’, the vowel in the reduplicated syllable is always short, e.g. ***di**diitong* ‘to pull each other’ (not ****dii**diitong*). However, this is perhaps a matter of interpretation given that one could argue that the process of reduplication is generally insensitive to vowel length.

2.4.2 Sequences containing high vowels

Sequences containing the high vowels /i/ and /u/ also require further discussion because there are three potential analyses to be argued for: as vowel sequences, diphthongs or phonemic glides.

Sequences containing high vowels in Tajio are not considered diphthongs based on the following arguments. First of all, the 25 logical possibilities of vowel sequences in Table 2-19 strongly indicate vowel sequences in Tajio are not limited to strings containing [i] and [u], but cover all possible combinations.

The second argument against a diphthong analysis is provided by the fact that non-phonemic glides can be, and often are, inserted in-between sequences containing high vowels. Thus, for example, a non-phonemic bilabial glide [w] tends to disrupt vowel sequences (VV) when the first vowel is a back vowel, either /u/ or /o/. Such non-phonemic glides do not appear when words are syllabified, as illustrated by examples (33) and (34) repeated from Section 2.2.6.2:

(33) [kuk**ua**] or [kuku**wa**] → /ku-k**u-a**/ ‘a moment ago’
(34) [lan**ɔa**ŋ] or [lan**ɔwa**ŋ] → /la-n**o-a**ŋ/ ‘bee’

Similarly, a non-phonemic palatal glide [j] tends to split vowel sequences (VV) when the first vowel is a front vowel /i/. Compare examples (35) and (36).

(35) [β**ia**r] or [β**ija**r] → /β**i-a**r/ ‘to look around’
(36) [sis**ia**] or [sis**ija**] → /si-s**i-a**/ ‘3PL’

A third argument comes from phrase accent placement at the final boundary of an intonational phrase. This phrase accent is usually anchored at the penultimate syllable of the phrase. This also holds for vowel sequences in phrase-final position where it is always the penultimate vowel that aligns with the phrase accent, regardless of vowel quality. This evidence also implies that VV sequences actually consist of two syllables. Examples (37)–(40) illustrate this. The accented vowel is given in bold.

(37) <boi> [b**o**i] ‘but; interjection’
(38) <puai> [pu**a**i] ‘to dry’
(39) <leia> [le**i**a] ‘ginger’
(40) <noiaong> [noi**a**jɔŋ] ‘why’

Evidence from reduplication further supports this analysis. In CV-reduplication, it is only the first vowel of the sequence that is copied. Compare examples (41)–(44)

(41) /p**ei**t/ → CV-RDP→ /p**e**-p**ei**t/ ‘to be very bitter’
(42) /nis**au**p/ → CV-RDP → /nis**a**-s**au**p/ ‘to rub’
(43) /tek**ou**d/ → CV-RDP → /tek**o**-k**ou**d/ ‘crook’
(44) /l**io**l/ → CV-RDP → /l**i**-l**io**l/ ‘to be silent’

In bisyllabic reduplication, high vowels as the second member of vowel sequences count as a syllable, as presented in examples (45)–(47).

(45) /nonj**ou**/ → CV.V-RDP → /nonj**ou**-nj**ou**/ ‘to be wet’
(46) /tog**ou**/ → CV.V-RDP → /tog**ou**-g**ou**/ ‘screamer’
(47) /nont**au**l/ → CV.V-RDP → /nont**au**-nt**au**l/ ‘to chew’

Sequences containing high vowels are not analysed as phonemic glides because unlike phonemic glides they will disappear when syllables containing high vowel sequences are pronounced in isolation. For more discussion see Section 2.2.6.2.

2.5 Nasal-obstruent sequences

As with other languages in the area, the only sequence of consonants allowed in native Tajio words are sequences of nasals followed by a homorganic obstruent (see, for example, Himmelmann on Lauje (1991:56) and Quick on Pendau (2007:33)). The homorganic nasal-obstruent sequences found in Tajio

are /mp/, /mb/, nt/, /nd/, /nd^{3}/, /ns/, /ŋk/ and /ŋg/. These sequences can occur word-initially and word-medially but never word-finally, as illustrated in Table 2-22.

Nasal-obstruent	Word-initial	Word-medial	Word-final
/mp/	/**mp**ojuŋ/ 'to whistle'	/se**mp**o/ 'to be cheap'	-
/mb/	/**mb**erek/ 'to remain, live, stay'	/teu**mb**ar/ 'spider'	-
/nt/	/**nt**ameme/ 'to mumble'	/nama**nt**a/ 'to be ripe'	-
/nd/	/**nd**ulago/ 'to sit with legs crossed'	/ki**nd**e/ 'to nod'	-
/nd^{3}/	/**nj**eru'/ 'be sleepy'	/li**nd^{3}**ɔk/ 'to run'	-
/ns/	-	/te**ns**ile/ 'to go home'	-
/ŋk/	/**ŋk**auŋ-kauŋ/ 'to crawl'	/teo**ŋk**ɔŋ/ 'arm'	-
/ŋg/	/**ŋg**geung/ 'to shake'	/be**ŋg**a/ 'buffalo'	-

Table 2-22: Nasal-obstruent sequences

Some of the initial nasal-obstruent sequences appear to be a shortened form of the prefix *noN-*, as seen in the following examples.

(48) *noN- + jilig* → ***nonj****ilig;* ***nj****ilig* 'to flow'
(49) *noN- + gutu* → ***nongg****utu*; ***ngg****utu* 'to make'
(50) *noN- + olong* → ***nong****olong;* ***ng****olong* 'to carry on the back'
(51) *noN- + ingking* → ***nong****ingking;* ***ng****ingking* 'to carry something hanging from hand'

But note that such sequences also occur in words other than dynamic verbs, such as with nouns like ***nd****aaŋ* 'branch', or with stative verbs, e.g. ***ngk****obor* 'to be weak (rope)' and ***nj****ou* 'to be wet'.

Initial nasal-obstruent sequences contradict the sonority sequencing generalization (SSG, see Hayes 2009:76) and hence require further discussion. Based on the time needed to produce a sound (i.e., the timing unit), the sequence of nasal+obstruent can be interpreted in two ways: as a prenasalized consonant or as a consonant cluster. As a prenasalized consonant, the nasal-obstruent sequence is treated as a single segment which needs a single timing unit. As a cluster, it is treated as two segments which need two timing units.

Evidence from timing suggests the analysis of nasal-obstruent sequences as clusters of two phoneme segments. The timing unit to produce a nasal-obstruent sequence is significantly longer than the timing unit to produce a single consonant.

Figure 21 and Figure 22 respectively show the sequence /nd/ occurring word-initially in ***nd****aang* 'branch' and medially in the word *ne****nd****iis* 'to take a bath'. The timing length of /nd/ in the first example is 129 ms, and in the second example it is 115 ms.

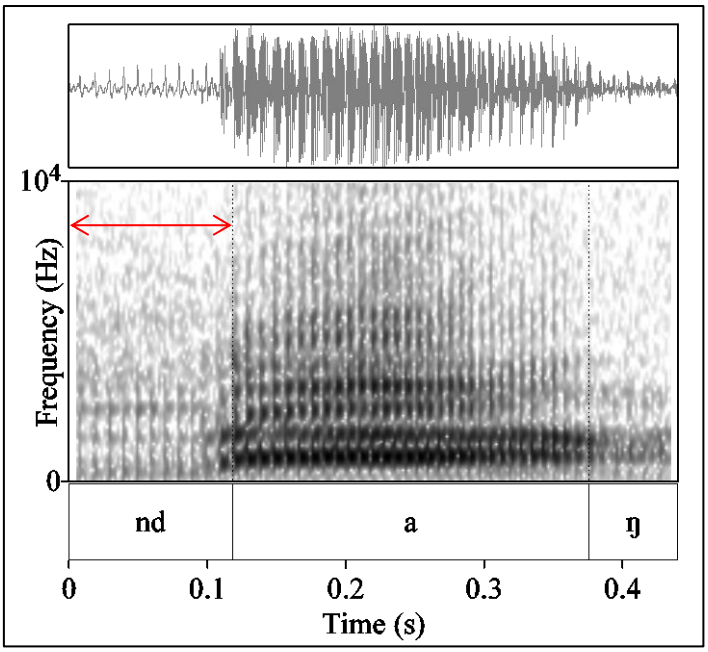


Figure 21: Timing unit to pronounce /nd/ in *ndaang* ‘branch’

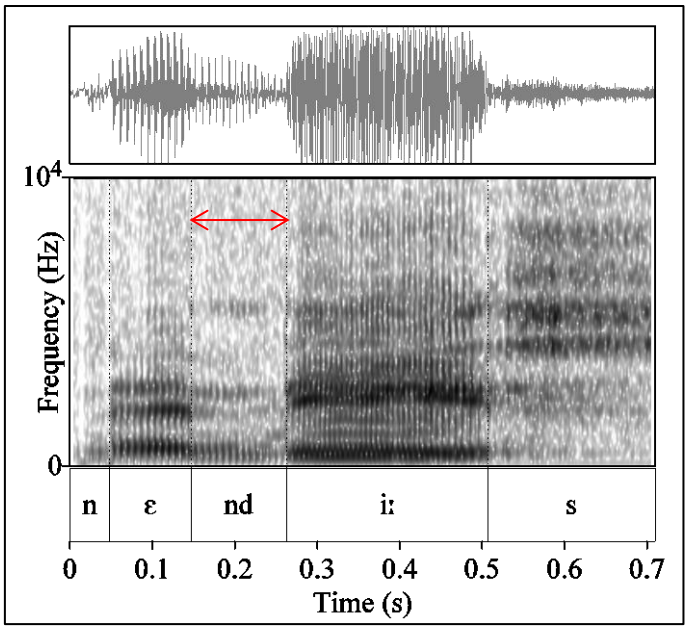


Figure 22: Timing unit to pronounce /nd/ in *nendiis* ‘to take a bath’

A single consonant, however, needs a shorter timing unit. Figure 23 shows that the length of the single consonant /n/ in the word *vee**n**i* ‘to give’ is 85 ms; the consonant /d/ in the word *pu**d**ei* ‘to break’ in Figure 24 is 65 ms long.

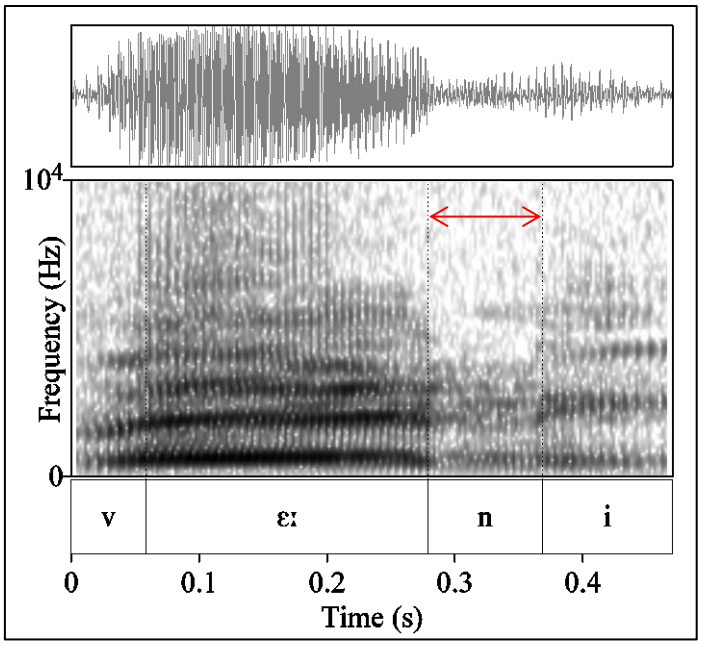


Figure 23: Timing unit to produce the phoneme /n/ in the word *veeni* 'to give'

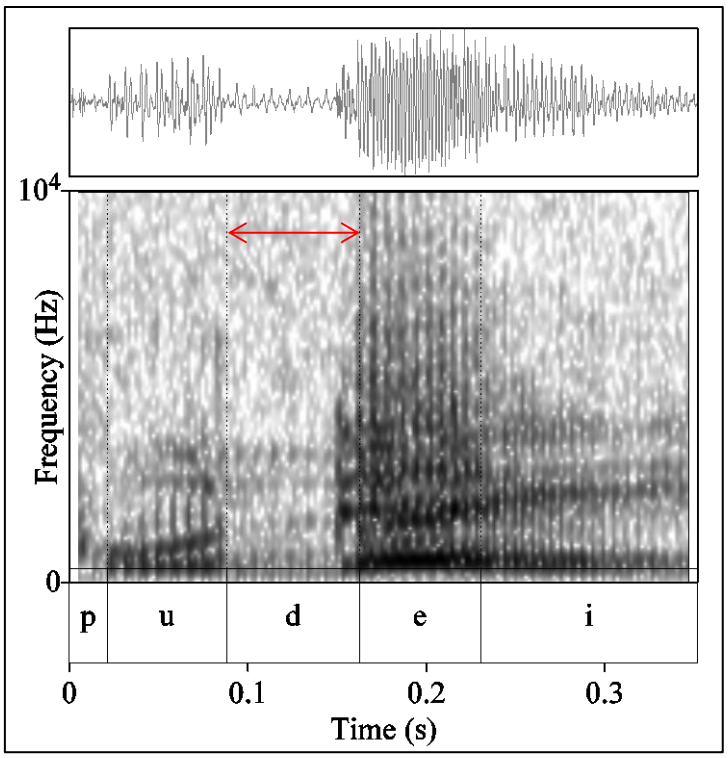


Figure 24: Timing unit to produce the phoneme /n/ in the word *pudei* 'to break'

Further evidence for a cluster analysis is provided by reduplication. If a nasal-obstruent sequence is analyzed as a single segment (i.e., a prenasalized consonant), it would be expected to behave like other consonants in reduplication (filling only the C position of the CV- and the CV.CV-reduplication templates). In such a case, /**mp**/ in ***mp****i.dak* 'to wink' would be predicted to fill only one C slot in the template. Thus, in bisyllabic reduplication, the expected form would be ****mp****i.da-****mp****i.dak* 'to wink', which is not attested in Tajio. The accepted form is ***p****i.da-****mp****i.dak* 'to wink', which in turn points the cluster analysis.

Adopting a cluster analysis for the nasal-obstruent sequences in Tajio leads to the following question with regard to the phonotactic status of the nasal: Is it to be analyzed as a "simple" nasal (non-syllabic) or a syllabic nasal? This is particularly relevant for word-initial nasal-obstruent sequences.

One way to decide between these options is a test based on syllabification. In the case of word-medial clusters, evidence from syllabification clearly suggests the simple nasal analysis. A word like /se**m-p**o/ is syllabified as (CVN-CV) where /m/ becomes the coda of the first syllable /sem/ while /p/ becomes the onset of the second syllable /po/. Initial nasal-obstruent clusters, however, are syllabified in a way that supports the assumption of a syllabic nasal. Compare the word /mberek/ 'to remain, live, stay' which is syllabified as /**m**-**be**-rek/ (**N**-**CV**-CV), not /**mbe**-rek/ (**CCV**-CVC). Although this matter requires further research, for the following discussion of syllable structure it will be assumed that word-initial nasal obstruent clusters involve syllabic nasals.

2.6 Syllable structure

Possible syllable nuclei in Tajio are vowels (V) and, word-initially, syllabic nasals (N). Possible syllable structures with a vowel as syllable nucleus are: V, CV, VC and CVC. In native Tajio words, there are no consonant clusters other than NC (nasal-obstruent) clusters. However, cliticization produces consonant sequences other than sonorant-obstruent sequences (see Section 3.2.4).

V and CV syllables occur in all positions: initially, medially and finally. The VC and CVC syllable structures featuring a non-nasal consonant are restricted to word-final position. In other positions, only CVN structures are allowed as closed syllables, but note that CVN syllables in word-medial position are not frequent. Table 2-23 provides examples.

Position	Syllable structure	Example
Word-initial	**V**-CV **V**-CVC	/**a**-βu/ 'kitchen' /**o**-gal/ 'to be dry'
	CV-V **CV**-CV **CV**-VC **CV**-CVC	/**gi**-o/ 'bushes'; /**ra**-a/ 'blood' /**sa**-sa/ 'palm leaf rib' /**ti**-ol/ '(kind of) big bamboo' /**vu**-vut/ 'hair'
	N-CV-V **N**-CV-VN **N**-CV-VC **N**-CV-CV **N**-CV-CVC	/**n**-dʒo-u/ 'to be wet' /**ŋ**-ga-uŋ/ 'to creep' /**n**-do-up/ 'to wash the face' /**n**-ta-ma/ 'to go inside' /**m**-be-rek/ 'to stay'
	VN-CV **VN**-CVC	/**um**-be/ 'to open/uncover' /**om**-pas/ 'mat'
	CVN-CV **CVN**-CV-CV **CVN**-CVC **CVN**-CV-CVC	/**kin**-de/ 'to nod' /**ten**-si-le/ 'to go home' /**lan**-tap/ 'to float' /**lam**-po-gat/ 'to lie'
Word-medial	CV-**V**-V V-**V**-CV	/la-**i**-a/ 'ginger' /a-**u**-da/ 'goat'
	CV-**CV**-V CV-**CV**-CV CV-**CV**-CVC	/le-**le**-a/ 'bat' /su-**pa**-lo/ 'lizard' /ka-**ra**-put/ 'paw'
	CV-**CVN**-CV-CVN CV-CV-**CVN**-CVN	/ba-**lim**-bu-βeŋ/ 'galangal' /ka-li-**bam**-baŋ/ 'butterfly'
Word-final	CV-**V** V-CV-**V**	/ba-**u**/ 'fish' /a-ma-**i**/ 'EXIST'
	CV-**VC** CV-CV-**VC**	/me-**as**/ 'to be white' /go-ri-**oʔ**/ 'to be loud'
	V-V-**CV** CV-**CV** CV-CV-**CV**	/a-u-**da**/ 'goat' /ta-**pi**/ 'to winnow' /sa-li-**li**/ 'to carry at waist'

	V-**CVC** CV-**CVC**	/i-**pag**/ ‘sister/brother in law’ /pu-**duk**/ ‘to be short’
	CV-**VN** V-CV-**VN** CV-CV-**VN**	/pe-**aŋ**/ ‘fishing hook’ /a-ni-**oŋ**/ ‘food’ /la-no-**aŋ**/ ‘small honey bee’
	V-**CVN** CV-**CVN** CV-CV-**CVN**	/o-**βoŋ**/ ‘nest’ /gi-**baŋ**/ ‘a kind of lizard’ /bu-la-**gon**/ ‘rattan’

Table 2-23: Distribution of (C)V(C) and (C)(V)N syllables

Tajio follows the maximal onset principle so that a word consisting of a sequence VCVC is typically syllabified as V.CVC not VC.VC. For example, a word like *olot* ‘between’ will consistently be syllabified as /o-lot/ (V.CVC syllabification), and never as */ol-ot/ (VC.VC syllabification).

Words with suffixes are regularly syllabified in such a way that VC syllables are avoided. For example, the word *petaanong* ‘waiting room’, which is derived from *taang* ‘to wait’ plus the circumfix *pe--ong* ‘NOM’ is syllabified as /pe-ta-a-**noŋ**/ with a CVC syllable in word-final position, not as */pe-ta-an-**oŋ**/ with an open VC syllable.

Most Tajio words are bi- or tri-syllabic. Monosyllabic words and words with four and five syllables are rare. Monosyllabic words are usually loans from Indonesian, for example *sop* /sop/ ‘soup’ and *dos* /dos/ ‘box’. Words with four syllables are, for example, *balimbuveng* /ba.lim.bu.βeŋ/ ‘galangal’ and *kalibambang* /ka.li.bam.baŋ/ ‘butterfly’. And *salaineang* /sa.la.i.ne.aŋ/ ‘wasp’ is the only monomorphemic word in the data base with five syllables.

2.7 Stress and intonation

Zanten et al. (2010) who examined word-stress level in Austronesian languages observe that in 15 out of 27 languages from Sulawesi, main stress is claimed to always falls on the penultimate syllable (ibid:94). The exact position of word-level stress, however, may shift due to, for example, paragogic vowels (ibid:95) or suffixation (ibid:99). In Betawi Malay, the vernacular of Jakarta, penultimate stress is observed only in phrase-final words (Wallace (1976), quoted in Zanten et al. 2010:100). Also quoting Walker (1975:5), Zanten et al. (ibid:100) report on Lampung, a language of Sumatra, that “the word stress is very slight and it is often skewed by the position of the word in the intonation contour”. Zanten et al. (ibid:100) also mention difficulties in determining stress position in the Central Malayo-Polynesian languages Manggarai and Wetan. Stress in Manggarai is reported to be weak and in some contexts difficult to identify. The main characteristics of accentuation in Wetan are claimed to be its weakness and its relative instability.

Based on these observations, Zanten et al. (2010) suspect that some descriptions of stress do not actually pertain to word-based stress, but rather describe a phrase-based accent. Thus, they propose that it is important to distinguish between (word) stress and (phrasal) accent. They define word stress as a word-based linguistic property: “Stressed syllables, as opposed to unstressed syllables, have certain phonetic characteristics, of which a longer duration is the most robust one. In all positions in the phrase a stressed syllable of a word is longer than an unstressed syllable” (ibid:101). In contrast, “accent is typically realized as an abrupt change in pitch, which has to occur in a specific position in the stressed syllable” (ibid:101).

The available data suggests that Tajio does not have lexical (word) stress; rather, it has a phrasal accent. Without lexical stress, the presence of the pitch accent depends on the location of the syllable within the intonational phrase. In words uttered in isolation, the penultimate syllable is regularly prominent. But, this does not mean that all words are stressed on the penultimate syllable. Rather, a phrasal accent regularly occurs on this syllable, because it is the penultimate syllable of an intonational phrase (i.e., it is auditorily prominent because a pitch rise associated with intonational phrases occurs on it).

Figure 25 shows that the location of the phrasal accent of the word ***ji****lo’* ‘to lick’ spoken in isolation is on the penultimate syllable (the accented syllable is given in bold).

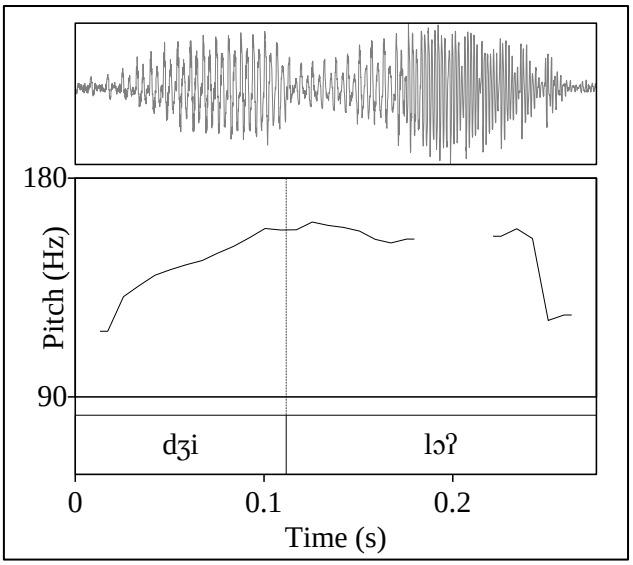


Figure 25: F_0 extraction of the word *jilo*' [jilɔʔ] 'to lick'

Being determined by location means that the position of the pitch accent changes if the position of a word in an intonational phrase changes. Accordingly, the pitch accent on ***ji****lo'* 'to lick' shifts when a suffix *-i* is attached to become *ji****lo****'i*, as illustrated in Figure 26. The accented syllable of the newly derived word is ***lo*** which is now the penultimate syllable.

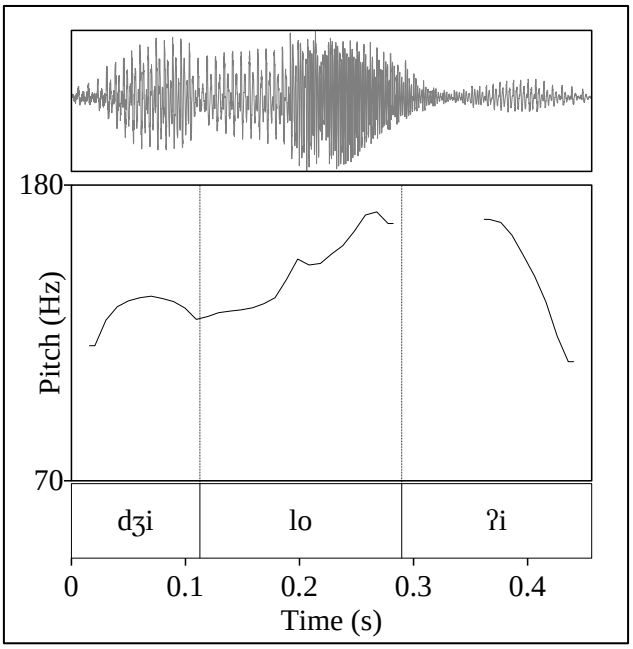


Figure 26: F_0 extraction of the word *jilo'i* [jilɔʔi] 'to lick'

As can be seen in both preceding figures, the pitch does not drop immediately at the beginning of the last syllable but rather falls continously over the last syllable. This can be analyzed as a final falling boundary tone following the high phrasal accent on the penultimate syllable.

Figure 27 provides another example. When ***vu****'u* 'bone' is pronounced in isolation, there is again a clear rise on the penultimate syllable.

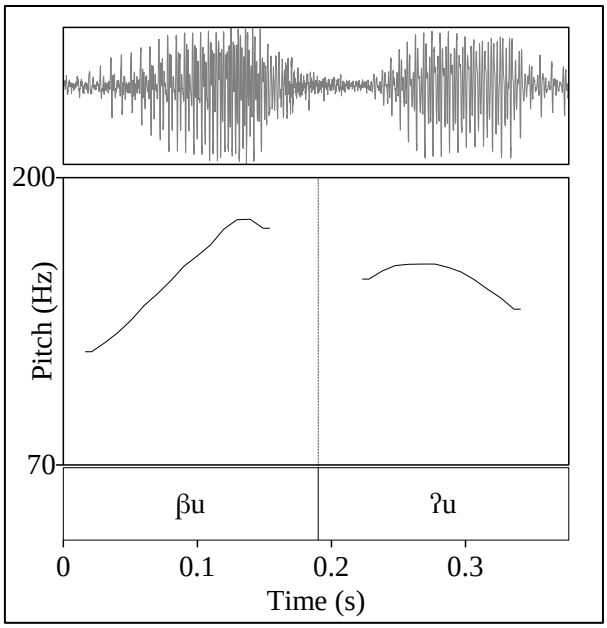


Figure 27: F_0 extraction of the word *vu'u* [βuʔu] 'bone'

That this rise does not reflect word stress but rather a phrasal accent, is seen in Figure 28. Here ***vu****'u* 'bone' occurs as part of the noun phrase *vu'u nuusu'* 'rib bone'. If Tajio had lexical stress, each word in the noun phrase would be expected to have its own stress on the penultimate syllable. The F_0 extraction in Figure 28, however, shows that it is only the last word of the NP which gets highlighted by pitch. Neither syllable of ***vu****'u* 'bone' is highlighted by pitch, because now it occurs in phrase-initial position. The phrase accent has moved to the penultimate syllable of *nu**u**su'*. Note also that the two syllables of *vu'u* have the same duration and intensity, which could also be indications of lexical stress.

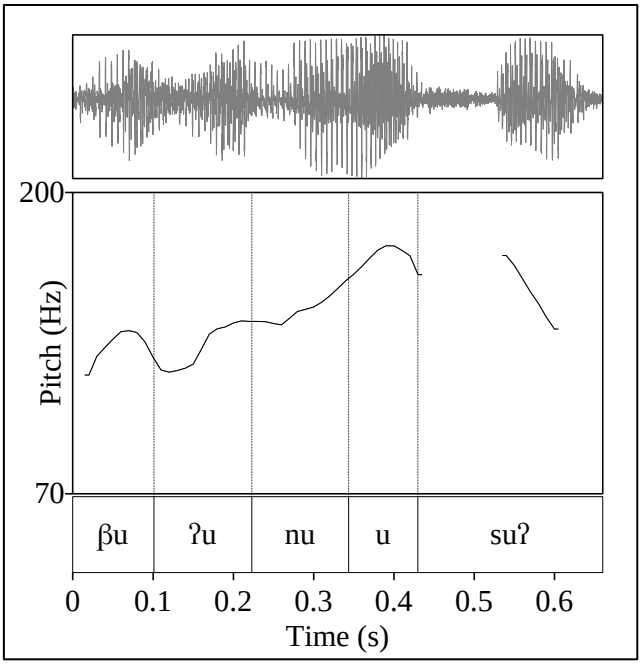


Figure 28: F_0 extraction of the noun phrase *vu'u nuusu'* 'rib'

It is not possible to provide a detailed analysis of intonation in Tajio within the scope of this work. As the above examples show, one very common (and possibly the default declarative) contour is characterized by a rising pitch on the penultimate syllable and a final fall, which could be analyzed as a H phrase accent followed by a low boundary tone (i.e., H-L% in autosegmental notation).

2.8 Morphophonology

Morphophonological processes in Tajio occur in affixation, compounding and cliticization. The morphophonological processes discussed in the following sections are nasal assimilation, substitution and deletion in Section 2.8.1; nasal fronting in Section 2.8.2; nasal dissimilation in Section 2.8.3; vowel chain reduction in Section 2.8.4; glottal deletion in Section 2.8.5; and vowel harmony in Section 2.8.6.

Capital *N* is used throughout this work to represent a homorganic nasal which is found in nasal prefixes and the nasal ligature. The term *nasal prefix* is used to refer to prefixes ending with *N*, such as, the prefixes *no**N***-/*mo**N***- 'AV.RLS/NRLS' and *po**N***- 'NOM'. As a ligature, homorganic -*N*- can occur (1) between numeral prefixes and classifiers or measure nouns and (2) between quantifiers and classifiers or measure nouns (cp. Section 7.4.1). The morphophonological changes undergone by *N* are detailed in the next section.

As seen in the following sections, the homorganic *N* of the nasal prefixes and the nasal ligature do not necessarily change in the same way. That is they may undergo different kinds of morphophonological changes although they attach to roots with the same initial consonant. Overall, the alternations of the nasal prefixes seem to be more regular than the alternations of the nasal ligature.

2.8.1 Nasal assimilation, substitution and deletion

The nasal *N* of nasal prefixes assimilates to, and sometimes substitutes for, the initial segment (i.e., initial consonant) of the root. There are five possibilities: (a) assimilation without substitution; (b) assimilation with allophonic substitution; (c) assimilation and substitution (=deletion of the base-initial consonant); (d) deletion of *N*, and (e) substitution without (full) assimilation.

Before vowels the homorganic nasal *N*- is always realized as /ŋ/ as shown by examples (52)–(56).

(52) *no**N***- + /**i**nda/ 'to borrow' → /no**ŋi**nda/ 'to borrow'
(53) *no**N***- + /**u**nja'/ 'to step on' → /no**ŋu**nja'/ 'to step on'
(54) *no**N***- + /**e**pe/ 'listen' → /no**ŋe**pe/ 'to listen'
(55) *no**N***- + /**o**loŋ/ 'to cut' → /no**ŋo**loŋ/ 'to cut'
(56) *no**N***- + /**a**la/ 'to take' → /no**ŋa**la/ 'to take'

2.8.1.1 Nasal assimilation without substitution

This type of assimilation takes place when the nasal of the nasal prefixes or the nasal ligature undergoes assimilation without changing or substituting the first segment of the base. This process involves homorganic assimilation.

As the homorganic nasal *N* of the nasal prefixes and the nasal ligature may undergo different types of morphophonological change, the discussion will be divided into two parts.

The homorganic nasal *N* of the nasal prefixes undergoes nasal assimilation without substitution if it precedes voiced stops and the voiced affricate. It occurs as a bilabial nasal /m/ when it attaches to roots starting with the voiced bilabial stop /b/. It becomes an alveolar nasal /n/ when it precedes the voiced alveolar stop /d/ and the palato-alveolar affricate /dʒ/. It occurs as the velar nasal /ŋ/ when roots to which it attaches possess an initial voiced velar stop /g/, as can be seen in the following examples.

(57) *no**N***- + /**b**asa/ 'to read' →/no**mb**asa/ 'to read'
(58) *no**N***- + /**d**iit/ 'to pull' → /no**nd**iit/ 'to pull'
(59) *no**N***- + /**dʒ**auŋ/ 'to sew' →/no**ndʒ**auŋ/ 'to sew'
(60) *no**N***- + /**g**agap/ 'to touch; feel' → /no**ŋg**agap/ 'to touch; to feel'

In contrast, the homorganic nasal *N* of the nasal ligature assimilates to the initial consonant of roots without substitution when it precedes both voiced and voiceless stops. It becomes the bilabial nasal /m/ when preceding the bilabial stops /b/ and /p/. It occurs as the alveolar nasal /n/ when it precedes the voiceless alveolar stop /t/, the voiced palato-alveolar affricate /dʒ/[6] as well as the voiceless fricative

[6] As the voiceless palate-alveolar /tʃ/ is a phoneme with limited distribution, I could not find any examples in which the nasal ligature *N* precedes roots starting with this sound (cp. Section 2.2.2).

/s/. It appears as the velar nasal /ŋ/ when it attaches to roots starting with velar stops /g/ and /k/. Examples are presented in (61)−(67).

(61) *aapa*-(**N**)- 'four' + /**b**ua/ 'CLF.piece' → /aapa**mb**ua/ 'four pieces'
(62) *pitu*-(**N**)- 'seven' + /**p**aa/ 'CLF.leg' → /pitu**mp**aa/ 'seven bunches' (lit: 'seven legs')
(63) *sV*-(**N**)- 'one' + /**t**igo/ 'CLF.one string/cord' → /se**nt**igo/ 'one string/cord'
(64) *sV*-(**N**)- 'one' + /**s**iu/ 'CLF.elbow' → /se**ns**iu/ 'one elbow'
(65) *sV*-(**N**)- 'one' + /**dʒ**urut/ 'CLF.a pile' → /so**ndʒ**urut/ 'one pile'
(66) *ro*-(**N**)- 'two' + /**g**omus/ 'CLF.palm' → /ro**ŋg**omus/ 'two palms'
(67) *sV*-(**N**)- 'one' + /**k**eke/ 'CLF.shoulder' → /se**ŋk**eke/ 'one shoulder'

2.8.1.2 Nasal assimilation with allophonic substitution

The second type of homorganic nasal assimilation triggers allophonic substitution of the first segment of the root. This happens whenever the homorganic nasal precedes the glottal stop /ʔ/ or the voiced bilabial fricative /β/. Recall that /ʔ/ has two allophones: [ʔ] and [k]. /ʔ/ is realized as [k] when it occurs after a nasal. /β/ shows the same patterns: It has two allophones, [β] and [b], and /β/ is realized as [b] when it occurs after a nasal. In this type of assimilation, both nasal prefixes and nasal ligature undergo the same homorganic change. Examples of assimilation with substitution in Tajio are given in (68)−(70).

(68) *noN*- + /**ʔ**alu/ 'to cover with blanket' →/no**ŋk**alu/ 'to cover with blanket'
(69) *noN*- + /**β**ee/ 'to give' → /no**mb**ee/ 'to give'
(70) *tolu*-(**N**)- 'three' + /**β**eŋi/ 'night' → /tolu**mb**eŋi/ 'three nights'

2.8.1.3 Nasal assimilation and substitution of the root onset

Assimilation and substitution is a combined process in which the homorganic nasal is assimilated to, and then substitutes for, the first segment of the root. Nasal prefixes undergo this process when the initial segment of the base is a voiceless stop /p/, /t/ or /k/, as presented by examples (71)−(73). There are no examples for the voiceless palato-alvoelar /tʲ/ in the database. This sound is rare in Tajio and occurs mostly in loans as noted in Section 2.2.2).

(71) *noN*- + /**p**aatu/ 'to send' → /no**m**aatu/ 'to send'
(72) *noN*- + /**t**aip/ 'to slice' → /no**n**aip/ 'to slice'
(73) *noN*- + /**k**aer/ 'to sweep' → /no**ŋ**aer/ 'to sweep'

2.8.1.4 Nasal deletion

Before liquids and nasals, including nasal-obstruent clusters, the homorganic nasal is dropped. This process happens to the nasal prefixes as well as the nasal ligature, as can be seen in the following examples.

(74) *noN*- + /**l**eva/ 'to call' → /**no**leva/ 'to call'
(75) *sV*-(**N**)- 'one' + /**l**aab/ 'CLF.feet' → /**sa**laab/ 'one feet'
(76) *noN*- + /**r**ampak/ 'to throw away' → /**no**rampak/ 'to throw away'
(77) *sV*-(**N**)- 'one' + /**r**abok/ 'CLF.palm' → /**sa**rabok/ 'one palm'
(78) *noN*- + /**m**oŋi/ 'to ask for something' → /**no**mongi/ 'to ask for something'
(79) *sV*-(**N**)- 'one' + /**nd**aaŋ/ 'branch of leaves'→ /**sa**ndaaŋ/ 'one branch of banana or coconut leaves'

2.8.1.5 Substitution without assimilation

This process occurs when the nasal prefix precedes a root whose initial segment is the voiceless alveolar fricative /s/. In this case, the homorganic nasal of the nasal prefix does not assimilate to the initial segment of the root; rather, the phoneme /s/ is replaced by the palatal nasal /ɲ/ as illustrated by some examples below.

(80) *noN*- + /**s**empak/ 'to kick' → /no**ɲ**empak/ 'to kick'
(81) *noN*- + /**s**alili/ 'to carry with sarong' → /no**ɲ**alili/ 'to carry with sarong'
(82) *noN*- + /**s**okok/ 'to catch' → /no**ɲ**okok/ 'to catch'

(83) *noN-* /**s**ulok/ ‘to burn a field’ → /no**ŋ**ulok/ ‘to burn a field’

2.8.2 Nasal fronting

In Tajio Sienjo a root-final velar nasal is fronted to an alveolar nasal before a vowel-initial suffix. This process, however, is not found in Tajio Kasimbar. Suffixes triggering this process are *-ong* ‘NOM’, *poN--ong* ‘NOM’, *-a’o* ‘APPL’, *ni--a’o* ‘UV--APPL’ and *-i* ‘APPL’, as presented in examples (84)−(89).

(84) /-**o**ŋ/ + /paŋa**ŋ**/ ‘to chew betelnut’ → /paŋa**n**oŋ/ ‘betelnut box’
(85) /poN--**o**ŋ/ + /gili**ŋ**/ ‘mill’ → /poŋgili**n**oŋ/ ‘flesh mill’
(86) /-**a**ʔo/ + /suu**ŋ**/ ‘to carry on head’ → /suu**n**aʔo/ ‘to carry on head’
(87) /ni--**a**ʔo/ + /sumba**ŋ**/ ‘push’ → /nisumba**n**aʔo/ ‘to push’
(88) /-**i**/ + /ubu**ŋ**/ ‘joint’ → /ubu**n**i/ ‘to connect; to attach at’
(89) /-**i**/ + /sumba**ŋ**/ ‘push’ → /sumba**n**i/ ‘to push’

2.8.3 Nasal dissimilation

In contrast to Tajio Sienjo, Tajio Kasimbar only shows nasal fronting when a root ending in a velar nasal precedes a vowel-initial suffix also containing a velar nasal. Nasal fronting does not take place when a root ends in a velar nasal and precedes a vowel-initial suffix without a velar nasal such as *-ao* ‘APPL’ (*-a’o* in Sienjo) and *-i* ‘APPL’. Compare the examples in (90)−(96).

(90) /nV--**oŋ**/ ‘ST--NOM’ + /joo**ŋ**/ ‘field’ → /nojoo**n**oŋ/ ‘to own a field’
(91) /-**oŋ**/ ‘NOM’ + /petaa**ŋ**/ ‘to wait’ → /petaa**n**oŋ/ ‘waiting room’
(92) /poN--**oŋ**/ ‘NOM’ + /pea**ŋ**/ ‘to fish’ → /pomea**n**oŋ/ ‘fishing area’
(93) /-**a**o/ + /suu**ŋ**/ ‘to carry on head’ → /suu**ŋ**ao/ ‘to carry on head’
(94) /-**a**o/ + /elo**ŋ**/ ‘to sing’ → /elo**ŋ**ao/ ‘to sing’
(95) /-**i**/ + /tulu**ŋ**/ ‘to help’ → /tulu**ŋ**i/ ‘to help’
(96) /-**i**/ + /petaa**ŋ**/ ‘to wait’ → /petaa**ŋ**i/ ‘to wait’

As can be seen from the above examples, nasal fronting in Tajio Kasimbar dissimilates velar nasal chains in suffixation, i.e., it avoids the occurance of two velar nasals in one syllable. In most cases NVN syllables—e.g. the nasal prefixes *moN-* ‘AV.NRLS’ or *noN-* ‘AV.RLS’—only one of the nasals is a velar nasal. This morphophonological process is therefore analyzed as *nasal dissimilation*. As there are only the three vowel-initial suffixes shown in examples (84)−(96), another possible analysis is that velar nasals in root-final position are fronted to an alveolar nasal before a mid-back vowel (ŋ# → n /__o). Yet, the dissimilation analysis appears to be more plausible, as the syllable /ŋVŋ/ is extremely rare in Tajio, while syllables of the form /nVŋ/ are amply attested. The only lexical item that has a /ŋVŋ/ syllable is *pangang*, pa.**ngang**, ‘to chew betelnut’.

2.8.4 Vowel chain reduction

Vowel chain reduction occurs when the morphophonological processes in word formation result in sequences of two or more vowels. These sequences may consist of identical vowels or different vowels. Although it does not generally occur, the vowel chain reduction may still be found in affixation, cliticization and compounding.

Sequences of two identical vowels can occur if a root that ends in a vowel is followed by a vowel-initial suffix or if a root begins with a vowel and is preceded by a vowel-final prefix. Sequences of identical vowels that result from affixation can undergo vowel reduction. The suffix *-ao* ‘APPL’ may lead to vowel sequences /aao/ when a root ends with the vowel /a/. This sequence, is reduced to /ao/ as illustrated by example (97).

(97) /pe--**ao**/ + /ulingk**a**/ ‘coconut’ → /peulingk**aao**/ → /peulingk**ao**/ ‘SF-coconut-APPL’ ‘to make oil out of coconut’

/ni--**ao**/ + /sabab**a**/ ‘to spoon-feed’ → /nisabab**aao**/ → /nisabab**ao**/ ‘UV.RLS-spoon.feed-APPL’ ‘to feed someone’

/noN--**ao**/ + /balis**a**/ ‘worry’ → /nombalis**aao**/ → /nombalis**ao**/ ‘AV.RLS-worry-APPL’ ‘to make someone worry’

The undergoer prefix *ni-* yields a vowel sequence /ii/ if it precedes a root starting with the vowel /i/. Although not always, this kind of vowel reduction can be found in conversational data, as shown by example (98). During elicitation speakers tend to speak more slowly, thus the sequence /ii/ resulted from affixation is always pronounced as a long vowel /iː/.

(98)	*jiomo*	***nitanya***	*ini*
	jio=mo	***ni-ita=nya***	*ini*
	NEG=COMP	**UV.RLS-see=3SG.GEN**	PROX
	‘He had not seen it yet.’		(from the dialog *Campur*)

Another suffix that leads to a vowel sequence is *-i* ‘APPL’ when it attaches to a root ending in the vowel /i/. For example, *tapi* ‘to winnow’ becomes *nitapii* when the UV marker *ni--i* is affixed. However, in these cases the vowel sequence /ii/ is not reduced, but is usually pronounced as a long vowel /iː/, yielding for instance [nitap**i**ː].

Cliticization may also result in vowel chain reduction. For instance, the genitive prefix *ni-* which precedes the first person plural pronoun *ita* forming the genitive phrase *n**ii**ta*, /*ni-ita*/ ‘1PL.EX.GEN’. In the database, in addition to *n**ii**ta*, this genitive phrase is also recorded as *n**i**ta*.

Compounding hardly shows morphophonological processes in word-boundaries. The examples of vowel reduction are found in three compounds: *sabulagon* < *saa-bulagon* ‘large snake species’; *tomogurang* < *too-mogurang* ‘old person, parent’; and *tomedei* < *too-medei* ‘the smallest child’ (see Section 3.6 for more details on compounding).

In addition to identical vowel sequences, there is a case in which prefixation results in a sequence of three different vowels. The sequence of three vowels is then reduced into a sequence of two vowels. There is only one instance found: The three-vowel sequence /iua/ is reduced into /ua/. the The first example is shown by the undergoer prefix *ni-* which precedes the root *uar* ‘to say’, forming the undergoer voice verb *niuar*, /*ni-uar*/ ‘UV.RLS-say’ ‘to say’. In this example, the vowel /i/ of the UV marker *ni-* is reduced or deleted from the sequence. Thus, instead of saying *niuar*, Tajio speakers prefer to say *nuar*. The second example is the spatial deictic *riua*, /*ri-ua*/ ‘LOC-DIST’ ‘over there’. This form is pronounced either as *riua* or *rua*.

2.8.5 Glottal deletion

Glottal deletion pertains to cases where a glottal stop is deleted at a morpheme boundary. The genitive enclitic *=ʼu* ‘1SG.GEN’ has two allomorphs: [*=ʼu*] and [*=u*].

The allomorph [*=ʼu*] occurs if it follows a root that ends in a vowel: compare (99) and (100).

(99)	/*te=tua**i**=ʼu*/ ‘NM=younger.sibling=1SG.GEN’	→ /*tetuai**ʼu***/ ‘my younger sibling’
	/*te=vonu**a**=ʼu*/ ‘NM=house=1SG.GEN’	→/*tevonua**ʼu***/ ‘my house’
(100)	/*ni-ep**e**=ʼu*/ ‘UV.RLS-hear=1SG.GEN’	→/*niepe**ʼu*** / ‘I heard (something)’
	/*ni-oto**i**=ʼu*/ ‘UV.RLS-know=1SG.GEN’	→/*niotoi**ʼu***/ ‘I knew (something)’

The genitive enclitic *=ʼu* undergoes glottal deletion if it follows a root that ends in a consonant, as in examples (101) and (102).

(101)	/*te=joo**ng**=ʼu*/ ‘NM=rice.paddy=1SG.GEN’	→ /*tejoong**u***/‘my rice paddy’
	/*te=vuvu**t**=ʼu*/ ‘NM=hair=1SG.GEN’	→ /*tevuvut**u***/‘my hair’
	/*po-turu-o**ng**=ʼu*/‘NOM-sleep-NOM=1SG.GEN’	→/*poturuong**u***/‘my sleeping room’

(102) /*ni-soyo**k**='**u***/ 'UV.RLS-take.with.spoon=1SG.GEN' → /*nisoyok**u***/ 'I took (it)'
/*ni-ula**r**='**u***/ 'UV.RLS-say=1SG.GEN' → /*niular**u***/ 'I said (it)'
/*ni-olo**g**='**u**=mo*/ 'UV.RLS-cut=1SG.GEN=COMP' → /*niolog**u**mo*/ 'I cut (it)'

2.8.6 Vowel-harmonic affixes

There are seven affixes that undergo vowel-harmonic changes in Tajio: (1) the stative prefix *nV-* 'ST.RLS' or *mV-* 'ST.NRLS'; (2) the numeral prefix *sV-(N)-* 'one'; (3) the nominalizer circumfix *pV--ong*; (4) the verbalizer circumfix *nV--ong*; (5) the causative prefix *pV-*; (6) the group/collective infix *-ngV-*; (7) the ordinal prefix *kV-*. The first five affixes undergo the same vowel-harmonic changes while the vowel of the infix *-ngV-* and the prefix *kV-* are each subject to a different type of harmonic change. I will refer to the first process as vowel-harmonic change type I, and the two latter processes as types II and III, respectively.

In type I vowel harmony, the vowel of the affixes changes according to the first vowel of the base. The harmonic vowel becomes /e/ before front vowels (/e/ and /i/); /o/ before back vowels (/o/ and /u/); and /a/ before the central low vowel (/a/). As the harmonic change goes backward, type I vowel-harmony can be also called the backward type. The phonological rule for vowel-harmonic changes is illustrated with the stative realis prefix *nV-* in Table 2-24.

Vowel-harmonic changes	**Phonological rule**	**Examples**
nV- before /e/ → *ne-*	nV- → [+front, +mid] /__(C)V[+front](C)	*nV-* + ***e**mbo* 'to be wavy' → ***nee**mbo* 'to be wavy'
nV- before /i/ → *ne-*		*nV-* + *s**i**li* 'to be ashamed' → ***ne**sili* 'to be ashamed'
nV- before /u/ → *no-*	nV- → [+back, +high] /__(C)V[+back](C)	*nV-* + *b**u**seg* 'to be queasy' → ***no**buseg* 'to be queasy'
nV- before /o/ → *no-*		*nV-* + *v**o**su* 'to be satisfied' → ***no**vosu* 'to be satisfied'
nV- before /a/ → *na-*	nV- →[+central]/__(C)V[+central](C)	*nV-* + *p**a**ik* 'to be thirsty' → ***na**paik* 'to be thirsty'

Table 2-24: Type I vowel-harmonic changes

In type II vowel harmony, the vowel of the group/collective infix *-ngV-* changes according to the vowel of the (prefix-)syllable preceding it. Prefixes that can precede the infix *-ngV-* are the stative prefix, the dynamic intransitive prefix and the actor voice prefix.

Following the stative prefix *nV-*, the vowel of the infix *-ngV-* changes based on the change of the stative prefix, i.e., following the phonological rules of the stative prefix. If the *-ngV-* infix is preceded by the dynamic intransitive prefix, i.e., *ne-* or *no-*, the vowel of this infix will be identical to the vowel of its dynamic intransitive prefix, i.e., either with the vowel <e> or <o>. In the case of the actor voice prefix *noN-/moN-*, the infix *-ngV-* is actually inserted into the prefix, i.e., directly after the vowel (CV.**ngV**.N-). Its vowel is identical to the vowel of the prefix. As the change goes forward, the second type of this vowel-harmonic change is called the forward-type. Table 2-25 illustrates the regularities for the collective infix *-ngV-*.

Type of prefix	Prefix + root	Vowel-harmonic change of *ngV-*
Stative prefix *nV-* 'ST.RLS'	*nV-* + *jaok* 'to be arrived'→ **na**jaok 'to be arrived'	***na-nga-****jaok* 'ST.RLS-COLL-arrived'
	nV- + *pangkat* 'to be high/tall' → **na**pangkat 'to be high/tall'	***na-nga-****pangkat* 'ST.RLS-COLL-tall'
	nV- + *meas* 'to be white' → **ne**meas 'to be white'	***ne-nge-****meas* 'ST.RLS-COLL-white'
	nV- + *olog* 'to be broken' → **no**olog 'to be broken'	***no-ngo-****olog* 'ST.RLS-COLL-broken'
	nV- + *udut* 'to be broken (rope)' → **no**udut 'to be broken (rope)'	***no-ngo-****udut* 'ST.RLS-COLL-broken'
Dynamic prefix *ne-* /*no-* 'DY.RLS'	*ne-* + *guru* 'to study'→ **ne**guru 'to study'	***ne-nge-****guru* 'DY.RLS-COLL-study'
	ne- + *linjok* 'to run' → **ne**linjok 'to run'	***ne-nge-****linjok* 'DY.RLS-COLL-run'
	no- + *gombo'* 'to talk' → ***no****gombo'* 'to talk'	***no-ngo-****gombo'* 'DY.RLS-COLL-talk'
Actor voice prefix *noN-* 'AV.RLS'	*noN-* + *gabu* 'to cook' → **nong**gabu 'to cook'	***no-ngo-ng****gabu* 'AV.RLS-COLL-cook'
	noN- + *sempak* 'to kick' → **nony**empak 'to kick'	***no-ngo-ny****empak* 'AV.RLS-COLL-kick'

Table 2-25: Type II vowel-harmonic changes of the group/collective infix *-ngV-*

Finally, in type III vowel harmony, the realizations of vowel of the prefix *kV-* includes two forms only: *ko-* and *ka-*. The ordinal prefix *kV-* changes into *ko-* if the first syllable of the number to which it attaches also has an /o/ vowel, otherwise it is realized as *ka-*. Thus, the ordinal numbers in Tajio are, for example, ***ko****roruwa* 'second', ***ka****apat* 'fourth', ***ka****lelima* 'fifth', and ***ka****ualu* 'eighth'.

3 Word structure

This chapter deals with the formal properties of words in Tajio. Specifically, it looks at the formatives involved in word formation processes (Section 3.2), allomorphy (Section 3.3), the structure of grammatical words (Section 3.4), reduplication (Section 3.5) and compounding (Section 3.6). As a prelude to the discussion of word structures in Tajio, Section 3.1 examines the distinction between phonological and grammatical words. Word class classification is not included in this chapter because it poses specific problems in Tajio and requires particular scrutiny (see Chapter 4 for a detailed discussion).

3.1 Phonological words and grammatical words

The following discussion of the distinction between phonological words and grammatical words in Tajo is based on the criteria proposed by Dixon (2010). In line with Dixon, it is assumed here that the phonological and grammatical word are essentially independent of each other, phonological words being determined by phonological criteria, and grammatical words being defined with regard to morphosyntactic properties. Thus in principle, a phonological word may consist of more than one grammatical word and vice versa (Dixon 2010:2). In Tajio, however, we find that the boundaries of phonological and grammatical words largely coincide-with the notable exception of phonological words that involve clitics.

3.1.1 Phonological words

According to Dixon (2010:7), there are three phonological properties that prove to be vital to a definition of the phonological word: (a) prosodic features (i.e., stress (or accent) and/or tone assignment), (b) segmental features (i.e., internal syllabic and segmental structure), and (c) phonological rules (i.e., rules which only apply within a phonological word).

Property (a), is not applicable in Tajio because the language does not have word level stress. Rather, it has a phrase accent which is regularly placed on the penultimate syllable of the phrase (see Section 2.7). If we used accent assignment as a test for phonological wordhood, examples (1) and (2) below would both have to be regarded as one phonological word, because they are pronounced as single prosodic units and consequently have only one phrase accent on the penultimate syllable. The accented syllable is given in bold.

(1) *terurus* [te'**ru**rus]
te=rurus
NM=sibling
'sibling'

(2) *terurus* *langkai* [terurus laŋ'**ka**i]
te=rurus *langkai*
NM=sibling male
'male sibling'

Turning to property (b), the use of syllable structure seems to yield a suitable definition of the phonological word in Tajio, with one exception.

As has been discussed in Section 2.6, the possible syllable structures in Tajio are V, CV, VC and CVC. In order to determine the number of phonological words in the noun phrase *terurus langkai* 'male sibling', for example, one could use the syllabification rule that restricts all (C)VC syllables without a nasal coda to word-final position. Applying this rule, the noun phrase *terurus langkai* consists of two phonological words, *terurus* and *langkai*, since there is exactly one CVC syllable occurring in the string, determining that there is a word boundary after *te.ru.**rus***.

However, the use of the syllabification test as evidence for phonological word boundaries does not work in all instances. In particular, it is problematic when clitics are involved, as illustrated by example (3).

(3) *tebuangmu*
te=buang=mu
NM=finger=2SG.GEN
'your finger'

The syllable structure of the word *tebuangmu* 'your finger' is *te.bu.**ang**.mu*, CV.CV.**VC**.CV. VC syllables in Tajio are only found in word-final position, thus the syllable ***ang*** would be the last syllable of the word. Consequently, *tebuangmu* would have to consist of two phonological words. However, this is not a desirable result since *=mu* is a genitive pronominal clitic, which cannot be used as an independent phonological word. Rather, it requires a phonological host to which it can attach.

In cases like this, property (c) (phonological rules as indicators to phonological word boundaries) must be involved. It must be assumed that cliticization allows for a number of additional CC clusters beyond the restricted number of sonorant-obstruent sequences within phonological words, as discussed in Section 2.5.

That is, one can say that the phonological word in Tajio is definable essentially with regard to phonotactic constraints on syllable structure (property (b) above), which, however, can be partially violated by cliticization processes. The clitic status itself is evident from the inability to stand alone as a phonological word (see Section 3.2.4 for further discussion on clitization in Tajio).

3.1.2 Grammatical words

Dixon (2010:12–19) proposes eight criteria for identifying a grammatical word and he considers the four listed below as the main criteria. A grammatical word:

a) has as its base one or more lexical roots that have undergone morphological processes, for example, compounding, affixation or reduplication;
b) has a conventionalized coherence and meaning (i.e., the meaning of a word is related to the meaning of its parts).

When a grammatical word involves compounding or affixation, its grammatical elements:

c) always occur together, rather than being scattered across the clause;
d) generally occur in a fixed order.

Dixon (2010:20) defines clitics as grammatical words, which cannot stand alone, but rather require a phonological host. Hence they are not phonological words.

If we apply Dixon's criteria to our noun phrase *terurus langkai* 'male sibling' from example (2) above, it consists of three grammatical words: the noun marker clitic *te=* and two nominal roots: *rurus* 'sibling' and *langkai* 'male'.

Other examples of grammatical words with suffixation are presented in (4)–(6). The grammatical word in example (4) is a noun that consists of a lexical root *turu* 'to sleep' and the nominalizing circumfix *pV--ong*. Example (5) is a transitive verb which has a prefix *noN-* and the root is *tilang* 'split (wood)'. Example (6) illustrates a stative intransitive verb with the vowel harmonic prefix *nV-*, which is here attached to the root *basag* 'big'.

(4) *poturuong*
pV-turu-ong
NOM-sleep-NOM
'place to sleep; sleeping room'

(5) *nonilang*
noN-tilang
AV.RLS-split (wood)
'to split wood'

(6) *nabasag*
nV-basag
ST.RLS-big
'to be big'

The types of words that are discussed in the following sections are grammatical words. The discussion of word formation focuses on the grammatical elements that are involved in forming complex grammatical words.

3.2 Formatives

The term *formative* as used in this grammar refers to any minimal unit which has a morphological (or syntactic) function in word formation. The discussion of formatives includes affixes, clitics and stem-forming prefixes. Before discussing each of these in turn, the next section briefly deals with the basic components of word formation: lexical roots, stems and bases.

3.2.1 Lexical roots, stems and bases

With regard to word formation processes, roots in Tajio can be divided into two types: (1) roots which directly take inflectional affixes; and (2) roots which need derivational affixes before taking any inflectional affixes. *Roots* are distinguished from *stems* if a root takes both derivational and inflectional affixes. The term *stem* in such cases is used to refer to a morphological form which consists of a root plus (a) derivational affix(es) to which (an) inflectional affix(es) can be then attached. The term *base* is used in this work as a superordinate term for roots or stems, i.e., it is used whenever the difference between roots and stems is not relevant for describing a morphological formation.

From the above discussion it follows that derivational affixes are always attached before inflectional affixes. Therefore, inflectional affixes in Tajio may also be called outermost affixes. Table 3-1 gives two examples of roots and stems in Tajio.

Root	**Stem: root + derivational affix**	**Inflectional affix + stem**
vee 'to give'	*veen**ao*** /*veen-ao*/ 'give-APPL' 'to give (sth. to s.o.)'	***nom**beenao* /*noN-veen-ao*/ 'AV.RLS-give-APPL' 'to give (sth. to s.o.)'
gabu 'to cook'	***po**gabu* /*po-gabu*/ 'SF-cook' 'to cook'	***ni**pogabu* /*ni-po-gabu*/ 'UV.RLS-SF-cook' 'to cook'

Table 3-1: Examples of stem formation and inflection

3.2.2 Affixes

Based on their functions, affixes in Tajio can be divided into derivational and inflectional affixes. Derivational affixes can create new words, which do not necessarily belong to the same grammatical class as the roots they attach to. They can also change the lexical meaning of the root. Furthermore, derivation can also change the morphosyntactic subclass of a root[7].

Inflectional affixes, on the other hand, never change the grammatical class or the basic meaning of their base. Bases in Tajio do not inflect for number, case or gender, but do so for mood (realis opposed to non-realis). Mood is the only inflectional category in Tajio, which, however, is formally intertwined with other types of grammatical information, such as voice (with transitive verbs), dynamicity (with intransitive verbs, see Section 5.1) as well as person marking in the undergoer voice construction (see Section 6.3).

Tajio has four formal types of affixes: prefixes, one infix, suffixes and circumfixes. Grammatical elements that are classified as affixes in Tajio are listed in Table 3-2.

[7] See among others Stump (1998), Haspelmath (2002) and Kroeger (2005).

Domain	Type of affix		Functions	Further details in section(s)
Inflectional affixes	Prefixes	*noN-/moN-*	active voice realis/non-realis	2.8.1; 6.3; 8.1.2.1
		n-/m-	active voice realis/non-realis	6.3
		no-/ne-, mo-/me-	dynamic intransitive realis/non-realis	6.2; 8.1.1
		nV-/mV-	stative realis/non-realis	2.8.6; 6.1; 8.1.1
		ni-/nu-	undergoer voice realis/non-realis	6.3.2; 8.1.2.2
		u-	undergoer voice non-realis for 1SG actor	6.3.2; 8.1.2.2
		mu-	undergoer voice non-realis for 2SG actor	6.3; 8.1.2.2
		si-	pronominal prefix for plural pronouns	4.3.1.1
		ni-	genitive prefix for plural pronouns	4.3.1.1
	Circumfixes	*ni--i/nu--i*	undergoer voice realis/non-realis	6.3; 8.1.2.2
Derivational affixes	Prefixes	*po-/pe-*	stem former	3.2.3; 6.5.2
		PO-	causative	6.4.1.2
		to-po(N)-	agentive nominalizer	7.4.1
		pei-	requestive causative	6.4.1.2.2
		(no)si-	reciprocal	6.4.2.1
		po(N)-/pe(N)-/pV-	nominalizer	7.4
		(ne)te-	resultative	6.4.2.2
		so-/sV-(N)-	one (numeral prefix)	2.8.1; 4.3.2; 7.1.3
		ro-/ro-(N)-	two (numeral prefix)	2.8.1; 4.3.2; 7.1.3
		see-, (ne)ro-	group/collective	6.5
		kV-	ordinal number	2.8.6
		nangi-	repeated action	6.5
	Infix	*-ngV-*	group/collective	2.8.6; 6.5
	Suffixes	*-i_{APPL}*	applicative	6.4.1.1
		-ao	applicative	6.4.1.2
		-i_{REP}	repeated action	6.5
		-ong	nominalizer	7.4
	Circumfixes	*po(N)/pe(N)/pV--ong*	nominalizer	7.4
		nV--ong	verbalizer	4.1
		no-/ne--ong	reciprocal	6.4.2.1

Table 3-2: Complete list of inflectional and derivational affixes in Tajio

Some affixes in Table 3-2 are written with a capital *N*, which represents a homorganic nasal. It is found in nasal prefixes and the nasal ligature. In order to distinguish the two functions of this nasal, the latter is written as -(*N*)-, as can be seen in the numeral prefixes *sV-(N)-* and *ro-(N)-*. The homorganic alternations of the nasal are discussed in Section 2.8.

Circumfixes are defined by the co-occurrence of a prefix and a suffix which simultaneously derive a new word or inflect a verbal base. When either affix is missing, the subsequent form is either ill-formed or has a different meaning or function, as illustrated by the examples in (7).

(7) ***poN--ong*** + *berek* 'to stay' → ***pom****berek****ong*** 'place to stay/house'
poN- + *berek* 'to stay' → ***pom****berek*/***pom****berek=mo*[8] 'stay (IMP)'
-ong + *berek* 'to stay' → **berek****ong***

A grammatical element is classified as an infix if it occurs inside the base (Haspelmath, 2002:18). A well-known example is the actor voice infix *-um-* in Tagalog: for instance, *hanap* 'to search' becomes *h-um-anap* 'AV-search'.

In Tajio, there is only one infix: *-ngV-*. This infix indicates group activities if the base to which it attaches is a dynamic verb (i.e., intransitive and transitive) or the state of a group if the base is stative. *-ngV-* can only be inserted between prefixes and roots; it never occurs between roots and suffixes. That the affix *-ngV-* is an infix rather than a prefix is clear from its interaction with the nasal prefixes (CVN- prefixes). See further in Section 2.8.6.

Interaction between affixes and bases in Tajio may not always result in morphophonemic changes. There are affixes the realizations of which are lexically determined by the root to which they attach. The types of allomorphs that are found in Tajio will be discussed further in Section 3.3.

3.2.3 Stem-forming prefixes

In Tajio, there are roots which need a stem-forming prefix before they can undergo any futher derivational or inflectional processes. The stem-forming prefixes found in Tajio are *pe-* and *po-*. The vowel of the stem-forming prefix is in most cases identical with the vowel of other prefixes (e.g., the dynamic intransitive prefix or the causative prefix) which in turn is lexically determined by the root (see Section 3.3.2 for details on suppletive allomorphy).

A stem-forming prefix is required in order to derive a verb from a nominal root. In verb formation, the stem-forming prefix can be identified most clearly on verbs that are marked for undergoer voice as the actor voice prefix may induce morphophonemic changes, obscuring the original form of the prefix. For example, the root *tambak* 'to play' takes the stem-forming prefix ***po***- as clearly seen in the undergoer voice form *ni****po****tambakao* /*ni*-***po***-*tambak*-*ao*/ 'UV.RLS-**SF**-play-APPL' 'to turn sth. into a game'. Another example is the root *joong* 'field' which takes the stem-forming prefix ***pe***- as seen in *ni****pe****joong* /*ni*-***pe***-*joong*/ 'UV.RLS-**SF**-field' 'to do the field'.

3.2.4 Clitics

As mentioned at the beginning of this chapter, a clitic is a grammatical word on its own, yet not a complete phonological word. Clitics can be attached before or after their hosts (see Section 3.1.2). It is possible to have more than one clitic attached to a host.

The number and types of clitics that may be attached to a particular host depend on its morphosyntactic class. Clitics in Tajio that can be attached to a noun are noun markers and genitive clitics indicating the possessor of the noun.

In clitic forms, noun marker always occur as proclitics, i.e., they precede their nominal host. There are four noun marker clitics in Tajio: the neutral noun markers *te=* and *nu=* and the honorific noun markers *si=* and *ni=* (see also Section 4.3.1 and Section 7.1.1 for more details about these noun markers).

Pronominal possessors: first, second and third person singular possessors always occur as enclitics, i.e., they always follow the noun host. In contrast, plural pronouns occur in genitive forms marked by the honorific prefix *ni-* (see Section 4.3.1.1). Consider the examples of noun markers and possessor clitics given in (8)–(10).

(8) ***si****=opu'=****'u*** '**NM**[9]=grandparent=**1SG.GEN**' → *siopu'u* 'my grandparent'

(9) ***te****=pomberekong=****mu*** '**NM**=place.to.stay=**2SG.GEN**' → *tepomberekongmu* 'your house'

[8] *=mo* is an enclitic which marks completive aspect. Its secondary function is, among others, to mark politeness (in positive and negative imperatives). See Section 5.3 for details.

[9] The noun marker *si=* also functions as an honorific marker. It can only attach to personal pronouns, personal names and four core kinship terms (see Section 7.3.1). Thus, *si=* is glossed as HON.

(10) ***te***=*vonua penginanong*=***nya*** '**NM**=restaurant=**3SG.GEN**' → *tevonua penginanongnya* 'his/her restaurant'

Cliticization on verbs can involve two kinds of enclitics: genitive and aspectual enclitics. Genitive enclitics are used to indicate the actor in undergoer voice constructions if the actor is a singular referent (i.e., *='u* '1SG.GEN', *=mu* '2SG.GEN' and *=nya* '3SG.GEN'). Plural actors, on the other hand, are expressed by independent pronouns.

The aspectual enclitics *=po* 'CONT' or *=mo* 'COMP' can be placed directly after dynamic verbs or else follow the actor enclitics, as illustrated by examples (11)–(13) below.

(11) *ne-nge-linjok*=***po*** 'DY.RLS-COLL-to.run=**CONT**' → *nengelinjokpo* 'still running together'
(12) *noN-odung*=***mo*** 'AV.RLS-sit=**COMP**' → *nongodungmo* 'already sitting'

(13) *ni-pe-valung-i*=***nya***=***mo*** 'UV.RLS-SF-carry.food-APPL=**3SG.GEN**=**COMP**' → *nipevalunginyamo* 'she/he has carried the food already'

Turning to the third group of bases, stative verbs can only occur with the aspectual enclitics *=mo* 'COMP' or *=po* 'CONT', as presented in examples (14) and (15).

(14) *nV-basag*=***mo*** 'ST.RLS-big=**COMP'** → *nabasag****mo*** 'already big'

(15) *nV-meas*=***po*** 'ST.RLS-white=**CONT'** → *nemeas****po*** 'still white'

Tajio further makes use of the proclitic *to=* as a relative marker. In relative clauses, this proclitic usually precedes a verbal base, i.e., an intransitive or transitive verb. For example, ***to****noogal* /***to***=*nV-ogal*/ '**REL**=ST.RLS-dry' 'the one which is dry', ***to****nongoli* /***to***=*noN-oli*/ '**REL**=AV.RLS-buy' 'the one who bought', ***to****nituda'u* /***to***=*ni-tuda='u*/ '**REL**=UV.RLS-plant=1SG.GEN' 'the one which I planted'.

To sum up, all grammatical elements classified as clitics in Tajio are shown in Table 3-3.

Domain	**Type of Clitic**	**Function**
Enclitic	*='u* '1SG.GEN'	Genitive marker
	=mu '2SG.GEN'	Genitive marker
	=nya '3SG.GEN'	Genitive marker
	=mo 'COMP'	Aspectual marker
	=po 'CONT'	Aspectual marker
Proclitic	*pa=* 'SEQ'	Sequential marker
	to= 'one which/who'	Relative marker
	te=	Noun marker
	si=	Noun marker
	nu=	Genitive marker
	ni=	Genitive marker

Table 3-3: Complete list of clitics in Tajio

There are some morphosyntactic properties which can be used to distinguish clitics from words and affixes in Tajio[10]. A major difference between phonological words and clitics is that clitics never stand alone, but are always attached to a host. This property is shared between clitics and affixes. However, clitics and affixes differ in other regards.

From a morphophonological point of view, affixes in Tajio may trigger morphophonological alternations of the base to which they are attached. These processes include nasal assimilation or substitution, nasal fronting, nasal dissimilation, vowel harmonic changes and vowel reduction (see Section 2.8). In contrast, morphophonological processes rarely ever occur at clitic boundaries. The only morphophonological process which does occur at a clitic boundary in Tajio pertains to the enclitic *='u* '1SG.GEN', which undergoes glottal deletion if its host ends with a consonant (see Section 2.8.5).

[10] See Anderson (2005), Kroeger (2005) and Dixon (2010) for discussion. In what follows I will mainly draw on these sources.

Furthermore, cliticization allows consonant sequences other than sonorant-obstruent sequences, as already mentioned in Section 3.1 above. Typically, sonorant-obstruent sequences in Tajio are homorganic (i.e., /mp/, /mb/, nt/, /nd/, /nd^{3}/, /ns/, /ŋk/ and /ŋg/). In contrast, consonant sequences which occur due to cliticization are not homorganic. For example, the sequence /ŋm/ <ngm> is found in the word *teompo**ngm**u* 'your belly' /*te=ompong=mu*/ 'NM=belly=2SG.GEN', in which the last phoneme /ŋ/ of the root is followed by the phoneme /m/ of the clitic =***m**u*. Such sequences that remain phonologically unaltered may only occur between clitics and their (noun) hosts.

Turning to morphological characteristics, affixes are selective in the base they attach to, and their position in word formation is fixed. For example, the vowel harmonic prefix *nV-* 'ST.RLS' cannot be attached to bases other than statives. Other examples are the prefixes *u-* '1SG.UV.NRLS' and *mu-* '2SG.UV.NRLS' which always precede transitive verbal bases. The honorific prefixes *si-* and *ni-* can only precede the bound forms of plural pronouns.

Clitics, on the other hand, are less restricted than affixes with respect to the types of bases to which they attach. Clitics in Tajio can follow a nominal base, e.g., *=nya* '3SG.GEN' as in *telapi**nya*** /*te=lapi=**nya***/ 'NM=spouse=**3SG.GEN**' 'his/her spouse'; or they can follow a verbal base, as in *nipogutuao**nya*** /*ni-po-gutu-ao=**nya***/ 'UV.RLS-SF-make-APPL=**3SG.GEN**' 'She/he made something for someone'.

Some clitics may be derived from or related to independent or full forms. The aspectual marker *=po* 'CONT' is possibly derived from *ompo* which means 'still'. Example (16) shows that *ompo* 'still' can replace the aspectual marker *=po* 'CONT' in example (17), but they cannot be used at the same time, as shown by example (18).

(16) *siia* *nonggabu**po***
siia *noN-gabu=**po***
3SG AV.RLS-cook=**CONT**
'She/he is still cooking.'

(17) *siia* *nonggabu* ***ompo***
siia *noN-gabu* ***ompo***
3SG AV.RLS-cook **still**
'She/he is still cooking.'

(18) **siia* ***ompo*** *nonggabu**po*** or **siia nonggabu**po ompo***

The sequential marker *pa=* 'SEQ' seems to be derived from *apa* 'then'. Both are used to link events in narratives, as in examples (19) and (20).

(19) *pamula* *upasadia* *teroong*
pamula *u-pasadia* *te=roong*
first UV.NRLS.1SG-prepare NM=leaf

paulelei
apa=u-lele-i
then=UV.NRLS.1SG-dry-UV
'First I will prepare the (banana) leaves, and then I will dry them.'
(from the narrative *Nonggutu mandura'*)

(20) *toukmao* *nisari* ***apa*** *nipoongom* *sedei* ***apa***
toukmao *ni-sari* **apa** *ni-po-onggom* *sedei* ***apa***
after.that UV.RLS-stir **then** UV.RLS-CAUS-cold a.little **then**

nitumbu'
ni-tumbu'
UV.RLS-grind
'After that (I) stir (it), then I cool (it) a little, then I grind (it) […].'
(from the narrative *Nonggutu mandura'*)

Although there is a set of properties that serves to distinguish clitics from affixes and independent morphemes, not every clitic is associated with the whole range of clitic properties. For example, the noun marker *te=* is classified as clitic although it is selective in choosing its base (i.e., it has to be attached to nouns). Despite this selectivity, such clitics are categorized as clitics rather than affixes because they appear to have no derivational and inflectional function.

3.3 Allomorphy

Following the terminology proposed by Kroeger (2005:289–90), Tajio possesses two types of allomorphs: morphophonemic allomorphs and suppletive allomorphs. The former occurs if the change of the morpheme form is the result of a phonological process. If the change cannot be ascribed to a phonological process, it is referred to as suppletive allomorphy.

3.3.1 Morphophonemic allomorphy

The morphophonological processes that involve allomorphy (of base and/or affix) in Tajio are nasal prefixation, vowel harmonic affixation, nasal fronting, nasal dissimilation, vowel reduction and glottal deletion. Nasal fronting and nasal dissimilation involve allomorphy of bases, other processes involve allomorphy of affixes. Details on these morphophonological processes are given in Section 2.8.

3.3.2 Suppletive allomorphy

Kroeger (2005:290–292) divides suppletion into three types: lexically conditioned suppletion, phonologically conditioned suppletion, and morphologically conditioned suppletion. Suppletion is lexically conditioned if there is no way to predict which allomorph occurs with a given lexeme. Suppletion is phonologically conditioned if the choice of allomorph depends only on the phonological environment. In this case, the difference between phonologically conditioned suppletion and morphophonemic allomorphy is that suppletion is a process of replacing one allomorph with another, while a morphophonemic allomorphy changes (but does not replace) the phonological shape of a morpheme. Finally, suppletion is morphologically conditioned if the choice of the allomorph for a particular affix depends on other affixes present in a word.

Of Kroeger's three types of suppletion, two are found in Tajio: morphologically and lexically conditioned suppletion. The following subsections discuss these two types of suppletion identified in Tajio.

3.3.2.1 Morphologically conditioned suppletion

Suppletive allomorphy is shown by the actor voice prefix *noN-/moN-*, which has a suppletive allomorph *no-/mo-* (in its realis/non-realis realizations). The choice of these suppletive allomorphs is morphologically conditioned since it depends on the presence of other affixes in the word.

The actor voice marker *noN-/moN-* always becomes *no-/mo-* if it precedes the causative prefix *PO-* and the stem-forming prefix *pe-/po-* (see Section 6.3 for details on this alternation). Examples (21) and (22) illustrate the suppletive allomorphs of the actor voice prefix *noN-*.

(21) *siasman* ***nopeanganak*** *sianugrah*
si=Asman ***no-PO-anganak*** *si=Anugrah*
HON=PN **AV.RLS-CAUS-child** HON=PN
'Asman adopted Anugrah.' (lit: 'Asman made Anugrah his child.')

(22) *siina'u* ***nopoondak*** *teogo*
si=ina='u ***no-PO-ondak*** *te=ogo*
HON=mother=1SG.GEN **AV.RLS-CAUS-hot** NM=water
'My mother boiled the water.' (lit: 'My mother made the water hot.')

(23) *sia'u* ***nopesoogi*** *tewarung* *eua*
sia'u ***no-pe-soog-i***$_{APPL}$ *te=warung* *eua*
1SG **AV.RLS-SF-stop by-APPL** NM=kiosk DIST
'I stopped by at that kiosk.'

3.3.2.2 Lexically conditioned suppletion

Examples of lexically conditioned suppletion in Tajio include the dynamic intransitive marker *ne-/no-*, the stem-forming prefix *pe-/po-* and the causative prefix *PO-*. The choice between the variant forms cannot be described phonologically or morphologically. For example, there is no way to predict which allomorph occurs with which dynamic intransitive roots. The root *sengka* 'to turn 90 degrees' becomes ***ne****sengka* 'to turn 90 degrees', while the segmentally almost identical *sengkel* 'to ahem' becomes ***no****sengkel* 'to ahem'.

Although the choice of the prefix form is lexically conditioned, in most cases there is a regularity among the respective prefixes chosen by roots. If a root can take the dynamic intransitive prefix, the stem-forming prefix and the causative prefix, all prefixes tend to have an identical vowel. For example, the root *linjok* 'to run', which takes the dynamic intransitive prefix ***ne-*** to form ***ne****linjok* /***ne-***/*linjok*/ '**DY.RLS**-run' 'to run' also takes the stem-forming prefix ***pe-*** and the causative prefix ***pe-***, as can be seen in the UV verb *ni**pepe**linjok* /*ni-**PO-pe-**linjok*/ 'UV.RLS-**CAUS-SF**-run' 'to make (sth./s.o.) run'. Another example is the root *lapi* 'spouse' which takes the dynamic intransitive prefix ***no-*** to form ***no****lapi* /***no-***/*lapi*/ '**DY.RLS**-spouse' 'to marry'. Its respective prefixes also occur with the vowel /o/, the stem former is ***po-*** and the causative prefix is ***po-***, as in *ni**popo**lapi* /*ni-**PO-po-**lapi*/ 'UV.RLS-**CAUS-SF**-spouse' 'to make someone a spouse'.

However, irregularity is also found in some cases, in which prefixes chosen by roots do not share the same form of the vowel. The root *layag* 'to sail', for instance, takes the dynamic intransitive prefix ***no-*** to form ***no****layag* /***no-***/*layag*/ '**DY.RLS**-sail' 'to sail'. This prefix has the same vowel with the stem-forming prefix ***po-*** which occurs in the undergoer voice verb *ni**po**layagi* /*ni-**po-**layag-i*/ 'UV.RLS-**SF**-sail-APPL' 'to sail at'. However, the realization of the causative prefix taken by the root *layag* is ***pe-***, not ***po-***, as in *ni**pe**layagu* /*ni-**PO-**layag=u*/ 'UV.RLS-**CAUS**-sail=1SG.GEN' 'I turn sth. into a sail'. In such cases, the stem former and the causative prefix have different forms if not attached to the same base or when deriving very different meanings. In case of *ni**po**layagi* and *ni**pe**layagu*, the former still derives a verbal meaning 'to sail' while the latter does not include the verbal meaning 'to sail' anymore; the newly derived meaning is 'turning something into a sail'. This also proves that the stem-forming prefix and the causative prefix are two different prefixes. See also Section 6.4.1.2 on Causatives.

An example of lexically conditioned suppletion with a change of the base form is shown by the root *vee* 'to give'. It becomes *vee**n*** when the vowel-initial suffixes *-ao* 'APPL' or *-i* 'APPL' are attached (i.e., *vee**n**ao* and *vee**n**i*, respectively). This example is not analyzed as a case of morphological allomorphy because the phoneme /n/ does not regularly occur when a vowel-initial suffix is attached to bases with final /e/ (or another vowel). For example, the base *bal**e*** 'to turn' becomes *bal**e**ao* (not **bal**en**ao*); *lol**o*** 'to look for' becomes *lol**o**ao* (not **lol**on**ao*); *kund**u*** 'to kiss' becomes *kund**u**i* (not **kund**un**i*).

Lexically conditioned allomorphy is also found with some stative roots that do not take the vowel-harmonic stative prefix *nV-*. For example, instead of occurring as the expected form ****no****doda*, the stative form of *doda* 'to be red' is ***ne****doda*; *suli'* 'to be expensive' becomes stative ***na****suli'*, not ****no****suli'*; *sempo* 'to be cheap' is ***na****sempo*, not ****ne****sempo*; *rowa'* 'to be crowded' becomes stative ***na****rowa'*, not ****no****rowa'*.

Finally, the actor voice prefix *noN-/moN-* exceptionally appears as *neN-/meN-* 'AV.RLS/NRLS' in ***neng****inang*/***meng****inang* 'AV.RLS/NRLS-eat' and ***neng****inung*/***meng****inung* 'AV.RLS/NRLS-drink' (see also Section 6.1).

3.4 The structure of grammatical words

The morphological structure of grammatical words in Tajio depends on their morphosyntactic class. Table 3-4, Table 3-5, Table 3-6 and Table 3-7 each present the affix template of one of the three major morphosyntactic classes: nouns, stative intransitive verbs and dynamic verbs (see Chapter 4 for further details on word classes). The blank column in the table indicates that these affixes would not occur together with a particular base due to incompatible morphosyntactic properties (for instance, nouns that are derived from verbal bases cannot take causative prefixes although verbal bases formed by the

same root may do so). The ordering of morphemes shows the linear arrangement of affixes in word structure.

Inflection	Derivation	Root	Derivation	Example
ST/AV/UV	CAUS		VBLZ/APPL	
nV- 'ST.RLS'		*loka* 'banana'	*-ong* 'VBLZ'	***no****loka****ong*** 'to own (a) banana(s)'
		saping 'cow'		***na****sapin****ong*** 'to own (a) cow(s)'
		soyot 'sweat'		***no****soyot****ong*** 'to be sweaty'
		utu 'louse'		***no****utu****ong*** 'to have (a) louse/lice'
		meja 'table'		***ne****mejan****ong*** 'to have (a) table(s)'
no- 'AV.RLS'	*PO-*	*langit* 'ceiling'		***nopo****langit* 'to turn sth. into a ceiling'
ni- 'UV.RLS'				***nipo****langit* 'to turn sth. into a ceiling'
no- 'AV.RLS'	*PO-*	*kaer* 'broom'	*-ao* 'APPL'	***nope****kaer****ao*** 'to turn sth. into a broom'
ni- 'UV.RLS'				***nipe****kaer****ao*** 'to turn sth. into a broom'

Table 3-4: Affix template of nouns

Inflection	Derivation			Root	Derivation	Examples
ST/AV/UV	COLL/NOM	CAUS	SF		APPL/NOM	
nV- 'ST.RLS'				*basag* 'to be big'		***na****basag* 'to be big'
nV- 'ST.RLS'	*-ngV-* 'COLL'			*meas* 'to be white'		***nenge****meas* '(all) to be white'
no- 'AV.RLS'		*PO-*		*basag* 'to be big'		***nopa****basag* 'to make big'
ni- 'UV.RLS'						***nipa****basag* 'to make big'
noN- 'AV.RLS'				*basag* 'to be big'	*-ao* 'APPL'	***nom****basag****ao*** 'to make big'
ni- 'UV.RLS'						***ni****basag****ao*** 'to make big'
no- 'AV.RLS'			*pe-*	*turu* 'to sleep'	*-i* 'APPL'	***nope****turu****i*** 'to sleep at'
ni- 'UV.RLS'						***nipe****turu****i*** 'to sleep at'
no- 'AV.RLS'		*PO-*	*pe-*	*turu* 'to sleep'		***nopepe****turu* 'to make s.o. sleep'
ni- 'UV.RLS'						***nipepe****turu* 'to make s.o. sleep'
	pV- 'NOM'			*turu* 'to sleep'	*-ong* 'NOM'	***po****turu****ong*** 'a place to sleep'

Table 3-5: Affix template of stative intransitive verbs

Inflection	Derivation			Root	Derivation	Example
DY/AV	COLL/REQ/NOM	CAUS	SF		APPL/NOM	
ne- 'DY.RLS'				*linjok* 'to run'		***ne****linjok* 'to run'
ne- 'DY.RLS'	*-ngV-* 'COLL'			*linjok* 'to run'		***nenge****linjok* 'to run together'
no- 'AV.RLS'		*PO-*	*pe-*	*lampa*		***nopepe****lampa* 'to cause s.o. to

				‘to walk’		walk’
ni- ‘UV.RLS’						***nipepe****lampa* ‘to cause s.o. to walk’
no- ‘AV.RLS’		*PO-*		*linjok* ‘to run’	*-ao* ‘APPL’	***nope****linjok****ao*** ‘to kidnap s.o.’
ni- ‘UV.RLS’						***nipe****linjok****ao*** ‘to kidnap s.o.’
no- ‘AV.RLS’	*pei-* ‘REQ’		*pe-*	*linjok* ‘to run’		***nopeipe****linjok* ‘to ask s.o. to run’ ***nipeipe****linjok* ‘to ask s.o. to run’
ni- ‘UV.RLS’						
no- ‘AV.RLS’			*pe-*	*ntama* ‘to enter’	*-i* ‘APPL’	***nome****ntama****i*** ‘to enter into’
ni- ‘UV.RLS’						***nipe****ntama****i*** ‘to enter into’
	pe- ‘NOM’			*linjok* ‘to run’	*-ong* ‘NOM’	***pe****linjok****ong*** ‘a place to run’
	topo- ‘AG.NOM’			*linjok* ‘to run’		***topo****linjok* ‘s.o. who runs’

Table 3-6: Affix template of dynamic intransitive verbs

Inflection	**Derivation**			**Root**	**Derivation**	**Example**
DY/AV/UV	**COLL/RCP/ REQ/NOM**	**CAUS**	**SF**		**APPL/RCP/ REP/NOM**	
noN- ‘AV.RLS’				*sempa’* ‘to kick’		***nony****empa’* ‘to kick’
ni- ‘UV.RLS’						***ni****sempa’* ‘to kick’
no- ‘AV.RLS’				*sempa’* ‘to kick’	*-ong* ‘RCP’	***no****sesempa’****ong*** ‘to kick each other’
no- ‘AV.RLS’	*si-* ‘RCP’			*sempa’* ‘to kick’		***nosi****sempa’* ‘to kick each other’
no- ‘AV.RLS’		*PO-*	*po-*	*eli* ‘to remember’	*-ao* ‘APPL’	***nopopo****eli****ao*** ‘to make s.o. remember sth.’
ni- ‘UV.RLS’						***nipopo****eli****ao*** ‘to make s.o. remember sth.’
noN- ‘AV.RLS’	*pei* ‘REQ’			*tuda* ‘to plant’		***nopei****tuda* ‘to ask s.o. to plant (sth.)’
ni- ‘UV.RLS’						***nipei****tuda* ‘to ask s.o. to plant (sth.)’
noN- ‘AV. RLS’	*-ngV-* ‘COLL’			*vava* ‘to bring’		***nongomb****ava* ‘to bring (sth.) together’
noN- ‘AV.RLS’				*vava* ‘to bring’	*-ao* ‘APPL’	***nomb****av****ao*** ‘to bring (sth.) for s.o.’
ni- ‘UV.RLS’						***ni****vav****ao*** ‘to bring (sth.) for

						s.o.'
no- 'AV.RLS'			*po-*	*layag* 'to sail'	*-i* 'APPL'	***nopo****layag****i*** 'to sail at'
ni- 'UV.RLS'						***nipo****layag****i*** 'to sail at'
noN- 'AV.RLS'				*rembas* 'to hit'	*-i* 'REP'	***no****rembas****i*** 'to hit repeatedly'
ni- 'UV.RLS'						***ni****rembas****i*** 'to hit repeatedly'
	topoN- 'AG.NOM'			*vava* 'to bring'		***topom****bava* 's.o. who brings (sth.)'
				vava 'to bring'	*-ong* 'NOM'	*vava****ong*** 'sth. being brought'
	poN- 'NOM'			*vava* 'to bring, to carry'	*-ong* 'NOM'	***pomb****ava****ong*** 'an instrument to carry sth.'

Table 3-7: Affix template of dynamic transitive verbs

3.5 Reduplication

There are two reduplication patterns in Tajio: CV-reduplication or monosyllabic reduplication and bisyllabic reduplication. In general, all bases (i.e., nouns, stative intransitives, dynamic verbs) can be reduplicated. In all types of reduplication patterns, the reduplicant is prefixed to the base.

In the database, there are no examples of monosyllabic reduplications in which the reduplicant consists of a vowel or a syllabic nasal only. The vowel-initial bases tend to take the bisyllabic reduplication pattern, as described in the following section. In case of syllabic nasals, Tajio allows nasal-obstruent clusters in word-initial position (as has been discussed in Section 2.5). Roots starting with nasal-obstruent clusters allow for monosyllabic and bisyllabic reduplication in which only the obstruent of the clusters is copied in the reduplicant. It seems that the syllabic nasal is ignored in the reduplication process, as it may violate the prototypical templates of reduplication, i.e., the monosyllabic template (CV) or the bisyllabic template (CV.CV). Therefore, the syllable structure of the reduplicant may consist of CV or CV.(C)V(C) combinations. For example, *m.po.yung* 'to whistle' is reduplicated into ***po****-mpo.yung* or ***po.yu****-m.po.yung* 'to whistle repeatedly'; *ng.ki.rat* 'to raise eyebrows' into ***ki****.ng.ki.rat.ong* or ***ki.ra****-ng.ki.rat.ong* 'to raise eyebrows at each other'; *n.ta.ul* 'to chew' forms ***ta****-n.ta.ul* or ***ta.u****-n.ta.ul* 'to chew intensively'; *n.ji.lok* 'to lick' is reduplicated into ***ji.lo****-n.ji.lok* 'to lick repeatedly'; *n.je.ek* 'to laugh loudly' derives ***je.ek****-n.je.ek* 'to laugh loudly intensively'; and *ng.ka.ung* 'to crawl' becomes ***ka.u****-ng.ka.ung* 'to crawl intensively'. The fact that the nasal is ignored in reduplication process supports the analysis that the nasal in nasal-obstruent clusters occuring word-initially is a syllabic nasal (cp. Section 2.5).

As in other Austronesian languages, reduplication in Tajio is used as a morphological device that indicates different types of meaning, such as plurality in nouns, and repetition and intensity of dynamic or stative verbs.

3.5.1 CV-reduplication or monosyllabic reduplication

In monosyllabic reduplication, the reduplicant is the first syllable of the base. It copies only the first two (CV) segments. Thus, if the reduplicated syllable is closed (i.e., CVN or CVC), the reduplicant is only CV.

Monosyllabic reduplication occurs with nominal and verbal bases. Reduplicated nominals signify plurality or variety. CV-reduplication with dynamic verbal bases is employed in nominalization such as the formation of instrumental nouns or objective nouns. CV-reduplication which does not nominalize the dynamic verbal bases derives an intensive or repetitive meaning. With statives, CV-

reduplicatiom may also derive objective nouns, or statives with intensive meaning. Examples are given in Table 3-8.

Type of bases	Function	Example
Nominal	Plurality	***la**.pis* 'layer' → ***la.la**.pis* 'many layers'
Dynamic verbal	Instrumental noun	***ka.**er* 'sweep' → ***ka.ka**.er* 'broom'
		***ka**.it* 'to pick cacao with knife' → ***ka.ka**.it* 'a special knife to pick cacao'
		***tu**m.buk* 'to sow (placing seed in holes)' → ***tu.tum**.buk* 'a stick to make holes for seeds'
	Objective noun	***ta**m.bak* 'to play' → ***ta.tam**.bak* 'game'
	Intensive/ repetitive meaning	***ja**.ri.ta* 'to tell (a story)' → ***ja.ja**.ri.ta* 'to tell (a story) intensively'
		***go**.u* 'to shout' → ***go.go**.u* 'to shout repeatedly'
		***sa**.up* 'to rub' → ***sa.sa**.up* 'to rub frequently'
Stative	Intensive meaning	***li**.ol* 'to be silent, quiet' → ***li.li**.ol* 'to be very silent'
		***le**n.da* 'to be long' → ***le.len**.da* 'to be very long'
	Objective noun	***tu**.vu* 'alive' → ***tu.tu**.vu* 'life'

Table 3-8: Examples of CV-reduplication

3.5.2 Bisyllabic reduplication

In bisyllabic reduplication, the syllable structure of the reduplicant may consist of (C)V(N).CV(C) combinations depending on the syllable structure of the base. Thus, for vowel-initial bases, the possible syllable structures of the reduplicant is V(N).CV(C) and for consonant-initial bases CV(N).CV(C). The (N) and the (C) at coda position of the first and second syllable is placed in brackets because the base may have one or not: in the case of the nasal, the reduplicant will include one, if the base has it. In case of final C, the base may have one or not, and if it has one, it may or may not be included in the reduplicant.

Variants with or without coda do not bear any differences in meaning. Variants without coda usually occur in conversational data as well as in elicitation. Variants with coda mostly occur in elicitation. Thus, the variant without coda can be considered to be more natural than the variant with coda.

If a whole bisyllabic word is reduplicated, this type of reduplication could also be called full-base reduplication. However, it should be noted that words like *ilo-ilo* 'firefly' or *nganti-nganti* 'earrings' are not considered reduplications as these words do not exist in unreduplicated form.

Roots which undergo bisyllabic reduplication are nominal and verbal bases. Bisyllabic reduplication of nominal bases derives a meaning of plurality or variety. Bisyllabic reduplication of verbal bases may derive objective nouns. It may also convey intensitive, frequentative, or repetitive meanings. Table 3-9 presents examples of bisyllabic reduplication without and with coda consonant.

Type of bases	Function	Types of bisyllabic reduplication	
		Bi-RDP without coda	**Bi-RDP with coda**
Nominal	Variety	***ru.pa*** 'kind of' → ***ru.pa***-*ru.pa* 'many kinds of'	-
Dynamic verbal	Intensive meaning	***se.'u*** 'to sob' → ***se.'u***-*se.'u* 'to sob intensively'	-
		pu.ras 'to suffer from diarrhoea'→ ***pu.ra***-*pu.ras* 'to suffer from intensive diarrhoea'	***pu.ras*** 'to suffer from diarrhoea' → ***pu.ras***-*pu.ras* 'to suffer from intensive diarrhoea'
		a.but 'cut grass' → ***a.bu***-*a.but* 'to cut grass intensively'	***a.but*** 'cut grass' → ***a.but***-*a.but* 'to cut grass intensively'
		lan.tap 'to float' → ***lan.ta***-*lantap* 'floating for some time'	-
	Repetitive meaning	***go.u*** 'to shout' → ***go.u***-*go.u* 'to shout repeatedly'	-
		ka.ve 'to call by hand' → ***ka.ve***-*ka.ve* 'to call by hand repeatedly'	-
		u.ar 'to say' → ***u.a***-*u.ar* 'to say repeatedly'	***u.ar*** 'to say' → ***u.ar***-*u.ar* 'to say repeatedly'
	Frequentative meaning	***sa.u***p 'to rub' → ***sa.u***-*sa.up* 'to rub frequently'	***sa.up*** 'to rub' → ***sa.up***-*sa.up* 'to rub frequently'
	Objective noun	***ba.lu'*** 'to sell' → ***ba.lu***-*ba.lu'* 'product to sell'	***ba.lu'*** 'to sell' → ***ba.lu'***-*ba.lu'* 'product to sell'
		tu.da 'to plant' → ***tu.da***-*tu.da* 'plants'	-
Stative roots	Intensive meaning	***de.i*** 'to be small' → ***de.i***-*de.i* 'to be very small'	-

Table 3-9: Examples of bisyllabic reduplication

Note that many bases allow for more than one reduplication pattern. It is likely that this depends on the compatibility of a base's syllable pattern with more than one reduplication type. With regard to the meaning associated with the different reduplication types, there often does not appear to be a semantic difference between monosyllabic and bisyllabic reduplication. The nominal root *la.pis* 'layer', for example, can be reduplicated into ***la***.*lapis* or ***la.pi***-*la.pis* to derive a plural meaning 'many layers'; the dynamic verbal root *go.u* 'to shout' has two reduplicated forms, ***go***.*go.u* and ***go.u***-*go.u,* to derive a repetitive meaning 'to shout repeteadly'; or the stative root *li.ol* 'to be silent, quiet' may become ***li***.*li.ol, **li.o***-*li.ol* or ***li.ol***-*li.ol*, all of which convey the same intensive meaning 'to be very silent, quiet'.

In addition to monosyllabic and bisyllabic reduplications, there are rare instances of duplicating the whole word, as can be seen in example (24) and (25). Note that in case of bisyllabic bases, duplication is formally not distinguishable from bisyllabic reduplication.

(24) ***bu.a*** 'CLF.piece'→ *so-bu.a* 'sV-piece' 'one piece'→ ***so.bu.a-so.bu.a*** 'RDP~sV-piece' 'each get one'

(25) ***vo.nu.a*** 'house' → ***vo.nu.a-vo.nu.a*** 'houses'

3.5.3 Interaction between affixation and reduplication

Nasal prefixes may take part in the reduplication process. Affixation occurs before reduplication, which can be seen by the fact that the nasal prefix causes the onset of the base to change into the respective homorganic nasal and the nasal is also found in the reduplicated form. Consider examples (26) and (27) where the onset of the base is changed due to the influence of the nasal prefix. The

allomorph of the base then undergoes reduplication in order to derive a repetitive/intensive reading. Note that if the prefix would attach last, we would expect forms like **topo-ngala-ala* or **no-mura-puras* where the nasal prefix only affects the reduplicated form at the their place of contact.

(26) ***a.la*** 'take' → *to.po-**nga.la*** 'AG.NOM-AV.RLS-take' 'one who takes'
→*to.po-**nga.la-nga.la*** 'AG.NOM-AV.RLS-RDP~AV.RLS-take' 'someone who frequently takes (sth.)'

(27) ***pu.ras*** 'diarrhoea' → *noN-pu.ras* 'AV.RLS-diarrhoea' → *no-**mu.ras*** 'to have diarrhoea'
→*no.**mu.ra-mu.ras*** 'AV.RLS-RDP~AV.RLS-diarrhoea' 'to have diarrhoea intensively/ frequently'

Another prefix which also interacts with the reduplication process is the numeral prefix *sV-(N)-*, as illustrated in examples (28)−(30). Here, quite unlike the case of the nasal prefixes above, the numeral prefix itself is reduplicated, suggesting the following derivational order: the prefix is attached to the root first, and the whole base including the prefix then undergoes monosyllabic reduplication, actually resulting in prefix doubling.

(28) *de.i* 'small/little'→ ***se**-de.i* 'sV-little' 'one little'→ ***se-se**.de.i* 'RDP~sV-little' 'little by little'
(29) *bu.a* 'CLF.piece' → ***so**-bu.a* 'sV-piece' 'one piece' → ***so-so**.bu.a* 'RDP~SV-one' 'one by one'
(30) *e.le.o* 'day' → ***se**-e.le.o* 'sV-day' 'one day' → ***se-se**.e.le.o* 'RDP~SV-day' 'every day'

Other prefixes, however, show no interaction with reduplication, as they do not modify the shape of the base. Compare examples (31)--(37).

(31) ***a.la*** 'take' → *a.la-a.la* → *ni-**a.la-a.la**=nya* 'UV.RLS-RDP~take=3SG.GEN' 'He took (it) repeatedly'
(32) ***san.da'*** 'try' → *sa-san.da'* → *ni-**sa-san.da'**-i* 'UV.RLS-RDP~try-UV' 'to try (sth.) repeatedly'
(33) ***se.'u*** 'to sob' → *se.'u-se.'u* → *no-**se.'u-se.'u*** 'DY.RLS-RDP~sob' 'to sob intensively'
(34) ***sa.up*** 'to rub' → *sa.u-sa.up* → *no-si-**sa.u-sa.up*** 'DY.RLS-RCP-RDP~rub' 'to rub each other repeteadly'
(35) ***bu.le*** 'afraid' → *bu.le-bu.le* → *no-pe-**bu.le-bu.le*** 'AV.RLS-SF-RDP~afraid' 'to make (s.o.) very afraid'
(36) ***li.ol*** 'silent' → *li-li.ol* → *ne.**li-li.ol*** 'ST.RLS-RDP~silent' 'very silent'
(37) ***ba.lu'*** 'sell' → *ba.lu-ba.lu'* → *to.po-**ba.lu-ba.lu'*** 'AG.NOM-RDP~sell' 'seller'

3.6 Compounding

Compounding is not a particularly productive process of word formation in Tajio. The structure of compound nouns in Tajio is mostly noun plus noun. In a sequence of two nouns, the first noun is the head, the second noun is the modifier noun. Morphologically, the second noun in a compound can be a simple/non-derived form (i.e., a nominal base) or a derived form (i.e., a nominalized form).

In addition to this noun-noun compounding type, some data show that there are compounds that consist of a noun plus a non-realis stative verb. In such compounds, the noun functions as the head; the non-realis stative verb functions as the modifier. Substituting the non-realis verb with a realis form results either in a noun phrase (with a clear difference in meaning) or in an ungrammatical formation. Consider the examples presented in Table 3-10.

Head noun (N_1)	**Modifying noun (N_2) (simple form)**	**Compound**
manuk 'chicken'	*alas* 'jungle'	*manuk alas* 'a kind of wild chicken'
lemo 'orange'	*gola* 'sugar'	*lemo gola* 'sweet orange'
kakaer 'broom'	*sasa* 'palm leaf rib'	*kakaer sasa* 'a broom made of palm ribs'
Head noun (N_1)	**Modifying noun (N_2) (derived form)**	**Compound**
vonua 'house'	*penginanong* 'place to eat'	*vonua penginanong* 'restaurant'

	peN-inang-ong 'NOM-eat-NOM'		
teoto 'car'	*pelulang* 'container' *pe-lulang* 'SF-load'	*teoto pelulang* 'container car'	
Head noun	**Stative modifier**	**Compound**	**Noun phrase**
teitolu 'egg'	*melili* 'yellow' *mV-lili* 'ST.NRLS-yellow'	*teitolu **me**lili* 'egg yolk'	*teitolu **ne**lili* 'yellow egg'
teule 'caterpillar'	*medoda* 'red' *mV-doda* 'ST.NRLS-red'[11]	*teule **me**doda* 'centipede'	*teule **ne**doda* 'red caterpillar'
tabako 'tobacco'	*mentoos* 'rolled' *me-ntoos* 'ST.NRLS-rolled'	*tabako **me**ntoos* 'cigarette'	**tabako **ne**ntoos*
too 'person'	*mogurang* 'old' *mV-gurang* 'ST.NRLS-old'	*to**m**ogurang* 'old person; parent'	**to**n**ogurang*
too 'person'	*medei* 'young' *mV-dei* 'ST.NRLS-small'	*to**m**edei* 'the smallest child'	**to**n**edei*

Table 3-10: The structure of compound nouns

Based on their meanings, compounds in Tajio can be divided into two types: endocentric and exocentric compounds. In the first type, endocentric compounds, the head noun denotes a generic concept, while the modifying nouns specifies a particular subtype of this concept. While the meaning contributed by the head noun is transparent, the meaning contributed by the modifier can be difficult to identify. Table 3-11 presents examples of endocentric noun compounds in Tajio.

Compounds with simple modifying nouns		
Head noun (N_1)	**Modifying noun (N_2)**	**Compound**
manuk 'chicken'	*pandak*	*manuk pandak* 'a kind of wild chicken'
titi' 'duck'	*lapung*	*titi' lapung* 'small wild duck'
bengga 'buffalo'	*bulak*	*bengga bulak* 'albino water buffalo'
saa 'snake'	*bulagon* 'rattan'	*sabulagon* 'large snake species'
lemo 'orange'	*cui*	*lemo cui* 'Calamondin orange'
Compounds with derived modifying nouns		
Head noun (N_1)	**Modifying noun (N_2)**	**Compound**
vonua 'house'	*paranisong* 'place for sickness'	*vonua paranisong* 'hospital'
kamar 'room'	*poturuong* 'place to sleep'	*kamar poturuong* 'sleeping room'
Compounds with stative modifiers		
Head noun	**Stative modifier**	**Compound**
teitolu 'egg'	*memeas* 'white'	*teitolu memeas* 'egg white'
tabako 'tobacco'	*mentoos* 'rolled'	*tobacco mentoos* 'cigarette'

Table 3-11: Endocentric compounds in Tajio

The second type of compound is a compound in which the meaning of the whole is not directly related to the meaning of the head noun. Rather, it seems that the newly formed word presents a concept that is not compositionally derived from its component parts. I term this second type exocentric compounds but it is very rare in my corpus and more data are needed for confirmation. The available examples are listed in Table 3-12.

Compounds with simple modifying nouns		
Head noun (N_1)	**Modifying noun (N_2)**	**Compounds**
ubung 'joint'	*puse* 'belly button'	*ubung puse/ubumpuse* 'blood sibling'
pae 'rice'	*pulu* 'handle of machete'	*pae pulu* 'a traditional food made of roasted bamboo stuffed with rice'
bangge 'female'	*bodo*	*bangge bodo* 'pigeon'
tampa' 'container'	*tolee* 'urine'	*tampa' tolee* 'youngest child'

[11] The realization of the stative prefix in ***me**doda/**ne**doda* is a further example of lexically conditioned allomorphy as it does not follow the vowel-harmonic rules. The expected forms would be ****mo**doda/****no**doda*.

Compounds with stative modifiers		
Head noun	**Stative modifier**	**Compounds**
teogo 'water'	*moondak* 'hot'	*teogo* ***mo****ondak* 'hot spring'
teule 'caterpillar'	*mododa* 'red'	*teule* ***mo****doda* 'centipede'

Table 3-12: Exocentric compounds in Tajio

Most compunds in Tajio consist of the simple juxtaposition of two words, with no morphophonological processes taking place at the word-boundary. However, there are few compounds in my database with a morphophonologically induced alternation at the word-internal boundary. The first example is the compound *ubung puse* 'blood sibling', which in (38) is taken from a conversation. In this example, *ubung puse* is realized as one phonological word *ubumpuse*, in which the final sound [ŋ] of the head noun *ubung* assimilates to the initial sound [p] of the modifying noun *puse*.

(38) *ane siardin sono sisia totolu sisia*
ane si=Ardin sono sisia to-tolu sisia
if HON=PN with 3PL RDP~three 3PL

sobumpuse *ua*
sV-ubung-puse *ua*
one-joint.belly.button DIST
'Together with Ardin, the three of them are blood siblings.'

(from the dialog *Campur*)

The second examples of compounds undergoing the same morphophonological process (i.e., vowel reduction) at the word-boundary are *sabulagon* 'large snake species', *tomogurang* 'old person, parent' and *tomedei* 'the smallest child'. In *sabulagon*, the word *saa* 'snake' is reduced to *sa* (see Table 3-11); in *tomogurang* and *tomedei*, the word *too* 'person' is reduced into *to* (see Table 3-10). In these instances, the morphophonological changes quite clearly indicate that these are single grammatical and phonological words and not syntactically formed phrases.

In the case of the other compounds which are orthographically represented here as two words the evidence is somewhat less clear.

A possible diagnostic test that can be applied to show their single word status is the insertion of the noun marker *te=* or the genitive marker *ni=/nu=* between the head noun and the modifying noun. If the new formation is acceptable, the construction is **not** a compound, otherwise it is considered a compund.

However, it should be noted that the diagnostic test with the noun marker *te=* is not applicable if the noun begins with a vowel because in that case *te=* is obligatory—both in compounds and in noun phrases. Compare, for example, *meja teayu* 'wooden table/table made of wood' with *meja vatu* 'stone table/table made of stone'. As a compound, the noun marker *te=* cannot be attached to *vatu*, thus **meja* ***tevatu*** 'stone table' is not acceptable. In contrast, *meja* ***teayu*** 'wooden table' is the only possible form, as bare **meja* ***ayu*** 'wooden table' is ungrammatical.

Table 3-13 presents examples where the status of the construction is tested by applying the noun marker *te=* and the genitive marker *ni=/nu=* to the second constituent. As the results are ungrammatical, we are dealing here with compounds rather than noun phrases.

Compounds with simple modifying nouns	**With *te=* or *ni=/nu=***
lemo cui 'Calamondin orange'	**lemo* ***te=cui*** **lemo* ***nu=cui***
kakaer sasa 'a broom made of palm ribs'	**kakaer* ***te=sasa*** **kakaer* ***nu=sasa***
pae pulu 'a traditional food of roasted bamboo stuffed with rice'	**pae* ***te=pulu*** **pae* ***nu=pulu***
meniang vevine 'mother-in-law'	**meniang* ***te=vevine*** **meniang* ***ni=vevine***
Compounds with derived modifying nouns	**With *te=* or *ni=/nu=***

vonua paranisong 'hospital'	**vonua **te=paranisong*** **vonua **nu=paranisong***
kamar poturuong 'sleeping room'	**kamar **te=paturuong*** **kamar **nu=paturuong***
teoto pelulang 'container car'	**teoto **te=pelulang*** **teoto **nu=pelulang***

Table 3-13: Compound test by insertion of the noun marker *te=* and the genitive marker *ni=/nu=*

Another diagnostic test to prove that compounds in Tajio are single words is to add a possessor after the compound. If the compound is indeed treated as a single unit, it is to be expected that the possessor modifies this unit as a whole and not just the second constituent of the compound. Example (39) shows such a case.

(39) *[tevonua penginanong] **[nitagu'u]***
*te=vonua peN-inang-ong **ni=tagu='u***
NM=house NOM-eat-NOM GEN.HON=friend=1SG.GEN
POSSESSED NOUN **GEN=POSSESSOR**
'restaurant of my friend (not *'house, my friend's place to eat')

While noun phrases and noun compounds that use the same constituents often differ quite clearly in meaning, this is not necessarily so, as illustrated in Table 3-14. In some instances, both formations appear to provide alternative ways of rendering essentially the same meaning.

Head noun (N1)	**Modifying noun (N2)**	**Compounds (C) and noun phrases (NP)**	
jaang 'watch'	*lima* 'hand'	C	*jaang lima* 'hand watch'
		NP	*jaang **nu=lima*** 'hand watch'
bibit ‚seedling'	*pae* 'paddy'	C	*bibit pae* 'paddy seedling'
		NP	*bibit **nu=pae*** 'paddy seedling'
karung 'sack'	*vea* 'rice'	C	*karung vea* 'rice sack'
		NP	*karung **nu=vea*** 'rice sack'
koci 'key'	*kamar* 'room'	C	*koci kamar* 'room key'
		NP	*koci **nu=kamar*** 'room key'
meja 'table'	*ayu* 'wood'	C	*meja teayu* 'wooden table'
		NP	*meja **nu=ayu*** 'table for wood'

Table 3-14: Examples of semantically similar compounds and noun phrases

4 Word classes

The classification of words in Tajio has to be carried out on two levels: the morphosyntactic level and the lexical level. Morphosyntactic words can be classified based on their syntactic distribution; the classification of lexical roots is based primarily on their morphological potential − if they can be used as unaffixed roots − their syntactic distribution.

Himmelmann (2008:258) states that it is necessary to make a clear-cut distinction between lexical roots and morphosyntactic words because the two classifications do not necessarily result in the same classes. For example, it is possible that a language makes a noun-verb distinction on the lexical level, but not on the morphosyntactic level. Furthermore, the classes at the lexical level do not necessarily correlate with those at the morphosyntactic level.

Morphosyntactic words in Tajio include both underived roots and morphologically complex words and can be divided into open class and closed class items. The open classes are nouns and verbs, the closed classes are pronouns, demonstratives, numerals, adverbs, quantifiers, prepositions, interjections and conjunctions. In Section 4.1, the discussion is focused on the morphological potential of lexical roots; Section 4.2 then shifts to the syntactic distribution of the open word classes; finally, Section 4.3 deals with the closed classes.

4.1 Morphological potential of lexical roots

If we regard the morphological potential of lexical roots in Tajio, we can distinguish three classes: (a) single-class roots, i.e., roots which can only take morphological markers of one root class; (b) dual-class roots, i.e., roots which can take morphological markers of two root classes; (c) multi-class roots, i.e., roots which can take morphological markers of all root classes.

I have chosen the most frequent markers to classify roots as follows: (1) The diagnostic morphological markers of nominal roots are the noun marker *te=* and the verbalizing circumfix *nV--ong* 'to have/own …' and/or 'to be …'.[12] Only roots classified as nominal can take these markers. (2) The diagnostic morphological marker of stative roots is the vowel harmonic stative prefix *nV-* 'ST.RLS'. Roots which can take this prefix are stative roots. (3) The diagnostic morphological marker of verbal roots can be divided into two types based on the transitivity of the roots: the dynamic intransitive roots take the dynamic intransitive prefix *ne-/no-* 'DY.RLS' and the dynamic transitive roots take the dynamic transitive prefix, i.e., the actor voice prefix *noN-* 'AV.RLS'. The morphological markers of stative, dynamic intransitive and dynamic transitive roots also indicate mood alternations, i.e., realis and non-realis. Throughout this chapter the realis marker will be used for the relevant affix sets.

4.1.1 Single-class roots

Single-class roots are roots that can be clearly classified as either nominal, stative or dynamic verbal roots. Dynamic intransitive and dynamic transitive roots are classified as a single class (i.e., verbal roots), because semantically both are dynamic and their morphological potential partially overlaps.

Table 4-1, Table 4-2, Table 4-3 and Table 4-4 present examples of nominal, stative, dynamic intransitive and dynamic transitive roots, respectively.

[12]When the circumfix *nV—ong* occurs with a nominal root or a nominal-verbal root, it generally has the meaning 'to have/own …'. When it occurs with nominal-stative or nominal-verbal-stative roots, it may mean either 'to have/own ...' or 'to be …'.

Nominal root	Morphological marker of nominal roots		Stative marker	Verbal marker	
	Noun marker *te=*	Verbalizer *nV--ong* 'to have/own…' and/or 'to be…'	*nV-* 'ST.RLS'	*ne-/no-* 'DY.RLS'	*noN-* 'AV.RLS'
utu 'louse'	*teutu* 'louse'	*noutuong* 'to have a louse/lice'	x	x	x
bugis 'ichthyosis'	*tebugis* 'ichthyosis'	*nobugisong* 'to have ichthyosis disease'	x	x	x
tuai 'younger sibling'	*tetuai* 'younger sibling'	*notuaiong* 'to have a younger sibling/ younger siblings'	x	x	x
saping 'cow'	*tesaping* 'cow'	*nasapinong* 'to have a cow/cows'	x	x	x
loka 'banana'	*teloka* 'banana'	*nolokaong* 'to have a banana/ bananas'	x	x	x
bau 'fish'	*tebau* 'fish'	*nabauong* 'to have a fish/fish'	x	x	x
mejang 'table'	*temejang* 'table'	*nemejanong* 'to have a table/tables'	x	x	x
tana 'earth/soil'	*tetana* 'earth/soil'	*natanaong* 'to have earth/soil'	x	x	x

Table 4-1: Morphological potential of nominal single-class roots

Stative root	Morphological marker of nominal roots		Stative marker	Verbal marker	
	Noun marker *te=*	Verbalizer *nV--ong* 'to have/own…'	*nV-* 'ST.RLS'	*ne-/no-* 'DY.RLS'	*noN-* 'AV.RLS'
turu 'to be asleep'	x	x	*noturu* 'to be asleep'	x	x
buseg 'to be queasy'	x	x	*nobuseg* 'to be queasy'	x	x
peit 'to be bitter'	x	x	*nepeit* 'to be bitter'	x	x
vosu 'to be satisfied (food)'	x	x	*novosu* 'to be satisfied (food)'	x	x
onggom 'to be cold'	x	x	*noonggom* 'to be cold'	x	x
ate 'to be dead'	x	x	*naate* 'to be dead'	x	x
navu 'to fall'	x	x	*nanavu* 'to fall'	x	x
jaok 'to arrive'	x	x	*najaok* 'to arrive'	x	x

Table 4-2: Morphological potential of stative single-class roots

Dynamic intransitive root	Morphological marker of nominal roots		Stative marker	Verbal marker	
	Noun marker *te=*	Verbalizer *nV--ong* 'to have/own…'	*nV-* 'ST.RLS'	*ne-/no-* 'DY.RLS'	*noN-* 'AV.RLS'
nyau 'to go down'	x	x	x	*nenyau* 'to go down'	x
soog 'to stop by'	x	x	x	*nesoog* 'to stop by'	x
lolom 'to swim'	x	x	x	*nelolom* 'to swim'	x
ndiis 'to take a bath'	x	x	x	*nendiis* 'to take a bath'	x
lampa 'to walk'	x	x	x	*nelampa* 'to walk'	x
se'u-se'u 'to cry (sobbingly)'	x	x	x	*nose'u-se'u* 'to cry (sobbingly)'	x

mberek 'to stay'	x	x	x	*nomberek* 'to stay'	x
ngkalerang 'to lie down'	x	x	x	*nongkalerang* 'to lie down'	x

Table 4-3: Morphological potential of dynamic intransitive single-class roots

Dynamic transitive root	**Morphological marker of nominal roots**		**Stative marker**	**Verbal marker**	
	Noun marker *te*=	**Verbalizer *nV–ong* 'to have/own…'**	***nV*- 'ST.RLS'**	***ne-/no*- 'DY.RLS'**	***noN*- 'AV.RLS'**
sangki 'to sickle'	x	x	x	x	*nonyangki* 'to sickle'
vee 'to give'	x	x	x	x	*nombee* 'to give'
mongi 'to ask for'	x	x	x	x	*nomongi* 'to ask for'
gutu 'to make'	x	x	x	x	*nonggutu* 'to make'
tandas 'to accuse'	x	x	x	x	*nonandas* 'to accuse'
tovong 'to cut down'	x	x	x	x	*nonovong* 'to cut down'
oyos 'to trample over paddy'	x	x	x	x	*nongoyos* 'to trample over paddy'
sanda' 'to try'	x	x	x	x	*nonyanda'* 'to try'

Table 4-4: Morphological potential of dynamic transitive single-class roots

4.1.2 Dual-class roots

The second type of root, the dual-class root, can occur with two different sets of morphological markers. There are three types of dual-class roots: nominal-stative, nominal-verbal, and verbal-stative roots.

a. Nominal-stative roots can take the morphological markers of nominal roots as well as the stative marker.
b. Nominal-verbal roots can take the morphological markers of nominal roots as well as at least one of the dynamic verbal markers.
c. Verbal-stative roots can take the morphological marker of dynamic verbal roots as well as the stative marker.

Table 4-5 and Table 4-6 each present examples of nominal-stative roots. The difference is whether or not they may take the circumfix *nV--ong* so that nominal-statives in Tajio fall into two subclasses: (1) nominal-stative roots which can take the noun marker *te*=, the circumfix *nV--ong* and the stative marker *nV*-, as can be seen in Table 4-5; and (2) nominal-stative roots which can only occur with the noun marker *te*= and the stative marker *nV*-, as presented in Table 4-6. The other hypothetical combination, however, nominal-stative roots that only take the circumfix *nV--ong* and the stative marker *nV*-, is not found in the database.

Nominal-stative root	**Morphological marker of nominal roots**		**Stative marker**
	Noun marker *te*=	**Verbalizer *nV–ong* 'to have/own…' or 'to be…'**	***nV*- 'ST.RLS'**
balang 'wound/wounded'	*tebalang* 'wound'	*nabalanong* 'to have a wound/wounds'; 'to be wounded'	*nabalang* 'to be wounded'
vatu 'stone/stony'	*tevatu* 'stone'	*navatuong* 'to have a stone/stones'; 'to be stony'	*navatu* 'to be stony'
longu 'grease/greasy'	*telongu* 'grease'	*nolonguong* 'to have grease'; 'to be greasy'	*nolongu* 'to be greasy'
sumpi 'sprout/sprouted'	*tesumpi* 'sprout'	*nosumpiong* 'to have sprouts'; 'to have sprouted'	*nosumpi* 'to be sprouted'
buut 'mountain/ mountainous'	*tebuut* 'mountain'	*nobuutong* 'to have mountains'; 'to be mountainous'	*nobuut* 'to be mountainous'
avaat 'wind/windy'	*teavaat* 'wind'	*naavaatong* 'to be windy'	*naavaat* 'to be

			windy’
eleo ‘sun/day/sunny’	*teeleo* ‘sun/day’	*neeleonong* ‘to be sunny’	*neeleo* ‘to be sunny’

Table 4-5: Morphological potential of nominal-stative dual-class roots type 1

Nominal-stative root	**Morphological marker of nominal roots**		**Stative marker**
	Noun marker *te*=	**Verbalizer *nV–ong* ‘to have/own…’ or ‘to be…’**	***nV*- ‘ST.RLS’**
lenda ‘length/long’	*telenda* ‘length’	x	*nelenda* ‘long’
bilak ‘width/wide’	*tebilak* ‘width’	x	*nebilak* ‘wide’
rosong ‘strength/strong’	*terosong* ‘strength’	x	*norosong* ‘strong’
sanang ‘happiness/happy’	*tesanang* ‘happiness’	x	*nasanang* ‘happy’
doda ‘redness/red’	*tedoda* ‘redness’	x	*nedoda* ‘red’
kunik ‘darkness/dark’	*tekunik* ‘darkness’	x	*nokunik* ‘dark’
nasu ‘anger/angry’	*tenasu* ‘anger’	x	*nanasu* ‘angry’
bule ‘fear/afraid’	*tebule* ‘fear’	x	*nobule* ‘afraid’

Table 4-6: Morphological potential of nominal-stative dual-class roots type 2

Table 4-7 and Table 4-8 present examples of nominal-verbal roots. This type of roots can be divided into two subclasses as well: (a) nominal-verbal roots which can take the noun marker *te*=, the circumfix *nV--ong* and the dynamic intransitive marker *ne-/no-*, as shown in Table 4-7; (b) nominal-verbal roots which can only take the noun marker *te*= and the dynamic intransitive marker *ne-/no-*, as presented in Table 4-8. Nominal-verbal roots which can only take the circumfix *nV--ong* and the dynamic intransitive marker *ne-/no-* are again not attested in the database.

Nominal-verbal root	**Morphological marker of nominal roots**		**Verbal marker**
	Noun marker *te*=	**Verbalizer *nV–ong* ‘to have/own…’**	***ne-/no*- ‘DY.RLS’**
vonua ‘house/marry’	*tevonua* ‘house’	*novonuaong* ‘to have a house’	*nevonua* ‘to marry/‘to have a family’
tagu ‘friend/to befriend’	*tetagu* ‘friend’	*nataguong* ‘to have a friend’	*notagu* ‘to befriend’
elong ‘song/sing’	*teelong* ‘song’	*neelonong* ‘to have a song’	*neelong* ‘to sing’
jole ‘corn/plant corn’	*tejole* ‘corn’	*nojoleong* ‘to have corn’	*nejole* ‘to plant corn’
jarita ‘story/to tell a story’	*tejarita* ‘story’	*najaritaong* ‘to have a story’	*nojarita* ‘to tell stories’
guru ‘teacher/study’	*teguru* ‘teacher’	*noguruong* ‘to have a teacher’	*neguru* ‘to study’
sapeda ‘bike/to bike’	*tesapeda* ‘bike’	*nasapedaong* ‘to have a bike’	*nosapeda* ‘to bike’
vua ‘fruit/to bear fruits’	*tevua* ‘fruit’	*nevuaong* ‘to have a fruit’	*nevua* ‘to bear fruits’
avu ‘kitchen/to cook’	*teavu* ‘kitchen’	*naavuong* ‘to have a kitchen’	*noavu* ‘to cook’

Table 4-7: Morphological potential of nominal-verbal dual-class roots type 1

Nominal-verbal root	Morphological marker of nominal roots		Verbal marker
	Noun marker *te=*	**Verbalizer *nV–ong* 'to have/own…' or 'to be…'**	***ne-/no-* 'DY.RLS'**
miing 'smile/to smile'	*temiing* 'smile'	x	*nemiing*'to smile'
kinde 'nod/to nod'	*tekinde* 'nod'	x	*nekinde* 'to nod'
sengkel 'ahem/ to ahem'	*tesengkel* 'ahem'	x	*nesengkel* 'to ahem'
ntaul 'chew/to chew'	*tentaul* 'chew'	x	*nentaul* 'to chew'
tolee 'urine/to urinate'	*tetolee* 'urine'	x	*notolee* 'to urinate'
mengke 'cough/to cough'	*temengke* 'cough'	x	*nemengke* 'to cough'
ntoga 'belch/to belch'	*tentoga* 'belch'	x	*nentoga* 'to belch'
anggor 'snore/to snore'	*teanggor* 'snore'	x	*neanggor* 'to snore'
sumbaing 'sneeze/to sneeze'	*tesumbaing* 'sneeze'	x	*nosumbaing* 'to sneeze'

Table 4-8: Morphological potential of nominal-verbal dual-class roots type 2

Table 4-9 finally, provides examples of verbal-stative roots. The dynamic verbal marker which attaches to verbal-stative roots is the actor voice marker *noN-*. Importantly, these roots have to be able to take this marker without any further affixations such as the stem-forming prefix or the causative marker. There are no examples of verbal-stative roots which take the dynamic intransitive prefix *ne-/no-*.

Verbal-stative root	Stative marker	Verbal marker
	***nV-* 'ST.RLS'**	***noN-* 'AV.RLS'**
tatar 'to hew/to be hewn'	*natatar* 'to be hewn'	*nonatar* 'to hew'
tilang 'to split/to be split (wood)'	*netilang* 'to be split'	*nonilang* 'to split'
diit 'to pull/to be straight'	*nediit* 'to be straight'	*nondiit* 'to pull'
balik 'to change/to be changed'	*nabalik* 'to be changed'	*nombalik* 'to change'
pude 'to break/to be broken'	*nopude* 'to be broken'	*nomude* 'to break'
udut 'to break/to be broken (rope)'	*noudut* 'to be broken (rope)'	*nongudut* 'to break (rope)'
lalas 'to untie/to be untied'	*nalalas* 'to be untied'	*nolalas* 'to untie'

Table 4-9: Morphological potential of verbal-stative dual-class roots

4.1.3 Multi-class roots

The third type of root is called multi-class root because it can take the morphological markers of all root classes, and could thus be called nominal-verbal-stative roots. They can take the morphological markers of nominal roots (i.e., noun marker *te=* and/or the circumfix *nV--ong*), the verbal marker (i.e., the dynamic intransitive prefix *ne-/no-* 'DY.RLS' or the actor voice prefix *noN-* 'AV.RLS') as well as the stative marker (i.e., prefix *nV-* 'ST.RLS'). The set of multi-class roots is very limited, as can be seen in Table 4-10 which lists all examples found in the database.

Nominal-verbal-stative root	Morphological marker of nominal roots		Stative marker	Verbal marker
	Noun marker *te=*	**Verbalizer *nV–ong* 'to have/own…' or 'to be…'**	***nV-* 'ST.RLS'**	***ne-/no-* 'DY.RLS' *or* *noN-* 'AV.RLS'**
vevine 'woman/to be like a woman/to act like a playboy'	*tevevine* 'woman'	*nevevineong* 'to have a woman'	*nevevine* 'to be like a woman'	*novevine* 'to act like a playboy'
langkai 'man/to be	*telangkai*	*nalangkaiaong* 'to	*nalangkai* 'to be	*nolangkai* 'to act like

like a man/to act like a playgirl'	'man'	have a man'	like a man'	a playgirl'
anganak 'child/childish/to give birth'	*teanganak* 'child'	*naanganakong* 'to have a child/children'	*naanganak* 'to be childish'	*noanganak* 'to give birth'
asu 'dog/be like a dog/to hunt with a dog'	*teasu* 'dog'	*naasuong* 'to have a dog'	*naasu* 'to be like a dog'	*noasu* 'to hunt with a dog'
vivi 'lip/to be grumbling/grumble'	*tevivi* 'lip'	*neviviong* 'to be grumbling'	*nevivi* 'to be grumbling'	*novivi* 'to grumble'

Table 4-10: Morphological potential of nominal-verbal-stative multi-class roots

I propose the term dual-class roots to refer to lexical roots which can take the morphological markers of two word classes. I believe this is necessary because the features of such roots in Tajio cannot be captured by the existing terminology I am familiar with. In the remainder of this section, I will explain the reasoning behind this proposal by examining various arguments. This will lead me to the conclusion that dual-class roots are neither (a) polysemous, nor (b) multifunctional lexical bases, nor (c) homonyms, nor (d) two different lexemes. The behavior of multi-class roots, on the other hand, seems to match the criteria proposed for precategorial roots, as discussed under point (e) below.

a) Dual-class roots are not polysemous.

Saeed (1997:64) defines a polysemous item as a lexicon entry with multiple senses where the senses are judged to be related.

This definition does not accurately capture the characteristics of dual-class roots in Tajio. The nominal-stative root *vatu*, for example, has two potential meanings: 'stone' or 'to be stony'. The core meaning may be related, yet the meaning of the root cannot be determined before it is attached to a nominal or stative morphological marker.

Only once the root has taken the noun marker *te=* and become *tevatu* can its meaning ('stone') be interpreted. Similarly, it is only once the stative morphological marker *nV-*, 'ST.RLS', is affixed that the meaning of *navatu* ('to be stony') is accessible. Thus one could argue that polysemous words differ from dual-class roots in that they are associated with more than one meaning, none of which is determined by morphological processes the way meanings of dual class roots in Tajio are.

In contrast, for dual-class roots, the possibility of having more than one meaning is due to the fact that they can take morphological markers of two word-classes.

b) Dual-class roots are not multifunctional lexical bases.

Himmelmann (2005:129) defines multifunctional lexical bases as lexical bases which occur in a variety of syntactic functions without further affixation (i.e., lexical bases that are not necessarily marked for voice or person). Quoting Durie (1985:44), he gives the example of the Acehnese base *jeu*, which allows verbal and nominal uses. As a verb, *jeu* means 'to catch with a net' and as a noun it refers to 'a type of net'.

Except for nominal roots, all roots in Tajio must have their own morphological markers in order to occur in their respective syntactic functions. For example verbal-stative roots can only have the syntactic distribution of verbs and statives; but they cannot have the syntactic distribution of nouns. Therefore, dual-class roots are not multifunctional lexical bases.

c) Dual-class roots are not homonyms.

Saeed (1997:63--4) defines two or more expressions as homonyms if they share the same pronunciation but have different and unrelated meanings, and are treated as different lexical entries in dictionaries.

The various realizations of a dual-class root are not homonyms because their meanings have a shared origin and are semantically related. The meanings of dual-class roots are not completely different, as is the case for words which are considered homonyms. For example, the nominal-stative root *lenda* has

two possible meanings based on the morphological markers it takes. It means ‘length’ when it takes the noun marker *te*=, and ‘long’ when it takes the stative marker *nV*- ‘ST.RLS’. Plainly, ‘length’ and ‘long’ are semantically related; thus dual-class roots are not homonyms.

d) Dual-class roots are not two different lexemes.

One possible analysis of dual-class roots is their classification as different lexemes. This, however, is not a particularly parsimonious analysis because there are many such dual-class roots. This would effectively litter the lexicon with a lot of entries that are clearly related on semantic grounds. In addition, zero derivation cannot be productively applied to change the classification of dual-class roots because as previously discussed, they always have to occur with their respective morphology. To assume that dual-class roots undergo zero derivation would also be problematic as it is difficult to decide which word-class is the basis and which one is the derivation. Suppose we have a nominal-verbal root. It would be arbitrary to propose that, say, the nominal meaning is more basic than the verbal or vice versa because the meaning of a word cannot be determined before a morphological marker is assigned. The word *lapi* means ‘spouse’ if it takes the noun marker *te*= and ‘to marry’ if it takes the verbal marker *no*-. But is the spouse more basic or the event? In cases like these, one could probably argue for both which in the end renders such a take on dual-class roots practically useless.

Furthermore, the diagnostic morphological markers which are used to classify word classes in Tajio are not derivational markers. They cannot be used productively to change the word class of roots; rather, they themselves classify the roots. If, for example, the stative marker *nV*- ‘ST.RLS’ were a derivational prefix, one would expect any root to be able to take this prefix and derive a new stative. The same would be true for the nominal marker and the verbal marker. Yet in fact, only roots which are lexically subcategorized for the stative prefix can actually take the stative prefix, and the same holds for nominal and verbal morphology. Therefore, it is more reasonable to classify roots with regard to their morphological markers rather than to analyze them as two different lexemes and then argue, without recourse to evidence, that one of them has undergone zero derivation.

e) Multi-class roots are precategorial.

Himmelmann (2007:274) states that ‘precategorial’ has two interpretations. The first interpretation relates to the definition introduced by Verhaar (1984:2), as cited in Himmelmann (2008:274). According to this definition, *precategorial* applies to bound roots (i.e., roots that do not occur without affixation), if these roots can be assigned to different lexical or syntactic categories, for example, to both nominals and verbals, without being clear that one of the assignments is more basic than the other. In the second interpretation, it may refer to roots, though not necessarily bound ones, that are categorically indistinct with regard to grammatical features. That is, all kinds of derivations – nominal, verbal, stative, etc. – are possible from a given root (Himmelmann 2008:274), again without clear evidence for claiming that one derivation or usage of the unaffixed root is more basic than another.

The preceding two definitions of ‘pre-categoriality’ seem to prove satisfactory for an analysis of the Tajio multi-class roots. In contrast to the other two types of roots, multi-class roots form the only root type which can take the morphological markers of all root-classes, i.e., nominal, stative and verbal roots. Still, use of the term “precategorial” is avoided here, as I consider the term “multi-class” more suitable as it fits the terms *single-class* and *dual-class* roots.

Before moving on the next section, a short note on terminology is in order. From now on, general statements pertaining to nominal, stative and dynamic roots are meant to cover all root types. Thus, for example, if a statement is made that a given affix only occurs with stative roots, this means that it occurs with single-class stative roots as well as with dual-class nominal-statives, verbal-statives, and with multi-class nominal-verbal-stative roots.

4.2 Syntactic distribution of nouns and verbs

As mentioned in the previous section, nouns and verbs comprise the open word classes of Tajio with verbs being further divided into intransitive verbs (dynamic intransitive verbs and statives) and dynamic transitive verbs.

It will prove expedient to make explicit some of the terminology that will be used frequently throughout this grammar: 'dynamic verbs' will refer to intransitive verbs and transitive verbs, 'intransitive' will refer to dynamic intransitive and stative verbs, and dynamic transitive verbs will be referred to simply as transitives.

Predicate function, which can be used to distinguish verbs from nouns in European languages, cannot be similarly applied in Tajio because nouns can be used as predicates without a copula. In such cases their function becomes indistinguishable from intransitives. Examples (1), (2), and (3) show this.

(1) *siia* ***teguru***
siia ***te=guru***
3SG **NM=teacher**
'She/he is a teacher.'

(2) *siia* ***nelinjok***
siia ***ne-linjok***
3SG **DY.RLS-run**
'She/he ran.'

(3) *siia* ***noturu***
siia ***nV-turu***
3SG **ST.RLS-sleep**
'She/he slept.'

Although the use of a noun as a predicate results in a distributional overlap between nouns and verbs, there are several restrictions on syntactic position that can be used to distinguish nouns from verbs, and, within the supra-class of verbs, intransitives from transitives. The positions which only nouns can occupy are: (a) prepositional phrases as in example (4); (b) genitive phrases as in example (5).

(4) *teanganaknya* *nongodung* ***i*** ***kadera***
te=anganak=nya *noN-odung* ***i*** ***kadera***
NM=child=3SG.GEN AV.RLS-sit **LOC** **chair**
'His/her child sat on the chair.'

(5) ***tedoda*** ***nukadera*** *sima* *teraa*
te=doda ***nu=kadera*** *sima* *te=raa*
NM=red **GEN=chair** same NM=blood
'The redness of the chair is the same as blood.'

Modifiers are typically stative verbs, but there is no syntactic restriction on the use of a dynamic intransitive as the modifier of a noun phrase. Therefore stative verbs cannot be clearly distinguished from dynamic intransitive verbs syntactically (but see Section 6.3 for the differences in morphological marking on statives and dynamic intransitive which license the distinction). Example (6) presents the stative root *basag* 'to be big' and example (7) presents the dynamic intransitive verb *ndiis* 'to take a bath', both used as modifiers in noun phrases.

(6) *tevonua* ***nabasag*** *eua* *tevonua'u*
te=vonua ***nV-basag*** *eua* *te=vonua='u*
NM=house **ST.RLS-big** DIST NM=house=1SG.GEN
'That big house is my house.'

(7) *teanganak* ***nendiis*** *eua* *teompongnya*
te=anganak ***ne-ndiis*** *eua* *te=ompong=nya*
NM=child **DY.RLS-bath** DIST NM=stomach=3SG.GEN

nabasag *pia*
nV-basag *pia*
ST.RLS-big very
'That child who has taken a bath, his stomach is very big.'

In addition, there are examples in which the relative marker *to=* is used with intransitive verbs to modify their head nouns, as seen in examples (8) and (9). However, the use of the relative marker *to=* for intransitive verbs is optional.

(8) ***tevonua*** ***[tonabasag]*** *eua* *tevonua'u*
te=vonua ***to=nV-basag*** *eua* *te=vonua='u*
NM=house **REL=ST.RLS-big** DIST NM=house=1SG.GEN
'That big house is my house.'

(9) ***teanganak*** ***[tonendiis]*** *eua* *teompongnya*
te=anganak ***to=ne-ndiis*** *eua* *te=ompong=nya*
NM=child **REL=DY.RLS-bath** DIST NM=stomach=3SG.GEN
nabasag *pia*
nV-basag *pia*
ST.RLS-big very
'That child who has taken a bath, his stomach is very big.'

Unlike intransitives, transitive verbs need the relative marker *to=* in order to modify a noun in a relative clause. In this case, the relative marker *to=* is obligatory, as seen in example (10). Without the relative marker, the sentence is ungrammatical, as in (11).

(10) *tevevine* ***[tonongoli*** ***tebau]*** *siina'u*
te=vevine ***to=noN-oli*** ***te=bau*** *si=ina='u*
NM=woman **REL=AV.RLS-buy** **NM=fish** HON=mother=1SG.GEN
'The woman who bought fish is my mother.'

(11) **tevevine* ***[nongoli*** ***tebau]*** *siina'u*
te=vevine ***noN-oli*** ***te=bau*** *si=ina='u*
NM=woman **AV.RLS-buy** **NM=fish** HON=mother=1SG.GEN
For: 'The woman who bought fish is my mother.'

4.3 Closed word classes

Tajio has the following closed word classes: pronouns, numerals, adverbs, quantifiers, prepositions, conjunctions, interjections, as well as three minor classes: modality markers, verbal auxiliaries and a negator. The following sections will present each closed word class.

4.3.1 Pronouns

There are three sets of pronouns in Tajio: personal pronouns, reflexive pronouns and demonstrative pronouns. Each pronoun set is discussed below in term of its formal and functional aspects.

4.3.1.1 Personal pronouns

Tajio has singular and plural pronouns for the first, second, and third person. A further distinction is made between first-person plural inclusive (includes addressee) and first-person plural exclusive (excludes addressee). It is useful to discuss the singular pronouns apart from plural pronouns as both are formed differently. Table 4-11 gives an overview of both singular and plural forms of the personal pronoun in Tajio.

Pronoun	**Form**		
Singular	**Independent form**	**Genitive clitic**	**Prefix**
1SG	*sia'u*	*='u*	*u-*
2SG	*sio'o*	*=mu*	*mu-*
3SG	*siia*	*=nya*	-
Plural	**Independent form**	**Genitive form**	**Prefix**
1PL.IN	*siita*	*niita*	-
1PL.EX	*siami*	*niami*	-
2PL	*simiu*	*nimiu*	-
3PL	*sisia*	*ninia*	-

Table 4-11: Personal pronouns in Tajio

Singular pronouns can be expressed by independent forms, clitics and prefixes depending on their function. The independent form of the singular pronoun is "siX", where X is shorthand for additional phonological content. Genitive clitics function as possessors (see also Section 3.2.4), or as objects in undergoer voice constructions (see Section 8.1.2.2.1). In addition, first and second person singular pronouns can occur as prefixes if they are used in non-realis undergoer-voice constructions (see also Section 8.1.2.2.1).

The *si* element in the singular independent forms cannot be considered a clitic *si=* or a prefix *si-*. The reason for analyzing the singular forms as monomorphemic is that there is no genitive form derived from the same base. In principle, one could still analyze the singular forms as consisting of a prefix and a bound root, but since the bound root never shows up in any other formation, such an analysis seems not very useful.

The plural forms of the personal pronoun, however, are analyzed here for the same reason as bound roots. With the singular forms, a potential form **si-a'u* or **si-ia* would lack a corresponding genitive form **ni-a'u* or **ni-ia*. The plural forms, on the other hand, do display this kind of correspondence as we observe a regular shift from *si-* to *ni-*.

From Table 4-11, it can be seen that the independent and the genitive forms of plural pronouns consist of identical bound forms: '1PL.IN' ***-ita*** becomes *si**ita*** and *ni**ita***; '1PL.EX' ***-ami*** becomes *si**ami*** and *ni**ami***; '2PL' ***-miu*** becomes *si**miu*** and *ni**miu***. However, the bound form of the third person plural seems to change in a rather irregular manner. Instead of becoming *si**ia*** and *ni**ia***, it occurs as *si**sia*** and *ni**nia***. Note that the forms **siia* and **niia* are not attested for the third person plural. Further, it is not possible to analyze these forms as deriving from a bound root **sia* because the genitive form **nisia* is not acceptable. Another analysis would be to assume that *sis**ia*** and *nin**ia*** derive from a bound root *ia* because this is the element that appears in both forms. This would then leave us with the problem of explaining a residue *sis-* and *nin-*, or *si-s-* and *ni-n-* for that matter, which also would not make much sense.

There is, however, a third analysis which I think is more convincing. Let us consider the proto forms of the third person pronoun in the Austronesian languages. According to Blust (2009:304), the proto forms of the third person pronouns are **ia* '3SG' and **ida* '3PL'; the proto form of the third person marker is **si*. In Tajio, we have *si**ia*** for '3SG' and *sis**ia*** for '3PL'. From this perspective, it seems that Tajio shows CV reduplication for the plural form. In order to form *sisia*, the marker **si* is reduplicated to ***si.si****.ia*. Then, the derived form undergoes a vowel chain reduction, i.e., the vowel sequence /ii/ is reduced to /i/, and *si.s**i.i**a* becomes *si.s**i.a***. The same analysis is applicable to the genitive form: the genitive prefix *ni-* precedes *ia* '3PL' > *ni-ia* '3PL.GEN'; *ni-* is then reduplicated to ***ni.ni****.ia* and the vowel sequence again is reduced to form *ni.**ni.a*** '3PL.GEN'. Therefore, the attested forms for the third person plural pronoun in Tajio are *sis**ia*** and *nin**ia***.

From the above discussion, it can be gathered that morphologically plural pronouns consist of bound forms which attach to either the honorific prefix *si-* or the genitive prefix *ni-*. Note that the two prefixes are formally identical to the honorific noun marker *si=* and the genitive marker *ni=* which I analyze as clitics. The different analyses are due to the fact that in case of plural pronouns there is no syntactic context where the prefixes can be omitted and just the bare roots are used (whereas with the noun marker and the genitive clitics there is a context where the only bare root appears, see Section 7.1.1). The morphological process of the third plural pronoun is more complex than in the other plural pronouns as the prefix *si-* or *ni-* seems to be reduplicated. For sake of convenience, however, the plural pronouns in this grammar will be glossed as single units. For example, the third person plural *sisia* and *ninia* will be simply glossed as '3PL' and '3PL.GEN', not as *si-si-ia* 'RDP~HON-3SG' or *ni-ni-ia* 'RDP~GEN.HON-3SG'.

Personal pronouns in Tajio do not inflect for gender. The third person singular pronoun *siia*, for example, can be used to refer either to a female or to a male referent, as illustrated in example (16).

(16) ***siia*** *nongala* *teanasa*
siia *noN-ala* *te=anasa*
3SG AV.RLS-take NM=wild.pandanus
'She/he took wild pandanus.'

Plural pronouns also have a honorific function. Honorific pronouns are usually used by speakers to show respect to their addressee or to indicate that the relationship between speaker and addressee is not close. All plural pronouns may be used as honorific pronouns and in those cases take on a singular meaning. *Siami* '1PL.EX' is used as a humble form of the first person singular; *siita* '1PL.IN' and *simiu* '2PL' both act as a honorific form for the second person singular; *simiu* '2PL' is the standard form of the second person singular. It is more polite than *sio'o* '2SG' but less polite than *siita* '1PL.IN'). And *sisia* '3PL' is a honorific form for the third person singular. In addition to *simiu* '2PL', *tealaemu* (lit. 'yourself') is also a standard honorific address term for the second person singular. Table 4-12 summarizes the pronominal forms and their corresponding honorific values.

Forms	**As pronouns**	**As honorific pronouns**
siami	1PL.EX	1SG
siita	1PL.IN	2SG
sio'o	2SG	2SG
sisia	3PL	3SG

Table 4-12: Honorific function in Tajio

From a syntactic perspective, the independent forms of the pronouns are used as i) subjects in intransitive constructions, as shown by example (17); ii) subjects and objects in actor voice constructions, as illustrated by examples (18) and (19), respectively; and iii) subjects in undergoer voice constructions, as in (20).

(17)

Subject		**Verb with DY marker**
1SG	*sia'u*	*nelampa* *ne-lampa* DY.RLS-walk 'walk'
2SG	*sio'o*	
3SG	*siia*	
1PL.IN 1PL.EX	*siita* *siami*	
2PL	*simiu*	
3PL	*sisia*	
'I/you/she/he/we/they walk/walks.'		

(18)

Subject		**Verb with AV marker**	**Object**
1SG	*sia'u*	*nongoli* *noN-oli* AV.RLS-buy 'bought'	*tebau* *te=bau* NM=fish 'fish'
2SG	*sio'o*		
3SG	*siia*		
1PL.IN 1PL.EX	*siita* *siami*		
2PL	*simiu*		
3PL	*sisia*		
'I/you/she/he/we/they bought fish.'			

(19)

Subject	**Verb with AV marker**	**Object**	
sikasim *si=Kasim* HON=PN 'Kasim'	*nongitai* *noN-ita-i* AV.RLS-look-APPL 'look at'	*sia'u*	1SG
		sio'o	2SG
		siia	3SG
		siita *siami*	1PL.IN 1PL.EX
		simiu	2PL
		sisia	3PL
'Kasim looked at me/you/her/him/us/them.'			

(20)

Subject		Verb with UV marker	Object
1SG	*sia'u*	*nisokok* *ni-sokok* UV.RLS-catch 'caught'	*nupolisi* *nu=polisi* GEN=police 'police'
2SG	*sio'o*		
3SG	*siia*		
1PL.IN 1PL.EX	*siita* *siami*		
2PL	*simiu*		
3PL	*sisia*		
'I/you/she/he/we/they was caught by the police.'			

Undergoer voice constructions, however, are different in this regard. In realis mode, a pronominal object in undergoer voice constructions must be realized as an enclitic (if singular) or expressed in a genitive form (if plural; see Section 8.1.2.2.1 for more information on realization of subject and object in UV construction). An example for each case is shown in (21).

(21)

Undergoer	Predicate	Actor	
teasu *te=asu* NM=dog 'the/a dog'	*nirembas* *ni-rembas* UV.RLS-hit 'hit'	*='u*	1SG.GEN
		=mu	2SG.GEN
		=nya	3SG.GEN
		niita *niami*	1PL.IN.GEN 1PL.EX.GEN
		nimiu	2PL.GEN
		ninia	3PL.GEN
'The dog was hit by me/you/her/him/us/them.'			

In non-realis undergoer voice constructions, the first and the second person pronominal objects occur as prefixes *u-* and *mu-*, as illustrated by examples (22) and (23).

(22) *pamula* ***upasadia*** *teroong*
pamula ***u-pasadia*** *te=roong*
first **1SG.UV.NRLS-prepare** NM=leaf

paulelei
pa=u-lele-i
SEQ=1SG.UV.NRLS-wither-UV
'Firstly I will prepare the (banana) leaves, and then I will wither them […].'
(from the narrative *Nonggutu mandura'*)

(23) *teulingka* ***mupeneki***
te=ulingka ***mu-penek-i***
NM=coconut **2SG.UV.NRLS-climb-UV**
'You will climb the coconut.'

Example (24) shows pronouns that occur as possessors in genitive constructions. The enclitic form of the singular pronoun directly follows the possessed noun, while the bound form of the plural pronoun occurs with the genitive suffix *ni-*.

(24)

Possessed noun	Possessor	
tesaping	*='u*	1SG.GEN
	=mu	2SG.GEN
	=nya	3SG.GEN

te=saping NM=cow	*niita* *niami*	1PL.IN.GEN 1PL.EX.GEN
	nimiu	2PL.GEN
	ninia	3PL.GEN
'My/your/her/his/our/their cow'		

4.3.1.2 Reflexive pronouns

There are three bases that are used to form reflexive pronouns in Tajio: (i) the word *alae* 'body'; (ii) the word *boto* 'self'; and (iii) a combination of *alae* and *boto*.

In order to function as a reflexive pronoun, the base takes the noun marker *te=* as well as a possessor that has to be attached to it (or follows behind should it be plural). Table 4-13 illustrates reflexive pronoun formations with the word *alae* 'body'.

Pronoun features	Reflexive forms
1SG	*te=alae='u > tealae'u*
2SG	*te=alae=mu > tealaemu*
3SG	*te=alae=nya > tealaenya*
1PL.IN	*te=alae niami > tealae niami*
1PL.EX	*te=alae niita > tealae niita*
2PL	*te=alae nimiu > tealae nimiu*
3PL	*te=alae ninia > tealae ninia*

Table 4-13: Reflexive pronoun formation with *alae* 'body'

Example (25) illustrates *tealaenya* 'one's body' and *tebotonya* 'oneself' used reflexively. The genitive clitic *=nya* '3SG.GEN' is co-referential with the actor of the clause, *siia* '3SG'. The semantic role of *tealaenya* and *tebotonya* in both clauses is undergoer. As reflexive pronouns, *tealaenya* and *tebotonya* can substitute one another.

(25) a. *siia* *nomacingi* ***tealaenya***
siia *noN-pacing-i* ***te=alae=nya***
3SG AV.RLS-clean-APPL **NM=body=3SG.GEN**
'He cleaned himself.' (lit: 'He cleaned his body.)'

b. *siia* *nomacingi* ***tebotonya***
siia *noN-pacing-i* ***te=boto=nya***
3SG AV.RLS-clean-APPL **NM=self=3SG.GEN**
'He cleaned himself.'

Another function of *boto* 'self' is that it can be used as an emphatic adverb meaning 'self' or 'alone'. When *boto* is used as an adverb, it occurs without a noun marker or a possessor. As an adverb, it can be placed right before the verb or after the verb phrase, and it is always related to the subject. In this function, *boto* cannot be substituted by *alae*. Examples are given in (26)–(28).

(26) a. *siia* ***boto*** *nelolo* *e*
siia ***boto*** *ne-lolo* *e*
3SG **self** DY.RLS-search INJ
'He searched (for the antidote) alone/by himself, huh.'
(from the dialog *Campur*)

b. **siia* ***alae*** *nelolo e*
For: 'He searched (for the antidote) alone/by himself, huh'

(27) a. *siia* *notuvu* ***boto***
siia *nV-tuvu* ***boto***
3SG ST.RLS-live **alone**
'He lived alone.'

b. **siia notuvu* ***alae***
For: 'He lived alone.'

(28) a.

siia	*nongala*	*teanganaknya*	***boto***
siia	*noN-ala*	*te=anganak=nya*	***boto***
3SG	AV.RLS-take	NM=child=3SG.GEN	**self**

'She picked up her child by herself.'

b. **siia nongala teanganaknya* ***alae***
For: 'She picked up her child by herself.'

Example (29) illustrates the third formation type (i.e., combining *boto* 'self' and *alae* 'body'). In this construction, the genitive clitic is attached to the word *alae* 'body'; *boto* 'self' is placed behind it (in apposition). In contrast to the adverb function above, *boto* is here related to the object *tealaenya*, not to the subject *siia*.

(29)

siia	*nongitai*	***tealaenya***	***boto***
siia	*noN-ita-i*	***te=alae=nya***	***boto***
3SG	AV.RLS-see-APPL	**NM=body=3SG.GEN**	**self**

'He saw him himself.'

Reflexive binding is restricted to core arguments, which means that it can be used to distinguish core arguments from non-core arguments (see Section 8.4.2.3 for details).

4.3.1.3 Demonstratives

There are three demonstratives in Tajio, all of which may occur in a free or a bound form: *eini/ini* 'this', *eitu/itu* 'that' and *eua/ua* 'that (distal)'. *Eini/ini* denotes proximity between the speaker and the item referred to (close to the speaker), *eitu/itu* is a hearer-based medial form (further away from the speaker, but close to the hearer) and *eua/ua* is a distal form (far from both speaker and hearer). In terms of morphology, demonstratives do not inflect for number or gender.

In terms of meaning, it seems that there are no differences indicated by the use of free or bound forms of demonstratives, i.e., those which occur with or without <e>. The main difference between both forms is morphological. In word formation, there is a constraint to use the free forms. It is only the bound forms which can attach to a base and derive new words. For example, the base *sima* 'as/like' attaches to *ini* or *itu* to form *simaini* 'like this' or *simaua* 'like that'. They never occur as **simaeini* or **simaeitu*. The preposition *ri* attaches either to *ini, itu* or *ua* to form the spatial deictics *riini* 'over here', *riitu* 'over there' or *riua* 'over there', but never **rieini*, **rieitu* or **rieua* (see also Section 4.3.5 for details on preposition functions).

Demonstratives in Tajio can function as (i) adnominal modifiers and (ii) demonstrative pronouns. As modifiers, demonstratives can occur as *eini/ini, eitu/itu* and *eua/ua*. They may either modify full noun phrases or personal pronouns. Example (30) shows the demonstrative *eua* 'that' and (31) the demonstrative *eini* 'this' as modifier in a noun phrase construction. Example (32) illustrates the demonstrative *ini* 'this' modifying the personal pronoun *siami* '1PL.EX'. In this case, the demonstrative *ini* gives a 'definite' meaning to the pronoun *siami*.

(30)

telangkai	***eua***	*nongala*	*tekaca*	*lame*	*i*	***vevine***
te=langkai	***eua***	*noN-ala*	*te=kaca*	*lame*	*i*	***vevine***
NM=man	**DIST**	AV.RLS-take	NM=glass	from	LOC	**woman**

eua
eua
DIST

'That man took the glass from that woman.'

(31)

see	***tagu***	***niama***	***niwati***	***eini***	*boi*
sisee	***tagu***	***ni=ama***	***ni=Wati***	***eini***	*boi*
who	**friend**	**GEN.HON=father**	**GEN.HON=PN**	**PROX**	INJ

'Who is the friend of (this) Wati's father, anyway?' (from the dialog *Campur*)

(32) ***siami*** ***ini*** *mongundur* *tebahasa* *tajio* *boi*
siami ***ini*** *moN-undur* *te=bahasa* *Tajio* *boi*
1PL.EX **PROX** AV.NRLS-speak NM=language PN INJ
'We speak Tajio, by the way.' (from the dialog *Campur*)

In addition to modifying nouns and personal pronouns, demonstrative modifiers can convey a temporal meaning (i.e., temporal usage). In their temporal functions, demonstratives occur in the forms *eini/ini*, *eitu/itu* and *eua*/*ua*. In order to indicate specific time reference, demonstratives are usually used together with adverbs of time (see also Section 4.3.5). For example, *paame ini* and *kukua eini* or *kukua ini* refer to the time at the moment of speaking or immediately thereafter. *Paame itu* or *kukua itu* and *kukua ua*, on the other hand, refer to a certain point in the past. With regard to the distance between the reference point and the moment of speaking, *paame itu/kukua itu* is used to refer to an immediate or very recent reference point, while *kukua ua* refers to a more remote past. Examples are given in (33)–(36).

(33) *sia'u* *moabutmo* ***ini***
sia'u *mo-abut=mo* ***ini***
1SG DY.NRLS-cut.grass=COMP **PROX**
'I'm about to cut the grass now.' (from the dialog *Campur*)

(34) *sia'u* *metensile* *mao* *moleler* *vai* ***paame***
sia'u *mV-tensile* *mao* *mo-leler* *vai* ***paame***
1SG DY.RLS-go home go DY.NRLS-draw too **at.the.moment**
ini
ini
PROX
'I will go home, (I'll) go to draw (logs), too, a moment later.'
(from the dialog *Noasu*)

(35) *yami* *payo* *tealaemu* ***kukua*** ***itu***
yami *payo* *te=alae=mu* ***kukua*** ***itu***
from where NM=body=2SG.HON **at.moment** **MED**
'Where did you come from just now.' (from the dialog *Campur*)

(36) *simenar* *sono* *sidaudik* *menek* *nongala*
si=Menar *sono* *si=Daudik* *N-penek* *noN-ala*
HON=PN with HON=PN AV.RLS-go.up AV.RLS-take
kukua ***ua***
kukua ***ua***
at.the.moment **DIST**
'Menar and Daudik went up to take (the pig) at that time.'
(from the dialog *Noasu*)

In pronoun function, demonstratives may refer back to referents that have been introduced in the preceding discourse (i.e., an anaphoric function). Examples are given in (37) and (38). The antecedent is underlined and the anaphoric demonstrative is given in bold. The antecedent and the anaphoric demonstratives are expressed in two clauses, thus the first and the second clause in the following examples are separated by double slash (//).

(37) *seelu'u* *sia'u* *<u>teasunya</u>* *<u>ua</u>* //
seelu='u *sia'u* *te=asu=nya* *ua* //
like=1SG.GEN 1SG NM=dog=3SG.GEN DIST //
eua *tononidu-nidus* *cingkemu*
eua *to=noN-nidu-nidus* *cingke=mu*
DIST REL=AV.RLS-Bi.RDP-sniff cloves=2SG.GEN
'I like his dog. It sniffs your cloves.' (from the dialog *Noasu*)

(38) *siia* *niotoinya* *boi* *keadaan* *nualam* //
siia *ni-otoi=nya* *boi* *keadaan* *nu=alam* //
3SG UV.RLS-know=3SG only condition GEN=nature //

eini *boi* *niotoinya*
eini *boi* *ni-otoi=nya*
PROX only UV.RLS-know=3SG.GEN
'He only knew the natural condition. This is the only thing he knew.'
(from the narrative *Sejarah Kasimbar*)

The compound forms *simaini* 'like this' and *simaua* 'like that' are used to refer to the proposition they precede or follow, respectively. *Simaini* in example (39) precedes its reference and functions cataphorically; *simaua* in example (40) follows the proposition and functions anaphorically.

(39) *nuarnya* ***simaini*** // *tesando* *ua* *levaimo*
ni-ular=nya ***simaini*** // *te=sando* *ua* *leva-i=mo*
UV.RLS-say=3SG **like.this** // NM=medicine.man DIST call-APPL=COMP

metensile *nuarnya* *sia'u* *nojolomo* *pia* *ini*
me-tensile *ni-uar=nya* *sia'u* *nV-jolo=mo* *pia* *ini*
DY.NRLS-return UV.RLS-say=3SG 1SG ST.RLS-cold=COMP very PROX
'That medicine man said this, "call (her) to go home. I'm very cold at the moment".'
(from the dialog *Campur*)

(40) *jari* *tekekayaan* *ninia* *riamai* *nisarakan*
jari *te=kekayaan* *ninia* *riamai* *ni-sarakan*
so NM=wealth 3PL.GEN over.there UV.RLS-hand.over

mai *ranang* // ***simaua*** *teperjanjiannya*
mai *Ranang* // ***simaua*** *te=perjanjian=nya*
DIR PN // **like.that** NM=agreement=3SG
'So, their wealth over there (in Mandar's land) would be handed over to Ranang, that was the agreement.' (from the narrative *Tana Tajio*)

Another pronominal use is illustrated by examples (41), in subject relation, and (42) in object relation. Here demonstratives bear a situational-associative function, referring to objects that are immediately accessible/salient in a given context. In this distribution, demonstratives always occur in their full forms as *eini, eitu* and *eua*, never as *ini, itu* and *ua*.

(41) ***eini*** *naayapo*
eini *nV-ayapo*
PROX ST.RLS-itchy
'This is itchy.' (from the dialog *Campur*)
(In this context, the speaker used the demonstrative *eini* 'this' to refer to his body)

(42) *sia'u* *neroko'* ***eitu***
sia'u *ne-roko'* ***eitu***
1.SG DY.RLS-smoke **MED**
'I smoked that.' (from the dialog *Campur*)
(In this context, the speaker used the demonstrative *eitu* 'that' to refer to cigarettes that were placed on the table).

In (43), *eua* functions as the sole argument of an equational clause. In this kind of pronominal use, demonstratives also occur in the full forms.

(43) ***eua*** *temotornya* *siia* *mombava*
eua *te=motor=nya* *siia* *moN-bava*
DIST NM=motorbike=3SG.GEN 3SG AV.NRLS-bring
'That's his motorbike, he will ride (it).' (from the dialog *Campur*)

4.3.2 Numerals

Numerals form a closed class that consists of free and prefixed forms. The free forms are used for counting while the prefixed forms appear as counting units (ten, hundred, etc.) or before classifiers and measure nouns. Morphophonologically, only the prefixed form of 'one' is vowel harmonic. All prefixed forms may occur with the nasal ligature (cf. Section 2.8.1). The list of basic numerals in Tajio is given in Table 4-14.

Numeral	Free form	Prefix form
1	*saanit*	*sV-(N)-*
2	*roruwa*	*ro-(N)-*
3	*totolu*	*tolu-(N)-*
4	*aapat*	*aapa-(N)-*
5	*lelima*	*lima-(N)-*
6	*oonong*	*oono-(N)-*
7	*pepitu*	*pitu-(N)-*
8	*ualu/oalu*	*oalu/oalu-(N)-*
9	*sesio*	*sesio-(N)-*

Table 4-14: Free and prefixed numerals in Tajo

Basic counting units in Tajio are *pulu* for tens, *gatus* for hundreds, *ribu* for thousands and *juta* for millions. Counting in Tajio generally follows the pattern presented in Table 4-15.

10	*sompulu*		
11	*sompulu saanit*	21	*rompulu saanit*
12	*sompulu roruwa*	30	*tolumpulu*
13	*sompulu totolu*	40	*aapampulu*
14	*sompulu aapat*	50	*limampulu*
15	*sompulu lelima*	60	*onompulu*
16	*sompulu oonong*	70	*pitumpulu*
17	*sompulu pepitu*	80	*oalumpulu*
18	*sompulu ualu/oalu*	90	*sesiompulu*
19	*sompulu sesio*	100	*sagatus*
20	*rompulu*	1000	*seribu*

Table 4-15: Decimal counting in Tajio

As stated above, the prefixed forms can also occur before classifiers and measure nouns. This is illustrated in Table 4-16 below. The nasal ligature *-N-* may or may not occur between numeral prefixes and classifiers or measure nouns. If it occurs, it assimilates to the first consonant of the classifiers or the measure noun (see Section 2.8 for details on the homorganic change of the nasal ligature).

The use of the nasal ligature may vary and its occurrence is lexically related to the bases (i.e., classifiers or measure nouns) it attaches to. There are bases which the nasal ligature always occurs with; there are bases which the nasal ligature may or may not occur with; and there are also bases which the nasal ligature never occurs with. See also Sections 7.1.3 for a discussion of modifier constructions.

Numeral prefixes with classifiers		Numeral prefixes with measure nouns	
sambaang 'one tail'	*sV-N-baang* one-LIG-CLF.animal	*sensiu* 'one elbow'	*sV-N-siu* one-LIG-elbow
limatoo 'five people'	*lima-too* five-CLF.human	*salaab* 'one foot'	*sV-laab* one-foot
pitulae 'seven sheets'	*pitu-lae* seven-CLF.paper	*ronggomus* 'one palm'	*ro-N-gomus* one-LIG-palm
aapambua 'four pieces'	*aapa-N-bua* four-LIG-CLF.thing	*sompulumbees* 'ten bunches'	*sompulu-N-vees* ten-LIG- bunch
rombuu 'two pieces'	*ro-N-buu* two-LIG-CLF.round and long object'	*tolukilo* ,three kilos'	*tolu-kilo* three-kilo

Table 4-16: Numeral prefixes with classifiers and measure nouns

Another numeral formation that uses prefixes is the formation of ordinal numbers. Except *pamula* 'first', the formation of ordinals in Tajio uses the prefix *kV-*. This vowel prefix is vowel harmonic, but it follows regularities different from other vowel harmonic prefixes (see Section 2.8.6). The ordinal number system in Tajio is summarized in Table 4-17.

Ordinal number	Ordinal numeral word	Ordinal number	Ordinal numeral word
1st	*pamula*	10th	*kosompulu*
2nd	*kororuwa*	11th	*kosompulu saanit*
3rd	*kototolu*	20th	*korompulu*
4th	*kaapat*	21st	*korompulu saanit*
5th	*kalelima*	30th	*kotolumpulu*
6th	*koonong*	40th	*kaapampulu*
7th	*kapepitu*	50th	*kalimampulu*
8th	*kaualu*	100th	*kasagatus*
9th	*kasesio*	1000th	*kaseribu*

Table 4-17: Ordinal number system in Tajio

Tajio uses the word *kaning* 'time(s)' attached to numeral prefixes in order to express 'how many time(s)'. Again, the ligature *-N-* may or may not occur between the numeral prefixes and *kaning*. For example: *sangkaning* '*sV-N-kaning*' 'one time', *rongkaning* '*ro-N-kaning*' 'two times', but *sompulu kaning* 'ten times' etc.

Syntactically, numerals can be used as nominal modifiers and they are usually combined with classifiers (see Section 7.1.3).

4.3.3 Adverbs

Tajio can build adverbs from stative and dynamic intransitive verbs in a productive process of adverb formation. This can be seen in the discussion of control construction (Section 8.4.1.2) or examples of secondary predicates in Section 8.4.1.5. The types of adverbs analyzed in this section are unproductive adverbs which can be categorized as follows: i) intensifying adverbs, ii) temporal adverbs, iii) directional adverbs, iv) locational adverbs and v) limiting adverbs.

4.3.3.1 Intensifying adverbs

The intensifying adverbs in Tajio are: *pia* 'very, really' and *bega* 'too, very, really'. *Pia* can be used to modify a verb, and then directly follows behind. It can both modify stative and non-stative verbs, as can be seen in examples (44)–(47).

(44) ***nagaya*** ***pia*** *vai* *ba* *tomogurang* *eua* *naambo'*
nV-gaya ***pia*** *vai* *ba* *tomogurang* *eua* *nV-ambo'*
ST.RLS-handsome **very** too INJ old.man DIST ST.RLS-special
'That old man, too, is very handsome, special.' (from the dialog *Sejarah Kasimbar*)

(45) *sia'u* ***nojolomo*** ***pia*** *ini*
sia'u ***nV-jolo=mo*** ***pia*** *ini*
1SG **ST.RLS-cold=COMP** **very** PROX
'I'm so cold now.' (from the dialog *Campur*)

(46) ***nonyosol*** ***pia*** *nuarnya* *siia*
noN-sosol ***pia*** *ni-uar=nya* *siia*
AV.RLS-sorry **very** UV.RLS-tell=3SG 3SG
'He said that he was very sorry.' (from the dialog *Campur*)

(47) ***nokaraja*** ***pia*** *siama'u*
no-karaja ***pia*** *si=ama='u*
DY.RLS-work **very** HON=father=1SG.GEN
'My father works very hard.'

In contrast, *bega* 'too, very, really' can only modify stative predicates, as illustrated in the following examples.

(48) *ane* ***moduut*** ***bega*** *emei* *sikola* *biasa*
ane ***mV-duut*** ***bega*** *emei* *sikola* *biasa*
if **ST.NRLS-close** **very** from school usually

nipotanyai'u
ni-po-tanya-i='u
UV.RLS-SF-ask-APPL=1SG.GEN
'If it is close to the school, I usually ask about (it).' (from the dialog *Campur*)

(49) ***novosu*** ***bega*** *teompongu*
nV-vosu ***bega*** *te=ompong='u*
ST.RLS-satisfied very NM=stomach=1SG.GEN
'My stomach was so full.' (from the dialog *Campur*)

4.3.3.2 Temporal adverbs

Temporal adverbs may consist of a single lexeme, an adverb phrase (i.e., a phrase combining a temporal adverb and a demonstrative) or a combination of adverbs (i.e., combinations of two temporal adverbs, or a temporal adverb and another adverb). Adverbs that can be combined with temporal adverbs are, for example, *minyei* 'next', *simaini* 'like this' and *simaua* 'like that'. The meaning of a compound adverb is related to the meaning of its component parts. In addition, there are two temporal adverbs that occur with prepositional *i* 'at, in': *i vengi* 'yesterday' and *i mondoung* 'in the night'. Examples of temporal adverbs in Tajio are listed in Table 4-18.

Single lexemes	Adverb phrases	Adverb combinations
• *lemani* 'now' • *kukua* 'just now/previously' • *paame* 'later' • *boang* 'tomorrow' • *dodondong* 'in the morning' • *beimbengi* 'in the afternoon' • *mariulu; iulu* 'formerly, it used to be, earlier' • *sembengi* 'last night, last time' • *toukmao* 'after that'	• *paame itu; kukua itu* 'just now' (recent past) • *paame ini*; *kukua eini/ini* 'at this time' • *kukua ua* 'at that time' (remote past) • *mondoung eini* 'this night/tonight'	• *paame mondoung* 'later to night' • *dodondong minyei* 'in the next morning' • *i vengi mariulu*[13] 'last day' • *boang dodondong* 'tomorrow morning' • *beimbengi simaini* 'in the afternoon like this' • *sompulu pariyama simaua* 'ten years like that'
• *i mondoung* 'in the night' • *i vengi* 'yesterday'		

Table 4-18: Simple adverbs and complex temporal adverbs in Tajio

Syntactically, temporal adverbs modify the whole clause. They are very mobile: they can be placed in clause-initial, in clause-final position or in clause-medial position. However, in transitive constructions adverbs cannot be placed between the verb and its object. Examples in (50) illustrate possible placement options for temporal adverbs.

(50) a. *siama'u* *nonuda* *tepae* ***i vengi***
si=ama='u *noN-tuda* *te=pae* ***i vengi***
HON=father=1SG.GEN AV.RLS-plant NM=rice **yesterday**
'My father planted rice yesterday.'

b. ***i vengi*** *siama'u* *nonuda* *tepae*
i vengi *si=ama='u* *noN-tuda* *te=pae*
yesterday HON=father=1SG.GEN AV.RLS-plant NM=rice
'My father planted rice yesterday.'

c. *siama'u* ***i vengi*** *nonuda* *tepae*
si=ama='u ***i vengi*** *noN-tuda* *te=pae*
HON=father=1SG.GEN **yesterday** AV.RLS-plant NM=rice
'My father planted rice yesterday.'

4.3.3.3 Directional and positional adverbs

There are four expressions that can be used as directional adverbs: *minyei* 'hither/upwards/landwards', *minyau* 'downwards/seawards', *malae* 'upwards' and *ariong* 'downwards'. *Minyei* and *minyau* can function as motion verbs and directional adverbs, *malae* can only function as a directional adverb, *ariong* can function as a directional adverb or a positional adverb.

Examples (51) and (52) show *minyei* and *minyau* as motion verbs, functioning as the only predicate in the clause. It should be noted that these two items are not marked by the "default" dynamic intransitive/transitive markers, i.e., *ne-/me-;no-/mo-* 'DY.RLS/NRLS' or *noN-/moN-* 'AV.RLS/NRLS' when used as motion verbs. *Minyei* and *minyau* cannot be analyzed as non-realis forms because the predicted realis forms **ninyei* and **ninyau* are not attested in Tajio. As motion verbs, *minyei* and *minyau* are glossed as 'go here' and 'go there', respectively.

(51) *sisia* ***minyei*** *mariulumo*
sisia ***minyei*** *mariulu=mo*
3PL **go.here** at.first=COMP
'They went there first (before someone else).' (from the dialog *Campur*)

[13] *Mariulu* might be a stative verb because it can also occur with the completive aspect *=mo*, *mariulumo*. However, there is no further evidence beside the use of *=mo* because the expected realis form **nariulu* is not acceptable.

(52) *simiu* ***minyau*** *sono* *sikapala*
simiu ***minyau*** *sono* *si=kapala*
2SG.HON **go.there** with HON=head.of.village
'You went there with the head of the village?' (from the dialog *Campur*)

Examples (53) and (54) illustrate *minyei* and *minyau* as directional adverbs. As adverbs *minyei* means 'hither/upwards/landwards' and *minyau* means 'downwards/seawards'. As verbal modifiers, they mostly occur after the verb. The modified verb and the directional adverb in the examples are given in bold.

(53) ***nituutnya*** *teogo* ***minyei***
ni-tuut=nya *te=ogo* ***minyei***
UV.RLS-follow=3SG NM=water **upwards**
'He (the Mandar) followed the river upwards.' (from the narrative *Tana Tajio*)

(54) *sisia* *ja* ***mombava*** ***minyau***
sisia *ja* ***moN-bava*** ***minyau***
3PL FOC **AV.RLS-bring** **downwards**
'They'll bring (the cocoa) down there.' (from the dialog *Campur*)

In addition, *minyau* and *minyei* can be used in multi-verb constructions (see Section 9.3.3).

Examples (55) and (56) show *malae* and *ariong* as directional adverbs. Just like the adverbs *minyei* and *minyau*, they mostly occur after the verb.

(55) ***noduutmo*** ***malae*** *nipaasmo* *tesapatu*
nV-duut=mo ***malae*** *ni-paas=mo* *te=sapatu*
ST.RLS-near=COMP **upwards** UV.RLS-take off=COMP NM=shoes
'Approaching upwards, (I) took off the shoes.'
(from the narrative *Nongala tebulagon*)

(56) ***natanda'*** ***ariong*** *i* *una una* *jamo* *sentilang*
nV-tanda' ***ariong*** *i* *Una-Una* *jamo* *sentilang*
ST.RLS-arrive **downwards** LOC PN only half
'(The bananas) arriving downwards at Una-Una, only half (of them) were left.'
(from the dialog *Campur*)

Ariong 'downwards' can occur with or without a preposition. Without a preposition it has a locative meaning. Thus, it can be classified as a positional adverb, as illustrated by example (57).

(57) *niperoko'u* *vai* *roko'nya* *rombuu*
ni-pe-roko'='u *vai* *roko'=nya* *ro-N-buu*
UV.RLS-SF-cigarette=1SG.GEN just cigarette=3SG.GEN two-LIG-CLF

ariong
ariong
downwards
'I've just smoked two of his cigarettes there (a place downward to his position now).'
(from the dialog *Campur*)

Prepositions that can precede *ariong* are *i* 'at, to', *yami* 'from' and *ariong* may also form a spatial deictic *riariong* 'down there' (see also Section 4.3.5). When it occurs with *i* and *yami*, it expresses a directional meaning, as in (58).

(58) ***yami*** ***ariong*** *vonua* *meniang* *jawamu*
yami ***ariong*** *vonua* *meniang* *Jawa=mu*
from **downwards** house mother.in.law Java=2SG.GEN
'Are you (coming) from down (there), from your Javanese mother-in-law's house?'
(from the dialog *Campur*)

4.3.3.4 Limiting adverbs

Limiting adverbs restrict the set of potential referents being talked about. The limiting adverb in Tajio is *jamo* 'only'. *Jamo* occurs before the modified unit, but it does not always need to be adjacent to it. It can modify either nouns or pronouns. Compare examples (59)–(62).

(59) ***jamo*** *uveenao* ***tevavi*** *sio'o* *paame* *ini*
jamo *u-vee-ao* ***te=vavi*** *sio'o* *paame* *ini*
just 1SG.AV.NRLS.give-APPL **NM=pig** 2SG later PROX
'I'll only give you a pig later this time.' (from the dialog *Noasu*)

(60) *menek* *minyei* *siami* *dodondong* ***jamo***
N-penek *minyei* *siami* *dodondong* ***jamo***
DY.RLS-climb upwards 1PL.EX morning **only**

tailikonya *rua*
tailiko=nya *rua*
shit=3SG.GEN over.there
'We went up here in the morning, only (the pig's) shit was there.'
(from the dialog *Noasu*)

(61) ***jamo*** ***tevavi*** *i* *lalong* *nuogo* *niular*
jamo ***te=vavi*** *i* *lalong* *nu=ogo* *ni-ular*
only **NM=pig** LOC deep GEN=water UV.RLS-say
nianton
ni=Anton
GEN.HON=PN
'Only the pig in the river, said Anton.' (from the dialog *Noasu*)

(62) ***jamo*** ***sisia*** *rotoo* *sikadar*
jamo ***sisia*** *ro-too* *si=Kadar*
only **3PL** two-CLF.person HON=PN
'Only they two including Kadar (he and Kadar pulled the logs).'
(from the dialog *Noasu*)

4.3.4 Quantifiers

Quantifiers form a closed class including words like *jojoo* 'all', *soia* 'how many/much' and *lasia* 'some'. As they are used in modifier constructions, quantifiers are discussed in more detail in Section 7.1.3.3.

4.3.5 Prepositions

Following the types of prepositions classified by Van den Berg (1989) in Muna, prepositions in Tajio can be divided into two types: local prepositions and non-local prepositions. Local prepositions precede nouns that refer to locations or a deictic element, for instance *i* and *ri* 'at, to'. There are at least four prepositions with the meaning 'from': *yami*, *mami*, *emei/mei* and *lame/lamei/lami*. These forms are said to be virtually equivalent to each other. Non-local prepositions in Tajio include *mao* 'for', which is used in applicative constructions, *sono* 'with', which is used as comitative marker or for marking instrumental nouns, and *sampe/sampai* 'until, as long as', which is borrowed from Indonesian *sampai* 'until'.

Depending on the area, there are small differences between the dialects: the local prepositions *i* and *ri* are both used in Tajio Kasimbar. Tajio Sienjo, on the other hand, only makes use of the local preposition *ri*. In Tajio Sienjo, *ri* can be attached to any kind of noun as well as to deictic elements. In Tajio Kasimbar, however, *ri* can only be attached to deictic elements. Other nouns mostly occur with *i*, and only rarely with *ri*. In addition to local nouns, *i* and *yami* can also be used with nouns denoting time.

Spatial deictics can also co-occur with other prepositions. Depending on the context, they can denote the time or place of events. Table 4-19 provides examples for *i*, *yami*, and *ri* in the Kasimbar dialect.

Functions	Prepositions	Tajio Kasimbar
Denoting locations	*i* 'at, in'	*i vonua* 'in the house'
		i sakola 'at school'
		i lalong nukaranjing 'in the basket'
		i Siaga 'in Siaga'
		i Toriapes 'in Toriapes'
		i sia'u 'at me'
		i siia 'at her'/him'
	yami[14] 'from'	*yami puu nu ayu* 'from the tree'
		yami Makassar 'from Makassar'
		yami sisia 'from them'
		lamei pae pulu 'made of glutinous rice'
Denoting time	*i* 'at, in'	*i vengi* 'yesterday'
		i mondoung 'at night'
	yami 'from'	*yami tinting sesio* 'from nine o'clock'
		yami Juma' 'from Friday'
Deictic elements	*ri*	*riini* 'over here'
		riitu 'over there'
		riua/rua 'over there'
		riamai 'over there (far away)'
		riata 'up there'
		*riarion*g 'down there'
Preposition plus spatial deictic		*yami rua* 'from there; since that time'
		yami riini 'from here'

Table 4-19: Examples of prepositional use in Tajio Kasimbar

Prepositions always precede nouns. In prepositional phrases, nouns do not take the noun marker *si=* or *te=*. Examples are given in (63)–(65).

(63) *teeleo* *lanta-lantap* ***i*** ***vamba*** ***nudagat*** ***eua***
te=eleo *lanta-lantap* ***i*** ***vamba*** ***nu=dagat*** ***eua***
NM=sun Bi-RDP~sink **LOC** **surface** **GEN=sea** **DIST**
'The sun sank toward the surface of the sea.' (from the dialog *Campur*)

(64) *jio* *nuarmu* ***yami*** ***pampang*** ***nuogo***
jio *ni-uar=mu* ***yami*** ***pampang*** ***nu=ogo***
no UV.RLS=2SG **from** **side** **GEN=river**
'No, you said from the river side.' (from the dialog *Campur*)

(65) *sisia* *kan* *tonajaok* ***lami*** ***puri*** ***lami*** ***salatan***
sisia *kan* *to=nV-jaok* ***lami*** ***puri*** ***lami*** ***salatan***
3SG.HON INJ REL=ST.RLS-arrive **from** **last** **from** **south**
'Wasn't he the last one who arrived from the south?'
(lit. 'He was the one who arrived from the very end, from the south.')
(from the dialog *Sejarah Kasimbar*)

Spatial deictics in Tajio can occur alone without a preposition as can be seen in (66)a. In addition, they can co-occur in apposition with other prepositional phrases referring to the same location, as illustrated in examples (66)b and c.

(66) a. *siami* *neende* *ompo* ***riamai***
siami *nV-ende* *ompo* ***riamai***
1PL.EX ST.RLS-long still **over.there**
'We stayed over there for a longer time.' (from the dialog *Campur*)

[14] In all these cases, *yami* can be substituted by *lami* and the other variants forms mentioned above.

b. *mao* ***riata*** ***i*** ***loteng***
mao ***riata*** ***i*** ***loteng***
go **up there** **LOC** **attic**
'Go up there, to the attic.' (from the dialog *Campur*)

c. *sio'o* *epek* *nyaa* *mendiis* ***riua***
sio'o *Epek* *nyaa* *me-ndiis* ***riua***
2SG PN IMP.NEG DY.NRLS-bath **over.there**

i ***ulu***
i ***ulu***
LOC **upper.course**
'You, Epek, don't take a bath over there at the upper course.'
(from the dialog *Noasu*)

The preposition *sampe/sampai* 'until' precedes nouns denoting time, as illustrated in examples (67)−(69). In addition, it may have a locative reading if it co-occurs with a local preposition, as seen in (70).

(67) ***sampe*** *lemani* *nitopeaomo* *kasimbar*
sampe *lemani* *ni-tope-ao=mo* *Kasimbar*
until now UV.RLS-name-APPL=COMP PN
'Until now, it has been called Kasimbar.' (from the narrative *Kasimbar*)

(68) *lima* *menit* ***sampe*** *sompulu* *nupetaangi*
lima *menit* ***sampe*** *so-N-pulu* *nu-pe-taang-i*
five minute **until** one-LIG-ten UV.NRLS-SF-wait-APPL

amaimo *tereaksinya*
amai=mo *te=reaksi=nya*
EXIST=COMP NM=reaksi=3SG.GEN
'There will be a reaction of the (poison) after waiting for five until ten minutes.'
(from the narrative *Tesumpit*)

(69) *teeleo* *nujuma'* ***sampe*** *ndoung* *juma'*
te=eleo *nu=Juma'* ***sampe*** *mondoung* *Juma'*
NM=day GEN=Friday **until** night Friday
'From Friday (noon) until Friday night.' (from the dialog *Campur*)

(70) *nabasag* *pia* *tealova* ***sampe*** *i* *kampung*
nV-basag *pia* *te=alova* ***sampe*** *i* *kampung*
ST.RLS-big very NM=flood **until** LOC village

niami
niami
1PL.EX.GEN
'The flood is very big, it reached our village.'

4.3.6 Conjunctions

Conjunctions are used to connect words, phrases, or clauses. There are two types of conjunctions in Tajio: coordinating conjunctions and subordinating conjunctions. Coordinating conjunctions are used when the conjoined elements have the same rank. Subordinating conjunctions are used when the conjoined elements are assigned unequal rank, one of them acting as subordinate to the other (cf. Schachter and Shopen 2007:45--52).

There are three types of coordinating conjunctions in Tajio: (i) conjunctive coordination involves the use of the comitative marker *sono* 'with'; (ii) disjunctive coordination is marked by *ela* 'or' or *atau*/*ato* 'or' (the latter is borrowed from Indonesian *atau* 'or'); (iii) adversative coordination which is marked by the conjunction *boi* 'but' or *tetapi/tapi* 'but', again a loan word from Indonesian. Coordinators in Tajio are prepositive, i.e., preceding the coordinand.

Subordinating conjunctions in Tajio include complementizers, relativizers and adverbializers. Complement clauses are not always overtly marked by conjunctions. If they are marked, the conjunction used is *ane* 'if'. Relative clauses are marked by the use of the relative marker *to*=. Adverbial clauses are marked as follows: (i) time clauses are marked by *pas/papas* 'when', *sarongnya* 'while', *touk* or *notouk(mo)* 'after', *jiopo* or *jopo* 'before', *sementara* 'while' and *waktu* (which also occurs as *i waktu*) 'as'; (ii) counterfactuality is marked by *ane* 'if'; (iii) concession is marked by *ompo* 'although'; (iv) purpose is marked by the subordinator *tau* 'so that' and *supaya* 'so that'; and (v) causation in Tajio is marked by *apa* 'because' or *karna* and *lantaran* 'because'.

A further discussion of Tajio conjunctions as well as phrase and clause coordinations and subordinations can be found in Chapter 9.

4.3.7 Interjections

Interjections may appear in various positions within the clause. They may express confirmation, rejection, surprise or amazement, or they may be used to form tag questions. Here is a list of interjections with their major functions:

a) confirmation: *oye* 'yes', *vai* 'too/also', *boi, ba, bei, ja, jei* 'really';
b) rejection: *ajio*/*jio* 'no, not';
c) surprise or amazement: *hamma'* (originally from *Muhammad*, the Moslem prophet);
d) question tag: *po* 'right?';
e) response to affirm that a statement is true but also used like a question tag: *ba* or *bo* 'really';
f) signaling understanding: *oh* or *o* 'oh'.

Examples (71)−(77) illustrate the use of some interjections in conversation. A, B and C indicate different speakers.

(71) A: *tetuainya* *amai* *sisanu* *topenya*
te=tuai=nya *amai* *si=sanu* *tope=nya*
NM-younger.sibling=3SG.GEN EXIST HON=someone name=3SG.GEN
sumar
Sumar
PN
'He has a younger sibling, his name is Sumar.'

B: *eua* *sisumar* ***oye***
eua *si=Sumar* ***oye***
DIST HON=PN **yes**
'Yes, Sumar!'

C: ***oye*** *ontomau* *telio* *nimado* ***po***
oye *ontomau* *te=lio* *ni=Mado* ***po***
yes look.like NM=face GEN.HON=PN **right**
'Yes, his face looks like Made, right?' (from the dialog *Campur*)

(72) A: *siuma'* *pia* ***boi*** *naala* *nolapi*
si=uma' *pia* ***boi*** *nV-ala* *no-lapi*
HON=PN very really ST.RLS-can DY.RLS-spouse
'Uma' can really marry.'

B: ***oh***
oh
oh
'Oh (I see)!' (from the dialog *Campur*)

(73) A: *sia'u* *niita'u* *siama* *ninia*
sia'u *ni-ita='u* *si=ama* *ninia*
1SG UV.RLS-see=1SG HON=father 3PL.GEN
'I saw their father.'

B: ***ba***
ba
really
'Really?' (from the dialog *Sejarah Kasimbar*)

(74) *jio* *gampang* ***ba*** *sikaka'u* *vai*
jio *gampang* ***ba*** *si=kaka='u* *vai*
NEG easy **really** HON=older.sibling=1SG.GEN too

lapingkaka'u *maua*
lapi *ni=kaka='u* *simaua*
spouse GEN.HON-older.sibling=1SG.GEN like.that
'It is not easy, really, for my older brother too to have such a wife.'
(from the dialog *Campur*)

(75) *nupopolapimo* *sono* *siomuk* *sio'o* *eitu* ***jei***
nu-po-po-lapi=mo *sono* *si=Omuk* *sio'o* *eitu* ***jei***
UV.NRLS-CAUS-SF-spouse=COMP with HON=PN 2SG MED really
'You will really get married to Omuk.' (from the dialog *Campur*)

(76) A: *tee* *nuvonua* *niama* *ninorma*
tee *nu=vonua* *ni=ama* *ni=Norma*
back GEN=house GEN.HON=father GEN.HON=PN
'At the back of the house of Norma's father?'

B: ***jio*** *ruwa* *siansar*
jio *ruwa* *si=Ansar*
no over.there HON=PN
'No, over there at Ansar's.'

oye *ri* *tee* *nuvonua* *niama* *ni=norma*
oye *ri* *tee* *nu=vonua* *ni=ama* *ni=Norma*
yes LOC back GEN=house GEN.HON=father GEN.HON=PN
'Right, at the back of the house of Norma's father.' (from the dialog *Campur*)

(77) A: *sia* *bua* *nijaang* *nipevalung*
soia *bua* *ni-jaang* *ni-pe-valung*
how.many CLF.piece UV.RLS-boil UV.RLS-SF-food to carry
'How many (bananas) were boiled and carried?'

B: *tolu* *bua*
tolu *bua*
three CLF.piece
'Three pieces'

A: ***hamma'*** *tanda' i* *unauna* *loka* *tolu* *bua*
hamma' *tanda' i* *Una-Una* *loka* *tolu* *bua*
Muhammad arrive LOC PN banana three CLF.piece
'God, (only) three bananas arrived at Una-Una?' (from the dialog *Campur*)

4.3.8 Other closed classes

In addition to the seven closed classes described above, there are three more closed word-classes in Tajio: modality markers, verbal auxiliaries and the negator. The members of these classes are very few.

Modality markers are not classified as verbs they do not take any mood markers. They are not classified as adverbs either because their position in the clause is fixed, i.e., preceding the predicate, so that they are not mobile in the way adverbs are. The modality markers in Tajio are *labo'* or *laboi* 'may be' and *kaana* 'should'. In addition, there is a verbal auxiliary which conveys a desiderative meaning

seelu ‘want’ and its counterpart is *kua* ‘don’t want’ (for more information see Section 5.2 on modality).

Negation is marked with the negative particle *ajio* or *jio* ‘not’, which precedes the predicate. *Jio* is used to negate nominal and verbal predicates as well as prepositional phrases which function as predicates, as shown by examples (78)–(82).

(78) *eitu* ***jio*** ***tevonua’u***
eitu ***jio*** ***te=vonua=’u***
MED **NEG** **NM=house=1SG.GEN**
‘That is not my house.’

(79) *tevuvutnya* ***jio*** ***neitong***
te=vuvut=nya ***jio*** ***nV-itong***
NM=hair=3SG.GEN **NEG** **ST.RLS-black**
‘Her hair is not dark.’

(80) *sisia* ***jio*** ***nelinjok*** *i* *tanga* *nuparuja*
sisia ***jio*** ***ne-linjok*** *i* *tanga* *nu=paruja*
3PL **NEG** **DY.RLS-run** LOC middle GEN=rice.field
‘They did not run in the rice field.’

(81) *sia’u* ***jio*** ***mobaluk*** *tesakolat*
sia’u ***jio*** ***mo-baluk*** *te=sakolat*
1SG **NEG** **AV.NRLS-sell** NM=cacao
‘I will not sell cacao.’

(82) *siia* ***jio*** ***i*** ***posoleong***
siia ***jio*** ***i*** ***posoleong***
3SG **NEG** **LOC** **beach**
‘She/He was not at the beach.’

5 Mood, tense, modality and aspect

This chapter is concerned with the grammatical formatives in Tajio that embody the encoding of the temporal setting and the actuality of events. Along with adverbial expressions and adjunct clauses, these formatives constitute the grammatical system that serves to link event descriptions to a specific time frames. The chapter begins with mood marking on the verbs, which—in contrast to the other categories—is obligatory (Section 5.1). It then proceeds with the expression of modality in Tajio (Section 5.2), and ends with a description of the aspectual clitics *=mo* and *=po*, which like in many other Sulawesi languages fulfill a range of functions in Tajio. The first and foremost reason for presenting these categories together in one chapter is that they interact closely with each other. For instance, the combination of mood and aspect marking gives rise to specific "tense" readings, and the use of modal verbs imposes restrictions on the mood markers occurring on the complement verbs. Therefore, special attention is given to the interaction between the different components of this system.

5.1 Mood markers

Mood marking is obligatory in Tajio and there are two types of mood values that are distinguished: realis and non-realis. The imperative is the only verbal construction that does not take a mood marker, neither realis nor non-realis.

Mood markers in Tajio are typical portmanteau morphemes that may express other kinds of information alongside the realis/non-realis distinction. They not only function as mood markers but also as voice markers in transitive constructions (i.e., differentiating between actor voice and undergoer voice), and as a stative or dynamic marker in intransitive constructions. It is not possible to formally separate the mood marker from the stative/dynamic/actor voice marker. Table 5-1 summarizes the mood markers with fused functions from other grammatical categories.

Intransitive	**Realis**	**Non-realis**
Stative	*nV-*	*mV-*
Dynamic	*ne-/no-*	*me-/mo-*
Transitive	**Realis**	**Non-realis**
Actor voice	*noN-; n-*	*moN-; m-*
Undergoer voice	*ni-*	*nu-/ro-*[15] *u-; mu-*
	ni--i	*nu--i* *u-/mu--i*

Table 5-1: Mood markers and their functions in Tajio

The actor voice markers *n-/m-* are not the shortened forms of *noN-/moN-* (see Section 6.3.1.1). The markers *noN-/moN-* 'AV.RLS/NRLS' (i) have morphophonemic allomorphs (see Section 2.8.1), and (ii) show lexically conditioned suppletion *neng-/meng-* (see Section 3.3.2.2) as well as (iii) morphologically conditioned suppletion *no-/mo-* (see Section 3.3.1 and 6.3.2). The prefixes *u-* and *mu-* are not primary mood markers but bound object pronouns that are used in non-realis undergoer voice constructions if the actor is a first or a second person singular referent (see Section 8.1.2.2.1).

5.1.1 Mood markers as tense markers

In addition to their function as voice markers, the realis and non-realis mood markers in Tajio also imply tense distinctions. Therefore, the prefixes which are listed in Table 3-2 not only indicate the actuality of events (mood), but also serve to indicate the temporality of events (tense). A non-future reading is associated with the actual/realis mood, and a "future tense" interpretation is typically linked

[15] The non-realis UV marker *nu-* is used in the variety spoken in Kasimbar whereas *ro-* is used in Sienjo.

to the non-actual/non-realis mood. Non-future events are marked as realis because the situations in the past or present are considered to be actual (they have occurred or are occurring at speech time). Future events, on the other hand, are considered non-realis because events in the future are potentially possible but their enactment is not presumed to be certain (in other words, they have not yet been ascribed actual status).

Events or situations which are considered realis are those which have taken place in the past or are taking place in the present, as presented by examples (1) and (2). The past time reading in example (1) is strengthened by the use of the temporal adverbial *i vengi* 'yesterday' while the use of the temporal adverb *sarong* 'still' in example (2) indicates that the action is in progress at the moment of speaking. Note that while adverbial modification serves to disambiguate the temporal reading, both sentences would be equally acceptable without this temporal specification. In such cases the context serves as an indicator as to which temporal reading (i.e., past or present time) is implied by the speaker.

(1)	***i***	***vengi***	*siami*	***nenginang***	*teaniong*
	i	***vengi***	*siami*	***neN-inang***	*te=aniong*
	LOC	**yesterday**	1PL.EX	**AV.RLS-eat**	NM=rice
	'Yesterday we ate rice.'				

(2)	*siami*	***sarong***	***nenginang***
	siami	***sarong***	***neN-inang***
	1PL.EX	**still**	**AV.RLS-eat**
	'We are (still) eating.'		

Non-realis events or situations take place in the future which includes both points ranging immediately after the speech time and more remote time frames, as illustrated by examples (3) and (4). The temporal adverb *boang* 'tomorrow' and *paame ini* 'a moment later' indicate that the events are projected to take place at different points in the future.

(3)	*sia'u*	***momenek***	*teulingka*	***boang***
	sia'u	***moN-penek***	*te=ulingka*	***boang***
	1SG	**AV.NRLS-climb**	NM=coconut	**tomorrow**
	'I will climb the coconut tree tomorrow.'			

(4)	***paame***	***ini***	*sia'u*	***momenek***	*teulingka*
	paame	***ini***	*sia'u*	***moN-penek***	*te=ulingka*
	later	**PROX**	1SG	**AV.NRLS-climb**	NM=coconut
	'In a moment I will climb the coconut tree.'				

The use of mood markers does not always relate to, or imply, temporal distinctions. For example, stative roots that are used to express the quality of a noun always occur in realis mood. In this case, realis mood does not convey any temporal notion (i.e., past or present time) nor does it show temporal agreement with previous predicates, as illustrated by examples (5) and (6).

(5)	*sio'o*	***mongala***	*toipayo*	***toneendemo***	*ela*
	sio'o	***moN-ala***	*toipaio*	***to=nV-ende=mo***	*ela*
	2SG	**AV.NRLS-take**	which	**REL=ST.RLS-old=FOC**	or

tonovou
to=nV-vou
REL=ST.RLS-new
'Which (one) will you take? The old one or the new one?'

The realis mood in *toneendemo* 'the old one' and *tonovou* 'the new one' in example (5) does not refer to the time frame of the intended event of taking, but rather refers to the actual quality of the noun it modifies.

(6)	*boang*	*sia'u*	***mongoli***	*teoto*	***neitong***
	boang	*sia'u*	***moN-oli***	*te=oto*	***nV-itong***
	tomorrow	1SG	**AV.NRLS-buy**	NM=car	**ST.RLS-black**
	'Tomorrow I will buy a black car.'				

The same goes for example (6). Even though the event *mongoli* 'will buy' is predicted to take place in the future, which is further disambiguated by the temporal adverb *boang* 'tomorrow', the quality of the car is nevertheless expressed in the realis mood, *neitong* 'black', instead of being in concord with the time frame of the main predicate, i.e., the non-realis mood *meitong* 'will be black' is not acceptable in this context. The reason for this is that 'being black' in this case is not an event that is connected to the main event of the intended action of buying. Rather, it is a permanent property of the modified noun.

5.1.2 Interactions between mood and aspect

Realis and non-realis moods in Tajio can be further combined with the completive aspect marker *=mo* or with the continuative aspect marker *=po*. Each combination specifies how an event is unfolding in time in relation to the speech act, for example, whether the event has started or has been completed by the time of speaking.

Realis mood combined with the completive aspect *=mo* describes an event in the past that has reached its end point, i.e., it is considered completed. Examples are given in (7) and (8).

(7) *tebau* ***niitamumo***
te=bau ***ni-ita=mu=mo***
NM=fish **UV.RLS-see=2SG.GEN=COMP**
'You have seen the fish already.' (from the dialog *Noasu*)

(8) *jiopo* *natandak* ***niepenyamo*** *tekareva*
jio=po *nV-tandak* ***ni-epe=nya=mo*** *te=kareva*
NEG=CONT ST.RLS-arrive **UV.RLS-listen=3SG.GEN=COMP** NM=news

naatemo *ja* *tonipalainya*
nV-ate=mo *ja* *to=ni-palai=nya*
ST.RLS-dead=COMP INJ REL=UV.RLS-leave=3SG.GEN
'Not yet having arrived, he heard the news that the thing he had left had died already.'
(from the dialog *Noasu*)

In contrast, the realis mood which occurs with the continuative aspect *=po* indicates that an event has already begun relative to the reference time and is now being reported in a way that emphasizes its progressive nature, as illustrated by examples (9) and (10). The reference time with the use of *=po* becomes particularly clear in (10). Here, the arrival of Wafik takes place when his mother has not yet completed the action of cooking.

(9) *siami* ***neendepo*** *riamai* ***neendepo***
siami ***nV-ende=po*** *riamai* ***nV-ende=po***
1PL.EX **ST.RLS-long=CONT** over.there **ST.RLS-long=CONT**

minyau
minyau
downward
'We were still (longer) there, still (longer) down there.'
(from the dialog *Campur*)

(10) *waktu* *siwafik* *najaok* *siina* ***nonggabupo***
waktu *si=Wafik* *nV-jaok* *si=ina* ***noN-gabu=po***
when HON=PN ST.RLS-arrive HON=mother **AV.RLS-cook=CONT**
'When Wafik came, mother was still cooking.'

The non-realis mood combined with the completive aspect *=mo* describes an event in the immediate future that is going to take place soon after the speech time, as shown by example (11).

(11) *sia'u* ***melampamo***
sia'u ***me-lampa=mo***
1SG **DY.NRLS-walk=COMP**
'I am going to leave **soon**.'

When the non-realis mood is combined with the continuative aspect *=po*, it describes an event in the future. There is a fine difference between non-realis events that take the completive aspect *=mo* and those with the continuative aspect *=po*. In the former, the enactment of the event will take place soon after the speech time, whereas the latter is situated in a more remote time frame after the speech event (compare examples (11) and (12)). In order to differentiate the time frame of the enactment of two events, *soon* is added to the translation in example (11) but not in example (12); this is intended to help convey the reading that the event will take place in the immediate future.

(12) *sia'u* ***melampapo***
sia'u ***me-lampa=po***
1SG **DY.RLS-walk=CONT**
'I am going to leave.'

If the root is stative, the combination of non-realis mood and continuative aspect *=po* adds an inchoative reading to the predicate semantics, highlighting the initial stage or beginning of some state. Examples are given in (13) and (14).

(13) ***meendepo***	*acara*	*sisanu*	*ua*
mV-ende=po	*acara*	*si=sanu*	*ua*
ST.NRLS-long=CONT	event	HON=someone	DIST

'Is his event going to be long (take a long time)?' (from the dialog *Campur*)

(14) *tebulagon*	*eua*	***melendapo***
te=bulagon	*eua*	***mV-lenda=po***
NM=rattan	DIST	**ST.NRLS-long=CONT**

'That rattan becomes long.'

5.1.3 Further functions of mood markers

Apart from the obligatory use in declarative main clauses, mood markers also occur in constructions with special regularities. These are prohibitive, consecutive/purpose, as well as hypothetical and counterfactual constructions. Each of them will be discussed in the following sections.

5.1.3.1 Prohibition

The use of the non-realis mood in prohibitive constructions does not signal future events. Just like the temporal future reading, the interpretation is that the event in question has not yet happened. However, unlike the temporal reading, the event of a prohibitive is not expected to take place, rather it is prohibited from taking place. Prohibitions in Tajio are marked by the use of the prohibitive marker *nyaa* 'don't', which indicates that the speaker bans or forbids the addressee from performing some action. This is illustrated in examples (15), (16) and (17).

(15) *e*	***nyaa***	***moronde***
e	***nyaa***	***mo-ronde***
INJ	**IMP.NEG**	**DY.NRLS-cry**

'Hey, don't cry!' (from the dialog *Campur*)

(16) ***nyaa***	***nusempa'***	*tebal*	*eua*
nyaa	***nu-sempa'***	*te=bal*	*eua*
IMP.NEG	**UV.NRLS-kick**	NM=ball	DIST

'Don't kick that ball!'

(17) *tajio*	***nyaa***	*jio*	***motajio***
tajio	***nyaa***	*jio*	***mo-Tajio***
Tajio	**IMP.NEG**	NEG	**DY.NRLS-Tajio**

'Don't speak anything other than Tajio! (lit: 'Tajio, don't speak no Tajio!)
(from the dialog *Campur*)

In addition, the event in prohibitive constructions can also occur in realis mood. In contrast to non-realis, the realis mood is used when a speaker forbids an addressee from performing an action again. In this case, the addressee had performed the action before it is banned by the speaker. In order to express

the ‘not again’ reading, prohibitions with realis mood require an additional marker: the continuative aspect =*po,* which is placed after *nyaa* ‘don’t’, as shown by example (18).

(18)	***nyaapo***	*tonamanta*	***niinang***	*jei*	*ua*
	nyaa=po	*to=nV-manta*	***ni-inang***	*jei*	*ua*
	IMP.NEG=CONT	REL=ST.RLS-unripe	**UV.RLS-eat**	INJ	DIST

‘Don’t eat again (from) the unripe (fruit)!’ (from the dialog *Campur*)

5.1.3.2 Consecutive/purposive constructions

A consecutive/purposive connection of events consists of an *action–(intended) result/purpose* relation where an action is performed with a subsequent result in mind. The result or purposive clause is necessarily in non-realis mood, as it is conceived as following from the action event.

Compare the examples in (19), (20) and (21). Note that the first two examples employ an overt purpose marker, *supaya,* in addition to the combination in mood marking. This is, however, not a prerequisite, as demonstrated by example (21).

(19)	*sia’u*	***noturu***	*i*	*lalong*	*nuboco’*	***supaya***
	sia’u	***nV-turu***	*i*	*lalong*	*nu=boco’*	***supaya***
	1SG	**ST.RLS-sleep**	LOC	inside	GEN=mosquito.net	**so.that**

ajio	***nukiki***	*nusisio’*
ajio	***nu-kiki***	*nu=sisio’*
NEG	**UV.NRLS-bite**	GEN=mosquito

‘I sleep under a mosquito net so that the mosquitos won’t bite me.’

(20)	*sia’u*	***nombeenao***	*sio’o*	*tealumbu*	***supaya***	*sio’o*	*jio*
	sia’u	***noN-vee-ao***	*sio’o*	*te=alumbu*	***supaya***	*sio’o*	*jio*
	1SG	**AV.RLS-give-APPL**	2SG	NM=blanket	**so.that**	2SG	NEG

mojolo	*monje*
mo-jolo	*monje*
ST.NRLS-cold	again

‘I give you the blanket so that you will not be cold again.’

Example (21) is from spontaneous data and related to the history of Kasimbar (Tana Tajio) village.

(21)	***najaok***	*temandar*	***nombava***	*tebarang-barang*
	nV-jaok	*te=Mandar*	***noN-vava***	*te=barang-barang*
	ST.RLS-arrive	NM=PN	**AV.RLS-bring**	NM=RDP~stuff

minyeimo	***movegamo***[16]
minyei=mo	***mo-vega=mo***
go.down=COMP	**DY.NRLS-friend=COMP**

nupopolapimo	*sono*	*siranang*	*eini*
nu-po-po-lapi=mo	*sono*	*si=Ranang*	*eini*
UV.NRLS-CAUS-SF-spouse=COMP	with	HON=PN	PROX

‘When the Mandar arrived, he brought with him the bride price in order to marry, to make her his spouse, this Ranang.’ (from the narrative *Tana Tajio*)

Example (21) above shows that although both the initial action and the purpose have taken place in the past, they are expressed in two different moods. The action is expressed in the realis mood, while the purpose occurs in the non-realis mood.

[16] The word *movegamo* is an archaic word originally meaning ‘to befriend’. In this narrative the word *movegamo* is intended to mean ‘to marry’. This becomes clear by the fact that the speaker uses both words (i.e. *movegamo* and *nupopolapimo*) in order to emphasize that *movegamo* in this context has approximately the same meaning as *nupopolapimo,* i.e., ‘to marry’.

5.1.3.3 Hypothetical and counterfactual constructions

Hypothetical and counterfactual constructions are used to express *condition–result* relations that hold between two events. The conditional clause is marked in both constructions by the conjunction *ane* 'if'. Both constructions are marked differently, however, in that the hypothetical construction triggers in non-realis mood, while the counterfactual construction is expressed by using the realis mood in both clauses.

By using the non-realis mood, the hypothetical construction emphasizes that it is not yet possible for the *result* to take place because the necessary *condition* still awaits completion. As examples (22) and (23) show, conditions may both pertain to individual situations (23) or refer to general condition–result relations that hold true regardless of which members of a certain class of referents meet the condition (22).

(22) ***ane*** ***meraa*** *ompo* *tevevine* *nuarnya*
ane ***me-raa*** *ompo* *te=vevine* *ni-uar=nya*
if **DY.NRLS-blood** still NM=woman UV.RLS-say=3SG.GEN

jalas ***mopeala*** *tebija* *nuarnya*
jalas ***mo-pe-ala*** *te=bija* *ni-uar=nya*
surely **AV.NRLS-SF-take** NM=descendant UV.RLS-say=3SG.GEN
'If a woman still gets her period, he said, she would be able to have a baby, he said.'
(lit: 'If a woman still gets her period, she would get her descendant.')
(from the dialog *Campur*)

(23) ***ane*** ***menginangmo*** *siia* ***monambas*** *telima* *iulu*
ane ***meN-inang=mo*** *siia* ***moN-tambas*** *te=lima* *iulu*
if **AV.NRLS-eat=COMP** 3SG **AV.NRLS-wash** NM=hand first
'If (he) is going to eat soon, he will wash his hands first.'

A proposition is said to be counterfactual if it contradicts the truth value of a present or past situation. In Tajio a counterfactual proposition is expressed in realis mood. Examples are given in (24) and (25).

(24) ***ane*** ***nogombo'*** *jiomo* ***nieliaonya***
ane ***no-gombo'*** *jio=mo* ***ni-eli-ao=nya***
if **DY.RLS-talk** NEG=COMP **UV.RLS-remember-APPL=3SG.GEN**

sikapala *sakola*
si=kapala *sakola*
HON=head school
'If (he) had talked, he would never have remembered the head master.'
(from the dialog *Noasu*)

(25) ***ane*** ***niotoi'u*** *simaini* ***neendemo*** *sia'u*
ane ***ni-otoi='u*** *simaini* ***nV-ende=mo*** *sia'u*
if **UV.RLS-know=1SG.GEN** like.this **ST.RLS-long=COMP** 1SG

nolapi
no-lapi
DY.RLS-marry
'If I had known (marriage is good) like this, I would have been married for a long time.'
(from the dialog *Noasu*)

5.2 Modality

Unlike the mood markers that are obligatory and must appear on predicates (with the exception of imperatives), modality marking in Tajio is optional and realized by analytical means.

On semantic grounds, there are two types of modality that can be distinguished in Tajio: (i) epistemic modality and (ii) deontic modality. Epistemic modality relates to the speaker's state of knowledge or belief that he possesses with regard to some event, and is expressed by using the modality marker

labo' or *laboi* 'may be'; deontic modality refers to obligation or permission, and is expressed by the modal *kaana* 'should; must'.

There is a connection between the use of modality markers and mood markers. The use of the modality markers *kaana* and *labo'* or *laboi* requires the non-realis mood. Therefore, verbs that follow these modals are required to take the non-realis mood and indicate that the event is non-actual or has not yet taken place, as in examples (26), (27) and (28).

(26) *siami* ***kaana*** ***melampa*** *mai* *sakola*
siami ***kaana*** ***me-lampa*** *mai* *sakola*
1PL.EX **should** **DY.NRLS-walk** DIR school
'We should walk to school.'

(27) *siami* ***kaana*** ***mompongularao*** *temasala* *eini*
siami ***kaana*** ***moN-poN-ular-ao*** *te=masala* *eini*
1PL.EX **must** **AV.NRLS-SF-tell-APPL** NM=problem PROX

mao *siama*
mao *si=ama*
to HON=father
'We must report this problem to father.'

(28) *sisari* ***laboi*** *ajio* ***majaok***
si=Sari ***laboi*** *ajio* ***mV-jaok***
HON=PN **may.be** NEG **ST.NRLS-arrive**
'Sari may not come.'

Another modal which is found in Tajio is *ala* meaning 'can' or 'should'. Its behaviour is a notable exception from the other modals discussed above since it resembles a stative in that it takes a mood marker: the realis vowel harmonic prefix *nV-* and its non-realis counterpart *mV-*. Thus *ala* appears in the two forms *naala* 'ST.RLS-can' and *maala* 'ST.NRLS-can'.

If *ala* is negated and in non-realis mood it no longer expresses ability, but rather lack of permission or undesirability. Consider example (29) in which the act of gossiping is construed as inappropriate.

(29) *beimbengi* *simaini* *jio* ***maala*** ***monogong***
beimbengi *simaini* *jio* ***mV-ala*** ***mo-nogong***
afternoon like.this NEG **ST.NRLS-can** **DY.NRLS-gossip**
'On an afternoon like this, (we) should not be gossiping.' (from the dialog *Campur*)

In order to show the ability of the actor to undertake some action, the root *ala* takes the realis mood and becomes *naala*, as exemplified in (30) below. The choice of the realis mood to express abilitative modality seems to reflect the fact that the ability of the actor to undertake an action is actual in the sense that it apparently holds true for the specific time frame referred to.

(30) *sia'u* ***naala*** ***nelinjok*** *naavar*
sia'u ***nV-ala*** ***ne-linjok*** *nV-avar*
1SG **ST.RLS-can** **DY.RLS-run** ST.RLS-far
'I can run far.'

In addition to epistemic and deontic modality, desideratives in Tajio are also formed with an auxiliary, i.e., *seelu* 'want'[17]. Verbs that follow the auxiliary *seelu* always occur in non-realis mood, as illustrated in examples (31) and (32). In this construction, *seelu* expresses a desire that some state or event may be realized in the future.

(31) *sia'u* ***seelu*** ***moturu***
sia'u ***seelu*** ***mV-turu***
1SG **want** **ST.NRLS-sleep**
'I want to sleep.'

[17] Note that *seelu* 'want' can also function as a simplex predicate in the object-doubling construction (see Section 8.1.3)

(32) *siami* ***seelu*** ***menginang***
siami ***seelu*** ***meN-inang***
1PL.EX **want** **DY.NRLS-eat**
'We want to eat.'

5.3 Aspect

Aspectual marking in Tajio is found in the form of enclitics attached to a predicate host. Tajio has two aspectual distinctions: completive and continuative. Completive aspect is marked by the enclitic *=mo*, and continuative aspect by the enclitic *=po*[18]. Completive aspect denotes that a single event has been completed at a given reference time or that a subsequent result stage has been achieved. For instance, the event of leaving in example (33) has already reached its terminal boundary, and *=mo* emphasizes the resultant state of him not being there any more.

(33) *siia* ***nebongkatmo***
siia ***ne-bongkat=mo***
3SG **DY.RLS-leave=COMP**
'He has left (=is away now).'

In contrast, the continuative aspect marker *=po* indicates that the action is in progress and not yet finished (compare example (34)).

(34) *siasman* ***noturupo***
si=Asman ***nV-turu=po***
HON=PN **ST.RLS-sleep=CONT**
'Asman is sleeping.'

In the following discussion, the functions of the aspect markers will be divided into two types: (i) primary functions, and (ii) secondary functions. Primary functions refer to those aspectual functions that directly affect the temporal properties of events. Thus, marking events or states as completive or continuative is regarded here as constituting the primary function of the aspectual markers. In contrast, secondary functions refer to functions other than temporal specification, for instance, focus marking, politeness or comparative constructions. Comparatives are discussed separately in Section 6.2.

Because both markers are clearly multifunctional formatives, glossing in the examples will vary according to their respective function. The aspectual functions (in the narrow sense) of *=mo* and *=po* which indicate the internal temporal characteristics of an event will be glossed as COMP (completive) and CONT (continuative), respectively. The gloss FOC is used when the aspectual marker functions as a focus particle, POL is employed when it marks politeness and it is glossed as CPR when used to mark comparative constructions.

5.3.1 Completive aspect *=mo*

The primary functions of the completive aspect *=mo* are to indicate (i) that an event has been completed, or (ii) that an event occurs subsequently to some other event. The first function was already introduced and illustrated in Section 5.1.2. Example (35) from a narrative text illustrates both functions.

(35) *touk* *nongasa* *mao* *i* *avu* *niita'u*
touk *noN-asa* *mao* *i* *avu* *ni-ita='u*
after AV.RLS-sharpen go LOC kitchen UV.RLS-see=1SG.GEN

teaniong ***nongongomo*** *touk mao* ***nisuyukmo***
te=aniong ***nV-ngongo=mo*** *touk mao* ***ni-suyuk=mo***
NM=rice **ST.RLS-cooked=COMP** after.that **UV.RLS-ladle=COMP**

[18] Phonologically and functionally similar aspectual enclitics are found in many languages from Sulawesi and neighbouring areas on Borneo and the Philippines, and seem to date back to a common ancestor, or at least to similar grammaticalization clines of related elements. Other languages in the area that show related aspectuals include Pendau (*=mo* and *=po*), Mori Bawah (*=mo* and *=po*), dan Uma (*=mi* and *=pi*) among others (Unterladstetter, unpublished: 2010).

teaniong
te=aniong
NM=rice
'After (I) sharpened (the axe), I went to the kitchen and I saw that the rice had been cooked. After that I ladled the rice out.' (from the narrative *Nomupu tesakulat*)

The two related events that are marked by the completive aspect *=mo* in example (35) are the cooking of the rice (*nongongomo*), and the ladling out of it by the actor (*nisuyukmo*). The two occurrences of the completive aspect *=mo* should be interpreted differently. With the first event, the cooking of the rice, *=mo* indicates completion; with the second event of ladling it out, *=mo* implies that the action takes place immediately after the completion of the previous event.

The second type of reading (i.e., that of immediate succession) is further illustrated by examples (36)–(38). These examples show a sequential set of activities in a procedural text, *Nongala tebulagon* 'Collecting rattan', explaining successive steps in the process of collecting rattan. Activities in the sequential set that are marked by the completive aspect *=mo* are given in bold.

(36) *tas* *toniolong* ***nituengaomo*** *i*
tas *to=ni-olong* ***ni-tueng-ao=mo*** *i*
bag REL=UV.NRLS-carry **UV.RLS-hang-APPL=COMP** LOC

ndaang *nuayu*
ndaang *nu=ayu*
branch GEN=wood
'The carried bag was hung on the wood branch.'

(37) ***panongalamo*** *tebulagon* *nagana'mo* *minyei*
pa=noN-ala=mo *te=bulagon* *nV-gana'=mo* *minyei*
SEQ=AV.RLS-take=COMP NM=rattan ST.RLS-enough=COMP go.down

tevavaong
te=vava-ong
NM=bring-NOM
'then (one) drew the rattan, as there were enough things to bring (i.e., rattan) to go down (the hill) […]'

(38) ***niinsongaomo***
ni-insong-ao=mo
UV.RLS-collect-APPL=COMP
'(the rattan) is gathered (in one place).' (from the narrative *Nongala tebulagon*)

The interpretation of the above examples is that the action *panongalamo* 'drew (the rattan)' is performed immediately after the event *nituengaomo* 'hang (the bag)' has been completed. Similarly, the action *niinsongaomo* 'gathered (the rattan)' takes place immediately after the previous action *panongalamo* 'drew (the rattan)' has come to an end. Note that, in addition to marking actions or events, the completive aspect *=mo* can also be attached to stative predicates, as shown by the predicate *nagana'mo* in example (37).

The completive aspect *=mo* can also be attached to the negative marker *jio* forming *jiomo* 'never' (lit. 'not already'). *Jiomo* can negate predicates in realis as well as non-realis forms. When *jiomo* precedes realis forms, it indicates that the event denoted by the predicate never took place in the past time, as in example (39). When *jiomo* precedes non-realis forms, on the other hand, it implies that the event denoted by the predicate will never happen in the future, as can be seen in example (40).

(39) ***jiomo*** *najari* *nelolom* *i* *dagat*
jio=mo *nV-jari* *ne-lolom* *i* *dagat*
NEG=COMP ST.RLS-become DY.RLS-swim LOC sea
'(The pig) had never swum in the sea.' (from the narrative *Batu babi*)

(40) *ane* *bahasa* *malayu* *ini* ***jiomo*** *nurekamnya*
ane *bahasa* *malayu* *ini* ***jio=mo*** *nu-rekam=nya*
if language Malay PROX **NEG=COMP** UV.NRLS-record=3SG.GEN
ini
ini
PROX
'If it is Malay, she will never record it.' (from the dialog *Campur*)

In contrast to its primary use, secondary functions of the completive aspect *=mo* do not clearly relate to temporal properties of an event. These secondary functions are (i) as a focus marker and (ii) as a politeness marker.

As a focus marker, *=mo* is directly attached to the focal constituent, which always occurs in sentence initial position. In this function, *=mo* can be attached to nouns, pronouns, question words and demonstratives, as illustrated by examples (41)–(44); or to spatial deictics, as in example (45).

(41) ***siitamo*** *tosiopu* *nubahasa* *ua*
siita=mo *to=si=opu* *nu=bahasa* *ua*
1PL.IN=FOC REL=HON=owner GEN=language DIST
'We are the owner of that language.' (from the dialog *Campur*)

(42) ***sapamo*** *joo* *nipeutanyainya* *ini*
sapa=mo *jojo* *ni-pe-utanya-i=nya* *ini*
what=FOC all UV.RLS-LOC-ask-APPL=3SG.GEN PROX
'What was (it) all (about) she had asked?' (from the dialog *Campur*)

(43) ***eitumo*** *ja* *tetagumu*
eitu=mo *ja* *te=tagu=mu*
MED=FOC INJ NM=friend=2SG.GEN
'That is really what your friend is like.' lit: 'That is your friend.'
(from the dialog *Campur*)

(44) ***tudatudamo*** *simaua* *jio* *nevua*
tuda-tuda=mo *simaua* *jio* *ne-vua*
RDP~plant=FOC like.that NEG DY.RLS-fruit
'Those plants do not bear fruits.' (from the dialog *Campur*)

(45) ***ruamo*** *siia*
riua=mo *siia*
over.there=FOC 3SG
'Is she over there?' (from the dialog *Noasu*)

The use of *=mo* as a politeness marker is restricted to positive and negative imperatives. In positive imperative constructions, it is attached to the verbal base, as illustrated by the pairs in (46) and (47). Negative imperatives are marked by the prohibitive marker *nyaa* 'don't'. If inserted into a negative imperative construction, *=mo* is attached to *nyaa*, as shown by example (48)a.

Imperative constructions can also occur without the completive aspect *=mo*. There is a pragmatic difference between imperative constructions with the completive aspect *=mo* and those without it. The former are considered to be more polite whereas the latter are considered to be neutral. Therefore, 'please' has been added to the translation of imperatives which occur with the completive aspect *=mo* in order to render the politeness distinction into English. Compare examples (a) and (b) in (46)–(48).

(46) a. ***tuutmo*** *sia'u*
tuut=mo *sia'u*
follow=POL 1SG
'Please follow me!' (from the dialog *Campur*)

b. ***tuut*** *sia'u*
tuut *sia'u*
follow 1SG

‘Follow me!’

(47) a. ***veenaomo*** *sia’u* *itu*
vee-ao=mo *sia’u* *itu*
give-APPL=POL 1SG MED
‘Please give me that!’ (from the dialog *Campur*)

b. ***veenao*** *sia’u* *itu*
vee-ao *sia’u* *itu*
give-APPL 1SG MED
‘Give me that!’

(48) a. ***nyaamo*** *nuganggu* *siami*
nyaa=mo *nu-ganggu* *siami*
IMP.NEG=POL UV.NRLS-disturb 1PL.EX
‘Please don’t disturb us!’ (from the narrative *Hanyut perahu*)

b. ***nyaa*** *nuganggu* *siami*
nyaa *nu-ganggu* *siami*
IMP.NEG UV.NRLS-disturb 1PL.EX
‘Don’t disturb us!’

5.3.2 Continuative aspect *=po*

The primary function of the continuative aspect is to denote an ongoing activity or state, and was already illustrated in Section 5.1.2. Further examples are given in (49) and (50).

(49) *e* ***nologatpo*** *teoto* *niami*
e ***nV-logat=po*** *te=oto* *niami*
eh **ST.RLS-spacious=CONT** NM=car 1PL.EX.GEN
‘Eh, our car still has enough space.’ (from the dialog *Campur*)

(50) *siina* ***nonggabupo***
si=ina ***noN-gabu=po***
HON=mother **AV.RLS-cook=CONT**
‘Mother was still cooking.’

Related to its primary function of denoting a temporally extended event, the continuative *=po* is used to convey the meaning ‘again’ or ‘more’. In this case, *=po* still indicates that there is a temporal extension of some situation albeit it attaches to a host other than a verb. Examples are given in (51) and (52). In both examples, *=po* indicates temporal extension of the event relative to speech time. In example (52), it becomes particularly clear that the event will extend into the future as the verb is marked by the non-realis marker.

(51) *jei* ***sombuupo*** *onje*
jei ***so-N-buu=po*** *onje*
really **one-LIG-CLF.piece=CONT** still
‘Really (I will smoke) again one piece (of cigarette).’ (from the dialog *Campur*)

(52) ***soyambengipo*** *siita* *ini* *momajeko*
soia-N-vengi=po *siita* *ini* *moN-pajeko*
how.many-LIG-night=CONT 1PL.IN PROX AV.NRLS-plow
‘How many more nights will we plow?’

The question word *soiambengi* ‘how many nights; when’ can take either the aspectual marker *=po* or *=mo*. If it occurs with the aspectual marker *=po*, it indicates that the time reference of the event will be extended, as has been stated above. Despite this overt marking of the temporal extension, the focused event does not always occur in non-realis mood; it may also occur in the realis mood. Compare example (53).

(53) ***soyambengipo*** *sio’o* *nonggutu* *teasupat*
soya-N-vengi=po *sio’o* *noN-gutu* *te=asupat*
how.many-LIG-night=CONT 2SG AV.RLS-make NM=food.in.a.rhombus.shape

‘How long will you (continue to) make *asupat*?’ (from the dialog *Teulingka*)

In contrast, if *soiambengi* is modified by the aspectual marker *=mo*, the main verb always takes the realis mood, as illustrated in example (54).

(54) ***soyambengimo*** *sio’o* *najaok*
soya-N-vengi=mo *sio’o* *nV-jaok*
how.many-LIG-night=COMP 2SG ST.RLS-arrived
‘When did you arrive?’

As already mentioned in Section 5.1.3.1, in negative imperative constructions *=po* expresses the meaning ‘not again’ when it is attached to the prohibitive marker *nyaa* ‘don’t’. This is illustrated by example (18), which is repeated here for convenience as example (55). The meaning ‘not again’ indicates that the action has taken place before it is prohibited. In the present example, this is clarified by the use of realis mood with the predicate *niinang* ‘eat’.

(55) ***nyaapo*** *tonamanta* ***niinang*** *jei* *ua*
nyaa=po *to=nV-manta* ***ni-inang*** *jei* *ua*
IMP.NEG=CONT REL=ST.RLS-unripe **UV.RLS-eat** INJ DIST
‘Don’t eat the unripe (fruit) again!’ (from the dialog *Campur*)

In contrast to *=mo*, which functions as a politeness marker when it is attached to the prohibitive marker *nyaa* ‘don’t’, *=po* does not have such a function. Negative imperatives which occur with *=po* only imply temporal repetition; no distinction in politeness is conveyed. The repeated event is prohibited from taking place again in the future (compare example (55) with examples (46)a–(48)a).

Aspectual marking also appears on the negative marker *jio*, forming the negation *jiopo* ‘not yet; before’ by adding the aspectual clitic *=po. Jiopo* can negate predicates (examples (56)–(58)) or can be used to mark temporal adverbial clauses, as exemplified in (59). *Jiopo* implies that the event has not yet taken place, although its completion may be anticipated or expected. Events or states following *jiopo* always take the realis marker.

(56) *sia’u* ***jiopo*** *mai* *nendiis*
sia’u ***jio=po*** *mai* *ne-ndiis*
1SG **NEG=CONT** go.to DY.RLS-take.a.bath
‘I have not gone to take a bath yet.’ (from the dialog *Campur*)

(57) *tecoklat* ***jiopo*** *noogal*
te=coklat ***jio=po*** *nV-ogal*
NM=cacao **NEG=CONT** ST.RLS-dry
‘The cacao is not yet dry.’ (from the dialog *Teutang*)

(58) *tetoonya* ***jopo*** *nikenal*
te=too=nya ***jio=po*** *ni-kenal*
NM=person=DEF **NEG=CONT** UV.RLS-know
‘(We) did not know the person.’ (from the dialog *Campur*)

(59) ***jiopo*** *nitovong* *niina* *niani* *teloka*
jio=po *ni-tovong* *ni=ina* *ni=Ani* *te=loka*
NEG=CONT UV.RLS-cut GEN.HON=mother GEN.HON=PN NM=banana

ua *lasia* *bua* *netilang*
ua *lasia* *bua* *nV-tilang*
DIST many CLF ST.RLS-cracked
‘Before (the banana tree) was cut by Ani’s mother, some of them were cracked.’
(from the dialog *Campur*)

The use of the continuative aspect marker *=po* belongs to its secondary (not clearly aspect-related) functions. This construction is discussed in Section 6.2.

6 *Verbal morphology*

Tajio has two voices: one actor voice (AV) and one undergoer voice (UV). Predicates in AV and UV constructions are morphologically marked for voice and mood, but do not bear any referent marking (i.e., verb agreement). This chapter mainly discusses the morphological markers of each voice type in Tajio (Section 6.3) and the morphological processes for changing the verbal valence (Section 6.4). In addition, this chapter also examines the overlapping morphology among dynamic verbs, i.e., dynamic intransitive and dynamic transitive verbs in Section 6.1. The differences between dynamic verbs and stative verbs are discussed in Section 6.2. This chapter closes with Section 6.5 which describes the morphological markers indicating plurality of actions or states.

6.1 Dynamic verbs

Dynamic intransitive verbs and dynamic transitive verbs are classified as a single class (i.e., dynamic verbs) because semantically both are dynamic and their morphology partially overlaps. Although the prefix forms and their functions do not always show a one-to-one correspondence, there are morphological markers which may be considered the "default" marker (i.e., the most often used marker) of the dynamic intransitive verbs and dynamic transitive verbs respectively. The former is the prefix *ne-/no-* 'DY.RLS/NRLS' and the latter is the nasal prefix *noN-/moN-* or *n-/m-* 'AV.RLS/NRLS'.

There are cases where verbs seem to be morphologically transitive, as they take a dynamic transitive prefix, but syntactically behave like dynamic intransitive verbs or vise versa. For example, dynamic verbs prefixed with the nasal prefixes *noN-* 'AV.RLS' are usually transitive, i.e., they occur in both actor voice (AV) and undergoer voice (UV). However, some dynamic verbs marked with the AV marker never occur in undergoer voice. This is the case for the verbs listed in Table 6-1. There are no verbs which only occur in undergoer voice forms.

Root	**Dynamic verb with AV prefix *noN-***
pangang 'chew betel'	***m**angang* < *N-pangang* 'AV.RLS-chew.betel' 'to chew betel'
bulagon 'rattan'	***nom**bulagon* < *noN-bulagon* 'AV.RLS-rattan' 'to collect rattan'
peang 'fishing rod'	***nom**eang* < *noN-peang* 'AV.RLS-fishing.rod' 'to fish using a fishing rod'
dagat 'sea'	***non**dagat* < *noN-dagat* 'AV.RLS-sea' 'to go to sea to sail'
puras 'diarrhoea'	***nom**uras* < *noN-puras* 'AV.RLS-diarrhoea' 'to have diarrhoea'
odung 'to sit'	***nong**odung* < *noN-odung* 'AV.RLS-sit' 'to sit'
ontut 'to fart'	***nong**ontut* < *noN-ontut* 'AV.RLS-fart' 'to fart'
besek 'to hatch'	***nom**besek* < *noN-besek* 'AV.RLS-hatch' 'to hatch'
ovo 'to incubate'	***nong**ovo* < *noN-ovo* 'AV.RLS-incubate' 'to incubate'

Table 6-1: Dynamic verbs taking the AV prefix *noN-/n-*

Similarly, there are roots taking the dynamic intransitive markers *ne-/no-* which occur in the undergoer voice. In this case, the dynamic intransitive markers *ne-/no-* alternate with the UV markers *ni-(-i)* (see Section 6.3.2.1).

Moreover, the surface forms *ne-/no-* may derive from prefix combinations. The first possibility is that the markers *ne-/no-* present two different prefixes: The first *ne-/no-* comprises the dynamic intransitive prefixes; the second *ne-/no-* derives from the nasal prefix *n-/m-* preceding the stem-forming prefixes *pe-/po-*, which mark dynamic transitive verbs (see Section 6.3.2.2 for more details and examples). The second possibility regarding the realizations of the prefixes *ne-/no-* is that: they may mark dynamic intranstive verbs or they are derived from the nasal prefix *n-* plus the causative prefix *pe-/po-*. See Section 6.4.1.2 for details on causative constructions.

As morphology cannot always clearly distinguish dynamic intransitive verbs from transitive ones, the distinction is principally based on the syntactic distribution. Syntactically dynamic intransitive verbs can be distinguished from transitive verbs based on their argument structures. While dynamic intransitive verbs only need a subject argument, transitive verbs require two arguments: a subject and an object. Examples (1)a and (2)a are intransitive constructions with subject arguments; examples (1)b and (2)b are transitive constructions with subject and object arguments.

(1) a. *sia'u* ***noparuja***
sia'u ***no-paruja***
1SG **DY.RLS-rice.paddy**
'I worked in the rice paddy.' or 'I farmed.'

b. *sia'u* ***neparuja*** *tetana* *eua*
sia'u ***n-PO-paruja*** *te=tana* *eua*
1SG **AV.RLS-CAUS-rice.paddy** NM=soil DIST
'I cultivated a rice paddy.' (lit: 'I make the soil a rice paddy.')

(2) a. *sia'u* ***noasing***
sia'u ***no-asing***
1SG **DY.RLS-spinning.top**
'I played with a spinning top.'

b. *sia'u* ***neasing*** *teayu*
sia'u ***n-PO-asing*** *te=ayu*
1SG **AV.RLS-CAUS-spinning.top** NM=wood
'I turned the wood into a spinning top.'

6.2 Stative verbs vs dynamic intransitive verbs

With regard to their syntactic distribution, stative verbs cannot be clearly distinguished from dynamic intransitive verbs because both can function as predicates without copula and can also be used as modifiers of a noun phrase (see Section 4.2).

Formally, the regular (harmonic) changes of the vowels of the stative prefix and the irregular (non-harmonic) changes of the dynamic prefix provide the basis for distinguishing stative verbs from dynamic ones. The morphological markers of statives are the prefix *nV-*, which marks realis mood, and *mV-*, which marks non-realis mood (see Section 2.8.6 for details on the vowel-harmonic changes). The morphological markers of dynamic intransitive verbs are the prefixes *ne-*/*no-* and *me-/mo-*, which mark realis mood and non-realis mood, respectively. The realizations of the dynamic prefixes do not depend on morphophonological processes; they are purely lexically determined (see Section 3.3.2.2 about lexically conditioned suppletion).

However, it should be noted that it is not always easy to distinguish the dynamic markers *ne-*/*no-* and the harmonic stative marker *nV-*, which is realized as *ne-* before front vowels /e/ and /i/ and as *no-* before vowels /o/ and /u/. In such cases, a distinction must be made on the basis of semantics.

Table 6-2 compares examples of the non-harmonic changes of the dynamic prefixes *ne-/no-* and the harmonic changes of the statives prefix *nV-*.

DY-Intr prefix *ne-*	**Examples**	**Stative prefix *nV-***	**Examples**
ne-/no- before /i/	*ne-* + *l**i**njok* → ***ne**linjok* 'to run' *no-* + *s**i**rip* → ***no**sirip* 'to sip'	*nV-* before /i/ and /e/	*nV-* + *s**i**li* → ***ne**sili* 'to be ashamed'
ne-/no- before /e/	*ne-* + *l**e**yak* → ***ne**leyak* 'to fly' *no-* + *m**e**ngke* → ***no**mengke* 'to cough'		*nV-* + ***e**mis* → ***nee**mis* 'to be sweet'
ne-/no- before /a/	*ne-* + *l**a**mpa* → ***ne**lampa* 'to walk' *no-* + *l**a**yag* → ***no**layag* 'to sail'	*nV-* before /a/	*nV-* + ***a**gor* → ***na**agor* 'to be fast'
ne-/no- before /u/	*ne-* + *ny**u**u* → ***ne**nyuu* 'to spit' *no-* + ***u**nggus* → ***no**unggus* 'to growl'	*nV-* before /u/ and /o/	*nV-* + *t**u**ru* → ***no**turu* 'to be asleep'
ne-/no- before /o/	*ne-* + ***o**ro* → ***ne**oro* 'to stand up' *no-* + *t**o**lee* → ***no**tolee* 'to pee'		*nV-* + ***o**nggom* → *n**o**onggom* 'to be cold'

Table 6-2: Examples of the non-harmonic changes of the dynamic prefix *ne-/no-* and the harmonic changes of the stative prefix *nV-*

Semantically, the two types of intransitive verbs differ in that dynamic intransitives typically refer to actions that involve a volitional agent in control of the action (see the meanings of dynamic intransitive verbs in Table 6-2). In contrast, statives denote states of affairs that do not involve an agent (Himmelmann, 2005:165–6). Possible meanings of stative verbs are listed in Table 6-3.

***nV-* + root**	**Example/meaning** **a state of having (X)/a state arising because of the existence of (X)/to be like (X)**
nV- + vatu	*navatu* 'to be stony'
nV- + longu	*nolongu* 'to be fat/greasy'
nV- + buut	*nobuut* 'to be mountainous'
	meteorological events
nV- + ujang	*noujang* 'to be rainy'
nV- + avat	*naavat* 'to be windy'
nV- + eleo	*neeleo* 'to be sunny'
	the resultant state of an activity
nV- + olog	*noolog* 'to be cut'
nV- + tilang	*netilang* 'to be split (wood)'
nV- + udut	*noudut* 'to be broken (rope)'
	having the quality of (X)
nV- + ogal	*noogal* 'to be dry'
nV- + ranis	*naranis* 'to be sick'
nV- + lusur	*nolusur* 'to be lazy'

Table 6-3: Types of meanings of statives

Further, denoting qualities or properties of nouns makes it possible for stative verbs, but not dynamic intransitive verbs, to be used in comparative constructions. In this construction the stative predicate denoting the quality being compared is marked with the clitic *=po* and it co-occurs with the comparative marker, *apa/pa* 'than', as can be seen in examples (3) and (4). The element *apa/pa* 'than' can be replaced by the preposition *lami* 'from'. Note that the use of both *=po* and *pa* is obligatory in comparative constructions.

(3) a. *tevonua'u* ***nabasagpo*** ***pa*** *tevonuamu*
te=vonua='u ***nV-basag=po*** ***pa*** *te=vonua=mu*
NM=house=1SG.GEN **ST.RLS-big=CPR** **than** NM=house=2SG.GEN
'My house is bigger than your house.'

b. **tevonua'u* ***nabasag pa*** *tevonuamu*
c. **tevonua'u* ***nabasagpo*** *tevonuamu*

(4) a. *teanganak* *niasman* ***nedeipo*** ***lami***
te=anganak *ni=Asman* ***nV-dei=po*** ***lami***
NM=child GEN.HON=PN **ST.RLS-small=CPR** **than**

teanganakmu
te=anganak=mu
NM=child=2SG.GEN
'Asman's child is younger than your child.'

b. **teanganak ni asman* ***nedei lami*** *teanganakmu*
c. **teanganak ni asman* ***nedeipo*** *teanganakmu*

6.3 Voice morphology

This section discusses morphological markers of the voice system in Tajio. It does not discuss the syntax of AV and UV constructions, which will be treated in Section 8.1.2.1 and 8.1.2.2. Section 6.3.1 examines the actor voice and the undergoer voice markers; Section 6.3.2 discusses the alternation between actor voice and undergoer voice verb formations.

Mood differences do not influence the regularities discussed here. Consequently, for purposes of exemplification, only one of the two moods (usually the realis mood) is used for illustration.

6.3.1 Actor voice and undergoer voice markers

6.3.1.1 Actor voice markers

The default morphological markers of actor voice constructions are the nasal prefixes *noN-/moN-* and *n-/m-* 'AV.RLS/NRLS'. It is important to differentiate these two prefixes because the latter is not the shortened form of the former one. Morphophonologically, unlike the nasal prefixes *noN-/moN-*, the AV markers *n-/m-* only occur with /p/ initial stems, i.e., preceding derivational prefixes of the shape *pe-/po-* becoming *ne-/no-* in realis forms or *me-/mo-* in non-realis mood.

The AV prefixes *noN-/moN-* show morphophonemic allomorphy (see Sections 2.8.1 and 3.3.1), morphologically conditioned suppletion (see Section 3.3.2.1 and 6.4.1.2) and lexically conditioned suppletion (see Section 3.3.2.2). In contrast, the AV prefixes *n-/m-* do not have any further allomorphs, they always occur as *n-/m-*.

The actor voice prefix *noN-* (and its allomorphs) is often shortened to *N-*. Thus actor voice verbs may look like roots beginning with a nasal-obstruent cluster. A way to distinguish verbal formations with a shortened prefix *N-* from roots beginning with a nasal-obstruent cluster is by looking at the corresponding undergoer voice (UV) constructions. In UV verbs, the shortened prefix *N-* will not appear if roots do not bear a nasal-obstruent cluster in root-initial position. Compare the AV and UV verbs in examples (5) and (6).

(5) AV: ***noN-****jilok* 'AV.RLS-lick' → ***non****jilok* → ***n****jilok* 'to lick'
UV: *ni-****jilok****-i* 'UV.RLS-lick-UV' → *ni****jilok****i* 'to lick'

(6) AV: *noN-geges* 'AV.RLS-scratch' → ***nong****geges* → ***ng****geges* 'to scratch'
UV: *ni-****geges*** 'UV.RLS-scratch' → *ni****geges*** 'to scratch'

In contrast, roots starting with nasal-obstruent clusters maintain their nasals, in AV as well as in UV constructions, as can be seen in the following examples.

(7) AV: *noN-**ndiis**-i* ‘AV.RLS-bath-APPL’ → *no**ndiis**i* ‘to bathe someone’
UV: *ni-**ndiis**-i* ‘UV.RLS-bath-APPL’ → *ni**ndiis**i* ‘to bathe someone’

(8) AV: *n-PO-**mbosi**-ao* ‘AV.RLS-CAUS-good-APPL’ → *no**mbosi**ao* ‘to fix something’
UV: *ni-PO-**mbosi**-ao* ‘UV.RLS-CAUS-good-APPL’ → *nipo**mbosi**ao* ‘to fix something’

Further, the shortened prefix *N-* should be distinguished from the AV prefix *n-/m-*. An aspect for possibly distinguishing the two forms is that the shortened prefix *N-* never alternates for mood, while the realis prefix *n-* alternates with *m-* for non-realis mood.

Example (9) shows the prefix *noN-* shortened into *m-*, ***nom**enek* becoming ***m**enek*. ***M**enek* cannot be analyzed as a non-realis form (**M- + penek*) as the form ****n**enek* as the corresponding realis form does not exist.

(9) *sia’u* ***nomenek/menek*** *teulingka*
sia’u ***noN-penek/N-penek*** *te=ulingka*
1SG **AV.RLS-climb** NM=coconut
‘I climbed a coconut tree.’

In contrast to (9), compare examples (10) and (11) which show that the realis *n-* alternates with *m-* in non-realis mood.

(10) *siina* ***nogabu*** *teaniong*
si=ina ***n-po-gabu*** *te=aniong*
HON=mother **AV.RLS-SF-cook** NM=rice
‘Mother cooked rice.’

(11) *siina* ***mogabu*** *teaniong*
si=ina ***m-po-gabu*** *te=aniong*
HON=mother **AV.NRLS-SF-cook** NM=rice
‘Mother will cook rice.’

In addition to *noN-/moN-* and *n-/m-*, other prefixes which appear to mark AV constructions are the dynamic intransitive prefixes *ne-/no-*.

6.3.1.2 Undergoer voice markers

Affixes used as the UV markers are the prefixes *ni-/nu-* ‘UV.RLS/NRLS’, the circumfixes *ni--i/nu--i* ‘UV.RLS/NRLS--UV’ and two other prefixes which only occur in non-realis mood, *u-* ‘UV.NRLS.1SG’ and *mu-* ‘UV.NRLS.2SG’ (see Section 3.2.2). Unlike the AV markers *noN-/moN-*, the undergoer voice markers rarely undergo morphophonemic changes. Vowel chain reduction seems to be the only morphophonological process that may occur between the undergoer prefix *ni-* and bases starting with vowel sequences (see Section 2.8.4). The undergoer voice markers do not have any other allomorphs, neither morphophonemic nor suppletive ones. Since their forms hardly change, UV verbs can always be used as diagnostics for determining the morphological structure of a verbal form, i.e., for determining a particular stem former or a causative prefix which is not always clearly identifiable in actor voice verb formations.

The suffix *-i* which constitutes part of the UV-marking circumfixes *ni--i/nu--i* ‘UV.RLS/NRLS--UV’ has to be distinguished from the applicative suffix *-i*. The main difference is that the applicative suffix *-i* is found in both UV and AV constructions and that it increases verb valency (see Section 6.4.1.1 on applicative constructions). In contrast, the UV suffix *-i* only occurs in UV constructions and it does not mark changes in valency, as can be seen in (12) and (13) below[19].

(12) a. *siopu’u* ***nongolog*** *teayu*
si=opu’=’u ***noN-olog*** *te=ayu*
HON=grandparent=1SG.GEN **AV.RLS-cut** NM=wood
‘My grandparent cut the wood.’

[19] For the difference between voice and applicatives in Austronesian, see also Himmelmann and Riesberg (2013).

b. *teayu* ***niologi*** *niopu'u*
te=ayu ***ni-olog-i*** *ni=opu'='u*
NM=wood **UV.RLS-cut-UV** GEN.HON=grandparent=1SG.GEN
'The wood was cut by my grandparent.'

(13) a. *tepidi* ***nonjilok*** *tesuraya*
te=pidi ***noN-jilok*** *te=suraya*
NM=cat **AV.RLS-lick** NM=plate
'The cat licked the plate.'

b. *tesuraya* ***nijiloki*** *nupidi*
te=suraya ***ni-jilok-i*** *nu=pidi*
NM=plate **UV.RLS-lick-UV** GEN=cat
'The plate was licked by the cat.'

6.3.2 AU-UV alternation

In Section 6.1, it was discussed that the morphological markers cannot always clearly distinguish dynamic intransitive verbs from dynamic transitive verbs. Therefore, the syntactic behavior of the verbs should also be taken into account. The discussion of actor voice and undergoer voice constructions in this section covers both (1) dynamic verbs which are morphologically marked as AV verbs and (2) dynamic verbs which are morphologically marked as dynamic intransitive verbs, but behave syntactically as transitive verbs. The possibly overlapped morphological markers−the prefixes *ne-/no-*−will be glossed according to their syntactic distribution.

Considering that AV and UV verb formations may consist of stem-forming prefixes, the discussion of AV-UV alternation will be divided into two parts: Section 6.3.2.1 deals with AV-UV verbs without stem-forming prefixes and Section 6.3.2.2 describes AV-UV verbs with stem-forming prefixes.

6.3.2.1 AV and UV marking without a stem-forming prefix

The basic morphological markers of AV and UV constructions—without stem-forming prefixes—in realis and non-realis mood are listed in Table 6-4.

No.	Realis		Non-realis	
	AV	**UV**	**AV**	**UV**
1.	*noN-*	*ni-*	*moN-*	*nu-/ro-*[20]
	no-/ne-	*ni-*	*mo-/me-*	*nu-*
2.	*noN-*	*ni--i*	*moN-*	*nu--i*
	no-/ne-	*ni--i*	*mo-/me-*	*nu--i*

Table 6-4: Complete list of AV and UV markers without stem-forming prefixes

Two other prefixes which mark non-realis undergoer voice constructions are the prefixes *u-* 'UV.NRLS.1SG' and *mu-* 'UV.NRLS.2SG' (see Section 8.1.2.2.1). These two prefixes will not be discussed here because morphologically they have a similar function to the UV non-realis prefix *nu-*.

The AV prefixes *noN-*/*moN-* may alternate with the UV prefixes *ni-/nu-* or circumfixes *ni--i/nu--i*. Which UV marker a root may take is lexically determined. Among the two possibilities, roughly speaking the database contains more /*noN-*/~/*ni-*/ alternations than /*noN-*/~/*ni--i*/ alternations. Table 6-5 provides examples of verbal roots, dual-class roots (i.e., stative-verbal and nominal-verbal) and multi-class roots (i.e., stative-nominal-verbal) which can take the AV marker *noN-* and the UV marker *ni-* or *ni--i*.

[20] The non-realis UV marker *nu-* is used in Kasimbar and *ro-* is used in Sienjo. The non-realis UV marker which is discussed here is *nu-* because my field work was mainly done in Kasimbar.

Type of root	**AV-UV alternation**	
Verbal	**AV marker *noN-***	**UV marker *ni-***
tovong 'to cut'	***non****ovong* < ***noN****-tovong* 'to cut'	***ni****tovong* < ***ni****-tovong* 'to cut'
vava 'to bring'	***nom****bava* < ***noN****-vava* 'to bring'	***ni****vava* < ***ni****-vava* 'to bring'
sokok 'to catch'	***nony****okok* < ***noN****-*sokok 'to catch'	***ni****sokok* < ***ni****-sokok* 'to catch'
tuda 'to plant'	***non****uda* < ***noN****-tuda* 'to plant'	***ni****tuda* < ***ni****-tuda* 'to plant'
inung 'to drink'	***neng****inung* < ***neN****-inung* 'to drink'	***ni****inung* < ***ni****-inung* 'to drink'
Verbal	**AV marker *noN-***	**UV marker *ni--i***
pate 'to kill'	***nom****aate* < ***noN****-pate* 'to kill'	***ni****pate****i*** < ***ni****-pate-****i*** 'to kill'
penek 'to climb'	***nom****enek* < ***noN****-penek* 'to climb'	***ni****penek****i*** < ***ni****-penek-****i*** 'to climb'
jilok 'to lick'	***non****jilok* < ***noN****-jilok* 'to lick'	***ni****jilok****i*** < ***ni****-jilok-****i*** 'to lick'
oyot 'to slice'	***nong****oyot* < ***noN****-oyot* 'to slice'	***ni****oyot****i*** < ***ni****-oyot-****i*** 'to slice'
Stative-verbal	**AV marker *noN-***	**UV marker *ni-***
tatar 'to hew'	***non****atar* < ***noN****-*tatar 'to hew'	***ni****tatar* < ***ni****-tatar* 'to hew'
tilang 'to split'	***non****ilang* < ***noN****-tilang* 'to split'	***ni****tilang* < ***ni****-tilang* 'to split'
balik 'to change'	***nom****balik* < ***noN****-balik* 'to change'	***ni****balik* < ***ni****-balik* 'to change'
Stative-verbal	**AV marker *noN-***	**UV marker *ni--i***
pude 'to break'	***nom****ude* < ***noN****-pude* 'to break'	***ni****pude****i*** < ***ni****-pude-****i*** 'to break'
diit 'to pull/straight'	***non****diit* < ***noN****-diit* 'to pull'	***ni****diit****i*** < ***ni****-diit-****i*** 'to pull'
udut 'to break (rope)'	***nong****udut* < ***noN****-udut* 'to break (rope)'	***ni****udut****i*** < ***ni****-udut-****i*** 'to break (rope)'
olog 'to cut'	***nong****olog* < ***noN****-olog* 'to cut'	***ni****olog****i*** < ***ni****-olog-****i*** 'to cut'
Nominal-verbal	**AV marker *noN-***	**UV marker *ni-***
ulam 'to cure'	***nong****ulam* < ***noN****-ulam* 'to cure/heal'	***ni****ulam* < ***ni****-ulam* 'to cure/heal'
ovong 'to nest'	***nong****ovong* < ***noN****-ovong* 'to nest'	***ni****ovong* < ***ni****-ovong* 'to nest'
oro 'to stand'	***nong****oro* < ***noN****-oro* 'to build'	***ni****oro* < ***ni****-oro* 'to build'
Nominal-verbal	**AV marker *noN-***	**UV marker *ni--i***
salo 'to floor'	***nony****alo* < ***noN****-salo* 'to floor sth.'	***ni****salo****i*** < ***ni****-salo-****i*** 'to floor sth.'
uku 'to put tail'	***nong****uku* < ***noN****-uku* 'to put a tail on sth.'	***ni****uku****i*** **< *ni-uku-i*** 'to put a tail on sth.'
Stative-verbal-nominal	**AV marker *noN-***	**UV marker *ni-***
sando 'to cure'	***nony****ando* < ***noN****-sando* 'to cure/heal'	***ni****sando* < ***ni****-sando* 'to cure/heal'
Stative-verbal-nominal	**AV marker *noN-***	**UV marker *ni--i***
bayas 'to put sand'	***nom****bayas* < ***noN****-bayas* 'to put sand on sth.'	***ni****bayas****i*** **< *ni-bayas-i*** 'to put sand on sth.'
sala 'to blame'	***nony****ala* < ***noN****-sala* 'to blame'	***ni****sala****i*** **< *ni-sala-i*** 'to blame'

Table 6-5: Examples of roots taking the AV marker *noN-* and the UV marker *ni-(-i)*

In addition to the default AV markers *noN-/moN-*, the dynamic intransitive markers *ne-/no-* are also included as AV markers listed in Table 6-4. This is done for those roots that take the markers *ne-/no-* in AV and allow for UV alternations. The dynamic markers *ne-/no-* alternate with the UV markers *ni-*

(-i). The prefixes *ne-/no-* are not interpreted as being derived from the nasal prefix *n-* plus stem-forming *pe-/po-* because these stem-forming prefixes do not occur in the corresponding UV.

Further, the dynamic verbs taking the UV marker *ni-* are syntactically ambi-transitive, i.e., they can function as intransitive verbs as well as transitive verbs. In such cases, the prefixes *ne-/no-* can either be glossed as 'DY.RLS' or 'AV.RLS'. Dynamic verbs which take the UV marker *ni--i*, however, can only function as transitive verbs, thus the prefixes *ne-/no-* are glossed as 'AV.RLS'. It should be noted that whether or not dynamic verbs can function as intransitive and transitive verbs depends largely on the semantics of the respective roots. One cannot conclude that all verbs taking parti in the /*ne-/no-*/~/*ni-*/ alternation are ambi-transitive verbs. Table 6-6 provides examples of verbal roots and dual-class roots (i.e., nominal-verbal) which take the dynamic prefixes *ne-/no-* and alternate with the UV prefixes *ni-(-i)*.

Type of root	**AV-UV alternation**	
Verbal	**DY/AV marker *ne-/no-***	**UV marker *ni-***
dampi 'to light fire'	***no****dampi* < ***no****-dampi* 'to light fire'	***ni****dampi* < ***ni****-dampi* 'to light fire'
dandang 'to watch'	***no****dandang* < ***no****-dandang* 'to watch'	***ni****dandang* < ***ni****-dandang* 'to watch'
bale 'to turn'	***no****bale* < ***no****-bale* 'to turn'	***ni****bale* < ***ni****-bale* 'to turn'
Nominal-verbal	**DY/AV marker *ne-/no-***	**UV marker *ni-***
karaja 'to work'	***no****karaja* < ***no****-karaja* 'to work'	***ni****karaja* < ***ni****-karaja* 'to work'
asu 'to hunt with a dog'	***no****asu* < ***no****-asu* 'to hunt with a dog'	***ni****asu* < ***ni****-asu* 'to hunt with a dog'
pangki 'to plough'	***no****pangki* < ***no****-pangki* 'to plough'	***ni****pangki* < ***ni****-pangki* 'to plough'
sangki 'to sickle'	***no****sangki* < ***no****-sangki* 'to sickle'	***ni****sangki* < ***ni****-sangki* 'to sickle'
kalavata 'to make path in the rice field'	***no****kalavata* < ***no****-kalavata* 'to make path in the rice field'	***ni****kalavata* < ***ni****-kalavata* 'to make path in the rice field'
Verbal	**AV marker *no-/ne-***	**UV marker *ni--i***
kave 'to call with hand'	***no****kave* < ***no****-kave* 'to call with hand'	***ni****kave****i*** < ***ni****-kave-****i*** 'to call with hand'
kundu 'to kiss'	***no****kundu* < ***no****-kundu* 'to kiss'	***ni****kundu****i*** < ***ni****-kundu-****i*** 'to kiss'
Nominal-verbal	**AV marker *ne-/no-***	**UV marker *ni--i***
ulingka 'coconut'	***ne****ulingka* < ***ne****-ulingka* 'to produce coconut milk'	***ni****ulingka****i*** < ***ni****-ulingka-****i*** 'to produce coconut milk'

Table 6-6: Examples of roots taking the dynamic markers *ne-/no-* and the UV markers *ni-(-i)*

6.3.2.2 AV and UV marking with a stem-forming prefix

In addition to the morphological possibilities discussed in the previous section, there are roots which, in addition to the voice morphology, take a stem-forming prefix. Table 6-7 presents AV and UV morphology with a stem-forming prefix in realis and non-realis mood.

Realis		**Non-realis**	
AV	**UV**	**AV**	**UV**
n-SF *(n-pe-/po-)*	*ni*-SF *(ni-po-/pe-)*	*m*-SF *(m-po-/pe-)*	*nu*-SF *(nu-po-/pe-)*

Table 6-7: Complete list of AV and UV markers with stem-forming prefixes

Note that the AV markers *noN-/moN-* may also precede the stem-forming prefixes, but they only occur in combination with other prefixes, i.e., applicative suffixes or causative markers. Therefore, this formation is further discussed in Section 6.4.1.1 on applicative constructions.

As mentioned in the previous section, prefixes resulting from the combination of *n-* plus stem-forming prefix *pe-/po-* are formally indistinguishable from the morphologically simple prefixes *ne-/no-* denoting dynamic intransitive verbs. One test to ascertain the function of of a given instance of *ne-/no-*

is to convert the *ne-/no-* construction into an undergoer voice construction (i.e., *ni-* + *pe-/po-*). If a verb prefixed with *ne-/no-* allows this conversion, it is the actor voice of a transitive verb. Examples are given in (14) and (15).

(14) a. *sisia* ***nevuntu*** *tevea*
sisia ***n-pe-vuntu*** *te=vea*
3PL **AV.RLS-SF-carry:PL** NM=rice
'They carried the rice.'

b. *tevea* ***nipevuntu*** *ninia*
te=vea ***ni-pe-vuntu*** *ninia*
NM=rice **UV.RLS-SF-carry:PL** 3PL.GEN
'The rice was carried by them.'

(15) a. *siami* ***nogutu*** *tepaepulu*
siami ***n-po-gutu*** *te=paepulu*
1PL.EX **AV.RLS-SF-make** NM=rice.stuffed.in.bamboo
'We made rice-bamboo food.'

b. *tepaepulu* ***nipogutu*** *niami*
te=paepulu ***ni-po-gutu*** *niami*
NM= rice.stuffed.in.bamboo **UV.RLS-SF-make** 1PL.EX.GEN
'Rice-bamboo food was made by us.'

The prefixes *ne-/no-*, which derive from the nasal prefix *n-* plus a stem former, should also be distinguished from *ne-/no-*, consisting of *n-* plus the causative marker *pe-/po-*. In this case, the distinction can be made on a semantic basis. If the newly derived verbs convey a causative meaning, the prefixes *pe-/po-* should be glossed as causative markers (see Section 6.4.1.2).

There is a limited set of verbal roots which requires *n-SF-* in AV and *ni-SF-* in UV constructions. Roots which can occur in this alternation are verbal roots and nominal-verbal roots. In addition to *nevuntu* 'to carry' and *nogutu* 'to make' in (14) and (15), other examples are listed in Table 6-8.

Type of root	**AV-UV alternation**	
Verbal	**AV verb with *n-pe-/po-***	**Undergoer voice *ni-pe-/po-***
gabu 'to cook'	***no****gabu* < ***n-po-****gabu* 'AV.RLS-SF-cook' 'to cook'	***nipo****gabu* < ***ni-po-****gabu* 'UV.RLS-SF-cook' 'to cook'
leyak 'to fly'	***ne****leyak* < ***n-pe-****leyak* 'AV.RLS-SF-fly' 'to fly'	***nipe****leyak* < ***ni-pe-****leyak* 'UV.RLS-SF-fly' 'to fly'
meluwa 'to vomit'	***ne****meluwa* < ***n-pe-****meluwa* 'AV.RLS-SF-vomit' 'to vomit'	***nipe****meluwa* < ***ni-pe-****meluwa* 'UV.RLS-SF-vomit' 'to vomit'
Nominal-verbal	**AV verb with *n-pe-/po-***	**Undergoer voice *ni-pe-/po-***
lapi 'to marry'	***no****lapi* < ***n-po-****lapi* 'AV.RLS-SF-lapi' 'to marry'	***nipo****lapi* < ***ni-po-****lapi* 'UV.RLS-SF-lapi' 'to marry'
utang 'to cook vegetables'	***ne****utang* < ***n-pe-****utang* 'AV.RLS-SF-vegetable' 'to cook vegetables'	***nipe****utang* < ***ni-pe-****utang* 'UV.RLS-SF-vegetable' 'to cook vegetables'
valung 'food to carry'	***ne****valung* < ***n-pe-****valung* 'AV.RLS-SF-food to carry' 'to carry food'	***ne****valung* < ***ni-pe-****valung* 'UV.RLS-SF-food to carry' 'to carry food'

Table 6-8: Examples of roots taking the AV prefix *n-SF-* and the UV markers *ni-SF-*

Syntactically, the AV verbs listed in Table 6-8 can also function as intransitive verbs, as examplified in (16). The verb *nogabu* 'to cook' can function as predicate in intransitive and transitive clauses. Without or with the object *teaniong* 'rice', example (16) is acceptable.

(16) *siina* ***nogabu*** (*teaniong*)
si=ina ***n-po-gabu*** *te=aniong*
HON=mother **AV.RLS-SF-cook** NM=rice

‘Mother cooked (rice).’

However, not all AV verbs with *ne-/no-* ‘*n-SF-*’ can function as ambi-transitive verbs. Those deriving from verbal transitive verbs, such as *nogutu* ‘to make’ and *nevuntu* ‘to carry (PL)’, cannot be used intransitively.

In very few cases, a UV form marked with *ni-SF-* corresponds to an AV formation marked with *noN-*, as seen in example (17).

(17) a. *siina* ***nombaluk*** *tebau*
si=ina ***noN-baluk*** *te=bau*
HON=mother **AV.RLS-sell** NM=fish
‘Mother sold fish.’

b. *tebau* ***nipobaluk*** *niina*
te=bau ***ni-po-baluk*** *ni=ina*
NM=fish **UV.RLS-SF-sell** GEN.HON=mother
‘Fish was sold by mother.’

In this case, the AV form is not analyzed as containing a stem-forming prefix because there is no other evidence for a verbal stem-forming prefix of the shape *poN-*. In addition to *nombaluk* ‘to sell’, the AV verbs *nogutu* ‘to make’ and *nogabu* ‘to cook’ discussed above are also recorded as *nonggutu* and *nonggabu*.

6.4 Valency-changing operations

The discussion about valency-changing operations pertains to those morphological processes which apply to verbs in order to change their valence, i.e., to processes that either increase or reduce the number of arguments. The morphological markers applied in valence-increasing processes are described in Section 6.4.1 while Sections 6.4.2 discusses valence-decreasing processes.

Before looking at the valency-changing processes, some terms related to argument structure will be introduced. There are two types of ditransitive constructions: double-object constructions and oblique-object constructions. In double-object constructions, both objects are unmarked (i.e., they appear without prepositions). Following Kroeger (2005:61), the object that directly follows the predicate will be called the primary object (OBJ_1), the second object will be called the secondary object (OBJ_2). In oblique-object constructions, the object that directly follows the predicate is unmarked and will simply be called the object (OBJ); the second object is marked by a preposition and will be called the oblique-object (OBL-O). Although it is marked by a preposition, the oblique-object is still a core argument. Deleting the oblique-object results in ungrammaticality (see below and also Section 8.4.2). In distinction to oblique-objects, there are also non-core oblique arguments, which can be freely omitted. Oblique arguments are glossed as OBL. In (simple) transitive constructions, the object will be glossed as O, the subject will be glossed as S.

6.4.1 Valency-increase

Morphological processes which increase valency of a predicate are applicative and causative constructions. Both increase the number of argument by one slot: intransitive predicates become transitive; transitive predicates become ditransitive. Applicative constructions and causative constructions, and their respective morphological markers are discussed in Section 6.4.1.1.1 and Section 6.4.1.1.2.

6.4.1.1 Applicatives

There are two applicative suffixes in Tajio: the applicative suffix *-i* (applicative type I) and the applicative suffix *-ao* (applicative type II). Both applicative markers can co-occur with all AV markers, either with or without stem-forming prefixes. Table 6-9 summarizes the applicative paradigms in Tajio.

Types of applicative	In AV constructions		In UV constructions	
	Realis	**Non-Realis**	**Realis**	**Non-Realis**
Type I (with suffix *-i*)	*noN--i*	*moN--i*	*ni--i*	*nu--i*
	ne-/no--i	*me-/mo--i*		
	no-SF--*i* *(no-pe-/po--i)*	*mo*-SF--*i* *(mo-pe-/po--i)*	*ni*-SF--*i* *(ni-pe-/po--i)*	*nu*-SF--*i* *(nu-pe-/po--i)*
Type II (with suffix *-ao*)	*noN--ao*	*moN--ao*	*ni--ao*	*nu--ao*
	ne-/no--ao	*me-/mo--ao*		
	n-SF--*ao* *(n-pe-/po--ao)*	*m*-SF--*ao* *(m-pe-/po--ao)*	*ni*-SF--*ao* *(ni-pe-/po--ao)*	*nu*-SF--*ao* *(nu-pe-/po--ao)*
	no-CAUS-SF--*ao*	*mo*-CAUS-SF--*ao*	*ni*-CAUS-SF--*ao*	*nu*-CAUS-SF--*ao*

Table 6-9: Applicative paradigms in Tajo

The formative *-i* which marks the applicative constructions should be distinguished from the formative which forms *-i*, part of the UV circumfix *ni--i*. In contrast to *-i* in *ni--i* 'UV.RLS' (see Sections 6.3.1.2 and 6.3.2.1), the applicative suffix *-i* changes the argument structure of the predicate to which it attaches by increasing its valence. Furthermore, it is not restricted to UV constructions. To avoid confusion between the suffix *-i* that forms part of the circumfix *ni--i* and the applicative suffix *-i*, the latter will be referred to as *-i_{APPL}*.

6.4.1.1.1 Applicative type I (with suffix *-i_{APPL}*)

Regarding stem formations, the discussion of applicative type I will be divided into two parts: (a) applicative type I without stem-forming prefix and (b) applicative type I with stem-forming prefix.

a) Applicative type I without stem-forming prefix

Without a stem-forming prefix, the affix formations of AV applicative verbs are *noN-/ne-/no--i_{APPL}* in realis forms and *moN-/me-/mo--i_{APPL}* in non-realis forms. The UV counterparts of these AV applicative forms are *ni--i_{APPL}* in realis and *nu--i_{APPL}* in non-realis mood. The applicative marker *-i_{APPL}* may attach to dynamic transitive bases and dynamic intransitive bases. Generally, it is more commonly occurs with intransitive bases rather than with transitive bases. There are no stative bases attested as taking the suffix *-i_{APPL}*.

The suffix *-i_{APPL}* applies an additional core argument in goal or theme function, thus this type of applicative may be called goal applicative. Semantically, the goal applicative derives a meaning 'to conduct an activity toward someone or something'. Examples of intransitive and transitive verbal bases taking the goal applicative markers *-i_{APPL}* are presented in Table 6-10.

Type of base	Applicative type I without SF in AV/UV	
Transitive base	**AV: *noN--i_{APPL}***	**UV: *ni--i_{APPL}***
***nom**aatu* < ***noN**-paatu* 'AV.RLS-send' 'to send'	***nom**aatu**i*** < ***noN**-paatu-**i*** 'AV.RLS-send-APPL' 'to send sth. to s.o'	***ni**paatu**i*** < ***ni**-paatu-**i*** 'UV.RLS-send-APPL' 'to send sth. to s.o'
***nong**inda* < ***noN**-inda* 'AV.RLS-lend' 'to lend'	***nong**inda**i*** < ***noN**-inda-**i*** 'AV.RLS-lend-APPL' 'to lend sth. to s.o'	***ni**inda**i*** < ***ni**-inda-**i*** 'UV.RLS-lend-APPL' 'to lend sth. to s.o'
***nom**bee* < ***noN**-vee* 'AV.RLS-give' 'to give'	***nom**been**i*** < ***noN**-vee-**i*** 'AV.RLS-give-APPL' 'to give sth. to s.o'	***ni**veen**i*** < ***ni**-vee-**i*** 'UV.RLS-give-APPL' 'to give sth. to s.o'
Intransitive base	**AV: *no--i_{APPL}***	**UV: *ni--i_{APPL}***
***ne**ndiis* < ***ne**-ndiis* 'DY.RLS-bath' 'to take a bath'	***no**ndiis**i*** < ***no**-ndiis-**i*** 'AV.RLS-bath-APPL' 'to bathe s.o'	***ni**ndiis**i*** < ***ni**-ndiis-**i*** 'UV.RLS-bath-APPL' 'to bathe s.o'
***ne**gou* < ***ne**-gou* 'DY.RLS-scream' 'to scream'	***ne**gou**i*** < ***ne**-gou-**i*** 'AV.RLS-scream-APPL' 'to scream at s.o'	***ni**gou**i*** < ***ni**-gou-**i*** 'UV.RLS-scream-APPL' 'to scream at s.o'

ne*mpoyung* <***ne****-mpoyung* 'DY.RLS-whistle' 'to whistle'	***ne****mpoyung****i*** **<** ***ne****-mpoyung-****i*** 'AV.RLS-whistle-APPL' 'to whistle at s.o/sth'	***ni****mpoyung****i*** <***ni****-mpoyung-****i*** 'UV.RLS-whistle-APPL' 'to whistle at s.o/sth'
no*njeek* < ***no****-njeek* 'DY.RLS-laugh' 'to laugh'	***no****njeek****i*** **<** ***no****-njeek-****i*** 'AV.RLS-laugh-APPL' 'to laugh at s.o'	***ni****njeek****i*** < ***ni****-njeek-****i*** 'UV.RLS-laugh-APPL' 'to laugh at s.o'
no*gombo'* < ***no****-gombo'* 'DY.RLS-talk' 'to talk'	***no****gombo'****i*** **<** ***no****-gombo'-****i*** 'AV.RLS-talk-APPL' 'to talk about sth.'	***ni****gombo'****i*** **<** ***ni****-gombo'-****i*** 'UV.RLS-talk-APPL' 'to talk about sth.'

Table 6-10: Examples applicative type I without stem former

The following discussion illustrates the valence-increasing process for intransitive and transitive bases, respectively. Example (18)a shows the intransitive verb *nogombo'* 'to talk' which has one core argument, i.e., the subject *sia'u* '1SG'. In (18)b the valency of *nogombo'* increases as it is marked by the applicative marker -i_{APPL}. In addition to the subject, the newly derived applicative predicate now needs a further core argument that functions as object, in this case *teparuja* 'rice paddy'. Semantically, the subject argument *sia'u* maintains its role as an agent; the new undergoer *teparuja* is assigned a theme role.

(18) a. *sia'u* ***nogombo'*** *sono* *siwafik*
sia'u ***no-gombo'*** *sono* *si=Wafik*
1SG **DY.RLS-talk** with HON=PN
S OBL
A: Agent
'I talked with Wafik.'

b. *sia'u* ***nogombo'i*** *teparuja* *sono* *siwafik*
sia'u ***noN-gombo'-i$_{APPL}$*** *te=paruja* *sono* *si=Wafik*
1SG **AV.RLS-talk-APPL** NM=rice.paddy with HON=PN
S V_{AV} O OBL
A: Agent V_{AV} U: Theme
'I discussed/talked about rice paddy with Wafik.'

In the corresponding applicative UV construction, the object *teparuja* 'rice paddy' functions as the subject of the clause, as shown in example (18)c.

c. *teparuja* ***nigombo'i'u*** *sono* *siwafik*
te=paruja ***ni-gombo'- i$_{APPL}$ ='u*** *sono* *si=Wafik*
NM=rice.paddy **UV.RLS-talk-APPL=1SG** with HON=PN
S V_{UV}=O OBL
U: Theme V_{UV}=A: Agent
'The rice paddy was discussed by me and Wafik.'

An example with a transitive verbal base is given in (19). The transitive verb *nomaatu* 'send' in (19)a has two core arguments, the subject (S) *siina* 'mother' and the object (O) *tesura'* 'letter'. It also has an optional oblique argument (OBL), *mao siama* 'to father'. Example (19)b shows that the applicative suffix –i_{APPL} increases the transitivity of the base predicate (from bivalent to trivalent). In the newly formed applicative construction, the non-core oblique argument (OBL) becomes a core argument, functioning as the primary object (OBJ_1). Semantically, the new primary object argument *siama* 'father' is a goal, as seen in (19)b.

(19) a. *siina* ***nomaatu*** *tesura'* ***mao*** ***siama***
si=ina ***noN-paatu*** *te=sura'* ***mao*** ***si=ama***
HON=mother **AV.RLS-send** NM=letter **to** **HON=father**
S V_{AV} O OBL
'Mother sent a letter to father.'

b. *siina* ***nomaatui*** ***siama*** *tesura'*
si=ina ***noN-paatu-i$_{APPL}$*** ***si=ama*** *te=sura'*

HON=mother	**AV.RLS-send-APPL**	**HON=father**	NM=letter
S	V_{AV}	OBJ_1	OBJ_2
A:Agent	V_{AV}	U:Goal	U:Theme

'Mother sent father a letter.'

Further, the goal primary object *siama* 'father' can function as a goal subject in the applicative UV construction, as presented by example (19)c. However, the theme direct object *tesura'* 'letter' cannot function as the subject in applicative UV constructions, as shown by example (19)d.

c. ***siama***	***nipaatui***	*niina*	*tesura'*
si=ama	***ni-paatu-i$_{APPL}$***	*ni=ina*	*te=sura'*
HON=father	**UV.RLS-send-APPL**	GEN.HON=mother	NM=letter
S	V_{UV}	OBJ_1	OBJ_2
U:Goal	V_{UV}	A:Agent	U: Theme

'Father was sent a letter by mother.'

d. **tesura'* ***nipaatui*** *niina (mao) siama*

b) Applicative type I with stem-forming prefix

With a stem-forming prefix, the affix formations of AV applicative verbs are *no-pe-/po--i$_{APPL}$* and *mo-pe-/po--i$_{APPL}$*, in realis and non-realis mood respectively. The AV markers *no-/mo-* are analyzed as suppletive allomorphs of the AV prefixes *noN-/moN-* because they only occur if *noN-/moN-* precede stem-forming prefixes or causative markers (see also Section 3.3.2.1). The respective UV forms of *no-pe-/po--i$_{APPL}$* and *mo-pe-/po--i$_{APPL}$* are *ni-pe-/po--i$_{APPL}$* and *nu-pe-/po--i$_{APPL}$*.

This applicative marker attaches to intransitive bases. Syntactically it changes a non-core oblique argument denoting location into a core-argument which functions as a locative object. Thus, this type of applicative may be called locative applicative. Semantically, locative applicative predicates denote the meaning 'conducting an activity at a place stated by the locative object'. Examples of locative applicative derivations of intransitive bases can be seen in Table 6-11.

Type of base	**Applicative type I with SF in AV/UV**	
Intransitive base	**AV: *no-SF--i$_{APPL}$***	**UV: *ni-SF--i$_{APPL}$***
***no**avu* < ***no**-avu* 'DY.RLS-cook' 'to cook'	***nope**avu**i*** < ***no-pe**-avu-**i*** 'AV.RLS-SF-cook-APPL' 'to cook at'	***nipe**avu**i*** < ***ni-pe**-avu-**i*** 'UV.RLS-SF-cook-APPL' 'to cook at'
***no**layag* < ***no**-layag* 'DY.RLS-sail' 'to sail'	***nopo**layag**i*** < ***no-po**-layag-**i*** 'AV.RLS-SF-sail-APPL' 'to sail at'	***nipo**layag**i*** < ***ni-po**-layag-**i*** 'UV.RLS-SF-sail-APPL' 'to sail at'
no**mberek* <no**-mberek* 'DY.RLS-stay' 'to stay'	***nopo**mberek**i*** < ***no-po**-mberek-**i*** 'AV.RLS-SF-stay-APPL' 'to stay at'	***nipo**mberek**i*** < ***ni-po**-mberek-**i*** 'UV.RLS-SF-stay-APPL' 'to stay at'
***ne**soog* < ***ne**-soog* 'DY.RLS-stop by' 'to stop by'	***nope**soog**i*** < ***no-pe**-soog-**i*** 'AV.RLS-SF-stop by-APPL' 'to stop by at'	***nipe**soog**i*** < ***ni-pe**-soog-**i*** 'UV.RLS-SF-stop by-APPL' 'to stop by at'
***pe**turu* < ***pe**-turu* 'SF-sleep' 'to sleep'	***nope**turu**i*** < ***no-pe**-turu-**i*** 'AV.RLS-SF-sleep-APPL' 'to sleep at'	***nipe**turu**i*** < ***ni-pe**-turu-**i*** 'UV.RLS-SF-sleep-APPL' 'to sleep at'

Table 6-11: Examples applicative type I with stem former

A locative applicative construction derived from an intransitive verbal base is exemplified in (20). The intransitive verbal base in (20)a requires one core argument, i.e., a subject argument. The locative argument (the location where the activity took place) is expressed in a non-core function, prepositionally marked by *i* 'at'. As it is non-core, this oblique argument is optional, thus it can be deleted from the clause. In (20)b the applicative derivation changes the non-core oblique argument *i dagat* 'in the sea' into a core argument functioning as an object. Semantically, the new object denotes a locative meaning, 'the place where the activity takes place'. In locative applicative UV

constructions, the locative object becomes the subject of the transitive clause, as shown in example (20)c.

(20) a. *siasman* ***noturu*** *i* *ompas*
si=Asman ***no-turu*** *i* *ompas*
HON=PN **ST.RLS-sleep** LOC mat
S V OBL
'Asman slept on the mat.'

b. *siasman* ***nopoturui*** *teompas*
si=Asman ***no-po-turu-i$_{APPL}$*** *te=ompas*
HON=PN **AV.RLS-SF-sleep-APPL** NM=mat
S V_{AV} O
A: Agent V_{AV} U: Locative
'Asman slept on the mat.'

c. *teompas* ***nipoturui*** *niasman*
te=ompas ***ni-po-turu-i$_{APPL}$*** *ni=Asman*
NM=mat **UV.RLS-SF-turu-APPL** GEN.HON=Asman
S V_{UV} O
U: Locative V_{UV} A: Agent
'Asman slept on the sea.'

6.4.1.1.2 Applicative type II (with suffix *-ao*)

The second applicative construction is marked by the applicative suffix *-ao*. This marker is suffixed to bases with the AV markers *noN-/ne-/no-* in realis mood and *moN-/me-/mo-* in non-realis mood. Their UV counterparts are *ni--ao* and *nu--ao*, respectively. In addition, *-ao* can also be suffixed to AV markers with stem-forming prefixes, i.e., in realis forms *n-pe-/po-* and non-realis forms *m-/pe-/po-*. It should be born in mind that there are limited numbers of AV verbs occurring with the nasal prefix *n-/m-* plus a stem former *pe-/po-* (see Section 6.3.2.2). The UV formations of these applicative AV forms are *ni-pe-/po--ao* and *nu-pe-/po--ao* (in realis and non-realis mood). The most complex but rare formations are those where the applicative marker *-ao* attaches to bases consisting of a stem former and a causative marker. The affix combination of this causative-applicative derivation is *no-/mo-CAUS-SF--ao* in AV constructions and *ni-/nu-CAUS-SF--ao* in UV constructions.

The applicative marker *-ao* can be attached to intransitive and transitive bases. The suffix *-ao* occurring in combination with the AV markers *noN-/n-* changes the valency of transitive bases, bivalent into trivalent. When suffixed to bases with the AV markers *ne-/no-*, it increases the valency of intransitive bases, which then become transitive. In case of causative-applicative derivations, it attaches to transitive bases. In contrast to the applicative marker *-i$_{APPL}$*, the applicative marker *-ao* may also attach to stative roots. In case of statives, the applicative marker *-ao* is combined with the AV marker *noN-*, forming *noN--ao*. Its UV counterpart is *ni--ao*.

Attached to transitive bases, the suffix *-ao* adds a core argument in benefactive function; it derives the meaning 'to conduct an activity for someone'. Thus, the second type of applicative may be called benefactive applicative. Suffixed to intransitive verbal bases or statives, it adds a new core argument in patient function. Semantically, if derived from intransitive verbal bases, the applicative predicates may convey one of two possible meanings: a causative meaning, i.e., 'to make something/someone into what is stated by the root' or 'to conduct an activity toward someone or something'. With stative roots, the applicative always derives a causative meaning. Examples of intransitive and transitive verbal bases as well as statives taking the applicative markers *-ao* are given in Table 6-12.

Type of base	**Applicative type II in AV/UV**	
Transitive base	**AV: *noN--ao***	**UV: *ni--ao***
***nom**aatu* < ***noN-**paatu* 'AV.RLS-send' 'to send'	***nom**aatu**ao*** < ***noN-**paatu-**ao*** 'AV.RLS-send-APPL' 'to send sth. for s.o'	***ni**paatu**ao*** < ***ni-**paatu-**ao*** 'UV.RLS-send-APPL' 'to send sth. for s.o'
***nong**oli* < ***noN-**oli*	***nong**oli**ao*** < ***noN-**oli-**ao***	***ni**oli**ao*** < ***ni-**oli-**ao***

'AV.RLS-buy' 'to buy'	'AV.RLS-buy-APPL' 'to buy sth. for s.o'	'UV.RLS-buy-APPL' 'to buy sth. for s.o'
***nom**bee* < ***noN-**vee* 'AV.RLS-give' 'to give'	***nom**been**ao* < ***noN-**vee-**ao*** 'AV.RLS-give-APPL' 'to give sth. for s.o'	***ni**veen**ao* < ***ni-**vee-**ao*** 'UV.RLS-give-APPL' 'to give sth. for s.o'
***nong**inda* < ***noN-**inda* 'AV.RLS-lend' 'to lend'	***nong**ind**ao* < ***noN-**inda-**ao*** 'AV.RLS-lend-APPL' 'to lend sth. for s.o'	***ni**ind**ao* < ***ni-**inda-**ao*** 'UV.RLS-lend-APPL' 'to lend sth. for s.o'
Transitive base	**AV: *n-pe-/po--ao***	**UV: *ni--ao***
***ne**vuntu* < ***n-pe-**vuntu* 'AV.RLS-carry:PL-APPL' 'to carry:PL'	***ne**vuntu**ao* < ***n-pe-**vuntu-**ao*** 'AV.RLS-carry:PL-APPL' 'to carry sth. for s.o'	***nipe**vuntu**ao* <***ni-po-**vuntu-**ao*** 'UV.RLS-carry:PL-APPL' 'to carry sth. for s.o'
***no**gutu* < ***n-po-**gutu* 'AV.RLS-make-APPL' 'to make'	***no**gutu**ao* < ***n-po-**gutu-**ao*** 'AV.RLS-make-APPL' 'to make sth. for s.o'	***nipo**gutu**ao* < ***ni-po-**gutu-**ao*** 'UV.RLS-make-APPL' 'to make sth. for s.o'
***no**gabu* < ***n-po-**gabu* 'AV.RLS-cook-APPL' 'to cook'	***no**gabu**ao* < ***n-po-**gabu-**ao*** 'AV.RLS-cook-APPL' 'to cook sth. for s.o'	***nipo**gabu**ao* <***ni-po-**gabu-**ao*** 'UV.RLS-cook-APPL' 'to cook sth. for s.o'
Intransitive base	**AV: *ne-/no--ao***	**UV: *ni--ao***
***ne**nyaong* < ***ne-**nyaong* 'DY.RLS-meaw' 'to meow'	***ne**nyaong**ao* < ***ne-**nyaong-**ao*** 'AV.RLS-meaw-APPL' 'to meow at'	***ni**nyaong**ao* < ***ni-**nyaong-**ao*** 'UV.RLS-meaw-APPL' 'to meow at'
***ne**nyau* < ***ne-**nyau* 'DY.RLS-go.down' 'to go down'	***ne**nyau**ao* < ***ne-**nyau-**ao*** 'AV.RLS-go.down-APPL' 'to put sth. down'	***ni**nyau**ao* < ***ni-**nyau-**ao*** 'UV.RLS-go.down-APPL' 'to put sth. down'
***ne**unggus* < ***ne-**unggus* 'DY.RLS-growl' 'to growl'	***ne**unggus**ao* < ***ne-**unggus-**ao*** 'AV.RLS-growl-APPL' 'to growl at'	***ni**unggus**ao* < ***ni-**unggus-**ao*** 'UV.RLS-growl-APPL' 'to growl at'
***no**vivi* < ***no-**vivi* 'DY.RLS-yell' 'to yell'	***no**vivi**ao* < ***no-**vivi-**ao*** 'AV.RLS-yell-APPL' 'to yell at'	***ni**vivi**ao* < ***ni-**vivi-**ao*** 'UV.RLS-yell-APPL' 'to yell at'
Intransitive base	**AV: *noN--ao***	**UV: *ni--ao***
***ne**songgal* < ***ne-**songgal* 'DY.RLS-disembark' 'to disembark'	***non**yonggal**ao* < ***noN-**songgal-**ao*** 'AV.RLS-disembark-APPL' 'to disembark sth.'	***ni**songgal**ao* < ***ni-**songgal-**ao*** 'UV.RLS-disembark-APPL' 'to disembark sth.'
***ne**lolom* < ***ne-**lolom* 'DY.RLS-swim' 'to swim'	***no**lolom**ao* < ***noN-**lolom-**ao*** 'AV.RLS-swim-APPL' 'to swim sth.'	***ni**lolom**ao* < ***ni-**lolom-**ao*** 'UV.RLS-swim-APPL' 'to swim sth.'
***ne**giir* < ***ne-**giir* 'DY.RLS-move.a.side' 'to move aside'	***non**giir**ao* < ***noN-**giir-**ao*** 'AV.RLS-move.a.side-APPL' 'to move sth. aside'	***ni**giir**ao* < ***ni-**giir-**ao*** 'UV.RLS-move.a.side-APPL' 'to move sth. aside'
Stative base	**AV: *noN--ao***	**UV: *ni--ao***
***na**anjul* < ***nV-**anjul* 'ST.RLS-washed.away' 'to be washed away'	***nong**anjul**ao* < ***noN-**anjul-**ao*** 'AV.RLS-wash.away-APPL' 'to wash sth. away'	***ni**anjul**ao* < ***ni-**anjul-**ao*** 'UV.RLS-wash.away-APPL' 'to wash sth. away'
***na**navu* < ***nV-**navu* 'ST.RLS-fall' 'to be fallen down'	***non**avu**ao* < ***noN-**navu-**ao*** 'AV.RLS-fall.down-APPL' 'to make sth. fall down'	***ni**navu**ao* < ***ni-**navu-**ao*** 'UV.RLS-fall.down-APPL' 'to make sth. fall down'
***na**basag* < ***nV-**basag* 'ST.RLS-big' 'to be big'	***nom**basag**ao* < ***noN-**basag-**ao*** 'AV.RLS-big-APPL' 'to enlarge'	***ni**basag**ao* < ***ni-**basag-**ao*** 'UV.RLS-big-APPL' 'to enlarge'
na**pangkat* <nV-**pangkat* 'ST.RLS-high' 'to be tall/high'	***nom**angkat**ao* < ***noN-**pangkat-**ao*** 'AV.RLS-high-APPL'	***ni**pangkat**ao* < ***ni-**pangkat-**ao*** 'UV.RLS-high-APPL' 'to make sth. high'

	'to make sth. high'	
***na**lalong* < ***nV-**lalong* 'ST.RLS-deep' 'to be deep'	***no**lalong**ao*** < ***no-**lalong-**ao*** 'AV.RLS-deep-APPL' 'to make sth. deep'	***ni**lalong**ao*** < ***ni-**lalong-**ao*** 'UV.RLS-deep-APPL' 'to make sth. deep'
***no**guwar* < ***nV-**guwar* 'ST.RLS-topple' 'to be toppled'	***nong**guwar**ao*** < ***noN-**guwar-**ao*** 'AV.RLS-topple-APPL' 'to make sth. topple'	***ni**guwar**ao*** < ***ni-**guwar-**ao*** 'UV.RLS-topple-APPL' 'to make sth. topple'
Transitive base	**AV: *no-CAUS-SF--ao***	**UV: *ni-CAUS-SF--ao***
nope**ita* < ***no-pe-**ita 'AV.RLS.SF-see' 'to see'	***nopepe**itao* < ***no-pe-pe-**ita-**ao*** 'AV.RLS.CAUS-SF-see-APPL' 'to show'	***nipepe**itao* < ***ni-pe-pe-**ita-**ao*** 'UV.RLS.CAUS-SF-see-APPL' 'to show'
nope**eli* < ***no-pe-**eli 'AV.RLS-SF-remember' 'to remember'	***nopepe**eli**ao*** < ***no-pe-pe-**eli-**ao*** 'AV.RLS.CAUS-SF-remember-APPL' 'to remind'	***nipepe**eli**ao*** < ***ni-pe-pe-**eli-**ao*** 'UV.RLS.CAUS-SF-remember-APPL' 'to remind'

Table 6-12: Examples applicative type II

Example (21) shows a benefactive applicative construction derived from a transitive base. The bivalent verb *nogutu* 'to make' in (21)a has two core arguments: the subject *siama* 'father' and the object *telamari* 'cupboard'. It also has a non-core oblique argument, the prepositional phrase *mao tetuai'u* 'to my younger sibling'. The applicative derivation with *-ao* then promotes the non-core oblique argument *mao tetuai'u* to become a core argument filling the primary object function, as shown in (21)b.

(21) a. *siama* ***nogutu*** *telamari*
si=ama ***n-po-gutu*** *te=lamari*
HON=father **AV.RLS-SF-make** NM=cupboard
S V_{AV} O
A: Agent V_{AV} U: Theme

mao *tetuai'u*
mao *te=tuai='u*
to NM=younger.sibling=1SG.GEN
OBL
U: Beneficiary
'Father made a cupboard for my younger brother.'

b. *siama* ***nogutuao*** *tetuai'u*
si=ama ***n-po-gutu-ao*** *te=tuai='u*
HON=father **AV.RLS-SF-make-APPL** NM=younger.sibling=1SG.GEN
S V_{AV} OBJ_1
A: Agent V_{AV} U: Beneficiary

telamari
te=lamari
NM=cupboard
OBJ_2
U: Theme
'Father made a cupboard for my younger brother.'

Further, in applicative UV construction, only the primary object *tetuai'u* (i.e., the beneficiary) can function as the subject of the clause. Assigning the secondary object *telamari* (i.e., the theme) to subject function in the applicative UV constructions results in ungrammaticality, as seen in (21)d.

c. *tetuai'u* ***nipogutuao*** *niama*
te=tuai='u ***ni-po-gutu-ao*** *ni=ama*
NM=younger.sibling=1SG.GEN **UV.RLS-SF-make-APPL** GEN.HON=father
S V_{UV} OBJ_1
U: Beneficiary V_{UV} A: Agent

telamari
te=lamari
NM=cupboard
OBJ_2
U:Theme
'My younger brother was the one for whom father made a cupboard.'

d. **telamari* ***nipogutuao*** *niama (mao) tetuai'u*
For: 'A cupboard was made by my father for my younger brother.'

Depending on the valency of the predicate, an oblique may function as a core argument, i.e., an oblique-object, as can be seen in (22)a. It is an obligatory argument, and its omission makes the clause ungrammatical, as shown in example (22)b.

(22) a. *siama* ***nogutuao*** *telamari*
si=ama ***n-po-gutu-ao*** *te=lamari*
HON=father **AV.RLS-SF-make-APPL** NM=cupboard
S V_{AV} OBJ
A: Agent V_{AV} U: Theme

mao *tetuai'u*
mao *te=tuai='u*
for NM=younger.sibling=1SG.GEN
OBL-O
U: Beneficiary
'Father made a cupboard for my younger sibling.'

b. **siama* ***nogutuao*** *telamari*

In addition to altering the syntactic status of a beneficiary argument, the applicative suffix *-ao* can also change a non-core instrument argument into a core instrument argument. For example, in (23)a the transitive verb *norembas* 'to hit' has two core arguments: the subject *siia* '3SG' and the object *teasu* 'the dog'; and it also has an oblique argument, in a prepositional phrase *sono teayu* 'with a wooden stick'. In (23)b, the applicative suffix *-ao* changes the oblique instrument *sono teayu* into a core object argument *teayu* 'wood'. This change is followed by another change: The former object *teasu* now becomes an oblique-object, i.e., it becomes obligatory and thus cannot be deleted from the AV construction. Deleting this argument makes the clause ungrammatical, as shown by example (23)c.

(23) a. *siia* ***norembas*** *teasu* *sono* *teayu*
siia ***noN-rembas*** *te=asu* *sono* *te=ayu*
3SG **AV.RLS-hit** NM=dog with NM=wood
S V_{AV} O OBL
A: Agent V_{AV} U: Patient Instrument
'He hit a dog with a wooden stick.'

b. *siia* ***norembasao*** *teayu* *mao* *teasu*
siia ***noN-rembas-ao*** *te=ayu* *mao* *te=asu*
3SG **AV.RLS-hit-APPL** NM=wood to NM=dog
S V_{AV} OBJ OBL-O
A: Agent V_{AV} U: Instrument Patient
'He hit a dog with a wooden stick.'

c. **siia* ***norembasao*** *teayu*

In UV applicative constructions, it is the object *teayu*, not the oblique-object *mao teasu* which can function as the subject of the clause, as exemplified by (23)d below.

d. *teayu* ***nirembasaonya*** *mao* *teasu*
te=ayu ***ni-rembas=ao=nya*** *mao* *te=asu*
NM=wood **UV.RLS-hit=APPL=3SG.GEN** to NM=dog
'He hit the dog with a wooden stick.'

Compared to transitive bases, deriving applicative *-ao* formations from intransitive verbal bases is not very common. The predicate in example (24) is the transitive verb *nenyaongao* 'to meow at' which derives from the intransitive verbal base *nenyaong* 'to meow'. The newly derived applicative predicate needs two core arguments: a subject, *tepidi vevine ua* 'that female cat' and an object, *telangkainya* 'her male'. In this example, the semantic role of the newly introduced argument is a patient.

(24) a. *tepidi* *vevine* *ua* ***nenyaong***
te=pidi *vevine* *ua* ***ne-nyaong***
NM=cat female DIST **DY.RLS-meow**
'That female cat meowed.'

b. *tepidi vevine* *ua* ***nenyaongao*** *telangkainya*
te=pidi vevine *ua* ***ne-nyaong-ao*** *te=langkai=nya*
NM=cat female DIST **AV.RLS-meow-APPL** NM=male=3SG.GEN
S O
A: Agent U: Patient
'That female cat meowed at her male.'

In the applicative UV construction, the patient object *telangkainya* 'her male' functions as the subject of the clause, as shown in example (24)c.

c. *telangkainya* *ninyaongao* *nupidi vevine ua*
te=langkai=nya *ni-nyaong-ao* *nu=pidi vevine ua*
NM=male=3SG.GEN UV.RLS-meow-APPL GEN=cat female DIST
S O
U: Patient A: Agent
'The male (cat) was meowed at by that female cat.'
(lit: 'Her male was meowed at by that female cat.')

The following examples show applicative constructions are derived from stative roots. The derived applicative verb formation requires two core arguments, a subject and an object. In applicative UV constructions, the object becomes the subject of the clause.

(25) a. *teulingka* ***naanjul***
te=ulingka ***nV-anjul***
NM=coconut **ST.RLS-washed.away**
'The coconut is washed away.'

b. *tealovaa* ***nonganjulao*** *teulingka*
te=alovaa ***noN-anjul-ao*** *te=ulingka*
NM=flood **AV.RLS-wash.away-APPL** NM=coconut
'The flood washed away the coconut.'

c. *teulingka* ***nianjulao*** *nualovaa*
te=ulingka ***ni-anjul-ao*** *nu=alovaa*
NOM-coconut **UV.RLS-wash.away-APPL** GEN=flood
'The coconut was washed away by the flood.'

(26) a. *tekaca* ***nanavu***
te=kaca ***nV-navu***
NM=glass **ST.RLS-fall**
'The glass fell.'

b. *siina* ***nonavuao*** *tekaca*
si=ina ***noN-navu-ao*** *te=kaca*
HON=mother **AV.RLS-fall-APPL** NM=kaca
'Mother let the glass fall.'

c. *tekaca* ***ninavuao*** *niina*
te=kaca ***ni-navu-ao*** *ni=ina*
NM=glass **UV.RLS-fall-APPL** GEN.HON=mother
'The glass was dropped by mother.'

6.4.1.2 Causatives

There are two types of causative markers in Tajio: the prefix *PO-* and *pei-*. The former has two realizations: the vowel-harmonic causative marker *pV-* and the non-harmonic causative markers *pe-/po-*. The non-harmonic realizations have the same forms as the stem-forming prefixes *pe-/po-*. In order to distinguish the causative markers *pe-/po-* from the stem-forming prefixes *pe-/po-*, the causative marker is glossed as *PO-*. The vowel-harmonic *pV-* itself has another three realizations: *pa-*, *pe-* and *po-* depending on the first vowel of the base (the details on vowel-harmonic changes are discussed in Section 2.8.6). In contrast to *PO-*, *pei-* does not have any allomorphs. The complete paradigms of causative formations are listed in Table 6-13.

Type of causative	**In AV constructions**		**In UV construction**	
	Realis	**Non-realis**	**Realis**	**Non-realis**
Basic causative	*no-PO-*	*mo-PO-*	*ni-PO-*	*nu-PO-*
	n-PO-	*m-PO-*	*ni-PO-(-i)*	*ni-PO-(-i)*
	no-PO-SF-	*mo-PO*-SF-	*ni-PO*-SF-	*nu-PO*-SF-
Requestive causative	*no-pei-*	*mo-pei-*	*ni-pei-*	*nu-pei-*

Table 6-13: Causative paradigms in Tajio

Syntactically, causative markers increase the valency of a predicate: from intransitive to transitive verbs or bivalent transitive into trivalent transitive verbs. Semantically, causative constructions are divided into two types: basic causative and requestive causative. A causative construction is called basic if it conveys a 'basic' causative meaning, i.e., 'to make something/someone into what stated by the root'. A requestive causative, derives the meaning 'to request someone to bring about the state of affairs denoted by the root'.

6.4.1.2.1 Basic causatives

The causative prefix *PO-* can attach to stative and intransitive verbal bases. There are cases in which roots need a stem-forming prefix before taking the causative marker. Stative roots take the vowel-harmonic causative marker *pV-*; intransitive verbal bases occur with the non-harmonic causative marker *pe-/po-*. Which of these two forms (*pe-* or *po-*) a base may take is lexically determined (see also Section 3.3.2.2).

The realis/non-realis AV prefixes which precede the causative marker are *no-/mo-* and *n-/m-*, forming *no-/mo-PO-* and *n-/m-PO-* or *no-/mo-PO-SF-* for roots which need a stem-forming prefix. Note that the form *n-/m-PO-SF-* does not exist. Their realis/non-realis UV counterparts are *ni-/nu-PO-* and *ni-/nu-PO-SF-* respectively. For bases occurring with the AV causative marker *n-/m-PO-*, the UV marker is either of *ni--i* or *ni-PO--i*. The prefix forms *no-/mo-* are the allomorphs of the AV markers *noN-/moN-* when preceding the causative marker. The AV applicative marker *no-PO-* may attach to stative and intransitive bases; the marker *n-PO-* attaches to intransitive bases only; the marker *no-PO-SF-* can occur with stative and intransitive bases. Semantically, causative verbs derived from bases with stem former have a more complex meaning than those derived from bases without stem-former. With a stem former, causative verbs convey the meaning 'to cause someone/something to be like (X) or 'to cause someone/something to do (X)', where (X) is the denotation of the root. Table 6-14 provides examples.

Types of bases	**Basic causative in AV and UV**	
Stative base	**AV: *no-PO-***	**UV: *ni-PO-***
ne*lenda* < ***nV-****lenda* 'ST.RLS-long' 'to be long'	***nope****lenda* < ***no-pV-****lenda* 'AV.RLS-CAUS-long' 'to elongate'	***nipe****lenda* < ***ni-pV-****lenda* 'UV.RLS-CAUS-long' 'to elongate'
no*ronde* < ***nV-****ronde* 'ST.RLS-cry' 'to cry'	***nopo****ronde* < ***no-pV-****ronde* 'AV.RLS-CAUS-cry'	***nipo****ronde* < ***ni-pV-****ronde* 'UV.RLS-CAUS-cry'

	'to make cry'	'to make cry'
no*ogal* < ***nV-****ogal* 'ST.RLS-dry' 'to be dry'	***nopo****ogal* < ***no-pV-****ogal* 'AV.RLS-CAUS-dry' 'to make dry'	***nipo****ogal* < ***ni-pV-****ogal* 'UV.RLS-CAUS-dry' 'to make dry'
no*puduk* < ***nV-****puduk* 'ST.RLS-short' 'to be short'	***nopo****puduk* < ***no-pV-****puduk* 'AV.RLS-CAUS-short' 'to shorten'	***nipo****puduk* < ***ni-pV-****puduk* 'UV.RLS-CAUS-short' 'to shorten'
ne*rempu* < ***nV-****rempu* 'ST.RLS-dirty' 'to be dirty'	***nope****rempu* < ***no-pV-****rempu* 'AV.RLS-CAUS-dirty' 'to make dirty'	***nipe****rempu* < ***ni-pV-****rempu* 'UV.RLS-CAUS-dirty' 'to make dirty'
na*ayag* < ***nV-****ayag* 'ST.RLS-bright' 'to be bright'	***nopa****ayag* < ***no-pV-****ayag* 'AV.RLS-CAUS-bright' 'to brighten'	***nipa****ayag* < ***ni-pV-****ayag* 'UV.RLS-CAUS-bright' 'to brighten'
no*poso* < ***nV-****poso* 'ST.RLS-broken' 'to be broken'	***nopo****poso* < ***no-pV-****poso* 'AV.RLS-CAUS-broken' 'to break'	***nipo****poso* < ***ni-pV-****poso* 'UV.RLS-CAUS-broken' 'cause sth. to break'
Intransitive base	**AV: *n-PO-***	**UV: *n-PO-(-i)***
no*paruja* < ***no-****paruja* 'DY.RLS-farm' 'to work in the rice paddy'	***ne****paruja* < ***n-pe-****paruja* 'AV.RLS-CAUS-rice.paddy' 'to turn sth. into a rice paddy'	***nipe****paruja*< ***ni-pe-****paruja* 'UV.RLS-CAUS-rice.paddy' 'to turn sth. into a rice paddy'
no*elong* < ***no-****elong* 'DY.RLS-sing' 'to sing'	***ne****elong* < ***n-pe-****elong* 'AV.RLS-CAUS-song' 'to turn sth. into a song'	***nipe****elong* < ***ni-pe-****elong* 'UV.RLS-CAUS-song' 'to turn sth. into a song'
no*avu* < ***no-****avu* 'DY.RLS-cook' 'to cook'	***ne****avu* < ***n-pe-****avu* 'AV.RLS-CAUS-kitchen' 'to turn sth. into a kitchen'	***nipe****avu****i*** < ***ni-pe-****avu-****i*** 'UV.RLS-CAUS-kitchen-UV' 'to turn sth. into a kitchen'
no*asing* < ***no-****asing* 'DY.RLS-play spinning top' 'to play with a spinning top'	***ne****asing* < ***n-pe-****asing* 'AV.RLS-CAUS-spinning.top' 'to turn sth. into a spin top'	***nipe****asing* < ***ni-pe-****asing* 'UV.RLS-CAUS-spinning.top' 'to turn sth. into a spin top'
no*joong* < ***no-****joong* 'DY.RLS-field' 'to do the field'	***ne****joong* < ***n-pe-****joong* 'AV.RLS-CAUS-field' 'turn sth. into a field'	***nipe****joong* < ***ni-pe-****joong* 'UV.RLS-CAUS-field' 'turn sth. into a field'
no*salo* < ***no-****salo* 'DY.RLS-floor' 'to work on the floor'	***ne****salo* < ***n-pe-****salo* 'AV.RLS-CAUS-floor' 'turn sth. into a floor'	***nipe****salo****i*** < ***ni-pe-****salo-****i*** 'UV.RLS-CAUS-floor-UV' 'turn sth. into a floor'
no*langit* < ***no-****langit* 'DY.RLS-ceiling' 'to work on the ceiling'	***ne****langit* < ***n-pe-****langit* 'AV.RLS-CAUS-ceiling' 'turn sth. into a ceiling'	***nipo****langit****i*** < ***ni-po-****langit-****i*** 'UV.RLS-CAUS-ceiling-UV' 'turn sth. into a ceiling'
no*vombong* < ***no-****vombong* 'DY.RLS-wall' 'to work on the wall'	***ne****vombong* < ***n-pe-****vombong* 'AV.RLS-CAUS-wall' 'turn sth. into a wall'	***nipe****vombong****i***<***ni-pe-****vombong-****i*** 'UV.RLS-CAUS-wall-UV' 'turn sth. into a wall'
Stative base	**AV: *no-PO-SF***	**UV: *ni-PO-SF***
ne*sili* < ***nV-****sili* 'ST.RLS-ashamed' 'to be ashamed'	***nopepe****sili* < ***no-pV-pe-****sili* 'AV.RLS-CAUS-SF-ashamed' 'to make s.o. ashamed'	***nipepe****sili* < ***ni-pV-pe-****sili* 'UV.RLS-CAUS-SF-ashamed' 'to make s.o. ashamed'
ne*lino* < ***nV-****lino* 'ST.RLS-clear' 'to be clear'	***nopepe****lino* < ***no-pV-pe-****lino* 'AV.RLS-CAUS-SF-clear' 'to make sth. clear'	***nipepe****lino* < ***ni-pV-pe-****lino* 'UV.RLS-CAUS-SF-clear' 'to make sth. clear'
no*turu* < ***nV-****turu* 'ST.RLS-sleep' 'to be asleep'	***nopopo****turu* < ***no-pV-po-****turu* 'AV.RLS-CAUS-SF-sleep' 'to make s.o. sleep'	***nipopo****turu* < ***ni-pV-po-****turu* 'UV.RLS-CAUS-SF-sleep' 'to make s.o. sleep'
no*ronde* < ***nV-****ronde* 'ST.RLS-cry'	***nopopo****ronde* < ***no-pV-po-****ronde* 'AV.RLS-CAUS-SF-cry'	***nipopo****ronde* < ***ni-pV-po-****ronde* 'UV.RLS-CAUS-SF-cry'

‘to cry’	‘to make s.o. cry’	‘to make s.o. cry’
Intransitive base	**AV: *no-PO-SF***	**AV: *ni-PO-SF***
ne*lampa* < ***ne-****lampa* ‘DY.RLS-walk’ ‘to walk’	***nopepe****lampa* < ***no-pe-pe-****lampa* ‘AV.RLS-CAUS-SF-walk’ ‘to make s.o./sth. walk’	***nipepe****lampa* < ***ni-pe-pe-****lampa* ‘UV.RLS-CAUS-SF-walk’ ‘to make s.o./sth. walk’
ne*linjok* < ***ne-****linjok* ‘DY.RLS-run’ ‘to run’	***nope****linjok* < ***no-pe-pe-****linjok* ‘AV.RLS-CAUS-SF-run’ ‘to make s.o./sth. run’	***nipepe****linjok* < ***ni-pe-pe-****linjok* ‘UV.RLS-CAUS-SF-run’ ‘to make s.o./sth. run’
ne*leyak* < ***ne*** *leyak* ‘DY.RLS-fly’ ‘to fly’	***nopepe****leyak* < ***no-pe-pe-****leyak* ‘AV.RLS-CAUS-SF-fly’ ‘to make s.o./sth. fly’	***nipepe****leyak* < ***ni-pe-pe-****leyak* ‘UV.RLS-CAUS-SF-fly’ ‘to make s.o./sth. fly’
no*lapi* < ***no-****lapi* ‘DY.RLS-marry’ ‘to marry’	***nopopo****lapi* < ***no-po-po-****lapi* ‘AV.RLS-CAUS-SF-spouse’ ‘to make s.o. a spouse’	***nipopo****lapi* < ***ni-po-po-****lapi* ‘UV.RLS-CAUS-SF-spouse’ ‘to make s.o. a spouse’

Table 6-14: Examples of causative verb formations

From Table 6-14 it can be seen that AV causative verbs marked by *n-PO-* show a certain regularity: the AV causative verb is always marked by *ne-* (i.e., *n-pe-*), while the corresponding intransitive base is always marked by *no-*. However, this pattern does not hold for the *no-PO-SF-* formation. In this formation the respective intransitive bases may take the dynamic marker *ne-* or *no*, and the causative marker may be *pe-* or *po-*. The form of the causative prefix cannot be predicted as it is lexically determined by the root.

It was mentioned that the prefix *noN-* changes to *no-* when preceding the causative marker. However, in very few cases the prefix *noN-* still maintains its AV form *noN-*. This holds for the following verbs: ***nompe****layag* < ***noN-pe-****layag* ‘AV.RLS-CAUS-sail’ ‘to turn sth. into a sail’; ***nompe****valung* < ***noN-pe-****valung* ‘AV.RLS-CAUS-food.to.carry’ ‘to make sth. as food to carry’; ***nompe****anganak* < ***noN-pe-****anganak* ‘AV.RLS-CAUS-child’ ‘to adopt’ (lit. ‘make s.o. a child’). An example of a more complex form is ***nompong****utang* < ***noN-poN-****utang* ‘AV.RLS-CAUS-vegetable’ ‘to turn/cook sth. as vegetable/side dishes’. In this case, we find a further form, *poN-*. However, this form is not attested elsewhere in Tajio and the corresponding UV formations do not use this form of the causative prefix, either. The UV verbs of the examples just given are: ***nipe****layag*, ***nipe****valung*, ***nipe****anganak* and ***nipe****utang*. Since there is only one example in the database, it seems safe to say that the causative marker *PO-* becoming *poN-* in *nompongutang* is lexically conditioned suppletion. The dynamic intransitive forms of those verbs are ***no****layag* ‘to sail’, ***ne****valung* ‘to carry food’, ***no****anganak* ‘to give birth’ and ***ne****utang* ‘to cook vegetables’. Further, *nevalung* and *neutang* can also be used transitively, see Section 6.3.2.2.

The following clauses, (27)--(30), illustrate the valence-increasing process in causative derivations. Clauses in (a) are intransitive clauses, with stative or intransitive verbal predicates; they only have one core argument (the subject position). The causative marker increases the valence of the predicates, as illustrated in the examples in (b)s. These AV causative constructions require two core arguments, a subject and an object. In the (c) examples the former object arguments change into subjects of the UV causative constructions.

(27) a. *tevonuanya* ***nabasag***
te=vonua=nya ***nV-basag***
NM=house=3SG.GEN **ST.RLS-big**
‘His/Her house is big.’

b. *siia* ***nopabasag*** *tevonuanya*
siia ***no-pV-basag*** *te=vonua=nya*
3SG **AV.RLS-CAUS-big** NM=house=3SG.GEN
‘He made his house bigger.’

c. *tevonuanya* ***nipabasagnya***
te=vonua=nya ***ni-pV-basag=nya***
NM=house=3SG.GEN **UV.RLS-CAUS-big=3SG.GEN**
‘He made his house bigger.’

(28) a. *sia'u* ***nolangit***
sia'u ***no-langit***
1SG **DY.RLS-ceiling**
'I worked on the ceiling.'

b. *sia'u* ***nelangit*** *tedopi*
sia'u ***n-pe-langit*** *te=dopi*
1SG **AV.RLS-CAUS-ceiling** NM=plank
'I turned a plank into a ceiling.'

c. *tedopi* ***nipolangiti'u***
te=dopi ***ni-po-langit-i='u***
NM=plank **UV.RLS-CAUS-ceiling-UV=1SG.GEN**
'I turned a plank into a ceiling.'

(29) a. *siia* ***nesili***
siia ***nV-sili***
3SG ST.RLS-ashamed
'She/He is ashamed.'

b. *sia'u* ***nopepesili*** *siia*
sia'u ***no-pe-pe-sili*** *siia*
1SG **AV.RLS-CAUS-ashamed** 3SG
'I made him ashamed.'

c. *siia* ***nipepesili'u***
siia ***ni-pe-pe-sili='u***
3SG **UV.RLS-CAUS.SF.SF-ashamed=1SG.GEN**
'I made him ashamed.'

(30) a. *sianugrah* ***nelampa***
si=anugrah ***ne-lampa***
NM=PN **DY.RLS-walk**
'Anugrah walked.'

b. *siina* ***nopepelampa*** *sianugrah*
si=ina ***no-pe-pe-lampa*** *si=Anugrah*
HON=mother **AV.RLS-CAUS.SF-SF-walk** HON=PN
'Mother made Anugrah walk.'

c. *sianugrah* ***nipepelampa*** *niina*
si=Anugrah ***ni-pe-pe-lampa*** *ni=ina*
HON=PN **UV.RLS-CAUS.SF-SF-walk** GEN.HON=mother
'Anugrah was made to walk by mother.'

6.4.1.2.2 Requestive causatives

The realis/non-realis AV markers that precede the requestive-causative marker *pei-* are the prefixes *no-/mo-*, forming *no-/mo-pei-*[21]. Their UV counterparts are *ni-pei-* and *nu-pei-* in realis and non-realis form, respectively. Requestive-causative verbs can only be derived from transitive bases. Table 6-15 provides examples.

Types of bases	**Requestive causative in AV and UV**	
Transitive base	**AV: *no-pei-***	**UV: *ni-pei-***
***nony**ulok* < ***noN-**sulok* 'AV.RLS-burn' 'to burn'	***nopei**sulok* < ***no-pei-**sulok* 'AV.RLS-REQ.CAUS-burn' 'to ask s.o. to burn sth.'	***nipei**sulok* < ***ni-pei-**sulok* 'UV.RLS-REQ.CAUS-burn' 'to ask s.o to burn sth.'
***no**barengkong* < ***no-**barengkok*	***nopei**barengkong* < ***no-pei-**barengkong*	***nipei**barengkong* < ***ni-pei-**barengkong*

[21] Quick (2007:285) found the same construction with the prefix *pe'i-* in Pendau.

'AV.RLS-throw' 'to throw'	'AV.RLS-REQ.CAUS-throw' 'to ask s.o. to throw sth.'	'UV.RLS-REQ.CAUS-throw' 'to ask s.o. to throw sth.'
no*livur* < ***noN****-livur* 'AV.RLS-pursue' 'to pursue'	***nopei****livur* < ***no-pei****-livur* 'AV.RLS-REQ.CAUS-pursue' 'to ask s.o. to pursue sth.'	***nipei****livur* < ***ni-pei****-livur* 'UV.RLS-REQ.CAUS-pursue' 'to ask s.o. to pursue sth.'
nony*okok* < ***noN-s****okok* 'DY.RLS-catch' 'to catch'	***nopei****sokok* < ***no-pei****-sokok* 'AV.RLS-REQ.CAUS-catch' 'to ask s.o. to catch sth.'	***nipei****sokok* < ***ni-pei****-sokok* 'UV.RLS-REQ.CAUS-catch' 'to ask s.o. to catch sth.'
non*uda* < ***noN****-tuda* 'AV.RLS-plant' 'to plant'	***nopei****tuda* < ***no-pei****-tuda* 'AV.RLS-REQ.CAUS-plant' 'to ask s.o. to plant sth.'	***nipei****tuda* < ***ni-pei****-tuda* 'UV.RLS-REQ.CAUS-plant' 'to ask s.o. to plant sth.'
nony*angki* < ***noN****-sangki* 'AV.RLS-sickle' 'to sickle'	***nopei****sangki* <***no-pei****-sangki* 'AV.RLS-REQ.CAUS-sickle' 'to ask s.o. to sickle sth.'	***nipei****sangki* < ***ni-pei****-sangki* 'UV.RLS-REQ.CAUS-sickle' 'to ask s.o. to sickle sth.'
nom*angki* < ***noN****-pangki* 'AV.RLS-hoe' 'to hoe'	***nopei****pangki* <***no-pei****-pangki* 'AV.RLS-REQ.CAUS-hoe' 'to ask s.o. to hoe sth.'	***nipei****pangki* < ***ni-pei****-pangki* 'UV.RLS-REQ.CAUS-hoe' 'to ask s.o. to hoe sth.'
nom*ajeko* < ***noN****-pajeko* 'AV.RLS-plough' 'to plough'	***nopei****pajeko* <***no-pei****-pajeko* 'AV.RLS-REQ.CAUS-plough' 'to ask s.o. to plough sth.'	***nipei****pajeko* < ***ni-pei****-pajeko* 'UV.RLS-REQ.CAUS-plough' 'to ask s.o. to plough sth.'

Table 6-15: Examples of requestive causative verb formations

The requestive-causative construction is a double-object construction. It requires an $agent_{cause}$, an undergoer and an $agent_{effect}$, as can be seen in example (31). The undergoer becomes the primary object and $agent_{effect}$ is the secondary object. The secondary object, however, is not obligatory in this construction, as can be seen by the grammaticality of example (32). Although the $agent_{effect}$ is not overtly mentioned in the clause, it is understood that the meaning of the clause is 'an $agent_{cause}$ asks someone to conduct the action stated by the predicate'.

In the UV construction, the former primary object (the undergoer) of the AV construction becomes the subject, as shown in examples (31)b and (32)b. The secondary object cannot function as a subject in UV requestive-causative constructions as seen in example (31)c.

(31) a. *sia'u* ***nopeisulok*** *tejoong* *siwafik*
sia'u ***no-pei-sulok*** *te=joong* *si=Wafik*
1SG **AV.RLS-REQ.CAUS-burn** NM=field HON=Wafik
S OBJ_1 OBJ_2
'I asked Wafik to burn the field.'

b. *tejoong* ***nipeisuloku*** *siwafik*
te=joong ***ni-pei-sulok=u*** *si=Wafik*
NM=field **UV.RLS-REQ.CAUS-burn=1SG.GEN** HON=Wafik
'I asked Wafik to burn the field.'

c. **siwafik* ***nipeisuloku*** *tejoong*
For: 'I asked Wafik to burn the field.'

(32) a. *sia'u* ***nopeisulok*** *tejoong*
sia'u ***no-pei-sulok*** *te=joong*
1SG **AV.RLS-REQ.CAUS-burn** NM=field
'I asked (someone) to burn the field.'

b. *tejoong* ***nipeisuloku***
te=joong ***ni-pei-sulok=u***
NM=field **UV.RLS-REQ.CAUS-burn=1SG.GEN**
'I asked (someone) to burn the field.'

6.4.2 Valency-decrease

In Tajio, derivational processes which decrease the valency of a predicate are reciprocals, resultatives and reduplications. All processes reduce the valency of transitive verbs by one place, deriving an intransitive from a transitive verb. The following three sections will discuss these three constructions in turn.

6.4.2.1 Reciprocals

Following the terminology used by Quick (2007:312), there are two types of reciprocals in Tajio: mutual action and alternating reciprocals. Quick writes for Pendau that "both reciprocals imply that two or more participants conduct the same activity. The difference is that in mutual action the activity is usually either an exchange between participants or an action directed from one participant to another; in alternating reciprocals the exchange takes place in an alternating sequence, that is, first one then the other." The same can be observed to hold in Tajio.

There are two reciprocal affixes in Tajio: the prefix *nosi-/mosi-* 'RCP.RLS/NRLS' and the suffix *-ong*. The reciprocal prefix *nosi-* usually indicates mutual action, while the reciprocal suffix *-ong* often indicates alternating reciprocals (but see below for exceptions). Although many roots can take both types of reciprocal affixation, the prefix *nosi-* tends to attach to transitive bases while the suffix *-ong* tends to attach to intransitive bases.

Example (33) illustrates a mutual reciprocal with the non-realis prefix *mosi-*; example (34) is an alternating reciprocal.

(33) *nyaa* ***mosiuri'***
nyaa ***mosi-uri'***
IMP.NEG **RCP.NRLS-massage**
'Don't massage each other!'

(34) *sisia* ***kikindeong***
sisia ***ki-kinde-ong***
3PL **CV.RDP~nod-RCP**
'They nod to each other.'

In reciprocal constructions with the suffix *-ong*, the roots are reduplicated and sometimes prefixed with *ne-/no-*. There is no readily discernible semantic difference between reciprocals with the prefix *ne-/no-* and those without the prefix *ne-/no-*. Prefixes *ne-/no-* in reciprocal constructions are glossed as 'DY.RLS' because syntactically the predicates in reciprocal constructions are monovalent.

Table 6-16 provides examples of alternating reciprocals and mutual actions derived from intransitive and transitive bases.

Types of bases	**Types of reciprocals**
Intransitive base	**Alternating reciprocal**
kinde 'to nod'	***ki-kinde-ong*** 'to nod at each other'
ngkirat 'to raise eyebrows'	***ki-ngkirat-ong***; ***kira-ngkirat-ong*** 'to raise eyebrows at each other'
mbeling 'to shake head'	***be-mbelin-ong***; ***beli-mbelin-ong***[22] 'to shake heads at each other'
sandeg 'to lean'	***sa-sandeg-ong*** 'to lean toward each other'
gapit 'to adhere/stick'	***ga-gapit-ong*** 'to stick to each other'
Intransitive base	**Mutual action**
gapit 'to adhere/stick'	***nosi-gapit*** 'to stick to each other'
sandeg 'to lean'	***nosi-sandeg*** 'to lean toward each other'
Transitive base	**Alternating reciprocal**
livur 'to chase'	***li-livur-ong*** 'to chase each other'

[22] The roots *mbeling* 'shake head', *gayang* 'stab' and *barengkong* 'throw' undergo nasal fronting because these roots end on a velar nasal /ŋ/ and they precede a CVN suffix which also ends on a velar nasal (see Section 2.8.2).

tapak 'to hit'	***ta**-tapak-**ong*** 'to hit each other'
gayang 'to stab'	***ga**-gayan-**ong*** 'to stab each other'
simbat 'to reply'	***si**-simbat-**ong*** 'to reply to each other'
pate 'to kill'	***pa**-pate-**ong*** 'to kill each other'
sempa' 'to kick'	***no-se**-sempa'-**ong*** 'to kick each other'
sundur 'to touch'	***no-su**-sundur-**ong*** 'to touch each other'
gonggol 'to hug'	***ne-go**-gonggol-**ong*** 'to hug each other'
barengkong 'to throw'	***no-ba**-barengkon-**ong*** 'to throw (sth.) at each other'
tuut 'to follow'	***ne-tu**-tuut-**ong*** 'to follow each other'
suju' 'to shake hands'	***ne-su**-suju'-**ong*** 'to shake each other hands'
seelu 'to like/love'	***no-se**-selu-**ong*** 'to love/like each other'
Transitive base	**Mutual actions**
ro'o 'to grin'	***nosi**-ro'o* 'to grin at each other'
sokok 'to catch'	***nosi**-sokok* 'to catch each other'
sundur 'to touch'	***nosi**-sundur* 'to touch each other'
saup 'to rub'	***nosi**-saup*; ***nosi-sa**-saup* 'to rub each other'
sembe' 'to fight (used of roosters)'	***nosi**-simbe'* 'to fight each other (used of roosters)'
vovot 'to fight'	***nosi**-vovot* 'to fight each other'
uri' 'to massage'	***nosi**-uri'* 'to massage each other'
gonggol 'to hug'	***nosi**-gonggol* 'to hug each other'
tandas 'to accuse'	***nosi**-tandas* 'to accuse each other'
rayo 'to threaten'	***nosi**-rayo* 'to threaten each other'

Table 6-16: Examples of alternating reciprocals and mutual actions

Both types of reciprocals have to occur with plural participants. The plurality of the participant can be expressed by using plural pronouns (as in (34) above) or two noun phrases linked by the comitative conjunction *sono* 'with', as in example (35).

(35) ***tepidi*** ***sono*** ***teasu*** *nosiro'o*
te=pidi ***sono*** ***te=asu*** *nosi-ro'o*
NM=cat **with** **NM=dog** RCP.RLS-grin
'The cat and the dog grinned at each other.'

A nominal expression that is not overtly marked as plural will be automatically interpreted as such when it occurs as the subject of a reciprocal construction; see the examples in (36).

(36) a. *teloka* *eua* ***gagapitong***
te=loka *eua* ***ga-gapit-ong***
NM=banana DIST **RDP-twin-RCP**
'The bananas adhered/stuck to each other.'

b. *teloka* *eua* ***nosigapit***
te=loka *eua* ***nosi-gapit***
NM=banana DIST **RLS.RCP-twin**
'The bananas adhered/stuck to each other.'

The examples in (36) also show that the semantic distinction between an alternating reciprocal with the suffix *-ong* and a mutual reciprocal with the prefix *nosi-* is not always clear, i.e., it is not always easy to determine whether the meaning expresses an exchange between participants or an alternating sequence of actions.

The valency decrease in reciprocal constructions is illustrated by example (37). Example (37)a shows that the transitive AV predicate *nonyempa'* 'to kick' takes two arguments: the actor subject *si Wafik* and the undergoer object *si Ulin*. In example (37)b the reciprocal prefix *nosi-* decreases the valency of the predicate from transitive to intransitive. With the reciprocal verb *nosisempa'* 'to kick each other', the subject and the object of the transitive verb are combined to form the plural subject *si Wafik sono si Ulin* 'Wafik and Ulin'.

(37) a. ***siwafik*** *nonyempa'* ***siulin***
si=Wafik *noN-sempa'* ***si=Ulin***
HON=PN AV.RLS-kick **HON=PN**
'Wafik kicked Ulin.'

b. ***siwafik*** ***sono*** ***siulin*** *nosisempa'*
si=Wafik ***sono*** ***si=Ulin*** *nosi-sempa'*
HON=PN **with** **HON=PN** RCP.RLS-kick
'Wafik and Ulin kicked each other.'

6.4.2.2 Resultatives and involuntary actions

Resultative constructions are marked by the prefix *nete-*, which is often shortened to *te-*. Semantically, the resultative construction in Tajio can be classified as a type of UV construction because the subject of a resultative is always an undergoer. In contrast to reciprocal constructions, which can occur in realis and non-realis mood, the resultative construction is only found in the realis mood. Data with the predicted non-realis form **mete* are not attested.

Resultatives can be contrasted with statives, the former being derived from transitive verbs, the latter being derived from stative roots. Statives indicate the state or the quality of a noun, as illustrated by example (38). Statives do not imply actions or actors that bring about the state.

(38) *teasu* *eua* ***nabasag***
te=asu *eua* ***nV-basag***
NM=dog DIST **ST.RLS-big**
'That dog is big.'

Resultatives, however, denote states of affairs which result from an action. Example (39)b illustrates a resultative construction which is derived from the transitive verb *nonyangki* 'to plough' in (39)a. The resultative predicate *netesangki* denotes the state of the field after it has been ploughed. This type of state cannot be expressed with a stative construction, as shown by the ungrammaticality of example (39)c.

(39) a. *siama* ***nonyangki*** *tejoong*
si=ama ***noN-sangki*** *te=joong*
HON=father **AV.RLS-plough** NM=field
'Father ploughed the field.'

b. *tejoong* ***netesangki***
te=joong ***nete-sangki***
NM=field **RLS.RES-plough**
'The field has been ploughed.'

c. **tejoong* ***nasangki***
te=joong ***nV-sangki***
NM=field **ST.RLS-plough**
For: 'The field has been ploughed.'

Another example of a resultative construction is presented in (40). Example (40)a shows that the transitive AV predicate *nombaluk* 'to sell' takes two arguments: the actor subject *siia* '3SG' and the undergoer object *temotornya* 'his motorbike'. With the resultative predicate *netebaluk* 'be sold', the theme object of the transitive verb becomes the theme subject of the resultative construction. Pragmatically, the resultative form *netebaluk* 'be sold' can only be used after the action of *nombaluk* 'to sell' took place. In this case, a theoretically possible stative form **nabaluk* 'be in a sold state' does not exist in Tajio.

(40) a. *siia* ***nombaluk*** *temotornya*
siia ***noN-baluk*** *te=motor=nya*
3SG **AV.RLS-sell** NM=motorbike=3SG.GEN
'He sold his motorbike.'

b. *temotornya* ***netebaluk*** *sono* *teoli*
te=motor=nya ***nete-baluk*** *sono* *te=oli*
NM=motorbike=3SG.GEN **RLS-RES-sell** with NM=price

lima *juta*
lima *juta*
five million
'His motorbike has been sold for five million.'

In addition to being used in resultative constructions, the prefix *nete-* is also used to express involuntary actions, as illustrated by examples (41)−(43). In these examples, the states of 'being clamped', 'being brought' or 'to being drunk' have occurred without having been intended by the actor (who is not mentioned in this construction). Like resultative constructions, involuntary predicates are also intransitive and only take an undergoer subject.

(41) *telimanya* ***netegipis*** *i* *bamba*
te=lima=nya ***nete-gipis*** *i* *bamba*
NM=hand=3SG.GEN **RLS.RES-clamp** LOC door
'His hand was clamped in the door involuntarily.'

(42) *tekanikir* *niwafik* ***netevava***
te=kanikir *ni=Wafik* ***nete-vava***
NM=marble GEN.HON=PN **RLS.RES-bring**
'Wafik's marbles were brought unintendedly (by someone).'

(43) *terasun* ***neteinung***
te=rasun ***nete-inung***
NM=poison **RLS.RES-drink**
'The poison was drunk involuntarily (by someone).'

6.4.2.3 Reduplication

Compared to the two other valency-decreasing processes, reduplication is not very productive. Examples are rare in the corpus− two are listed in examples (44) and (45) below. Reduplication changes transitive verbs into intransitive verbs, but it cannot be applied to all transitive verbs. In (44)a and (45)a, the predicates need two core arguments, a subject and an object. The reduplicated verbs in the clauses in (b), however, only need one core argument, which functions as subject.

(44) a. *siia* ***nombaluk*** *tebau*
siia ***noN-baluk*** *te=bau*
3SG **AV.RLS-sell** NM=fish
'She/He sold fish.'

b. *siia* ***nombalu-baluk***
siia ***noN-balu-baluk***
3SG **AV.RLS-Bi-RDP~sell**
'She/He went around to sell (products).'

(45) a. *topejoong* ***nongabut*** *tepangale*
tope-joong ***noN-abut*** *te=pangale*
AG.NOM-field **AV.RLS-clear.grass** NM=jungle
'The farmer cleared (the grass) in the jungle.'

b. *topejoong* ***nongabu-abut***
tope-joong ***noN-abu-abut***
AG.NOM-field **AV.RLS-Bi-RDP~clear.grass**
'The farmer went around to clear the grass.'

Compare examples (46) and (47) in which the predicates are also reduplicated. However, unlike in the examples above, the reduplication process in these instances does not change the transitivity of the predicate. Both predicates in clauses (a) and (b) require two arguments: a subject and an object.

(46) a. *siina* ***nonjano*** *tebau*
si=ina ***noN-jano*** *te=bau*
HON=mother **AV.RLS-fry** NM=fish
'Mother fried fish.'

b. *siina* ***nonjano-jano*** *tebau*
si=ina ***noN-jano-jano*** *te=bau*
HON=mother **AV.RLS-Bi-RDP~fry** NM=fish
'Mother repeatedly fried (fish).'

(47) a. *siama* ***nongasa*** *tesinangge*
si=ama ***noN-asa*** *te=sinangge*
HON=father **AV.RLS-sharpen** NM=machete
'Father sharpened the machete.'

b. *siama* ***nongasa-ngasa*** *(tesinangge)*
si=ama ***noN-asa-N-asa*** *te=sinangge*
HON=father **AV.RLS-Bi-RDP~sharpen** NM=machete
'Father repeatedly sharpened (the machete).'

In order to find out when reduplication decreases the valency of a predicate, one has to determine it on the semantic basis. Reduplication in examples (46) and (47) derives the meaning 'do what is stated by the base intensively/repeatedly'. In contrast, instead of adding an 'intensive or repeated' meaning to the base, reduplication as a valency-changing process derives a new lexeme, a lexeme which has a different meaning from its base. In example (44), the base *nombaluk* means 'to sell', but *nombalu-baluk* means 'to go around to sell products'. It is different from the former in the sense that the core meaning in which the object is implicitly included in the act of selling something is excluded in the base form *nombaluk*. Example (45) also shows the same phenomenon: the base form conveys the meaning of a repeated action, but the reduplicated predicate means 'to go around to clear the grass'.

6.5 Verbal plurality

Tajio has three morphological markers indicating verbal plurality, i.e., collective or group action or state. These markers are the prefixes *see-* and *ro-* and the vowel-harmonic infix *-ngV-* (see Section 2.8.6 for details on vowel-harmonic changes). The prefix *ro-* is always preceded by the dynamic marker *ne-/me-* (in realis/non-realis mood). The infix *-ngV-* is either inserted within the AV marker *noN-/moN-* or after the dynamic intransitive markers *ne-/no-(me-/mo-)*, or the stative marker *nV-/mV-*. In contrast, *see-* does not co-occur with AV or dynamic markers. It directly precedes the base and it does not inflect for realis or non-realis mood. Semantically, *see-* means 'together/all'. All collective markers can attach to stative, intransitive and transitive verbal bases. Examples are given in Table 6-17.

Types of bases	**Verbal plurality**		
Stative base	***ne-ro-***	***nV-ngV-***	***see-***
na*pangkat* <***nV-*** *pangkat* 'ST.RLS-high' 'be high'	***nero****pangkat*<***ne-ro-*** *pangkat* 'DY.RLS-COLL-high' 'all are high'	***nanga****pangkat* < ***nV-ngV-****pangkat* 'ST.RLS-COLL-high' 'all are high'	***see****pangkat* < ***see-*** *pangkat* 'COLL-high' 'all are high'
no*olog*<***nV-****olog* 'ST.RLS-broken' 'be broken'	***nero****olog*<***ne-ro-****olog* 'DY.RLS-COLL-broken' 'all are broken'	***nongo****olog*<***nV-ngV-*** *olog* 'ST.RLS-COLL-broken' 'all are broken'	***see****olog*< ***see-****olog* 'COLL-broken' 'all are broken'
ne*rempu*<***nV-*** *rempu* 'ST.RLS-dirty' 'be	***nero****rempu*<***ne-ro-*** *rempu* 'DY.RLS-COLL-dirty'	***nenge****rempu*<***nV-ngV-*** *rempu* 'ST.RLS-COLL-dirty'	***see****rempu*< ***see-****rempu* 'COLL-dirty' 'all are dirty'

dirty'	'all are dirty'	'all are dirty'	
no*poso*<***nV-****poso* 'ST.RLS-broken' 'be broken'	***nero****poso*<***ne-ro-****poso* 'DY.RLS-COLL-broken' 'all are broken'	***nongo****poso*<***nV-ngV-****poso* 'ST.RLS-COLL-broken' 'all are broken'	***see****poso*< ***see-****poso* 'COLL-broken' 'all are broken'
Intransitive base	***ne-ro-***	***nV-ngV-***	***see-***
nong*odung* <***noN-****odung* 'DY.RLS-sit' 'to sit down'	***nero****odung*< ***ne-ro-****odung* 'DY.RLS-COLL-sit' 'all sit down'	***nongo****ngodung*< ***no-ngV-ng-****odung* 'DY.RLS-COLL-sit' 'all sit down'	***see****odung*< ***see-****odung* 'COLL-sit' 'all sit down'
ne*linjok* < ***ne-****linjok* 'DY.RLS-run' 'to run'	***nero****linjok* < ***ne-ro-****linjok* 'DY.RLS-COLL-run' 'all run'	***nenge****linjok* < ***ne-ngV-****linjok* 'DY.RLS-COLL-run' 'all run'	***see****linjok*< ***see-****linjok* 'COLL-run' 'all run'
no*gombo'*< ***no-****gombo'* 'DY.RLS-talk' 'to talk'	***nero****gombo'* < ***ne-ro-****gombo'* 'DY.RLS-COLL-talk' 'all talk'	***nongo****gombo'* < ***no-ngo-****gombo'* 'DY.RLS-COLL-talk' 'all talk'	***see****gombo'*< ***see-****gombo'* 'COLL-talk' 'all talk'
Transitive base	***ne-ro-***	***nV-ngV-***	***see-***
nong*gabu* < ***noN-****gabu* 'AV.RLS-cook' 'to cook'	***nero****gabu*<***ne-ro-****gabu* 'AV.RLS-COLL-cook' 'all cook'	***nongong****gabu*< ***no-ngV-ng-****gabu* 'AV.RLS-COLL-cook' 'all cook'	***see****gabu*< ***see-****gabu* 'COLL-cook' 'all cook'
nony*empak* <***noN-****sempak* 'AV.RLS-kick' 'to kick'	***nero****sempak*< ***ne-ro-****sempak* 'AV.RLS-COLL-kick' 'all kick'	***nongony****empak*< ***no-ngV-ny****empak* 'DY.RLS-COLL-kick' 'to kick'	***see****sempak*< ***see-****sempak* 'COLL-kick' 'all kick'
ne*save*<***n-pe-****save* 'AV.RLS-SF-ride' 'to ride'	***nero****save*< ***ne-ro-****save* 'AV.RLS-COLL-ride' 'all ride'	***nenge****save*< ***ne-nge-****save* 'AV.RLS-COLL-ride' 'all ride'	***see****save*< ***see-****save* 'COLL-ride' 'all ride'

Table 6-17: Examples of verbal plurality

Indicating collective activity or states, collective predicates require plural subjects. Plural subjects may be plural pronouns, NPs modified by a stative modifier (e.g. *nabari* 'many') or a quantifier *jojoo* 'all', or more than one NP conjoined by the comitative conjunction *sono* 'with'. See examples (48)--(52) below.

(48) *siami* ***nengelinjok*** *nilivur* *nupolisi*
siami ***ne-nge-linjok*** *ni-livur* *nu=polisi*
1PL.EX **DY.RLS-COLL-run** UV-catch GEN=police
'We all ran when the police tried to catch us.'

(49) *sisia* ***nongonggabu***
sisia ***no-ngo-ng-gabu***
3PL AV.RLS-COLL-cook
'They all cooked.' or 'They cooked together.'

(50) *nabari* *tepuu* ***nangapangkat***
nV-bari *tepuu* ***nV-ngV-pangkat***
ST.RLS-many NM=tree **ST.RLS-COLL-high**
'Many trees are high.'

(51) *tetoonya* *jojoo* ***nengesave*** *temotor*
te=too=nya *jojoo* ***ne-ngV-save*** *te=motor*
NM=person=DEF[23] all **AV.RLS-COLL-ride** NM=motorbike

[23] The clitic *=nya* to mark definiteness seems to be an Indonesian loan.

'All people rode motorbikes.'

(52) *tepaa* *sono* *telimanya* ***nongoolog***
te=paa *sono* *te=lima=nya* ***nV-ngV-olog***
NM=leg with NM=hand=3SG.GEN **ST.RLS-COLL-broken**
'His leg and his hand are all broken.'

Another kind of verbal plurality is shown by the suffix *-i* and the prefix *nangi-*. They indicate that the action stated by the predicate is done repeatedly. The repetitive suffix *-i* is marked as $-i_{REP}$ in order to distinguish it from the undergoer suffix *-i* or the applicative suffix *-i*. This suffix co-occurs with AV or UV prefixes. The repetitive suffix *-i* is not marked as an applicative marker here because crosslinguistically the applicative derivations in western Austronesian languages are not always valency increasing but convey a broader range of sometimes quite elusive meaning, including intensity and iterativity (Himmelmann 2005:170).

In Tajio the repetitive suffix *-i* more commonly attaches to transitive bases rather than to intransitive bases. In contrast to the collective affixes discussed above, predicates which are marked by $-i_{REP}$ do not necessarily need plural subjects. It is possible that the repeated actions are done by a singular subject. Examples are presented in Table 6-18.

Types of bases	**Repetitive actions**	
Intransitive base	**AV: *no--i_{REP}***	**UV: *ni--i_{REP}***
***no**lumpat* < ***no-**lumpat* 'DY.RLS-jump' 'to jump'	***no**lumpat**i*** < ***no-**lumpat-**i*** 'AV.RLS-jump-REP' 'to jump repeatedly'	***ni**lumpat**i*** < ***ni-**lumpat-**i*** 'UV.RLS-jump-REP' 'to jump repeatedly'
Transitive base	**AV: *no-/noN--i_{REP}***	**UV: *ni--i_{REP}***
***nom**baula* < ***noN-**baula* 'AV.RLS-throw' 'to throw'	***nom**baula**i*** < ***noN-**baula-**i*** 'AV.RLS-throw-REP' 'to throw repeatedly'	***ni**baula**i*** < ***ni-**baula-**i*** 'UV.RLS-throw-REP' 'to throw repeatedly'
***no**kundu* < ***no-**kundu* 'AV.RLS-kiss' 'to kiss'	***no**kundu**i*** < ***no-**kundu-**i*** 'AV.RLS-kiss-REP' 'to kiss repeatedly'	***ni**kundu**i*** < ***ni-**kundu-**i*** 'UV.RLS-kiss-REP' 'to kiss repeatedly'
***no**rembas* < ***no-**rembas* 'AV.RLS-hit' 'to hit'	***no**rembas**i*** < ***no-**rembas-**i*** 'AV.RLS-hit-REP' 'to hit repeatedly'	***ni**rembas**i*** < ***ni-**rembas-**i*** 'UV.RLS-hit-REP' 'to hit repeatedly'
***no**leva* < ***no-**leva* 'AV.RLS-call' 'to call'	***no**leva**i*** < ***no-**leva-**i*** 'AV.RLS-call-REP' 'to call repeteadly'	***ni**leva**i*** < ***ni-**leva-**i*** 'UV.RLS-call-REP' 'to call repeteadly'

Table 6-18: Examples of repetitive actions marked by the suffix $-i_{REP}$

The prefix *nangi-* is not productive and it can only attach to intransitive bases. Examples found in the corpus are *nangilumpat* 'to jump repeatedly' and *nangiragab* 'to lie prone repeatedly'. The prefix *n-* in *nangi* cannot be interpreted as the shortened *N*-marker (i.e., *nangi* < **n-pangi*) because *nangi-* does not have any UV alternant. Moreover, the following example shows that the prefix *nangi-* can be substituted by suffix $-i_{REP}$, compare examples (53) and (54). However, further investigation is needed in order to come to a general conclusion on this substitution.

(53) *sia'u* ***nangilumpat*** *i* *tondok*
sia'u ***nangi-lumpat*** *i* *tondok*
1SG **DY.RLS.REP-jump** LOC fence
'I repeteadly jumped over the fence.'

(54) *sia'u* ***nolumpati*** *tetondok*
sia'u ***no-lumpat-i*** *te=tondok*
1SG **AV.RLS-jump-REP** NM=fence
'I repeteadly jumped over the fence.'

7 Noun phrases

A noun phrase in Tajio minimally consists of a noun. A non-minimal NP contains a head noun and its modifier(s). Modifiers can both precede or follow the head noun. Modifiers which precede the head noun are called pre-head modifiers; ones that follow the head noun are called post-head modifiers.

Of the two possible structures, [**head noun** modifier] and [modifier **head noun**], the basic Tajio NP structure (i.e., the one that represents an unmarked information structure) is [**head noun** modifier]. This analysis is supported by the fact that quantitatively Tajio has more post-head modifiers than pre-head modifiers. In addition, modifiers which function as pre-head modifiers can also be used as post-head modifiers, while not all post-head modifiers can appear as pre-head modifiers.

The discussion about noun phrases in Tajio will be based on the NP classification made by Dryer (2007:51): (1) simple NPs, (2) complex NPs and (3) NPs without head nouns. All types will be presented in turns in Section 7.1, 7.2 and 7.3. At the end of this chapter, Section 7.4 describes nominalization processes and types of nominalization in Tajio.

7.1 Simple noun phrases

In simple noun phrases, a head noun may consist of a pronoun, a common noun, a personal name or a noun. Pronouns generally occur without modifiers or they may be post-headedly modified by demonstratives. Common nouns are usually pre-headedly modified by the noun marker *te=*; the personal names are pre-headedly modified by the honorific noun marker *si=*. Nouns can take both pre-head modifiers and post-head modifiers. They are pre-headedly modified by the neutral noun marker *te=* and; may be post-modified by verbal modifiers, demonstratives or by other nouns. They may also be pre- or post-modified by classifiers which co-occur with numerals, quantifiers or measure nouns. Each type of modifier will be discussed below.

7.1.1 Noun markers

Noun markers that can only function as pre-head modifiers are the neutral noun marker *te=* and the honorific noun marker *si=*. Phonologically, both markers cannot stand alone, they must be attached to nominal bases. For the discussion of the noun markers three issues are of interest here: the basic distribution of *si=* and *te=*; restrictions on the use of *si=*; and restrictions on the use of *te=*.

7.1.1.1 Distribution of *si=* and *te=*

Syntactically, *si=* and *te=* have different distributions. They are sensitive to the animacy of their hosts.[24] *Si=* precedes personal names and four kinship terms. Other kinship terms and human nouns can occur with either *si=* or *te=*. For most kinship terms and human nouns for which there is a choice in the use of the markers, the proclitic *si=* is used as a politeness marker while *te=* conveys a neutral reading. Being used as a politeness marker, the proclitic *si=* can be considered an honorific marker. Animates and inanimate nouns, for instance *teauda* ‘goat’ or *teparuja* ‘rice paddy’ are restricted to taking the noun marker *te=*.

Figure 29 visualizes the connection between the choice of the proclitics *si=* and *te=* and the overall animacy hierarchy of the head nouns.

[24] The animacy hierarchy which is applied here is adopted from Corbett (2000:56): 1>2>3>human>animate>inanimate

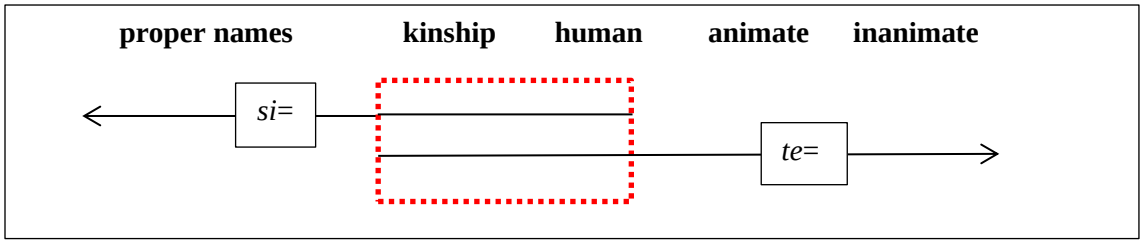


Figure 29: The use of *si=* and *te=* based on the animacy hierarchy of the head nouns

The four core kinship terms which can only take the proclitic *si=* are *siina* 'mother', *siama* 'father', *siopu'* 'grandparent' and *sikakang* 'older sibling'. Two possible reasons for this phenomenon are: 1) these four terms are the most important kinship terms in Tajio, or 2) they are considered lexical items. The first assumption is confirmed by my language consultant who pointed out that parents and grandparents occupy the most important roles in the family. In addition, older siblings are accorded great respect because they can take over the parents' roles. The second assumption, on the other hand, must be rejected because *si=* does not appear in genitive constructions. If *siama* were fully lexicalized, one would expect to have a hypothetical genitive form **nisiama*. However, this form is judged to be ungrammatical, as can be seen in (1)b. Therefore, *siama* is not analyzed as a lexicalized item here but treated as morphologically transparent.

(1) a. *teoto* ***niama'u***
te=oto *ni=ama='u*
NM=car GEN.HON=father=1SG.GEN
'my father's car'

b. **teoto* ***nisiama'u***
te=oto *ni=si=ama='u*
NM=car GEN.HON=HON=father=1SG.GEN
For: 'my father's car'

The noun marker *te=* cannot be analyzed as a definite or an indefinite article because it allows for both definite and indefinite interpretations. *Teguru* in example (2) can be rendered as 'a teacher' or 'the teacher' with the interpretation of definiteness being controlled by the discourse context.

(2) *siia* ***teguru***
siia ***te=guru***
3SG **NM=teacher**
'She is a/the teacher.'

In this example, *si=* may be used as well. *Si=* is employed when a speaker has a specific person in mind and assumes that the hearer knows who is being referred to. Hence this is typically interpreted as definite, as in example (3).

(3) *siia* ***siguru***
siia ***si=guru***
3SG **HON=teacher**
'She is the teacher.'

In order to overtly mark definiteness, Tajio makes use of demonstratives, as illustrated in examples (4) and (5). Here, the *si=* and *te=* marked nouns additionally co-occur with demonstratives.

(4) *noumbur* *bega* *nibobakinya* *silapinya*
nV-umbur *bega* *ni-bobak-i=nya* *si=lapi=nya*
ST.RLS-often very UV.RLS-hit-UV=3SG.GEN HON=spouse=3SG.GEN

siipagnya ***eitu***
si=ipag=nya ***eitu***
HON=sister-in-law=3SG.GEN **MED**
'He$_i$ hit his$_i$ wife, his$_j$ (other person) sister-in-law, very often.' (from the dialog *Noasu*)

(5) ***tesando*** ***i*** ***siaga*** ***ua*** *niveeni* *nilongki*
te=sando ***i*** ***Siaga*** ***eua*** *ni-vee-i* *ni=Longki*
NM=medicine man **LOC** **PN** **DIST** UV.RLS-give-APPL GEN.HON=PN

teoto *robua*
te=oto *ro-bua*
NM=car two-piece
'Longki gave two cars to the medicine man from Siaga village.'
(from the dialog *Campur*)

Indefinite semantics may be overtly expressed by the use of the noun modifier (i.e., numeral-classifier) *sambaang* 'one tail' or *sotoo* 'one person', as shown by example (6) and (7). Here, both nouns are marked by the noun marker *te=*. In this context, the use of the noun marker *si=* is ungrammatical since it is typically interpreted definitely, as illustrated by example (7)b.

(6) *nivavanyamo* ***tetumpang*** ***sambaang***
ni-vava=nya=mo ***te=tumpang*** ***sV-N-baang***
UV.RLS-bring=3SG.GEN=COMP **NM=frog** **one-LIG-CLF.tail**
'He brought a frog.' (from the Frog Story)

(7) a. *sia'u* *nongitai* ***sotoo*** ***tevevine*** *i* *jalang*
sia'u *noN-ita-i* ***sV-too*** ***te=vevine*** *i* *jalang*
1SG AV.RLS-see-APPL **one-person** **NM=woman** LOC street
'I saw a woman on the street.'

b. **sia'u* *nongitai* ***sotoo*** ***sivevine*** *i* *jalang*
sia'u *noN-ita-i* ***sV-too*** ***si=vevine*** *i* *jalang*
1SG AV.RLS-see-APPL **one-person** **HON=woman** LOC street
For: 'I saw a woman on the street.'

7.1.1.2 Restrictions on the use of *si=*

Except in the case of human nouns and most kinship terms where it alternates with *te=*, *si=* obligatorily occurs:

a) with the four kinship terms mentioned in Section 7.1.1.1;
b) with personal names.

With regard to syntactic functions, proclitic *si=* is restricted from occurring:

c) in genitive phrases. Instead, there is a special form of the honorific marker for genitive phrases, i.e., *ni=*, which is discussed in Section 4.3.1.1;
d) in address terms;
e) after prepositions.

Example (8) illustrates the restrictions of *si=* stated in (c) and (d) above. When being used as address terms, the kinship terms *siama* 'father' and *siina* 'mother' do not take the proclitic *si=*. In this context, the speaker addresses himself as ***(a)ma*** *ni Iling* 'Iling's father' and he addresses his wife as ***(i)na*** *ni Iling* 'Iling's mother'. In genitive phrases, instead of *si=*, the marker used is *ni=*, as in *ma* ***ni*** *Iling* and *na* ***ni*** *Iling*.

(8) *amai* *tabakonya* ***ma*** ***niiling*** *riitu* ***na***
amai *tabako=nya* ***ama*** ***ni=Iling*** *riitu* ***ina***
EXIST tobacco=3SG.GEN **father** **GEN.HON=PN** over.there **mother**

niiling
ni=Iling
GEN.HON=PN
'Is any (Iling's father's) tobacco over there, Iling's mother?'
(from the dialog *Campur*)

An example of the restriction (e) is given in (9) where the proclitic *si=* does not occur after a preposition.

(9) *siali* *nomaatuao* *tesura'* *mao* ***i***
si=Ali *noN-paatu-ao* *te=sura'* *mao* ***i***
HON=PN AV.RLS-send-APPL NM=letter DIR **LOC**

kakangnya
kakang=nya
older sibling=3SG.GEN
'Ali sent a letter to his older sibling.'

7.1.1.3 Restrictions of the use of *te=*

The syntactic distribution of phrases marked with *te=* clearly differs from those marked by *si=*. Proclitic *te=* does not occur:

a) in genitive phrases. As is the case with *si=*, a special form of the noun marker is employed for genitive phrases, i.e., *nu=*, which is discussed in Section 7.2;
b) before nouns which function as compound modifiers (see Section 3.6.);
c) after prepositions.

Examples (10) and (11) show restrictions of the use of *te=* in genitive phrases and after prepositions. Instead of being marked by *te=*, genitive phrases are marked by *nu=*, as in *tee* ***nu****wani* 'back of the wasp (nest)' and *puu* ***nu****ayu* 'tree'. Further, the noun phrases *tee nuwani* and *puu nuayu* can be placed after prepositions. In this position, they are not marked by *te=*.

(10) *teasunya* *nomenek* ***i*** ***tee*** ***nuwani***
te=asu=nya *noN-penek* ***i*** ***tee*** ***nu=wani***
NM=dog=3SG.GEN AV.RLS-climb **LOC** **back** **GEN=wasp**
'His dog climbed on the back of the wasp (nest).' (from the Frog Story)

(11) *teasu* *nonavuao* *tewani* ***yami*** ***puu*** ***nuayu***
te=asu *noN-navu-ao* *te=wani* ***yami*** ***puu*** ***nu=ayu***
NM=dog AV.RLS-fall-APPL NM=wasp **from** **tree** **GEN=wood**
'The dog caused the wasp (nest) to fell down from the tree.'
(from the Frog Story)

The ban of *te=* from occurring before nouns functioning as compound modifiers is exemplified in (12).

(12) a. *vonua* ***paranisong***
vonua ***pV-ranis-ong***
house **NOM-sick-NOM**
'hospital' (lit: 'sickness house')

b. **vonua* ***teparanisong***
vonua ***te=pV-ranis-ong***
house **NM=NOM-sick-NOM**
For: 'hospital'

Morphophonologically, the use of *te=* is obligatory for vowel-initial bases and it is optional for consonant-initial bases. This morphologically determined difference holds in each of the following three syntactic contexts:

a) as subjects;
b) as object in actor voice constructions;
c) as nominal predicate in equative clauses.

Examples (13)–(16) illustrate the optional use of *te=* with consonant-initial nouns for each of the contexts defined in (a)–(c) above. Note that in such instances there is no reported difference in meaning between nouns with or without the proclitic *te=*.

(13) ***(te)jaran*** *eitu* *nepees*
(te=)jaran *eitu* *nV-pees*
NM=jaran MED ST.RLS-sore
S
'That horse is sore.'

(14) ***(te)ruriang*** *i* *sevi* *nujunjung* *niologaonya*
(te=)ruriang *i* *sevi* *nu=junjung* *ni-olog-ao=nya*
NM=durian LOC side GEN=hut UV.RLS-broke-APPL=3SG.GEN
S
'He cut durian at the side of the hut.'

(15) ***(te)saping*** *nenginang* ***(te)gugus***
(te=)saping *neN-inang* ***(te=)gugus***
NM=cow AV.RLS-eat **NM=grass**
S **O**
'Cows feed on grass.'

(16) *siama'u* ***(te)guru***
si=ama='u ***(te=)guru***
HON=father=1SG.GEN **NM=teacher**
P
'My father is a teacher.'

Examples (17)–(20) show that the noun marker *te=* is obligatory in the same contexts before vowel-initial bases.

(17) a. ***teauda*** *niwafik* *naate*
te=auda *ni=Wafik* *nV-ate*
NM=goat GEN.HON=PN ST.RLS-dead
S
'Wafik's goat is dead.'

b. ****auda*** *niwafik naate*

(18) a. ***teulingka*** *nioli'u*
te=ulingka *ni-oli='u*
NM=coconut UV.RLS-buy=1SG.GEN
S
'I bought a coconut.'

b. ****ulingka*** *nioli'u*

(19) a. ***teipagu*** *nongolog* ***teayu***
te=ipag='u *noN-olog* ***te=ayu***
NM=brother-in-law=1SG.GEN AV.RLS-cut **NM=wood**
S **O**
'My brother-in-law cut wood.'

b. ****ipagu*** *nongolog teayu*

(20) a. *eua* ***teoto'u***
eua ***te=oto='u***
DIST **NM=car=1SG.GEN**
P
'That is my car.'

b. **eua* ***oto'u***

The noun marker *te=* poses analytical difficulties in that it shows characteristics of both an article and a case marker. It has article-like properties because (i) it is in complementary distribution with *si=*, and (ii) because it is not obligatory in expressions with common nouns. However, unlike an article, it does

not mark definiteness or indefiniteness, but rather conveys a reading of specificity or acts like a case marker. Similar to canonical case markers, *te=* is in complementary distribution with the genitive marker *nu=*, i.e., *te=* seems to mark nominative expressions while *nu=* marks genitive case. In addition, *te=* is unacceptable after prepositions, just like *nu=* is. On the other hand, analyzing *te=* as a nominative-case marker is apparently problematic since it seems to have no specific function with regard to the marking of noun phrases. It does not reflect any clear marking of syntactic function of a given nominal expression, rather it only provides the necessary counterpart for the opposition in politeness discussed above. Thus, in light of the non-prototypical behaviour of *te=*, it seems more appropriate to apply the more neutral term, noun marker instead. Here, the term noun marker refers to a formative which attaches to nouns without necessarily denoting any information on case or definiteness.

From a formal perspective, the above mentioned characteristics of *te=* that are reminiscent of articles/case markers suggest a clitic analysis. The noun marker properties, on the other hand, make *te=* look more like a prefix because it is not attached to modifiers in compounds (although it does attach to nouns after classifiers, see examples (21) and (22)). Since evidence on this matter is less straightforward, I call *te=* a noun marker and analyze it as a clitic for the time being.

(21) a. *kakaer* ***sasa***
kakaer ***sasa***
broom **palm.rib**
'palm-rib broom'

b. **kakaer* ***tesasa***

(22) a. *sobua* ***temotor***
sV-bua ***te=motor***
one-CLF.piece **NM=motorbike**
'one motorbike'

b. **sobua* ***motor***

7.1.2 Verbal modifiers

Stative and dynamic intransitive roots in Tajio belong to the same morphosyntactic class. The primary reason motivating such an analysis is that they can both be used as modifiers without any further marking, i.e., without taking the relative marker *to=* (see Section 4.2). In contrast, not all transitive verbs can function as modifiers without a relative marking. Here only realis UV verb formations can be used as modifiers without relative marker. Transitive AV verb formations, however, always require the relative marker *to=* in order to function as modifiers (see Section 7.3).

When being used as modifiers, statives express a property of the referent denoted by the head noun and they have to occur in the realis mood. In this case, the realis marking does not convey a temporal notion like past. This is illustrated in example (23), in which the main predicate is marked as non-realis and indicates a future reading of the event, whereas the stative modifier *nemeas* 'to be white' retains the realis marking and thus shows no temporal boundedness. This indicates that the realis marking with *nemeas* instead codes a permanent property of the head noun which holds true or is actual before and beyond the time frame of the purchase (see also Section 5.1.1 for further details on the use of mood markers).

(23) *boang* *siia* *mongoli* *[tebaju* ***nemeas]***
boang *siia* *moN-oli* *te=baju* ***nV-meas***
tomorrow 3SG AV.NRLS-buy NM=shirt **ST.RLS-white**
'Tomorrow she/he will buy a white shirt.'

The restriction on mood marking also applies to statives in post-head position, as in examples (24) and (25).

(24) *[tevevine* ***nagaya*** *eitu]* *nupopolapi*
te=vevine ***nV-gaya*** *eitu* *nu-po-po-lapi*
NM=woman ***ST.RLS-beautiful*** MED UV.NRLS-CAUS-SF-spouse

nikaka'u
ni=kaka'u
GEN.HON=older.sibling=1SG.GEN
'That beautiful woman will be married by my older brother.'

(25) *[teogo* ***nooge*** *eitu]* *topenya* *bomban*
te=ogo ***nV-oge*** *eitu* *tope=nya* *Bomban*
NM=river **ST.RLS-large** MED name=3SG.GEN PN
'That large river, its name is Bomban'

As stated above, statives which are used to modify head nouns never occur in non-realis mood. They do, however, occur in the non-realis when they are incorporated into a compound noun. In this case they do not express a property of the head noun, rather the compound noun has some new meaning, not entirely determined by its component (see Section 3.6 for more details on compounding).

Similarly, dynamic intransitive verbs, when used as post-head modifiers, have to occur in the realis mood, as illustrated by examples (26) and (27).

(26) *[tetoonya* ***nelinjok*** *eua]* *mao* *monyokok*
te=too=nya ***ne-linjok*** *eua* *mao* *moN-sokok*
NM=person=DEF **DY.RLS-run** DIST go AV.NRLS-catch

topomanao
topo-manao
AG.NOM-steal
'That running man is going to catch the thief.'

(27) *[teanganak* ***nendiis*** *eua]* *teompongnya*
te=anganak ***ne-ndiis*** *eua* *te=ompong=nya*
NM=child **DY.RLS-bath** DIST NM=belly=3SG.GEN

nabasag *pia*
nV-basag *pia*
ST.RLS-big very
'The bathing child, his belly is very big.'

As modifiers, statives and dynamic intransitive verbs always follow their head nouns, but as predicates, they may precede or follow the subject. This fact yields a diagnostic to distinguish between the modifying and predicative functions of the stative or dynamic intransitive verb. Examples (28) and (30) show noun phrases with stative/dynamic intransitive modifiers; the modifiers cannot precede their head nouns. Examples (29) and (31), on the other hand, show intransitive clauses with intransitive verbal predicates, which may either precede or follow their subjects.

(28) a. *teogo* ***nooge*** *eitu*
te=ogo ***nV-oge*** *eitu*
NM=river **ST.RLS-large** MED
'that large river'

b. ****nooge*** *teogo eitu*
For: 'that large river'

(29) a. *teogo* *eitu* ***nooge***
te=ogo *eitu* ***nV-oge***
NM=river MED **ST.RLS-large**
'That river is large.'

b. ***nooge*** *teogo eitu*
'That river is large.'

(30) a. *tetoonya* ***nelampa*** *eua*
te=too=nya ***ne-lampa*** *eua*
NM=person=DEF **DY.RLS-walk** DIST
'that walking man'

b. ****nelampa*** *tetoonya eua*
For: 'that walking man'

(31) a. *tetoonya* *eua* ***nelampa***
te=too=nya *eua* ***ne-lampa***
NM=person=DEF DIST **DY.RLS-walk**
'That man walks/walked.'

b. ***nelampa*** *tetoonya eua*
'That man walks/walked.'

Without any further marking, transitive verbs can occur as verbal post-head modifiers if they are marked by the realis UV marker *ni-* 'UV.RLS'. Marking transitive verbal modifiers with the non-realis *nu-* is ungrammatical in this case. Here, too, the UV transitive verbal modifier never precedes the head noun. As modifiers, transitive UV constructions never occur with actor arguments. Examples are given in (32) and (33).

(32) a. *sia'u* *nenginang* ***[teulingka*** ***niparu']***
sia'u *neN-inang* ***te=ulingka*** ***ni-paru'***
1SG AV.RLS-eat **NM=coconut** **UV.RLS-grate**
'I ate grated coconut.'

b. **sia'u nenginang* ***[teulingka nuparu']***

c. **sia'u nenginang* ***[niparu' teulingka]***

(33) a. *sia'u* *seelu'u* ***[tabako*** ***nitoyos]***
sia'u *seelu='u* ***tabako*** ***ni-toyos***
1SG like=1SG.GEN **tobacco** **UV.RLS-roll**
'I liked rolled tobacco.'

b. **sia'u seelu'u* ***[tabako nutoyos]***

c. **sia'u seelu'u* ***[nitoyos tabako]***

In contrast, using an AV verb as a modifier will require the use of an additional marker, i.e., the relative marker *to=*. Noun phrases with relative marker are discussed in Section 7.3.

7.1.3 Numerals, quantifiers, classifiers and measure nouns

Numerals and quantifiers (except *jojoo* 'all') alone often cannot function as modifiers. They usually co-occur either with classifiers or measure nouns. Numerals that can be used in modifier constructions are the prefixed forms (see Section 4.3.2 for details about numerals). Quantifiers too are prefixed to classifiers or measure nouns. The nasal ligature *-N-* may occur between numerals and classifiers/measure nouns or between quantifiers and classifiers/measure nouns. The occurance of the nasal ligature depends on the base (i.e., classifiers or measure nouns) it attaches to. For example, it may or may not occur when the numeral prefix *sV-(N)-* co-occurs with the classifier *bua*: both ***som****bua* and ***so****bua* 'one piece' are acceptable. In other cases it is obligatory, or its is completely banned. For example, the measure noun *gopo'* becomes ***song****gopo'* 'one bunch of paddy', but never ****so****gopo'*; the measure noun *gaat*, on the other hand, always becomes ***sa****gaat* 'half', not ****sang****gaat* although both *gopo'* and *gaat* begin with the same consonant.

7.1.3.1 Modifier construction: numeral-classifier

Within noun phrase formations, classifiers are placed between the numeral prefix (for which it acts as a host) and the head noun. This type of modifier construction may occur as pre- or post-head modifier.

In the following examples, noun phrases are presented in square brackets and the modifiers are in bold typed.

Examples (34) and (35) present numeral-classifier constructions which directly precede the head nouns.

(34) *ro* *kan* ***[rombua*** *tepuka'nya* *ua]*
ro *kan* ***ro-N-bua*** *te=puka'=nya* *ua*
two INJ **two-LIG-CLF.piece** NM=dragnet=DEF DIST
'Two, isn't it those two dragnets.' (from the dialog *Campur*)

(35) *nokosong* ***[sobua*** *temotor]*
nV-kosong ***sV-bua*** *te=motor*
ST.RLS-empty **one-CLF.piece** NM=motorbike
'One motorbike is empty.' (from the dialog *Campur*)

Examples (36) and (37) illustrate post-head modifiers which are also constructed from numerals and classifiers.

(36) *tanda'* *i* *unauna* *[loka* ***tolubua]***
tanda' *i* *Una-Una* *loka* ***tolu-bua***
arrive LOC PN banana **three-CLF.piece**
'Three bananas arrived at Una-Una.' (from the dialog *Campur*)

(37) *tesando* *i* *siaga* *ua* *niveeni* *nilongki*
te=sando *i* *Siaga* *ua* *ni-vee-i* *ni=Longki*
NM=medicine.man LOC PN DIST UV.RLS-give-APPL GEN.HON=PN

[teoto ***robua]***
te=oto ***ro-bua***
NM=car **two-CLF.piece**
'That medicine man from Siaga was given two cars by Longki.'
(from the dialog *Campur*)

Example (38) below shows that the classifier construction does not have to directly precede its head noun; rather, it may occur separated from it. This is possible due to a narrow focus construction which highlights the number of cigarettes. In this case, the number denoting constituent, ultimately being a member of the noun phrase, is moved to pre-verbal position and the focus marker *=mo* is attached to it (see also Section 5.3.1 for the discussion of *=mo* as a focus particle).

(38) ***rombuumo*** *niontipu* ***teroko'nya***
ro-N-buu=mo *ni-ontip='u* ***te=roko'=nya***
two-LIG-piece=COMP UV.RLS-smoke=1SG.GEN **NM=cigarette=3SG.GEN**

eitu
eitu
MED
'It was two of her cigarettes that I smoked.'
(lit: 'I have smoked two pieces of her cigarettes.') (from the dialog *Campur*)

In addition to modifying common nouns, numeral-classifier constructions can also modify plural pronouns in head noun position, see example (39). In this context, the numeral can occur without classifiers, as in example (40). Here the numeral indicates a grouping of a particular number (of people), analogous to English 'a pair', 'a trio', etc. Apart from pronouns, a noun and numeral modifier can not carry this sense of grouping, as shown by example (41). Here the numeral indicates the number of things denoted by the head noun, i.e., there are three children, rather than a trio of children.

(39) *jamo* *[sisia* ***rotoo]*** *sikadar*
jamo *sisia* ***ro-too*** *si=Kadar*
only 3PL **two-CLF.person** HON=PN
'Only that pair including Kadar (pulled the logs).' (from the dialog *Noasu)*

(40) *[sisia* ***totolu]*** *siulin* *mai* *Palu*
sisia ***totolu*** *si=Ulin* *mai* *Palu*
3PL **three** HON=PN DIR Palu
'That Ulin trio (Ulin and two other people) went to Palu.'

(41) *kebetulan* *amai* ***[teanganak*** ***totolu]*** *nonyeliur*
kebetulan *amai* ***te=anganak*** ***totolu*** *noN-seliur*
accidentally EXIST **NM=child** **three** AV.RLS-pass.by
'Accidentally, there were three children that passed by.'

From the examples just given, it can be seen that there are two possible structures for NPs with regard to the placement of the head noun: [numeral-classifier **head noun**] or [**head noun** numeral-classifier]. These placement options appear to be related to differences in information structure. If the speaker wants to highlight the quantity, the [numeral-classifier **head noun**] structure will be used. If the [**head noun** numeral-classifier] structure is used, it does not necessarily mean that the head noun is more important than the quantity. As stated in the introductory section, the [**head noun** modifier] structure is considered to be more basic than the [modifier **head noun**] structure.

A complete list of classifiers in Tajio is given in Table 7-1. They are presented with their literal meaning, the types of nouns they classify, and examples illustrating their use with the numeral prefix *sV-(N)-* 'one'.

The most common classifier, which also functions as a default classifier, is *bua* 'piece'. In this use, *bua* is the most neutral classifier and can be followed by any type of noun except animate nouns. Semantically, most classifiers are common nouns that have their own lexical meaning when used as a noun. Classifiers that no longer show an independent meaning are indicated by a hyphen (-) in the column 'Literal meaning'.

No.	Classifier	Literal meaning	Types of nouns	Examples with prefix *sV-(N)-* 'one'
1.	*too*	'person'	kinship nouns human nouns	*so-**too** telapi* 'one spouse' *so-**too** temuri'* 'one student'
2.	*kolo*	-	transporters	*so-ng-**kolo** teoto* 'one car' *so-ng-**kolo** tepayangan* 'one boat' *so-ng-**kolo** temotor* 'one motorbike'
3.	*vuu*	'seed; bone'	small round fruits small round objects small fish cigar-like shapes	*so-m-**buu** terambutan* 'one rambutan' *so-m-**buu** teitolu* 'one egg' *so-m-**buu** tebau* 'one fish' *so-m-**buu** teroko'* 'one cigarette'
4.	*puung*	*puu* 'tree'	tree	*so-m-**puung** tepuu nuayu* 'one tree'
5.	*ndaang*	'branch'	leaves	*sa-**ndaang** teroong nuloka* 'one banana leaf'
6.	*baang*	'tail'	two-legged/four-legged animals big mammal fish	*sa-m-**baang** temanuk* 'one chicken' *sa-m-**baang** tesaping* 'one cow' *sa-m-**baang** teduyung* 'one dugong' *sa-m-**baang** tebau* 'one fish'
7.	*lae*	'sheet'	thin and flat objects	*sa-**lae** garatas* 'one sheet of paper' *sa-**lae** tevuvut* 'one hair'
8.	*peka*	'plank'	flat and hard objects	*se-m-**peka** tedopi* 'one plank of wood'
9.	*bua*	'piece'	Default: round objects large objects other objects	*so-m-**bua** teitolu* 'one egg' *so-m-**bua** teulingka* 'one coconut' *so-m-**bua** tevonua* 'one house' *so-m-**bua** teoto* 'one car' *so-m-**bua** temejang* 'one table' *so-m-**bua** teloka* 'one banana'

Table 7-1: Classifiers in Tajio

7.1.3.2 Modifier constructions: numeral-measure nouns

In contrast to classifiers (prefixed with numerals) which can only function as modifiers, measure nouns can be noun phrases by themselves. Examples (42) and (43) show measure nouns which are used as head nouns in adjunct NPs.

(42) *see* *nonyulok* *tegasang* ***rombengimo*** *ua* *sio'o*
sisee *noN-sulok* *te=gasang* ***ro-N-vengi=mo*** *ua* *sio'o*
who AV.RLS-burn NM=bamboo **two-LIG-night=COM** DIST 2SG
'Who burned the bamboos the last two nights? You?
(from the dialog *Campur*)

(43) ***sangkaning*** *nitovoknya* *boi*
sV-N-kaning *ni-tovok=nya* *boi*
one-LIG-time UV.RLS-shoot=3SG.GEN INJ
'He just shot (it) once.' (from the dialog *Noasu*)

In modifier constructions, measure nouns with numeral prefix can be used as pre- and post-head modifiers, as exemplified in (44) and (45) respectively.

(44) *siia* *nombaluk* *[**limampulu*** ***karung*** *teuli*
siia *noN-baluk* ***lima-N-pulu*** ***karung*** *te=uli*
3SG AV.RLS-sell **five-LIG-tens** **sack** NM=skin

nupala]
nu=pala]
GEN=nutmeg]
'She/He sold fifty sacks of nutmeg peel.'

(45) *sisia* *sipua'eli* *ini* *jo* *teraja* *sebenarnya*
sisia *si=Pua' Eli* *ini* *jio* *te=raja* *sebenarnya*
3SG.HON HON=PN PROX NEG NM=king real

[temandar ***sa-bata]*** *sono* *[tependau* ***sabata]***
te=Mandar ***sV-bata*** *sono* *te=Pendau* ***sV-bata***
NM=PN **one-one.of.a.pair** with NM=Pendau **one-one.of.a.pair**
'He, this Pua' Eli, is not the real king, (he is) half Mandar and half Pendau.'
(from the dialog *Sejarah Kasimbar*)

In case of the NP in example (44), *limampulu karung* in [***limampulu karung*** *teuli nupala*] is considered a pre-head modifier because it is impossible for two NPs to occur next to each other, unless they constitute a compound. Therefore, it seems reasonable to claim that *limampulu karung* 'fifty sacks' is the modifier of the second noun (which is then analyzed as the head noun), *teuli nupala* 'nutmeg peel'.

Further evidence for this analysis comes from the fact that it does not seem to be possible to change the modifier into a possessee in a genitive construction, as illustrated by example (46)b.

(46) a. *limampulu* *karung* *teuli* *nupala*
lima-N-pulu *karung* *te=uli* *nu=pala*
five-LIG-tens sack NM=skin GEN=nutmeg
'fifty sacks of nutmeg peel'

b. **limampulu* *karung* ***nu**uli* *nupala*
lima-N-pulu *karung* ***nu**=uli* *nu=pala*
five-LIG-tens sack **GEN**=skin GEN=nutmeg
Intended: 'fifty sacks of nutmeg peel'

Measure nouns in Tajio are listed in Table 7-2. They are grouped into semantic categories and are illustrated with an example each, again including the vowel harmonic numeral prefix *sV-(N)-* 'one'.

Semantic group	Measure noun	Meaning	Example with prefix *sV-(N)-* 'one'
length	*lotuk*	'width of finger joint'	*so-lotuk* 'one width of finger joint'
	jangan	'hand span'	*sa-n-jangan* 'one hand span'
	siu	'finger to elbow'	*se-n-siu* 'one length from finger to elbow'
	keke	'finger to shoulder'	*se-ng-keke* 'one length from finger to shoulder'
	lapa	'between fingertips of two hands'	*sa-lapa* 'one length between fingertips of two hands'
	lempang	'step'	*sa-lempang* 'one step'
	laab	'foot'	*sa-laab* 'one foot'
volume/mass	*rabo'*	'handful'	*sa-rabo'* 'one handful'
	gomus	'fistful'	*sa-ng-gomus* 'one fistful'
	punjuk	'a pinch with thumb and index finger'	*so-punjuk* 'one pinch with thumb and index finger'
	seru'	'a spoonful'	*se-n-seru'* 'one spoonful'
	belingka	'a shell full (coconut)'	*se-belingka* 'one shell full (coconut)'
	bele'	'a tin-can full'	*se-bele'* 'one tin-can full'
	vees	'a bundle'	*se-m-bees* 'one bundle'
	'alu	'a package'	*sa-ng-kalu* 'one package'
	tigo	'a string/cord (of fish)'	*se-n-tigo* 'one string/cord (of fish)'
	jurut	'a pile/a heap'	*so-n-jurut* 'one pile/one heap'
	paa	'a branch (of coconut)'	*sa-m-paa* 'one branch (of coconut)'
	buli	'branch (of banana)'	*so-m-buli* 'one branch (of banana)'
	iting	'a hand of bananas'	*se-iting* 'one hand of bananas'
	lepi	'a half of a hand of bananas'	*se-lepi* 'one half of a hand of bananas'
	gopo'	'a bunch (of paddy)'	*so-ng-gopo'* 'one bunch (of paddy)'
	karung (lw: Ind)	'a sack full'	*sa-karung* 'one sack full'
landmark distance	*leko*	'next bend of river'	*se-leko* 'one bend of river'
part/section	*bata*	'one of a pair'	*sa-bata* 'half'
	tilang	'half'	*se-n-tilang* 'half'
	gaat	'half'	*sa-gaat* 'half'
	tanga	'half'	*sa-tanga* 'half'
time	*eleo*	'day'	*se-eleo* 'one day'
	vengi	'night'	*se-m-bengi* 'one night'
	minggu (lw: Ind)	'week'	*se-minggu* 'one week'
	vulang	'month'	*so-m-bulang* 'one month'
	pariama	'year'	*sa-pariama* 'one year'
	jaang	'hour'	*sa-jaang* 'one hour'
	kaning	'time (once, twice etc.)'	*sa-ng-kaning* 'once'
metric	*kilo* (lw: Ind)	'kilogram'	*se-kilo* 'one kilogram'
	liter (lw: Ind)	'liter'	*se-liter* 'one liter'

Table 7-2: Measure nouns in Tajio grouped into semantic classes

7.1.3.3 Modifier construction: quantifiers

There are two types of quantifiers that can function as modifiers: there is one *jojoo* 'all' which can occur without classifiers or measure nouns, and two, *soia* 'how many/much' and *lasia* 'some' which are prefixed to classifiers or measure nouns.

The quantifier *jojoo* ‘all’ can be directly placed either before or after the head noun with no obvious difference in meaning, as shown in examples (47) and (48).

(47)

[jojoo	*topejoong]*	*nonuda*	*tepae*
jojoo	*to=pe-joong*	*noN-tuda*	*te=pae*
all	REL=SF-field	AV.RLS-plant	NM=rice

‘All farmers planted rice.’

(48)

[topejoong	***jojoo]***	*nonuda*	*tepae*
to=pe-joong	***jojoo***	*noN-tuda*	*te=pae*
REL=SF-field	**all**	AV.RLS-plant	NM=rice

‘All farmers planted rice.’

It can also be used to modify plural pronouns as pre- or post-head modifiers, as exemplified in (49) and (50).

(49)

sipato’	*nagaya*	***[jojoo***	*sisia]*	*nengemeas*
sipato’	*nV-gaya*	***jojoo***	*sisia*	*nV-ngV-meas*
no.wonder	ST.RLS-good.looking	**all**	3PL	ST.RLS-COLL-white

‘No wonder they are all good looking, (they are all) white skinned.’

(from the dialog *Sejarah Kasimbar*)

(50)

…paniala	*teompas*	*moturumo*	*[siami*
pa=ni-ala	*te=ompas*	*mo-turu=mo*	*siami*
then=UV.RLS-take	NM=mat	DY.NRLS-sleep=COMP	1PL.EX

jojoo]
jojoo
all

‘…then we take the mat and we all will sleep.’

(from the narrative *Nonggutu Teompas*)

In addition to its functioning as a modifier which directly precedes or follows its head noun, *jojoo* can syntactically be “floated” to clause-final position. It is then understood to modify the subject, as shown by example (51). See Chapter 8.4.1.5 for more details on quantifier floating.

(51)

jio	*niepemu*	*teasu*	*nivava*	*nikadek*
jio	*ni-epe=mu*	*te=asu*	*ni-vava*	*ni=Kadek*
NEG	UV.RLS-hear=2SG.GEN	NM=dog	UV.RLS-bring	GEN.HON=PN

jojoo
jojoo
all

‘Didn’t you hear, all the dogs were brought by Kadek?’ (from the dialog *Noasu*)

The quantifier *soia* is a question word which is used to ask for quantities. If functioning as a modifier, it co-occurs with a classifier or a measure noun. Together they occur as pre-head modifiers, as shown by examples (52) and (53).

(52)

[soiambaang	*tesaping]*	*nisambalemu*
soia-N-baang	*te=saping*	*ni-sambale=mu*
how.many-LIG-CLF.tail	NM=cow	UV.RLS-slaughter=2SG.GEN

‘How many cows were slaughtered by you?’

(53)

[soiameter	*tepangkat*	*nuulingka]*
soia-meter	*te=pangkat*	*nu=ulingka*
how.many-meter	NM=height	GEN=coconut

‘How high is the coconut tree?’ (from the dialog *Teulingka*)

Further, when placed in sentence-initial position, NPs with modifiers consisting of a quantifier and a classifier are often marked by the aspectual marker *=mo*, as can be seen in examples (54) and (55). In

this case, *=mo* functions as a focus particle (see also Section 5.3.1 for details on the completive aspect *=mo*).

(54) ***soiatoomo*** *teanggotamu* *itu*
soia-too=mo *te=anggota=mu* *itu*
how.many-CLF.person=FOC NM=member=2SG.GEN MED
'How many children do you (already) have?' (lit: 'How many members of yours?')
(from the dialog *Campur*)

(55) ***lasiambuumo*** *teroko'nya*
lasia-N-vuu=mo *te=roko'=nya*
some-LIG-CLF.bone=FOC NM=cigarette=3SG.GEN

niontipu
ni-ontip='u
UV.RLS-smoke=1SG.GEN
'Some of her cigarettes have (already) been smoked by me.'

In conversational data, the heads of quantified noun phrases are often deleted because they are understood from the context. Examples are given in (56)–(58).

(56) ***[soia*** *bua]* *nijaang* *nipevalung*
soia *bua* *ni-jaang* *ni-pe-valung*
how.many CLF.piece UV.RLS-boil UV.RLS-SF-food.to.carry
'How many pieces (of banana) have been cooked and carried (along)?'
(from the dialog *Campur*)

(57) ***[soia*** *karung]* *eini*
soia *karung* *eini*
how.many sack PROX
'How many sacks (of nutmeg peel) are here?' (from the dialog *Campur*)

(58) ***[lasiambuumo]*** *niperoko'u*
lasia-N-vuu=mo *ni-pe-roko'='u*
some-LIG-CLF.bone=COMP UV.RLS-SF-cigarette=1SG.GEN
'Some (of the cigarettes) have been smoked by me.' (from the dialog *Campur*)

7.1.4 Demonstratives

There are three demonstratives: the proximal demonstrative *eini/ini* 'this', the medial demonstrative *eitu/itu* 'that' and the distal demonstrative *eua/ua* 'that'. As has been discussed in Section 4.3.1.3, they can be used as (1) modifiers or (2) head noun subjects or objects. This section only discusses demonstratives which function as modifiers. As modifiers, demonstratives always occur at the very end of the noun phrase. Nouns which are modified by a demonstrative only allow for a definite interpretation.

Examples (59) and (60) show personal pronouns which are modified by demonstratives.

(59) *[siia* ***ini]*** *temahasiswa* *yami* *jerman* *eini*
siia ***ini*** *te=mahasiswa* *yami* *jerman* *eini*
3SG **PROX** NM=student from Germany PROX
'She is a student from Germany.' (from the dialog *Campur*)

(60) *jumai* *noroko'ong* *[sia'u* ***ini]***
jio *amai* *nV-roko'-ong* *sia'u* ***ini***
NEG EXIST ST.RLS-cigarette-VBLZ 1SG **PROX**
'I do not have cigarettes.' (from the dialog *Campur*)

Proper names can also be modified by demonstratives, as illustrated by examples (61) and (62).

(61) *pa pa ja mapada [tetajio **ini]** boi*
*pa pa ja mV-pada te=Tajio **ini** boi*
then then INJ ST.NRLS-disappear NM=Tajio **PROX** INJ
'And then surely this Tajio will disappear, too.' (from the dialog *Campur*)

(62) *tiaong ja bulan tiga [siubang **eini]** vai*
*tiaong ja bulan tiga[25] si=Ubang **eini** vai*
why INJ month three HON=PN **PROX** too
'Will this Ubang really marry in March, too? ' (from the dialog *Campur*)

Examples of demonstratives which modify nouns are given in (63)−(65). Nouns which are modified by demonstratives can also be marked by the noun marker *te*=, as shown by example (65).

(63) *seelu'u [tabako mentoos **eua]***
*seelu='u tabako me-ntoos **eua***
like=1SG.GEN tobacco ST.RLS-rolled **DIST**
'I liked that cigarette.' (from the dialog *Campur*)

(64) *see [tagu niama niwati **eini]** boi*
*sisee tagu ni=ama ni=Wati **eini** boi*
who friend GEN.HON=father GEN.HON=PN **PROX** INJ
'Who is this friend of Wati's father?' (from the dialog *Campur*)

(65) *[teuli'u **eini]** nagabung boi*
*te=uli='u **eini** nV-gabung boi*
NM=skin=1SG.GEN **DEM** ST.RLS-dust INJ
'My skin here is dusty.' (from the dialog *Campur*)

7.1.5 Nominal modifiers

A nominal construction which consists of a head noun directly modified by another noun is called a 'compound' (Dryer 2007:175). In Tajio, the sequence of nouns in a compound is that the first noun is the head noun; the second noun is the modifier noun. More details about forms and meanings of compound nouns are presented in Section 3.6.

7.2 Complex noun phrases

A complex noun phrase in Tajio consist of a head noun modified by a complex modifier, such as a genitive modifier, or a relative clause. Thus, in a complex noun phrase, the head noun (or the possessed noun) occurs with (an)other noun phrase(s) denoting the possessor. Each type of complex modifier will be discussed below.

7.2.1 Genitive noun phrases

A genitive noun phrase always has one noun which functions as the head noun (i.e., a possessee) which can be modified by one or more possessors. The possessee in Tajio always precedes the possessor. In genitive constructions, it is the possessor which is marked by the genitive marker. Regarding the possible numbers of possessors in a genitive construction, I will call a genitive construction with one possessor a single genitive construction. The term multiple genitive construction is used to refer to genitive constructions with more than one possessor. These two constructions are discussed in Section 7.2.1.1 and 7.2.1.2 respectively.

Furthermore, the possessee and the possessor can also show different degrees of complexity. Both can be found in the form of a simple noun, a derived noun or a compound noun as illustrated in examples (66)a, b and c. The possessees are in bold type.

[25] *Bulan tiga* 'the third month; March' is borrowed from Indonesian.

(66) a. ***tevonua****'u*
te=vonua*='u*
NM=house=1SG.GEN
'my house'

b. ***topombaluk*** *nubau*
topoN-baluk *nu=bau*
AG.NOM-sell GEN=fish
'fish seller'

c. ***tevonua*** ***paranisong****u*
te=vonua ***pV-ranis-ong****='u*
NM=house **NOM-sick-NOM**=1SG.GEN
'my hospital' (lit: my house of sickness')

Examples (67)a, b and c show possessors in the form of a simple noun, a derived noun and a compound noun. The possessors are bold typed.

(67) a. *tepuu* ***nuulingka***
te=puu ***nu=ulingka***
NM=tree **GEN=coconut**
'coconut tree' (lit: 'tree of the coconut')

b. *tevonua* ***nutopomeang***
te=vonua ***nu=topoN-peang***
NM=houuse **GEN=AG.NOM-fish**
'house of the fisherman'

c. *tedokter* ***nuvonua*** ***paranisong***
te=dokter ***nu=vonua*** ***pV-ranis-ong***
NM=doctor **GEN=house** **NOM-sick-NOM**
'hospital doctor'

Genitive constructions can be post-head modified by demonstratives and relative clauses. In the following examples, the NPs are in square brackets; the genitive construction and its additional modifier (i.e., demonstrative or relative clause) are in bold.

(68) *sia'u* *neita* *[tetoonya* *tonomate*
sia'u *n-pe-ita* *te=too=nya* *to=noN-pate*
1SG AV.RLS-SF-see NM=person=DEF REL=AV.RLS-kill

tesapingmu ***eitu]***
te=saping=mu ***eitu***
NM=cow=2SG.GEN **MED**
'I saw the one who killed your cow.'

(69) *[teumur* ***niina*** ***nikarmin*** ***eua]*** *sekitar*
te=umur ***ni=ina*** ***ni=Karmin*** ***eua*** *sekitar*
NM=age **GEN.HON=mother** **GEN.HON=Karmin** **DIST** around

tujuh *belas* *tahun*
tujuh *belas* *tahun*
seven teen year
'The mother of Karmin was around seventeen years old.'

(from the narrative *Kasimbar*)

(70) *[tepuu* ***nukopi*** ***tonituda'u*** ***pariama***
te=puu ***nu=kopi*** ***to=ni-tuda='u*** ***pariama***
NM=tree **GEN=coffee** **REL=UV.RLS-plant=1SG.GEN** **year**

natampus] *jiopo* *nabasag*
nV-tampus *jio=po* *nV-basag*
ST.RLS-ago not=CONT ST.RLS-big
'The coffee tree that I planted a year ago has not yet grown up.'

(71) *[telinda'u* ***tonipoturuimu*** ***eitu]***
te=linda='u ***to=ni-po-turu-i=mu*** ***eitu***
NM=mat=1SG.GEN **REL=UV.RLS-SF-sleep-APPL=2G.GEN** **MED**

nerempu
nV-rempu
ST.RLS-dirty
'My mat that you slept on was dirty.'

7.2.1.1 Single genitive constructions

Within single genitive constructions, there are two types of possessors that need to be distinguished: (1) possessors without a genitive marker, and (2) possessors with a genitive marker. Possessors that do not need any genitive marker to be well-formed are singular possessive pronouns. Possessors that need genitive markers are plural pronouns and noun phrases.

Singular pronouns functioning as possessors in genitive noun phrases are expressed by enclitic pronouns. The enclitics of the first, second and third person singular pronouns, *='u*, *=mu* and *=nya* respectively, are attached directly to the noun host, as illustrated in examples (72)--(74). Only the first person singular enclitic pronoun *='u* undergoes a morphophonological process (see Section 2.8.5 for details on glottal deletion).

(72) ***[silapi'u]*** *jo* *mongulam*
si=lapi='u *jio* *moN-ulam*
HON=spouse=1SG.GEN NEG AV.NRLS-cure
'My spouse will not cure (or act as a doctor to someone else).'
(from the dialog *Campur*)

(73) *vava* *minyei* *ba* ***[teroko'mu]*** *itu*
vava *minyei* *ba* ***te=roko'=mu*** *itu*
bring hither INJ **NM=cigarette=2SG.GEN** MED
'Give me your cigarettes, please!' (from the dialog *Campur*)

(74) *[tetuai**nya**]* *amai* *sisanu*
*te=tuai=**nya*** *amai* *si=sanu*
NM=younger.sibling=**3SG.GEN** EXIST HON=someone

*[tope**nya**]* *sumar*
*tope=**nya*** *Sumar*
name=**3SG.GEN** PN
'He has a younger sibling.' (lit: 'His younger sibling exists.'). His name is Sumar.'
(from the dialog *Campur*)

The genitive markers marking possessors in genitive phrases are the prefix *ni-* and the clitics *ni=* and *nu=*. Phonologically, neither of the genitive markers can stand alone; they have to be attached to pronominal bound roots or nominal bases. The genitive prefix *ni-* can only attach to the pronominal bound roots of plural pronouns (see Section 4.3.1.1) and the genitive proclitic *ni=* precedes the four kinship terms and personal names (see Section 7.1.1.1 and 7.1.1.2), while *nu=* precedes other nouns.

While *ni-* and *ni=* do not have any alternate forms, *nu=* may optionally be realized as *nu=*, *n=* or *u=*. The genitive marker *nu=* may occur as *u=* when the possessed noun ends in a velar nasal (cf. example (75)); or it may occur as *n=* when the possessed noun ends in a vowel, as in example (76). However, as shown in example (77), these realizations are optional.

(75) [*tebua**ŋ** **u**lima*] → *te=buang **nu**=lima* 'NM=finger **GEN**=hand' 'finger of hand'
[*lolosunɔ**ŋu**lima*]→*lolosunong **nu**=lima* 'joint **GEN**=hand' 'wrist of hand/hand wrist'

(76) [*ta**i** n*telinga] →*tai **nu**=telinga* ‘shit **GEN**=ear’ ‘wax of ear/earwax’
[*lul**un**tai*] →*lulu **nu**=tai* ‘hole **GEN**=shit’ ‘hole of shit/anus’

(77) [*teul**i** nu**ß**ai*] →*te=uli **nu**=vai* ‘NM=skin **GEN**=head’ ‘skin of head’
[*teul**in**ßai*]

[*te**ß**ul**u** nu**ɔŋkɔŋ***] →*te=vulu **nu**=ongkong* ‘NM=hair **GEN**=arm’ ‘hair of arm’
[*te**ß**ul**un**ɔŋkɔŋ*]

[*teubu**ŋ** nu**tuu***] →*te=ubung **nu**=tuu* ‘NM=joint **GEN**=knee’ ‘joint of knee/kneecap’
[*teubu**ŋu**tuu*]

7.2.1.2 Multiple genitive constructions

Possessors in multiple genitive constructions may consist of two or more possessors which are marked by a genitive marker, as in examples (78) and (79); or of a possessive pronoun and one or more possessors which are marked by genitive markers. The second type, however, can only occur with singular possessive pronouns. In such a case, the possessive pronoun always occurs at the very end, compare examples (80)–(82). The possessors in the examples are in bold type.

(78) *tee* ***nuvonua*** ***niama*** ***ninorma***
tee ***nu=vonua*** ***ni=ama*** ***ni=Norma***
back **GEN=house** **GEN.HON=father** **GEN.HON=Norma**
‘back of the house of the father of Norma’

(79) *tepuu* ***nuulingka*** ***niyani***
te=puu ***nu=ulingka*** ***ni=Yani***
NM=tree **GEN=coconut** **GEN.HON=Yani**
‘Yani’s coconut tree’ (lit: ‘tree of coconut of Yani’)

(80) *tevonua* ***nimangge’u***
te=vonua ***ni=mangge=’u***
NM=house **GEN.HON=uncle=1SG.GEN**
‘my uncle’s house’

(81) *tejoong* ***niamamu***
te=joong ***ni=ama=mu***
NM=field **GEN.HON=father=2SG.GEN**
‘your father’s field’

(82) *telapi* ***nutagu*** ***niinanya***
te=lapi ***nu=tagu*** ***ni=ina=nya***
NM=spouse **GEN=friend** **GEN.HON=mother=3SG.GEN**
‘spouse of his/her mother’s friend’

7.3 NPs without head nouns

This section discusses relative clauses functioning as modifiers and relative clauses in headless NP constructions. The syntax of relative clauses will be discussed in Section 8.4.1.1. Relative clauses in Tajio are marked with the proclitic *to=*. This relative marker can be attached to bases with a stem-forming prefix or to verbal bases without a stem-forming prefix. Preceding bases with a stem-forming prefix, *to=* functions as a nominalizer (see Section 7.4.1). Being attached directly to verbal bases, *to=* forms relative clauses which function as modifiers. As modifiers, relative clauses always follow the head nouns. Verbal bases which occur with the relative marker *to=* are stative bases, dynamic intransitive and transitive verbal bases.

As mentioned in Section 4.2 intransitive verbs can also be used as modifiers without the relative marker *to=*. Semantically, the use of the relative marker conveys a difference meaning. Occurring with the relative marker, the intransitive verbal modifier has a specific reading. Without the relative marker, it conveys a general reading, i.e., it tends to be interpreted indefinitely. Compare examples (83) and (84).

(83) *siia* *seelunya* *[tevevine* ***nelenda*** *tevuvutnya]*
siia *seelu=nya* *te=vevine* ***nV-lenda*** *te=vuvut=nya*
3SG like=3SG.GEN NM=woman **ST.RLS-long** NM=hair=3SG.GEN
'He likes long-haired woman.'

(84) *siia* *seelunya* *[tevevine* ***tonelenda*** *tevuvutnya]*
siia *seelu=nya* *te=vevine* ***to=nV-lenda*** *te=vuvut=nya*
3SG like=3SG.GEN NM=woman **REL=ST.RLS-long** NM=hair=3SG.GEN
'He likes the/a woman with long hair.'

Transitive verbal bases preceded by the relative marker *to=* can be in the form of actor voice as well as undergoer voice verbs.

(85) *pepitu* *[teboneka* ***tonongawal*** *teperahu]*
pepitu *te=boneka* ***to=noN-kawal*** *te=perahu*
seven NM=doll **REL=AV.RLS-guard** NM=ship
'There were seven dolls guarding the ship.'

(86) *sia'u* *nongolong* *[sagara*
sia'u *noN-olong* *sagara*
1SG AV.RLS-carry.with.sarong object

toniolong *i* *naus]*
to=ni-olong *i* *naus*
REL=UV.RLS-carry.with.sarong LOC cloth
'I carried the object which was wrapped in a piece of cloth.'
(from the dialog *Sejarah Kasimbar*)

In order to interprete the NPs as definite, relative clauses can be post-head modified by demonstratives.

(87) *[tevevine* *tonongoli* *tebau* ***eitu]*** *siina'u*
te=vevine *to=noN-oli* *te=bau* ***eitu*** *si=ina='u*
NM=woman REL=AV.RLS-buy NM=fish **MED** HON=mother=1SG.GEN
'That woman who bought the fish is my mother.'

(88) *[tevevine* *tonagaya* ***eini]*** *topenya*
te=vevine *to=nV-gaya* ***eini*** *tope=nya*
NM=woman REL=ST.RLS-beautiful **PROX** name=3SG.GEN

siranang
si=Ranang
HON=PN
'This beautiful woman named Ranang.'

In NP constructions, relative clauses do not always occur with head nouns. In conversational or narrative data, relative clauses often occur without head nouns. In these cases, the head nouns of the headless relative clauses can be understood from the context. Examples are given in (89)–(92).

(89) *jadi* *nagana'* ***toniinangnya***
jadi *nV-gana'* ***to=ni-inang=nya***
so ST.RLS-enough **REL=UV.RLS-eat=3SG.GEN**
'So, he had enough (food) to eat.' (from the narrative *Hanyut perahu*)

(90) *jumai* ***toniboncengnya***
jio *amai* ***to=ni-bonceng=nya***
NEG EXIST **REL=UV.RLS-ride.at.back=3SG.GEN**
'He did not ride (someone).' (from the dialog *Campur*)

(91) *amai* ***tonondorong*** *siia*
amai ***to=noN-dorong*** *siia*
EXIST REL=AV.RLS-push 3SG

‘There was (someone) pushed him.’ (from the dialog *Campur*)

(92) *nyaapo* ***tonamanta*** *niinang* *jei* *ua*
nyaa=po ***to=nV-manta*** *ni-inang* *jei* *ua*
IMP.NEG=CONT **REL=ST.RLS-unripe** UV.RLS-eat INJ DIST
‘Don’t eat the unripe (fruit) again!’ (from the dialog *Campur*)

7.4 Nominalization

Morphological processes involved in nominalization are affixation, reduplication and compounding. Affixation and reduplication tend to be more productive than compounding. Compounding will not further be discussed here, but see Section 3.6 for details. Regarding the types of the derived nouns, nominalizations can be classified into: agentive, action/state, instrumental, locative and objective nominalizations. Each nominalization type and the morphological process involved are discussed in the following subsections.

7.4.1 Agentive nominalization

Agentive nominalization in Tajio is marked by the prefix *topo(N)-* or by the relative marker *to=* preceding the stem former *pe-*, forming *tope-*. The nominalizer prefix *topo(N)-* can be attached to intransitive and transitive verbal bases. It appears as *topoN-* (i.e., with nasal) when it precedes transitive verbal bases. Thus, the prefix form *topoN-* is related to transitive verbs taking the actor voice prefix *noN-*. It occurs as *topo-* (i.e., without nasal) if it attaches to dynamic intransitive verbal bases. The agentive nominalizer *tope-* only occurs with roots that need a stem-forming prefix (see Section 3.3.2 for discussion on stem-forming prefixes). Table 7-3 presents examples of agentive nouns using the agentive nominalizer *topo(N)-* and *tope-*.

Nominalizer	**Type of bases**	**Agentive nouns**
topoN-	**Transitive base**	
	nong*ala* < ***noN-****ala* ‘AV.RLS-take’ ‘to take’	***topong****ala* < ***topoN-****ala* ‘AG.NOM-take’ ‘someone who took (sth.)’
	nom*enek* < ***noN-****penek* ‘AV.RLS-climb’ ‘to climb’	***topom****enek* < ***topoN-****penek* ‘AG.NOM-climb’ ‘someone who climbed’
	nom*bava* < ***noN-****vava* ‘AV.RLS-carry’ ‘to carry’	***topom****bava* < ***topoN-****vava* ‘AG.NOM-carry’ ‘someone who carried (sth.)’
	nom*uai* < ***noN-****puai* ‘AV.RLS-to.dry’ ‘to dry’	***topom****uai* < ***topoN-****puai* ‘AG.NOM-dry’ ‘someone who dried (sth.)’
	nony*okok* < ***noN-****sokok* ‘AV.RLS-catch’ ‘to catch’	***topony****okok* < ***topoN-****sokok* ‘AG.NOM-catch’ ‘someone who caught (s.o./sth.)’
	no*manao* < ***noN-****manao* ‘AV.RLS-steal’ ‘to steal’	***topom****anao* < ***topoN-****manao* ‘AG.NOM-steal’ ‘someone who stole sth./thief’
	non*jujut* < ***noN-****jujut* ‘AV.RLS-push’ ‘to push’	***topon****jujut* < ***topoN-****jujut* ‘AG.NOM-push’ ‘someone who pushed’
topo-	**Intransitive base**	**Agentive nouns**
	ne*linjok* ‘DY.RLS-run’ ‘to run’	***topo****linjok* < ***topo-****linjok* ‘AG.NOM-run’ ‘someone who ran/runner’
	no*mberek* ‘DY.RLS-stay’ ‘to stay’	***topo****mberek* < ***topo-****mberek* ‘AG.NOM-stay’ ‘someone who stayed/occupant’
	no*lolom* ‘DY.RLS-swim’ ‘to swim’	***topo****lolom* < ***topo-****lolom* ‘AG.NOM-swim’ ‘someone who swam/ swimmer’
	no*tambak* ‘DY.RLS-play’ ‘to play’	***topo****tambak* < ***topo-****tambak* ‘AG.NOM-play’ ‘someone who played/player’
	ne*leyak* ‘DY.RLS-fly’ ‘to fly’	***topo****leyak* < ***topo-****leyak* ‘AG.NOM-fly’ ‘someone who flew’
tope-	**Intransitive bases**	**Agentive nouns**
	ne*joong* ‘DY.RLS-field’	***tope****joong* < ***tope-****joong* ‘AG.NOM-field’ ‘someone who did the field’

	***no**rayo* 'DY.RLS-threaten'	***tope**rayo* < ***tope-**rayo* 'AG.NOM-threaten' 'someone who threatened (s.o.)'
	***ne**songgal* 'DY.RLS-disembark' 'to disembark'	***tope**songgal* < ***tope-**songgal* 'AG.NOM-disembark' 'someone who disembarked (sth.)'

Table 7-3: Examples of agentive nominalization

7.4.2 Action/state nominalization

The morphological markers which mark action/state nominalization are the circumfix *po(N)--ong* and *pV--ong*. Nominalizations taking the circumfix *po(N)--ong*, derive nouns from dynamic verbal bases, and are called action nominalization here. As the morphological markers of the dynamic intransitive and transitive verbs may overlap, the choice of action nominalizers also shows the same tendency. Thus, the nasal in *po(N)--ong* is placed in the brackets. Nominalizations which occur with *pV--ong* derive nouns from stative verbs and are called state nominalizations. In addition, there are often intransitive verbal roots which only need a stem-forming prefix *pe-* to derive action nouns. The harmonic *pV--ong* only occurs with stative bases. Examples are provided in Table 7-4.

Nominalizer	**Type of bases**	**Action/state noun**
SF: *pe-*	**Intransitive base**	**Action noun**
	***ne**nyaong* < ***ne-**nyaong* 'DY.RLS-meow' 'to meow'	***pe**nyaong* < ***pe-**nyaong* 'NOM-meow' 'act of meowing'
	***ne**moyak* < ***ne-**moyak* 'DY.RLS-yawn' 'to yawn'	***pe**moyak* < ***pe-**moyak* 'NOM-yawn' 'act of yawning'
	***ne**ndiis* < ***ne-**ndiis* 'DY.RLS-bath' 'to take a bath'	***pe**ndiis* < ***pe-**ndiis* 'NOM-bath' 'act of taking a bath'
po(N)--ong	**Transitive base**	**Action noun**
	***nom**baung* < ***noN-**baung* 'AV.RLS-build' 'to build'	***pom**baun**ong*** **<** ***poN-**baung-**ong*** 'NOM-build-NOM' 'act of building'
	***no**gutu* < ***no-**gutu* 'AV.RLS-make' 'to make'	***po**gutu**ong*** **<** ***po-**gutu-**ong*** 'NOM-make-NOM' 'act of making'
	***nom**alaini* < ***noN-**palaini* 'DY.RLS-leave' 'to leave'	***pom**alaini**ong*** < ***poN-**palaini-**ong*** 'NOM-leave-NOM' 'act of leaving'
	Intransitive base	**Action noun**
	***nom**biar* < ***noN-**viar* 'DY.RLS-turn.head' 'to turn (head)'	***pom**biar**ong*** < ***poN-**viar-**ong*** 'NOM-turn.head-NOM' 'act of turning the head'
pV--ong	**Stative base**	**State noun**
	***ne**sili* < ***nV-**sili* 'ST.RLS-shy' 'to be ashamed, shy'	***pe**sili**ong*** < ***pV-**sili-**ong*** 'NOM-shy-NOM' 'easily feels shy'
	***ne**girang* < ***nV-**girang* 'ST.RLS-jealous' 'to be jealous'	***pe**giran**ong*** < ***pV-**girang-**ong*** 'NOM-jealous-NOM' 'easily feels jealous'
	***no**bule* < ***nV-**bule* 'ST.RLS-afraid' 'to be afraid'	***po**bule**ong*** < ***pV-**bule-**ong*** 'NOM-afraid-NOM' 'easily feels afraid'
	***na**nasu* < ***nV-**nasu* 'ST.RLS-angry' 'to be angry'	***pa**nasu**ong*** < ***pV-**nasu-**ong*** 'NOM-angry-NOM' 'easily feels angry'
	***na**balisa* < ***nV-**balisa* 'ST.RLS-worry' 'to be worry'	***pa**balisa**ong*** < ***pV-**balisa-**ong*** 'NOM-worry-NOM' 'easily feels worried'

Table 7-4: Examples of action/state nominalization

7.4.3 Instrumental nominalization

Processes which derive instrumental nouns from verbal bases are affixation and reduplication. Affixes which mark instrumental nouns are the prefix *poN-*, the circumfix *SF--ong* and the circumfix *poN--ong*. The prefix *poN-* derives instrumental nouns from applicative verbal bases which convey a causative meaning, i.e., bases are derived from stative roots. The circumfix *poN--ong* derives instrumental nouns from transitive verbal bases. The circumfix *SF--ong* is required by roots which need the stem-forming prefix *pe-*. In addition, the reduplication process deriving instrumental nouns is

CV-reduplication. Bases which can undergo this process are transitive verbal bases. Examples are provided in Table 7-5.

Nominalizer	**Type of bases**	**Instrumental noun**
poN-	**Transitive base**	
	non**dod**ao** < **noN**-doda-**ao 'AV.RLS-red-APPL' 'to make red'	***pon**doda* < ***poN**-doda* 'NOM-red' 'instrument to make sth. red (e.g. lipstick)'
	nom**basag**ao** < **nom**-basag-**ao 'AV.RLS-big- APPL' 'to maked big'	***pom**basag* < ***poN**-basag* 'NOM-big' 'instrument to make sth. big'
	non**dolong**ao** < **noN**-dolong-**ao 'AV.RLS-straight-APPL' 'to make straight'	***po**ndolong* < ***poN**-ndolong* 'NOM-straight' 'instrument to make sth. straight'
	nom**acing**ao** < **noN**-pacing-**ao 'AV.RLS-clean-APPL' 'to make clean'	***pom**acing*< ***poN**-pacing* 'NOM-clean' 'cleaning tool, cleaner'
poN--ong	**Transitive base**	**Instrumental noun**
	***nong**ingking* < ***noN**-ingking* 'AV.RLS-carry.hanging.from.hand' 'to carry hanging from the hand'	***pong**ingkin**ong** < **poN**-ingking-**ong*** NOM-carry-NOM' 'container to carry sth. hanging from the hand'
	***nony**imbu* < ***noN**-simbu* 'AV.RLS-carry.on.shoulder' 'to carry on shoulder'	***pony**imbu**ong*** < ***poN**-simbu-**ong*** 'NOM-carry-NOM' 'container to carry sth. on the shoulder'
	***nom**bava* < ***noN**-vava* 'AV.RLS-bring' 'to bring'	***pom**bava**ong*** < ***poN**-vava-**ong*** 'NOM-bring-NOM' 'container to bring sth.'
	***nong**gipis* < ***noN**-gipis* 'AV.RLS-pinch' 'to pinch'	***pong**gipis**ong*** < ***poN**-gipis-**ong*** 'NOM-pinch-NOM' 'tool to pinch sth.'
SF--ong	**Intransitive base**	**Instrumental noun**
	***ne**save* < ***ne**-save* 'DY.RLS-ride' 'to ride'	***pe**save**ong**[26] < **pe**-save-**ong*** 'SF-ride-NOM' 'vehicle'
	***ne**valung* < ***ne**-valung* 'DY.RLS-carry.food' 'to carry food'	***pe**valun**ong*** < ***pe**-valung-**ong*** 'SF-carry.food-NOM' 'container to carry food'
	***ne**meluwa* < ***ne**-meluwa* 'DY.RLS-vomit' 'to vomit'	***pe**meluwa**ong** < **pe**-meluwa-**ong*** 'SF-vomit-NOM' 'vomit bag/container'
CV-Red	**Transitive base**	**Instrumental noun**
	kait 'to pick cacao with a knife'	***ka**kait** < ***ka**.kait* 'RDP~pick' 'a special knife to pick cacao'
	tambu 'to fetch water'	***ta**tambu* < ***ta**.tambu* 'RDP~fetch.water' 'bucket'
	kaer 'to sweep'	***ka**kaer* < ***ka**.kaer* 'RDP~sweep' 'broom'
	paat 'to chisel'	***pa**paat* < ***pa**.paat* 'RDP~chisel' 'chisel'
	tumbuk 'to dibble'	***tu**tumbuk* < ***tu**.tumbuk* 'RDP~dibble' 'dibble'
	baula 'to throw'	***ba**baula* < ***ba**.baula* 'RDP~throw' 'an instrument to throw sth.'

Table 7-5: Examples of instrumental nominalization

7.4.4 Locative nominalization

Locative nouns are always marked by the circumfix *poN--ong* or *pV--ong*. In addition, there are roots which take the stem-forming prefix *pe-/po-* before taking the suffix *-ong*, forming the circumfix *pe-/po--ong*. All affix combinations derive locative nouns from verbal bases. The circumfix *SF--ong* attaches to intransitive verbal bases; *poN--ong* is taken by transitive verbal bases; *pV--ong* only occurs with stative bases, as exemplified in the following table.

[26] There are no examples in the database with the stem former *po-*.

Nominalizer	Type of bases	Locative noun
SF--ong	**Intransitive base**	
	ne*linjok* < ***ne-****linjok* 'DY.RLS-run' 'to run'	***pe****linjok****ong*** < ***pe-****linjok-****ong*** 'SF-stay-NOM' 'place to run/escape'
	ne*nyau* < ***ne-****nyau* 'DY.RLS-go.down' 'to go down'	***pe****nyau****ong*** < ***pe-****nyau-****ong*** 'SF-stay-NOM' 'place to go down'
	ne*taang* < ***ne-****taang* 'DY.RLS-wait' 'to wait'	***pe****taan****ong*** < ***pe-****taang-****ong*** 'SF-stay-NOM' 'place to wait'
	no*karaja* < ***no-****karaja* 'DY.RLS-work' 'to work'	***po****karaja****ong*** < ***po-****karaja-****ong*** 'SF-stay-NOM' 'place to work'
	no*mberek* < ***no-****mberek* 'DY.RLS-stay' 'to stay'	***po****mberek****ong*** **< *po-mberek-ong*** 'SF-stay-NOM' 'a place to stay'
poN--ong	**Transitive base**	**Locative noun**
	nony*okok* < ***noN-****sokok* 'AV.RLS-catch' 'to catch'	***pony****okok****ong*** < ***poN-****sokok-****ong*** 'NOM-catch-NOM' 'place to catch'
	nom*uai* < ***noN-****puai* 'AV.RLS-dry' 'to dry'	***pom****uai****ong*** < ***poN-****puai-****ong*** 'NOM-dry-NOM' 'place to dry'
	nong*ilok* < ***noN-****ilok* 'AV.RLS-peek' 'to peek'	***pong****ilok****ong*** < ***poN-****ilok-****ong*** 'NOM-peek-NOM' 'place to peek'
	nong*gabu* < ***noN-****gabu* 'AV.RLS-cook' 'to cook'	***pong****gabu****ong*** < ***poN-****gabu-****ong*** 'NOM-cook-NOM' 'place to cook'
	neng*inang* < ***neN-****inang* 'AV.RLS-eat' 'to eat'	***peng****inan****ong*** < ***peN-****inang-****ong*** 'NOM-eat-NOM' 'place to eat'
pV--ong	**Stative base**	**Locative noun**
	no*turu* < ***nV-****turu* 'ST.RLS-sleep' 'to be asleep'	***po****turu****ong*** **< *pV-turu-ong*** 'NOM-sleep-NOM' 'place to sleep'
	na*navu* < ***nV-****navu* 'ST.RLS-fall' 'to be fallen'	***pa****navu****ong*** **< *pV-navu-ong*** 'NOM-fall-NOM' 'place to fall'
	no*lodong* < ***nV-****lodong* 'ST.RLS-drown' 'to be drowned'	***po****lodon****ong*** **< *pV-lodong-ong*** 'NOM-drown-NOM' 'place to drown'

Table 7-6: Examples of locative nominalization

7.4.5 Objective nominalization

Objective nouns refer to the object that results from an action (Comrie 2007:356). The nominalizing affixes which derive objective nouns are the suffix *-ong*, the prefix *poN-* and the stem-forming prefix *pe-*. The suffix *-ong* can attach to intransitive and transitive verbal bases; the prefix *poN-* precedes transitive verbal bases; the stem-forming prefix *pe-* may attach to intransitive or transitive verbal roots. Bases which take the suffix *-ong* are also found in CV-reduplicated forms. In addition to affixation, CV-reduplication and bisyllabic reduplication can derive objective nouns from verbal bases as well, as presented in Table 7-7.

Nominalizer	Type of bases	Objective noun
-ong	**Intransitive base**	
	ne*lulang* < ***ne-****lulang* 'DY.RLS-load' 'to load'	*lulan****ong*** < *lulang-****ong*** 'load-NOM' 'sth. which is being loaded'
	ne*ovong* < ***ne-****ovong* 'DY.RLS-incubate' 'to incubate'	*ovon****ong*** < *ovong-****ong*** 'incubate-NOM' 'sth. which is incubated'

	no*balanja* < ***no****-balanja* 'DY.RLS-shop' 'to shop'	*balanja****ong*** < *balanja-****ong*** 'shop-NOM' 'sth. which is bought'
-ong	**Transitive base**	**Objective noun**
	nom*baula* < ***noN****-baula* 'AV.RLS-throw' 'to throw'	*baula****ong*** < *baula-****ong*** 'throw-NOM' 'the throw'
	nong*upi* < ***noN****-upi* 'AV.RLS-dream' 'to dream'	*upi****ong*** < *upi****ong*** 'dream-NOM' 'the dream'
	nony*okok* < ***noN****-sokok* 'AV.RLS-catch' 'to catch'	*sokok****ong*** < *sokok-****ong*** 'catch-NOM' 'sth. which is caught'
	nom*bava* < ***noN****-vava* 'AV.RLS-bring' 'to bring'	*vava****ong*** < *vava-****ong*** 'bring-NOM' 'sth. which is brought'
	nong*ingking* < ***noN****-ingking* 'AV.RLS-carry.hanging.from.hand' 'to carry hanging from the hand'	*ingkin****ong*** **<** *ingking-****ong*** 'carry.hanging.from.hand-NOM' 'sth. which is carried hanging from the hand'
	nom*aatu* < ***noN****-paatu* 'AV.RLS-send' 'to send'	*paatu****ong*** < *paatu-****ong*** 'send-NOM' 'sth. which is sent'
CV.RDP--ong	**Transitive base**	**Objective noun**
	nony*imbu* < ***noN****-simbu* 'AV.RLS-carry.on.shoulder' 'to carry on shoulder'	***si****simbu****ong*** **<** ***si.****simbu-****ong*** 'RDP~carry.on.shoulder-NOM' 'sth. which is carried on shoulder'
	nony*uung* < ***noN****-suung* 'AV.RLS-carry.on.head' 'to carry on the head'	***su****suun****ong*** **<** ***su.****suung-****ong*** 'RDP~carry.on.head-NOM' 'sth. which is carried on the head'
poN-	**Transitive base**	**Objective noun**
	nom*bee* < ***noN****-vee* 'AV.RLS-give' 'to give'	***pom****bee* < ***poN****-vee* 'NOM-give' 'gift'
	non*agunggu* < ***noN****-tagunggu* 'AV.RLS-bark' 'to bark'	***pon****angunggu* < ***poN****-tangunggu* 'NOM-bark' 'the barking'
	no*leva* < ***no****-leva* 'AV.RLS-call' 'to call'	***po****leva* < ***po****-leva* 'NOM-call' 'the call'
	nom*insik* < ***noN****-pinsik* 'AV.RLS-massage' 'to massage'	***pom****insik* < ***poN****-pinsik* 'NOM-massage' 'massage'
SF-	**Transitive/Intransitive base**	**Objective noun**
	non*andas* < ***noN****-tandas* 'AV.RLS-accuse' 'to accuse'	***pe****tandas* < ***pe****-tandas* 'SF-accuse' 'accusation'
	no*kundu* < ***no****-kundu* 'DY.RLS-kiss' 'to kiss'	***pe****kundu* < ***pe****-kundu* 'SF-kiss' 'the kiss'
	ne*kambang* < ***ne****-kambang* 'DY.RLS-swell' 'to swell'	***pe****kambang* < ***pe****-kambang* 'SF-swell' 'swelling'
CV-Red	**Transitive/Intransitive base**	**Objective noun**
	no*tambak* < ***no****-tambak* 'DY.RLS-play' 'to play'	***ta****tambak* < ***ta.****tambak* 'RDP~play' 'game'
	no*rayo* < ***noN****-rayo* 'AV.RLS-threaten' 'to threaten'	***ra****rayo* < ***ra.****rayo* 'RDP~threaten' 'threat'
	nony*empak* < ***noN****-sempak* 'AV.RLS-kick' 'to kick'	***se****sempak* < ***se.****sempak* 'RDP~kick' 'the kick'
	nom*aate* < ***noN****-paate* 'AV.RLS-kill'	***pa****paate* < ***pa.****paate* 'RDP~kill' 'death'

	'to kill'	
	ne*tuvu* < ***N-pe-****tuvu* 'AV.RLS-SF-live' 'to grow'	***tu****tuvu* < ***tu****.tu.vu* 'RDP~alive' 'life'
Bi-Red	**Transitive base**	**Objective noun**
	nom*balu'* < ***noN-****balu'* 'AV.RLS-sell' 'to sell'	***balu-****balu'* < ***ba.lu-****ba.lu'* 'RDP~sell' 'product to sell'
	non*uda* < ***noN-****tuda* 'AV.RLS-plant' 'to plant'	***tuda-****tuda* < ***tu.da-****tu.da* 'RDP~plant' 'plants'

Table 7-7: Examples of objective nominalization

8 Basic clause structures

This chapter deals with the structure of basic clauses in Tajio. According to the types of predicate involved in clause formation, three clause types may be distinguished: verbal, existential and non-verbal. A verbal clause is a clause in which the predicate is a verb (Section 8.1). An existential clause is formed with the existential verb *amai* 'exist' (Section 8.2). Existential clauses are distinguished from verbal clauses by the fact that the existential verb *amai* 'exist' does not occur with any verbal inflection. A non-verbal clause has its predicate function filled with a noun phrase (NP) or a prepositional phrase (PP) (Section 8.3). Non-verbal clauses in Tajio do not employ a copula.

8.1 Verbal clauses

Verbal clauses in Tajio are further sub-divided according to the transitivity of the main verb. Intransitive clauses need only one core argument; transitive clauses have two slots for core arguments and require voice specification, i.e., transitive clauses may be expressed as an actor voice (AV) construction or in an undergoer voice (UV) construction.

In the following, subjects are labeled as S and objects are labeled as O. The terms subject and object are used throughout the discussion as there is sound evidence that these functions are definable and play an important role in the grammatical system of Tajio (see Section 8.4). Occasionally, the semantic terms Actor and Undergoer will also be used in the discussion of the semantic roles of the syntactic arguments.

With regard to case differentiations, the subject in intransitive clauses is generally unmarked, and the same holds true for the subject and object in AV constructions. In UV constructions on the other hand, the non-subject core argument is marked by a genitive marker (if not expressed by prefixes or enclitics, see Section 8.1.2.2.1).

The respective clause type is determined by verbal morphology. Intransitive verbs are marked with a stative or dynamic marker; transitive verbs are generally marked for voice. In both cases, there is an obligatory distinction between realis and non-realis mood (see Section 5.1).

8.1.1 Intransitive clauses

Intransitive clauses in Tajio are formed with stative or dynamic verbs. Statives are marked by the vowel-harmonic prefix *nV-/mV-* 'ST.RLS/NRLS' (see also Section 2.8.6 for details on vowel-harmonic affixes); dynamic verbs are marked by the prefix *ne-/no-* 'DY.RLS' or *me-/mo-* 'DY.NRLS' (see also Section 3.3.2.2 for discussion on lexically conditioned suppletion).

In intransitive clauses, the single core argument functions as subject of the clause. It can be realized either as a full noun phrase or as a personal pronoun. Singular or plural subjects in intransitive clauses occur with the same form of the predicate, as shown by examples (1) and (2).

(1) a. ***siia*** *nepees*
siia *nV-pees*
3SG ST.RLS-sick
'She/he is sick.'

b. ***sisia*** *nepees*
sisia *nV-pees*
3PL ST.RLS-sick
'They are sick.'

(2) a. ***siama*** ***niwafik*** *nelampamo*
si=ama ***ni=Wafik*** *ne-lampa=mo*
HON=father **GEN.HON=PN** DY.RLS-walk=COMP
'Wafik's father has gone.'

b. ***siwafik*** ***sono*** ***siamanya*** *nelampamo*
si=Wafik ***sono*** ***si=ama=nya*** *ne-lampa=mo*
HON=PN **with** **HON=father=3SG.GEN** DY.RLS-walk=COMP
'Wafik and his father have gone.'

The subject may either precede or follow the verb. Both constructions are found in elicited data as well as in spontaneous speech. Differences in subject placement are used to convey differences in information structure. If the speaker wants to focus on the action/event, the V-S order is more common. However, if the S-V order is used, it does not necessarily mean that the subject is more important or more prominent than the action. Rather, the S-V order can be considered the basic declarative pattern, representing unmarked information structure. Example (3) illustrates these placement options. While (3)a shows the unmarked information structure typically found with topic-comment utterances, (3)b has V-S order, where the verb phrase *nendiis* is in focus (it is the part of the utterance that does not match the pragmatic presuppositions that the speaker assumes the hearer shares).

(3) a. ***sia'u*** *nendiis*
sia'u *ne-ndiis*
1SG DY.RLS-bath
'I took a bath.'

b. ***nendiis*** *sia'u*
ne-ndiis *sia'u*
DY.RLS-bath 1SG
'I took a bath.' (I didn't swim.)

Both S-V and V-S word order occur in declarative and interrogative sentence; the differences in order do not necessarily pertain to parameters of illocutionary force. Examples (4) and (5) are quoted from a dialog in which two speakers use S-V word order. In the former it occurs in an interrogative sentence while in the latter it occurs in a declarative one. The conversation took place after speaker A and B had attended a feast in the village. Speaker A intended to know whether he or B left the feast earlier.

(4) A: *simiu* *ma* *ilu* *ato* *siami*
simiu *mao* *iulu* *ato* *siami*
2SG.HON go earlier or 1PL.EX
'Did you go earlier or we?' (from the dialog *Campur*)

(5) B: *simiu* *ma* *iulu*
simiu *mao* *iulu*
2SG.HON go earlier
'You went earlier.' (from the dialog *Campur*)

As with the S-V order, the V-S order can be used both to make a statement, as in example (6), and to ask a question, as in example (7).

(6) ***nelampamo*** *siia*
ne-lampa=mo *siia*
DY.RLS-walk=COMP 3SG
'He walked already.' (from the Pear Story)

(7) ***netindang*** *simiu*
ne-tindang *simiu*
DY.RLS-leave 2SG
'Are you leaving now?' (from the dialog *Campur*)

The differences between declarative and interrogative sentences and between the S-V or V-S order are probably marked by intonation, but this needs further research.

Syntactically, both orders (S-V and V-S) may be followed by prepositional phrases. Example (8) shows a V-S-PP structure, example (9) shows a S-V-PP structure.

(8) *nomberek* *siami* ***i*** ***bamba*** ***nubomban***
no-mberek *siami* ***i*** ***bamba*** ***nu=Bomban***
DY.RLS-stay 1PL.EX **LOC** **estuary** **GEN=PN**
'We stayed at the estuary of the river Bomban.' (from the dialog *Sejarah Kasimbar*)

(9) *pua' tomasure'* *nelampa* *nomberek* ***i*** ***tanjung manimbaya***
Pua' Tomasure' *ne-lampa* *no-mberek* ***i*** ***Tanjung Manimbaya***
PN DY.RLS-walk DY.RLS-stay **LOC** **PN**
'Pua' Tomasure' went and stayed at Tanjung Manimbaya.'
(from the dialog *Sejarah Kasimbar*)

On formal grounds, there is no difference between the single core argument of stative and dynamic intransitive verbs. However, the arguments of stative and dynamic intransitives exhibit different semantic roles. The single argument of a stative intransitive has an undergoer-like role (i.e., it is an undergoer-subject), as illustrated in example (10); the single argument of a dynamic intransitive has an actor-like role, i.e., it is the performer of the action (actor-subject), as in example (11). Following this line of reasoning, one could consider the possibility that Tajio is a split-intransitive language (in a broader sense than typically used in discussions on argument alignment and case marking), because intransitive arguments are differentiated into two semantic roles (undergoer vs. actor) by means of two distinct types of intransitive predicates (i.e., stative vs. dynamic marking). In spite of this split in the class of intransitive verbs, however, it does not follow that Tajio is a split-S language in the strict sense. Such an analysis fails, because the stative and dynamic markers of the intransitive verbs bear no relationship to the marking of arguments of transitive verbs. That is, there is no argument alignment between the S argument of intransitive, and the A and O arguments of the transitive verb.

Undergoer-subject
↓
(10) ***sia'u*** *nolusur*
sia'u *nV-lusur*
1SG ST.RLS-lazy
'I'm lazy.'

Actor-subject
↓
(11) ***sisia*** *sarong* *nogombo'*
sisia *sarong* *no-gombo'*
3PL still DY.RLS-talk
'They are still talking.'

8.1.2 Transitive clauses

Both actor voice and undergoer voice constructions require two core arguments: a subject argument and an object argument. Predicates are marked for voice (AV vs. UV) and mood (realis vs. non-realis).

In an AV construction, the subject argument is an actor, the object argument is an undergoer. In UV constructions, the mapping is inverted: the subject is the undergoer and the object is the performer of the action. The voice marker of the verb thus specifies the mapping between the semantic roles of the verb and the grammatical relations of the clause. Figure 30 shows the alignment options for the two arguments in AV and UV constructions.

Actor voice construction		**Undergoer voice construction**	
Subject	Object	Subject	Object
↓	↓	↓	↓
Actor	Undergoer	Undergoer	Actor

Figure 30: Alignment between grammatical relations and semantic roles in AV and UV constructions

The actor voice construction is marked by the prefix *n-/m-* or *noN-/moN-* 'AV.RLS/NRLS'[27]. The undergoer voice construction is either marked by the voice marking prefixes *ni-/nu-/ro-* 'UV.RLS/NRLS' or it is marked by the pronominal prefixes *u-* '1SG' and *mu-* '2SG' (see Section 6.3.1 for more details on morphological markers of AV and UV constructions). In addition, there is one transitive construction that is not marked for voice (see Section 8.1.3 for details).

Non-subject arguments appear in both AV and UV constructions. They can be omitted if they are understood from the context or if they are unspecific. Examples are given in (12) and (13). Example (12) is taken from a narrative in which a speaker explained the procedure how to make a pandanus mat. In this example, the AV construction *sia'u nonginsong* is expressed without a non-subject argument (i.e., an object) because it can be understood from the context: the preceding clause makes it clear that the thing being collected is *tetaraas* 'wild pandanus'.

(12) *nitaras* *nuanaku* *tetaraas* *sia'u*
ni-taras *nu=anak=u* *te=taraas* *sia'u*
UV.RLS-cut GEN=child=1SG.GEN NM=wild.pandanus 1SG

nonginsong
noN-insong
AV.RLS-collect
'My child cut the wild, I collected (it).' (from the narrative *Tebalase*)

Example (13) is taken from a dialog in which a speaker answers a question about how to dry coconuts. In this example, the speaker does not mention the non-subject argument (i.e., the actor) because this activity can be performed by anybody or the actor is regarded as unspecific.

(13) *teulingka* *ua* *nipeneki*
te=ulingka *ua* *ni-penek-i*
NM=coconut DIST UV.RLS-climb-UV
'that coconut is climbed'

nibayi *niulisi* *nisunggi*
ni-bayi *ni-ulis-i* *ni-sunggi*
UV.RLS-peel UV.RLS-skin-UV UV.RLS-to.skin.with.a.tool

teulinya
te=uli=nya
NM=skin=3SG.GEN
'the (coconut) skin is peeled, skinned, skinned with a tool.'
(from the dialog *Teulingka*)

The following discussion of AV and UV constructions is divided into two subsections: (i) the realization of subjects and non-subject arguments in each construction and (ii) the word order in each construction.

8.1.2.1 Actor voice constructions

8.1.2.1.1 Realization of subject and object in AV constructions

Subjects and objects in actor voice constructions are unmarked for case and can be expressed by pronouns or by full noun phrases. In subject or object function in AV constructions, pronouns are expressed by the independent forms. Using clitic forms or prefixes instead renders the construction ungrammatical as demonstrated by examples (14)b-d and (15)b-d.

(14) a. ***sia'u*** *nolevai* ***siia***
sia'u *noN-leva-i*$_{APPL}$ ***siia***
1SG AV.RLS-call-APPL **3SG**
S **O**

[27] There are also a few instances where the AV verb is marked by a prefix that is formally identical to the dynamic prefix *ne-/no-* (cp. Section 6.1).

'I called her/him.'

b. **sia'u* *nolevai**nya***
sia'u *noN-leva-i=**nya***
1SG AV.RLS-call-APPL=**3SG.GEN**
For: 'I called her/him.'

c. ****u***nolevai* *siia*
***u**=noN-leva-i* *siia*
1SG=AV.RLS-call-APPL 3SG
For: 'I called her/him.'

d. ****u***nolevai**nya***
u**=noN-leva-i=**nya
1SG=AV.RLS-call-APPL=**3SG.GEN**
For: 'I called her/him.'

(15) a. ***siami*** *nonagor* ***sisia***
siami *noN-tagor* ***sisia***
1PL.EX AV.RLS-greet **3PL**
S **O**
'We greeted them.'

b. **siami* *nonagor* ***ninia***
siami *noN-tagor* ***ninia***
1PL.EX AV.RLS-greet **3PL.GEN**
For: 'We greeted them.'

c. *****niami*** *nonagor* *sisia*
niami *noN-tagor* *sisia*
1PL.EX.GEN AV.RLS-greet 3PL
For: 'We greeted them.'

d. *****niami*** *nonagor* ***ninia***
niami *noN-tagor* ***ninia***
1PL.EX.GEN AV.RLS-greet **3PL.GEN**
For: 'We greeted them.'

Nouns and noun phrases in subject and object function are presented by examples (16) and (17).

(16) a. ***tesaping*** *nenginang* ***tegugus***
te=saping *neN-inang* ***te=gugus***
NM=cow AV.RLS-eat **NM=grass**
S **O**
'The cow ate grass.'

b. ***saping*** *nenginang* ***gugus***
saping *neN-inang* ***gugus***
cow AV.RLS-eat **grass**
S **O**
The cow ate grass.'

(17) a. ***siwafik*** *nondiisi* ***teaudanya***
si=Wafik *noN-ndiis-i* ***te=auda=nya***
HON=PN AV.RLS-bath-APPL **NM=goat=3SG.GEN**
S **O**
'Wafik bathed his goat.'

b. ***wafik*** *nondiisi* ***teaudanya***
Wafik *noN-ndiis-i* ***te=auda=nya***
Wafik AV.RLS- bath-APPL **NM=goat=3SG.GEN**
S **O**

'Wafik bathed his goat.'

c. **wafik nondiisi **audanya***

Neither *te=* nor *si=* mark grammatical relations. Rather, they can be attached to arguments occurring as subjects or objects without conveying additional information on their grammatical status. *Te=* is the neutral noun marker and *si=* is the honorific noun marker, see Section 7.1.1 for further discussion.

8.1.2.1.2 Word order in AV constructions

The basic word order of AV constructions in Tajio is V_{AV}-O, with the subject being placed either before or after the V_{AV}-O structure. This is shown in Table 8-1.

AV word order		**Examples**
[**V_{AV}-O**]	**S**-[V_{AV}-O]	(18) ***sisia*** *[nongoli* *teruriang]* ***sisia*** *noN-oli* *te=ruriang* **3PL** AV.RLS-buy NM=durian 'They bought durian.'
	[V_{AV}-O]-**S**	(19) *[nongoli* *teruriang]* ***sisia*** *noN-oli* *te=ruriang* ***sisia*** AV.RLS-buy NM=durian **3PL** 'They bought durian.'

Table 8-1: Word order options in AV constructions

The meanings of examples (18) and (19) are judged to be identical: 'They bought durian'. In terms of information structure, sentence (19) is used when the verb phrase is the focus of the sentence. Sentence (18), on the other hand, represents unmarked information structure.

In addition to the AV constituent orders presented in Table 8-1, a marked V_{AV}-**S**-O structure is occasionally found in elicitation data.

AV word order	**Examples**
V_{AV}-**S**-O	(20) *nongoli* ***sisia*** *teruriang* *noN-oli* ***sisia*** *te=ruriang* AV.RLS-buy **3PL** NM=durian 'They bought durian.'

Table 8-2: A highly marked word order option in AV

The V_{AV}-S-O placement option is used when the speaker wants to stress the action. Example (20) is not only used to convey the basic meaning 'They bought durian', but also to emphasize the verb *nongoli* 'buy' in the sense that they *bought* durian and did not, for example, *sell* it.

The difference between the V_{AV}-O-S and V_{AV}-S-O structure is that the former is used to focus the verb phrase (i.e., the verb and its object), whereas the latter is used to put narrow focus on the verb in order to emphasize a particular action or to correct a presupposition of the hearer. If the constructions are used for utterances with interrogative force, the complete answer to the former construction either involves V-O or S-V-O. In contrast, the latter only requires a verb as an answer, as illustrated by examples (21) and (22). This finding is, however, preliminary and the matter requires further research, especially because the V_{AV}-S-O construction so far has only been found in elicitation.

(21) Q: *nongoli* *teruriang* *sisia*
noN-oli *te=ruriang* *sisia*
AV.RLS-buy NM=durian 3PL
V O S
'Did they buy durian?'

A: *jio* *[nongoli* *teruriang]* *sisia* *[nombaluk* *teruriang]*
jio *noN-oli* *te=ruriang* *sisia* *noN-baluk* *te=ruriang*
NEG AV.RLS-buy NM=durian 3PL AV.RLS-sell NM=durian
V O S V O
'(They) didn't buy durian. They sold durian.'

(22) Q: *nongoli* *sisia* *teruriang*
noN-oli *sisia* *te=ruriang*
AV.RLS-buy 3PL NM=durian
V S O
'Did they buy durian?'

A: *jio* *nongoli* *nombaluk*
jio *noN-oli* *noN-baluk*
NEG AV.RLS-buy AV.RLS-sell
V V
'They did not buy it, but sold it.' (lit: 'Not buying, but selling.')

8.1.2.2 Undergoer voice constructions

8.1.2.2.1 Realization of subject and object in UV construction

As with actor voice constructions, subjects and objects in undergoer voice constructions can be expressed by pronouns or full noun phrases. Whereas neither the subject nor the object are marked in an AV construction, in the UV construction the object takes genitive marking.

Table 8-3 summarizes the different possible UV constructions and the respective realization of the objects (i.e., the actor arguments).

UV construction	**Object (i.e., actor argument)**
S V_{UV}=O	1st, 2nd, 3rd SG
O-V_{UV} S	1st, 2nd in UV.NRLS
S V_{UV} ni-O	1st, 2nd, 3rd PL
S V_{UV} ni=O	personal name; the four core kinship terms; human
S V_{UV} nu=O	other kinship terms; animate; human; inanimate

Table 8-3: Possible UV constructions and the realization of the objects

Singular pronouns in object function are presented as enclitics or prefixes while plural pronouns are marked with the genitive marker *ni-* according to the following rules:

a) First and second person singular pronouns occur as enclitics *='u* and *=mu* if the verb is in realis mood. In this case, UV is overtly marked on the verb with *ni-*;

b) First and second person singular pronouns occur as prefixes *u-* and *mu-* in non-realis UV constructions. In these cases, no overt UV marker is found on the verb;

c) The third person singular clitic *=nya* always occurs as an enclitic regardless of the mood marking on the verb;

d) Plural pronouns occur with the genitive marker *ni-*, regardless of the mood marking on the verb.

Realizing the object with the independent form of the first person singular pronoun renders the UV construction ungrammatical (cf. example (23)b). Example (24)b shows that violation of rule (d) also results in an ungrammatical utterance.

(23) a. *siia* *nilevai**'u***
siia *ni-leva-i**='u***
3SG UV.RLS-call-UV=**1SG**
S **O**
'I called her/him.'

b. **siia* *nilevai* ***sia'u***
siia *ni-leva-i* ***sia'u***
3SG UV.RLS-call-UV **1SG**
S **O**

For: ‘I called her/him.’

(24) a. *siia* *nilevai* ***ninia***
siia *ni-leva-i* ***ninia***
3SG UV.RLS-call-UV **3PL.GEN**
S **O**
‘They called her/him.’

b. **siia* *nilevai* ***sisia***
siia *ni-leva-i* ***sisia***
3SG UV.RLS-call-UV **3PL**
S **O**
For: ‘They called her/him.’

Noun phrases that occur as subjects in UV constructions are unmarked. In contrast, noun phrases that occur as objects in UV constructions are marked by the genitive markers *ni=* or *nu=*, as illustrated by examples (25) and (26). Genitive marking in UV constructions is obligatory: without a genitive marker the UV construction becomes ungrammatical as in (25)b and (26)b. The genitive marker *ni=* is used when the object is expressed by a personal name, the four core kinship terms or a human noun; other kinship terms, human nouns, animate or inanimate nouns require the genitive marker *nu=* (see further Section 7.2.1 for a discussion of genitive phrases).

(25) a. *tesalo* *nikaeri* ***nituai’u***
te=salo *ni-kaer-i* ***ni=tuai=’u***
NM=floor UV.RLS-sweep-UV **GEN.HON=younger.sibling=1SG.GEN**
S **O**
‘My younger sibling swept the floor.’

b. **tesalo* *nikaeri* ***tuai’u***
te=salo *ni-kaer-i* ***tuai=’u***
NM=floor UV.RLS-sweep-UV **younger.sibling=1SG.GEN**
S **O**
For: ‘My younger sibling swept the floor.’

(26) a. *tesakulat* *nikait* ***nutopejoong***
te=sakulat *ni-kait* ***nu=to=pe-joong***
NM=cacao UV.RLS-pick **GEN=REL=SF-field**
S **O**
‘The farmer picked the cacao.’

b. **tesakulat* *nikait* ***topejoong***
te=sakulat *ni-kait* ***to=pe-joong***
NM=cacao UV.RLS-pick **REL=SF-field**
S **O**
For: ‘The farmer picked the cacao.’

8.1.2.2.2 Word order in UV constructions

The basic word order of UV constructions in Tajio is V_{UV}-O, with the subject being placed before or after the V_{UV}-O structure, as illustrated in Table 8-4.

UV word order		**Examples**
[V_{UV}-O]	**S** [V_{UV}-O]	(27) ***teulingka*** *[nipeneki* *niwafik]* ***te=ulingka*** *ni-penek-i* *ni=Wafik* **NM=coconut** UV.RLS-climb-UV GEN.HON=PN 'Wafik climbed a coconut tree.'
	[V_{UV}-O] **S**	(28) *[nipeneki* *niwafik]* ***teulingka*** *ni-penek-i* *ni=Wafik* ***te=ulingka*** UV.RLS-climb-UV GEN.HON=PN **NM=coconut** 'Wafik climbed a coconut tree.'

Table 8-4: Word orders in UV constructions

The meanings of examples (27) and (28) are reported to be identical: Example (27) represents unmarked information structure, while sentence (28) is used when the action is considered to be more important than the subject.

8.1.3 The *object-doubling* construction

Transitive constructions with the desiderative verbs *seelu* 'want' and *kua* 'not want' do not exhibit AV or UV marking (i.e., they do not carry a marker of voice or mood), but they do take a set of pronoun markers that are otherwise used to mark objects in UV constructions. This suggests that the underlying alignment for these verbs is a fixed UV alignment. The object (aligned with the actor argument) of these verbs is expressed by: (i) an optional full NP in pre-verbal (preferred) or post-verbal position and (ii) an obligatory bound object pronoun which is either expressed as an enclitic or attached to a genitive marker. The full NP and the bound pronoun must be co-referential. In unmarked constructions, the subject which is aligned to the undergoer argument is placed after the verb and its object markers (cf. (29)b and (30)a). I refer to this phenomenon as *object-doubling*.

The pre-verbal/post-verbal full NP can be omitted, as shown by examples (29)b and (30)b. In contrast, the omission of the bound pronoun is ungrammatical (see examples (29)c and (30)c).

(29) a. ***sia'u*** *seelu**'u*** *vai* *tabako* *mentoos* *eua*
sia'u *seelu=**'u*** *vai* *tabako* *me-ntoos* *eua*
1SG want=**1SG** INJ tobacco DY.NRLS-rolled DIST
O_i O_i S
'I really wanted that cigarette.' (from the dialog *Campur*)

b. *seelu**'u*** *tabako mentoos eua*
O S
'I wanted that cigarette.' (from the dialog *Campur*)

c. *****sia'u*** *seelu tabako mentoos eua*
O S
For: 'I wanted that cigarette.'

(30) a. *seelu**'u*** ***sia'u*** *tesanu* *teasunya* *ua*
seelu='u *sia'u* *te=sanu* *te=asu=nya* *ua*
want=1SG 1SG NM=something NM=dog=3SG.GEN DIST
O_i O_i S
'I want (that thing) his dog.' (from the dialog *Noasu*)

b. *seelu**'u*** *tesanu teasunya ua*
O S
'I want (that thing) his dog.'

c. **seelu* ***sia'u*** *tesanunya teasunya ua*
O S
For: 'I want (that thing) his dog.'

In example (29) and (30), *seelu* takes two nominal arguments: in the former example, the pronominal object *sia'u* together with its bound form *='u* and the noun subject *tabako mentoos eua*; in the latter, the pronominal object *sia'u* together with its bound form *='u* and the subject *tesanu teasunya ua*. In the following examples, however, *seelu* is followed by verb phrases. To maintain the analysis, we would have to assume that the verb phrases in examples (31) and (32) fulfil the same function function syntactically as the nominal subject in example (29) and (30). In this case, instead of taking a nominal subject, the predicate *seelu* takes a complement clause as subject.

(31) ***siia*** *seelu**nya*** *[nenginang* *tebau* *sono* *teutang]*
siia *seelu=**nya*** *neN-inang* *te=bau* *sono* *te=utang*
3SG want=**3SG** AV.RLS-eat NM=fish with NM=vegetables
O_i O_i S
'He wanted to eat fish with vegetables.'
(lit. 'Eating fish with vegetables is wanted by him.')

(32) ***siia*** *seelu**nya*** *[nomberek* *riini]*
siia *seelu=**nya*** *noN-mberek* *riini*
3SG want=**3SG** AV.RLS-stay over.here
O_i O_i S
'He wanted to stay here.' (lit. 'Staying here is wanted by him.')

The other desiderative verb *kua* 'not want' shows the same syntactic behavior. The bound pronoun is obligatory, while the full NP is optional, as in example (33) and (34).

(33) *tapi* ***sia'u*** *kua**'u*** *[mao* *vai]*
tapi ***sia'u*** *kua=**'u*** *mao* *vai*
but **1SG** not.want=**1SG** go too
O_i O_i S
'But I did not want to go either.' (from the dialog *Campur*)

(34) *kua**mu*** *pia* *ja* *[nipopolapi]*
*kua=**mu*** *pia* *ja* *ni-po-po-lapi*
not.want=**2SG** really INTJ UV.RLS-CAUS-SF-marry
O S
'You really did not want to get married' (from the dialog *Campur*)

Examples (35) and (36) show an unmarked and a marked construction respectively. In the unmarked construction, the word order in the object-doubling construction is [(O) V=O S]. In this particular example, a complement clause consisting of a VP (V-O) functions as the subject. Example (36) is a marked construction which shows contrastive focus. In this construction, the two elements that are contrasted are placed pre-verbally. In this case, the objects of the complement clauses, *tepaku* and *tegola*, are fronted to sentence-initial position. This marked construction is used by the speaker to emphasize that he wanted to take the nail, but not the sugar.

(35) *seelu**'u*** *[mombava* *tepaku]* *boi* *kua**'u***
*seelu=**'u*** *moN-vava* *te=paku* *boi* *kua=**'u***
want=**1SG** AV.NRLS-take NM=nail but not.want=**1SG**
O S O
[mombava *tegola]*
moN-bava *te=gola*
AV.NRLS-take NM=sugar
S
'I wanted to take the nail, but I didn't want to take the sugar.'

(36) ***tepaku*** *seelu'u* *[mombava____]* *boi*
te=paku *seelu='u* *moN-vava_____* *boi*
NM=nail want=1SG AV.NRLS-take___ but

tegola	*kua'u*	*[mombava_____*
te=gola	*kua='u*	*moN-bava____*
NM=sugar	not.want=1SG	AV.NRLS-take____

'I wanted to take **the nail**, not **the sugar**.'

Perception and cognition predicates, such as *otoi* 'know', *epe* 'listen/hear' and *ita* 'see', can also occur in object-doubling constructions. In contrast to the desiderative verbs, perception and cognition predicates are overtly marked for voice and mood. Object-doubling, however, only takes place in UV constructions as would be expected with pronoun markers which are restricted to UV marking. Example (37) shows an ordinary AV construction and the respective (UV) object-doubling construction.

(37) a.

sisia	***nootoi***	*telapi*	*niasman*
sisia	***no-otoi***	*te=lapi*	*ni=Asman*
3PL	**AV.RLS-know**	NM=spouse	GEN.HON=PN

'They knew Asman's wife.'

b.

sisia	*niotoi*	***ninia***	*telapi*
sisia	*ni-otoi*	***ninia***	*te=lapi*
3PL	UV.RLS-know	**3PL.GEN**	NM=spouse

niasman
ni=Asman
GEN.HON=PN
'They knew Asman's wife.'

8.2 Existential and possessive clause

An existential clause in Tajio is a clause that uses the existential predicates *amai* 'exist' or *jio amai* 'not exist', (that is often shortened to *jumai*). This predicate differs from intransitives or transitive verbs in that it occurs without any verbal affixation.

The major function of existential clauses is to indicate availability. The existential verb *amai* 'exist' can be immediately followed by its complements, as seen in examples (38) and (39), or it can be preceded by its complement, as shown by examples (40) and (41).

(38)

amai	*tealaiong*	*i*	*ndaang*	*nuayu*
amai	*te=alaiong*	*i*	*ndaang*	*nu=ayu*
EXIST	NM=owl	LOC	branch	GEN=wood

'There is an owl on the branch of the tree.' (from the Frog Story)

(39)

jumai		*teistilah*	*teraja*	*nentama*	*temandar*
jio	***amai***	*te=istilah*	*te=raja*	*ne-ntama*	*te=mandar*
NEG	**EXIST**	NM=term	NM=king	DY.RLS-enter	NM=PN

paniotoi	*teraja*
pa=ni-otoi	*te=raja*
then=UV.RLS-know	NM=king

'There was no term for king; when the Mandar came then the term king was known.'

(from the dialog *Sejarah Kasimbar*)

(40)

tetuainya	***amai***
te=tuai=nya	***amai***
NM=younger.sibling=3SG.GEN	**EXIST**

'He has a younger brother.' (lit: 'His younger sibling exists.')

(from the dialog *Campur*)

(41)

tebugisnya	***amai***
te=Buginese=nya	***amai***
NM=Buginese=3SG.GEN	**EXIST**

'There are Buginese people.' (from the dialog *Campur*)

Further, adverbs may be placed between the existential verb *amai* and the complement, as illustrated by examples (42).

(42) *amai* ***ompo*** *tiol* *bulaan* *i* *puncak* *eua*
amai ***ompo*** *tiol* *bulaan* *i* *puncak* *eua*
EXIST **still** bamboo gold LOC top DIST
'There was still golden bamboo at that (mountain) summit.'

(from the dialog *Sejarah Kasimbar*)

The existential verbs *amai* 'exist' and *jumai* 'not exist' can be followed by verbs marked for mood. This shows that in Tajio the existential construction does not distinguish nouns (cf. examples (38)−(41)) from verbs (see examples (43)−(45)).

(43) *amai* *vai* ***nakasar***
amai *vai* ***nV-kasar***
EXIST also **ST.RLS-coarse**
'There is also a low variant (level).' (from the dialog *Campur*)

(44) *jumai* ***metensile***
jio *amai* ***me-tensile***
NEG EXIST **DY.NRLS-go.home**
'There is no one who will go home.' (from the dialog *Campur*)

(45) *jumai* ***nipele-pele***
jio *amai* ***ni-pele-pele***
NEG EXIST **UV.RLS-Bi-RDP~part**
'There is no separator.' (lit: 'it is not separated.') (from the dialog *Campur*)

Existential verbs can also be constructed with relative clauses, as illustrated in examples (46) and (47). Again, adverbs may also be placed in between the existential and the relative clause, as can be seen in (48).

(46) *jumai* ***toniboncengnya***
jio *amai* ***to=ni-bonceng=nya***
NEG EXIST **REL=UV.RLS-ride.with.someone=3SG.GEN**
'There was nobody riding with him.' (from the dialog *Campur*)

(47) *ane* *amai* ***tonondorong*** *siia*
ane *amai* ***to=noN-dorong*** *siia*
if EXIST **REL=AV.RLS-push** 3SG
'Was it like someone was pushing him? ' (from the dialog *Campur*)

(48) *amai* ***vai*** *tonaalus* *tebasanya*
amai ***vai*** *to=nV-alus* *te=basa=nya*
EXIST **also** REL=ST.RLS-fine NM=language=3SG.GEN
'There is also the high variant (level) language.' (from the dialog *Campur*)

Existential predicates may also involve numerals or quantifiers to express quantity as in examples (49) and (50).

(49) *tepangkat* *nuulingka* *biasa* ***amai*** *ampat*
te=pangkat *nu=ulingka* *biasa* ***amai*** *ampat*
NM=high GEN=coconut regular **EXIST** four

meter ***amai*** *lima*
meter ***amai*** *lima*
meter **EXIST** five
'The height of a regular coconut tree, it is four or five meters.'

(from the dialog *Teulingka*)

(50) *teuda* *niami* ***amai*** *limambaang*
te=auda *niami* ***amai*** *lima-N-baang*
NM=goat 1PL.EX.GEN **EXIST** five-LIG-CLF.tail
'We have five goats.' (lit. 'There are five goats of ours.')

In addition to indicating non-availability, *jumai* 'not exist' is used to form negative questions or negative declaratives, as illustrated by examples (51)–(53).

(51) ***jumai*** *nonuda* *terisa* *tealaemu*[28]
jio ***amai*** *noN-tuda* *te=risa* *te=alae=mu*
NEG **EXIST** AV.RLS-plant NM=chili NM=body=2SG.GEN
'Don't you plant chilies?' (from the dialog *Campur*)

(52) ***jumai*** *sia'u* *nentama* *novosu* *bega*
jio ***amai*** *sia'u* *ne-ntama* *nV-vosu* *bega*
NEG **EXIST** 1SG DY.RLS-enter ST.RLS-satisfied very

teompongu
te=ompong='u
NM=stomach=1SG.GEN
'I didn't come in, my stomach was very full.'
(lit. 'Didn't I come in? my stomach was very full.') (from the dialog *Campur*)

(53) ***jumai*** *nipanjara* *siia*
jio ***amai*** *ni-panjara* *siia*
NEG **EXIST** UV.RLS-jail 3SG
'Wasn't he jailed?' (from the dialog *Noasu*)

Finally, a major function of the existential predicate in Tajio is to indicate possession in possessive clause constructions. There are two types of possessive clauses that use the existential verb *amai*:

a) possessive clauses in which the possessor appears as a topic and is placed at the beginning of the clause, and the possessee follows the existential verb functioning as a complement, as in example (54);

b) possessive clauses in which the possessee is expressed in a genitive phrase or as a genitive clitic, as in example (55) and (56).

(54) *sia'u* ***amai*** *teroko'* *eini*
sia'u ***amai*** *te=roko'* *eini*
1SG **EXIST** NM=cigarette PROX
'I have/own this cigarette.' (from the dialog *Campur*)

(55) *siami* ***amai*** *teauda* *niami*
siami ***amai*** *te=auda* *niami*
1PL.EX **EXIST** NM-goat 1PL.EX.GEN
'We have goats.'

(56) ***amai*** *teroko'u* *eini* *ah*
amai *te=roko'=u* *eini* *ah*
EXIST NM=cigarette=1SG.GEN PROX INJ
'I have this cigarette.' (from the dialog *Campur*)

8.3 Non-verbal clauses

Non-verbal clauses occur without verbal predicates and without any copula. Such verbless clauses consist of a nominal subject and a predicate, which can be a noun phrase (NP) or a prepositional phrase (PP). The following sections discuss each type in turn.

[28] *Tealaemu* (lit: your body) is an honorific term to address the second person singular.

8.3.1 Equational clauses

Equational clauses identify the noun phrase functioning as the predicate with the noun phrase functioning as the subject. The basic word order in equational clauses is subject–predicate though it can be reversed into predicate–subject. Given this flexibility in constituent order, it is not easy to determine in each case which NP is the subject and which NP the predicate.

Negation provides evidence to disentangle this ambiguity. If a clause consists of a subject and a predicate, the syntactic element that can be negated is the predicate. Payne (1997:284) states that "negative particles are normally associated with the main verb of the clause". Thus, in equational clauses, the negated noun can be considered the predicate.

The negated element in example (57) is *teguru* 'teacher'; hence the word order of this clause is subject–predicate (S-P). The negated unit in example (58) is *topotoo Rai* 'Rai person'; thus the word order of this equational clause is P-S.

(57) *siia* ***jio*** *teguru*
siia ***jio*** *te=guru*
3SG **NEG** NM=teacher
S P
'She is not a teacher.'

(58) ***ajio*** *topotoo* *rai* *eua*
ajio *topo-too* *Rai* *eua*
NEG AG.NOM-person PN DIST
P S
'That is not a Rai person.' (lit: 'Not a Rai person is that.')
(from the dialog *Campur*)

8.3.2 Locational clauses

Locational clauses identify the location of the entity denoted by the subject NP. In the basic word order of this clause type, the NP realizing the subject precedes the prepositional phrases. Prepositions used here are *i* or *ri* 'at/in', *yami* 'from' and the non-local preposition *sono* 'with' (see Section 4.3.5 for details on prepositions). Examples (59) and (60) illustrate the use of the local preposition.

(59) *sia'u* ***i*** ***vonua***
sia'u ***i*** ***vonua***
1SG **LOC** **house**
S P
'I am at home.'

(60) *teoto* ***i*** ***tolo*** ***nuvonua***
te=oto ***i*** ***tolo*** ***nu=vonua***
NM=car **LOC** **front** **GEN=house**
S P
'The/a car is (parked) in front of the house.'

Locative predicates in the form of prepositional phrases may precede or follow the subject NP; thus there are two possible word orders: (S-PP and PP-S). The first element in the construction is considered topical; the second element gives additional information about the topic and thus forms the comment part in terms of information structure. Examples are given in (61) and (62).

(61) ***riitu*** *silampayang*
riitu *Silampayang*
over.there PN
'Over there is Silampayang' (from the dialog *Campur*)

(62) *teeleo* *sapa* *me<…>* *siia* ***ruwa***
te=eleo *sapa* *…* *siia* ***ruwa***
NM=day what … 3SG **over.there**
'On what day is she over there?' (from the dialog *Campur*)

The negator *ajio* or *jio* ‘no/not’ is also used to negate the locative predicate, as illustrated by example (63).

(63) *siia* ***ajio*** *yami* *posoleong*
siia ***ajio*** *yami* *posoleong*
3SG **NEG** from beach
‘He is not from the beach.’

8.4 Grammatical relations

Throughout this work, the terms ‘subject’ and ‘object’ are used. Up to now this has received no justification. This section will examine the differences in syntactic behavior between the two core arguments in transitive constructions. These differences provide evidence that the grammatical relations of ‘subject’ and ‘object’ exist in Tajio. Syntactic tests to determine the behavior of subjects will be applied in Section 8.4.1. Section 8.4.2 provides syntactic tests for the non-subject arguments (i.e., objects and obliques) as well as for adjuncts.

8.4.1 Subject

A transitive construction, either in AV or UV, needs two arguments that semantically function as actor (A) and undergoer (U). In Tajio, both arguments in AV constructions are unmarked (see Section 8.1.2.1.1). In UV constructions the undergoer is unmarked as well, but the actor argument is morphologically marked (see Section 8.1.2.2.1).

In this section syntactic tests will be applied to show that the argument whose role is specified by the voice morphology functions as the grammatical subject of the clause.

The following constructions provide evidence for grammatical relations in Tajio: relativization, control, raising constructions, control into an adverbial clause, secondary predicates and quantifier floating. Each of these constructions will be discussed in turn.

8.4.1.1 Relativization

Relativization is a reliable test for subjecthood in Tajio because the range of arguments that may be relativized is restricted to actor arguments with AV and undergoer arguments with UV predicates. This strongly suggests that relativization is linked to a syntactic function that we could call subject.

In example (64), there are two head nouns that could be modified by a relative clause: the actor-subject *tevevine* and the undergoer-object *tebau*. The head noun *tevevine* in (64)b becomes the subject of an AV relative clause, while the head-noun *tebau* becomes the subject of an UV relative clause. Reversing the voice morphology of the relative clauses and relativizing the objects will result in ungrammaticality, compare example (64)c. The modifying clauses are given in square brackets, the blank part shows the syntactic position of the head noun that has been relativized.

(64) a. ***tevevine*** *nongoli* ***tebau***
te=vevine *noN-oli* ***te=bau***
NM=woman AV.RLS-buy **NM=fish**
‘The woman bought the fish.’

b. ***tevevine*** *[__* ***tonomake*** *tebaju* *nedoda]*
te=vevine __ ***to=noN-pake*** *te=baju* *ne-doda*
NM=woman __ **REL=AV.RLS-wear** NM=baju ST.RLS-red
S V O

nongoli ***tebau*** *[___* ***tonijano*** *niami]*
noN-oli ***te=bau*** ___ ***to=ni-jano*** *niami*
AV.RLS-buy **NM=fish** ___ **REL=UV.RLS-fry** 1PL.EX.GEN
S V O
‘The woman who wore a red shirt bought the fish that we fried.’

c. ***tevevine*** *[tonipake* *tebaju* *nedoda* *____]*
te=vevine *to=ni-pake* *te=baju* *ne-doda* ____
NM=woman REL=UV.RLS-wear NM=baju ST.RLS-red ____
V O S

nongoli ***tebau*** *[tononjano* *siami* *____]*
noN-oli ***te=bau*** *to=noN-jano* *siami* ____
AV.RLS-buy **NM=fish** REL=AV.RLS-fry 1PL.EX ____
V S O

For: 'The woman who wore a red shirt bought the fish that we fried.'

8.4.1.2 Control

A control construction involves two clauses: a matrix clause and an embedded clause. One argument of the embedded clause is omitted and interpreted as being co-referential with one argument of the matrix clause (Kroeger 2004:104).

Depending on the transitivity and the voice morphology of the matrix verb, control constructions in Tajio may exhibit subject or object control. Intransitive matrix clauses always exhibit subject-control whereas transitive matrix clauses may exhibit subject- or object-control. Importantly, only the subject of the embedded clause can be omitted and controlled by the subject or the object of the matrix clause. Omission of the non-subject argument of the embedded clause results in ungrammaticality.

Examples (65) and (66) illustrate subject-control with an intransitive matrix clause. The argument that is omitted in (65) is the actor-subject of the embedded clause, in (66) the omitted argument is the undergoer-subject. In both cases, the missing arguments are controlled by the subject of matrix verb *nabasa* 'to be bored'.

(65) ***sia'u*** *nabasa* *[___* *nopenasui*
sia'u *nV-basa* ___ *no-pe-nasu-i*$_{APPL}$
1SG ST.RLS-bored ___ AV.RLS-SF-angry-APPL

tetuai'u]
te=tuai='u
NM=younger.sibling=1SG.GEN
'I was bored of blaming my younger brother.'

(66) ***sia'u*** *nabasa* *[___* *nipenasui*
sia'u *nV-basa* ___ *ni-pe-nasu-i*$_{APPL}$
1SG ST.RLS-bored ___ UV.RLS-SF-angry-APPL

nituai'u]
ni=tuai='u
GEN.HON=younger.sibling=1SG.GEN
'I was bored that my younger sibling blamed me.'

A transitive verb allowing for a control construction is, for example, the verb *tuju* 'ask, order'. In examples (67) and (68), the matrix verb *tuju* 'ask, order' is marked by the AV and UV morphology, respectively. Example (67)a shows object control: the object of the matrix clause, *sia'u* '1SG', controls the omitted subject of the embedded clause. In contrast, example (68)a shows subject-control: the subject of the matrix clause controls the omitted subject of the embedded clause. In both examples the missing arguments in embedded clauses are the actor-subjects. Omitting or controlling the undergoer-object of the embedded clause results in ungrammaticality, as illustrated in examples (67)b and (68)b.

(67) a. *siina* *nopetuju* ***sia'u*** *[____* *nondiisi*
si=ina *no-pe-tuju* ***sia'u*** ____ *no-ndiis-i*$_{APPL}$
HON=mother AV.RLS-SF-order **1SG** ____ AV.RLS-bath-APPL

tetuai'u]
te=tuai='u]
NM=younger.sibling=1SG.GEN]
'Mother asked me to bathe my younger sibling.'

b. **siina* *nopetuju* ***tetuai'u***
si=ina *no-pe-tuju* ***te=tuai='u***
HON=mother AV.RLS-SF-order **NM=younger.sibling=1SG.GEN**
[sia'u *nondiisi* *___]*
sia'u *no-ndiis-i*$_{APPL}$ ___
1SG AV.RLS-bath-APPL ___
For: 'Mother asked me to bathe my younger sibling.'

(68) a. ***sia'u*** *nipetuju* *niina*
sia'u *ni-pe-tuju* *ni=ina*
1SG UV.RLS-SF-order GEN.HON=mother

[___ *nondiisi* *tetuai'u]*
___ *no-ndiis-i*$_{APPL}$ *te=tuai='u*
___ AV.RLS-bath-APPL NM=younger.sibling=1SG.GEN
'Mother asked me to bathe my younger sibling.'

b. ****tetuai'u*** *nipetuju* *niina*
te=tuai='u *ni-pe-tuju* *ni=ina*
NM=younger.sibling=1SG.GEN UV.RLS-SF-order GEN.HON=mother

[sia'u *nondiisi* *___]*
sia'u *no-ndiis-i* ___
1SG AV.RLS-bath-APPL ___
For: 'Mother asked me to bathe my younger sibling.'

8.4.1.3 Raising

In raising constructions, an argument of the embedded clause is deleted and raised to function as an argument of the matrix clause. Just like the controlled element in control constructions, the raised element must likewise be the subject in Tajio. Raising a non-subject argument would result in an ungrammatical construction.

So far, only transitive raising verbs have been found in Tajio. Both raising-to-subject and raising-to-object depend on the voice morphology of the matrix clause. Raising-to-subject can be applied if the matrix clause is an UV construction whereas raising-to-object requires an AV matrix clause. Regarding its semantic role, the raised argument is always assigned an undergoer role.

Ranuan, 'hope, expect', is an example of a verb which exhibits raising-to-object properties. The matrix verbs in examples (69)a and (70)a bear AV marking, and hence the subject of the embedded clause can be raised to become the object of the matrix clause. Raising the object of the embedded clause, however, results in ungrammaticality, as can be seen in examples (69)b and (70)b.

(69) a. *sia'u* *noranuan* ***tagu'u***
sia'u *noN-ranuan* ***tagu='u***
1SG AV.RLS-hope **friend=1SG.GEN**

[____ *nenginang* *tegade'u]*
____ *neN-inang* *te=gade='u*
____ AV.RLS-eat NM=cake=1SG.GEN
'I expected my friend to eat my cake.'

b.*sia'u noranuan **tegade'u**
sia'u noN-ranuan **te=gade='u**
1SG AV.RLS-hope **NM=cake=1SG.GEN**

[tagu'u nenginang _____]
tagu='u neN-inang _____
friend=1SG.GEN AV.RLS-eat _____
For: 'I expected my cake my friend to eat.'

(70) a. sia'u noranuan **tegade'u**
sia'u noN-ranuan **te=gade='u**
1SG AV.RLS-hope **NM=cake=1SG.GEN**

[_____ niinang nitagu'u]
_____ ni-inang ni=tagu='u
_____ UV.RLS-eat GEN.HON=friend=1SG.GEN
'I expected my cake to be eaten by my friend.'

b.*sia'u noranuan **tagu'u**
sia'u noN-ranuan **tagu='u**
1SG AV.RLS-hope **friend=1SG.GEN**

[tegade'u niinang ____]
te=gade='u ni-inang ____
NM=cake=1SG.GEN UV.RLS-eat ____
For: 'I expected that my friend would eat my cake.'

Examples (71)a and (72)a illustrate a raising-to-subject construction with an UV matrix clause, again with the verb *ranuan* 'hope, expect'. Again, it is the subject argument of the embedded clause which can be raised to become subject of the UV matrix clause. In contrast, raising the object of the embedded clause into the subject position results in ungrammaticality, compare examples (71)b and (72)b.

(71) a. **tegade'u** niranuanu [____ niinang
te=gade='u ni-ranuan='u _____ ni-inang
NM=cake=1SG.GEN UV.RLS-hope=1SG.GEN _____ UV.RLS-eat

nitagu'u]
ni=tagu='u
GEN.HON=friend=1SG.GEN
'I expected that my friend would eat my cake.'

b. ***tegade'u** niranuanu [tetagu'u
te=gade='u ni-ranuan='u te=tagu='u
NM=cake=1SG.GEN UV.RLS-hope=1SG NM=friend=1SG.GEN

nenginang ____]
neN-inang ____
AV.RLS-eat ____
For: 'I expected my cake my friend to eat.'

(72) a. **tetagu'u** niranuanu [____ nenginang
te=tagu='u ni=ranuan='u ____ neN-inang
NM=friend=1SG.GEN UV.RLS-hope=1SG.GEN ____ AV.RLS-eat

tegade'u]
te=gade='u
NM=cake=1SG.GEN
'I expected that my friend would eat my cake.'

b. ***tetagu'u*** *niranuanu* *[tegade'u*
te=tagu='u *ni=ranuan='u* *te=gade='u*
NM=friend=1SG.GEN UV.RLS-hope=1SG.GEN NM=cake=1SG.GEN

niinang *____]*
ni=inang ____
UV.RLS-eat ____
For: I expected that my friend would eat my cake.'

8.4.1.4 Control in adverbial clauses

Another syntactic test which can be applied to determine the existence of the grammatical relation of subject in Tajio is control in adverbial clauses. The understood subject of the adverbial clause must refer to the matrix subject, not to the object, i.e., only the subject of the matrix clause can be the controller. In AV constructions, the controller is the actor-subject; in UV constructions, the controller is the undergoer-subject, as illustrated by examples (73) and (74), respectively.

(73) *i* *waktu* *nendiis* ***siwafik*** *nolevai*
i *waktu* *ne-ndiis* ***si=Wafik*** *no-leva-*i_{APPL}
LOC time DY.RLS-bath **HON=PN** AV.RLS-call-APPL

siinanya
si=ina=nya
HON=mother=3SG.GEN
'When $PRO_{i/x, *j}$ bathing, $Wafik_i$ called his $mother_j$.'

(74) *i* *waktu* *nendiis* ***siina***
i *waktu* *ne-ndiis* ***si=ina***
LOC time DY.RLS-bath **HON=mother**

nilevai *niwafik*
ni-leva-i_{APPL} *ni=Wafik*
UV.RLS-call-APPL GEN.HON=PN
'When $PRO_{i/x, *j}$ bathing, $Wafik_j$ called $mother_i$.'

The understood subject of the adverbial clause in example (73) is *si Wafik*. Likewise, the understood subject of the adverbial clause in example (74) is *siina* 'the mother'. Another interpretation is that the one who (X) is taking a bath is neither *Wafik* or *siina*. Thus, the interpretation for examples (73) and (74) can also be 'When X is bathing, Wafik called his mother'.

8.4.1.5 Secondary predicates and quantifier floating

Secondary predicates and floating quantifiers are often used in the literature on Austronesian languages to determine grammatical relations (cf. for example Kroeger 1993 for Tagalog, Wechsler and Arka 1998, and Arka 2003 for Balinese). In Tagalog, they can be used to determine the subject argument, while in Balinese they can only be used to distinguish core arguments from non-core arguments. For Tajio, however, it seems that secondary predicates and quantifier floating do not provide clear evidence that can be used to distinguish the subject argument from non-subject arguments. As in Balinese, it seems that they can only be used to distinguish core arguments from non-core arguments (see Section 8.4.2.1).

Secondary predicates and quantifier floating cannot be used to determine the subject argument because Tajio speakers often give ambiguous interpretations between a reading in which the secondary predicate or the floated quantifier modifies the subject and a reading where it modifies the object. This is especially the case in AV construction, as seen in the (a) examples of the following pairs of examples.

In UV constructions, however, speakers more confidently assert that secondary predicates and floated quantifiers modify subjects. The following examples illustrate secondary predicates (75) and floating quantifiers (76) in AV as well as in UV constructions.

(75) a. *sisia* *norumpak* *teasu* ***naate***
sisia *noN-rumpak* *te=asu* ***nV-ate***
3PL AV.RLS-hit NM=dog **ST.RLS-dead**
'They hit a dog (=and **they** died).'
'They hit a dog (=and **it** died).'

b. *teasu* *nirumpak* *ninia* ***naate***
te=asu *ni-rumpak* *ninia* ***nV-ate***
NM=dog UV.RLS-hit 3PL.GEN **ST.RLS-dead**
'They hit a dog (=and **it** died).'

(76) a. *sisia* *nongoli* *tegade* ***jojoo***
sisia *noN-oli* *te=gade* ***jojoo***
3PL AV.RLS-buy NM=cake **all**
'**They all** bought the cake.'

b. *tegade* *nioli* *ninia* ***jojoo***
te=gade *ni-oli* *ninia* ***jojoo***
NM=cake UV.RLS-buy 3PL.GEN **all**
'They bought **all the cake**.'

The preference for an interpretation in which the floated quantifier modifies the subject in UV constructions is also supported by conversational data. The quantifier *jojoo* 'all', which is floated to the end of the construction, is understood to modify the subject, as shown by example (77).

(77) *jio* *niepemu* *teasu* *nivava* *nikadek*
jio *ni-epe=mu* *te=asu* *ni-vava* *ni=Kadek*
NEG UV.RLS-hear=2SG.GEN NM=dog UV.RLS-bring GEN.HON=PN

jojoo
jojoo
all
'Didn't you hear that **all the dogs** were brought by Kadek?' (from the dialog *Noasu*)

Riesberg (2014:59), who has conducted research on four Austronesian languages (Indonesian, Balinese, Totoli and Tagalog), finds that constructions with floated quantifiers and 'floated' secondary predicates seem to be very unnatural. Especially for quantifiers, the strongly preferred position is clearly adjacent to the modified noun. This also seems to be true for Tajio. In most examples from natural discourse the quantifier *jojoo* 'all' is in fact placed directly after (or before) the modified nouns, as in examples (78)–(42).

(78) *moturumo* ***siami*** ***jojoo***
mo-turu=mo ***siami*** ***jojoo***
DY.NRLS-sleep=COMP **1PL.EX** **all**
'**All of us** will sleep.' (from the narrative *Teompas*)

(79) ***teanganaku*** ***jojoo*** *toponuut* *sebenarnya*
te=anganak=u ***jojoo*** *topo=nuut* *sebenarnya*
NM=child=1SG.GEN **all** AG.NOM=follow actually
'**All of my children** are obedient actually.' (from the dialog *Campur*)

(80) *jadi* ***jojoo*** <*te*> ***teijar*** *teijar* *nedei*
jadi ***jojoo*** ***te=ijar*** *te=ijar* *nV-dei*
so **all** **NM=sickness** NM=sickness ST.RLS-small

teijar *nooge*
te=ijar *nV-oge*
NM=sickness ST.RLS-big
'so, **all kinds of sicknesses**, light sickness and heavy sickness.'
(from the narrative *Hanyut perahu*)

(81)	*sapamo*	***joo***	*nipeutanyainya*	*ini*
	sapa=mo	***jojo***	*ni-pe-utanya-i=nya*	*ini*
	what=FOC	all	UV.RLS-SF-ask-APPL=3SG.GEN	PROX

'What was (it) all (about) she had asked?' (from the dialog *Campur*)

8.4.2 Object, obliques and adjuncts

The previous section presented syntactic tests that can be applied to determine subject arguments. This section focuses on grammatical relations other than the subjects (i.e., objects, obliques, and adjuncts). Objects in AV constructions are expressed by bare noun phrases. NP objects in UV constructions are marked by the genitive marker *ni=/nu=*. Object pronouns are either prefixed with the genitive marker *ni-*, or they can be expressed as genitive prefixes, or they occur as genitive clitics (see Section 8.1.2.2.1). Obliques, on the other hand, are marked by prepositions.

There are two kinds of obliques distinguished in this work: prepositional phrase obliques (oblique PP) and oblique-objects. Oblique-objects are objects in ditransitive constructions that are expressed as prepositional phrases. They are core arguments required by the predicate and deleting such an oblique-object results in ungrammaticality. Oblique PPs, on the other hand, are arguments which are more core-like than adjuncts, but a less prototypical core argument than an object or an oblique-object. Adjuncts are never obligatory, while oblique PPs – like oblique-objects – are obligatory prepositional phrase (PP) arguments (Kroeger 2005:58). The difference between these two oblique arguments is that the oblique-object forms a unit with the verb and cannot be separated from it, while this is not the case for oblique PPs.

The syntactic tests which will be applied here to distinguish objects from obliques are: (i) the behavior of secondary predicates and floated quantifiers; (ii) word order restrictions; (iii) reflexive binding; and finally (iv) adjunct fronting and deletion, which is used to distinguish adjuncts from obliques.

8.4.2.1 Secondary predicates and floated quantifiers

The use of syntactic tests using secondary predicates or floated quantifiers as discussed in Section 8.4.1.5 has shown that in actor voice constructions there is an ambiguous interpretation between a reading in which the secondary predicate or the floated quantifier modifies the subject and a reading where it modifies the object. However, as will be shown in this section, only core arguments (i.e., subject and object) can be modified by secondary predicates or the floated quantifiers. Example (82) illustrates that the floated quantifier *jojoo* 'all' can be used to modify the subject *sisia* '3PL' and the object *tebayas* 'sand', but not the oblique-PP *yami ogo* 'from the river'.

(82)	*sisia*	*nongala*	*tebayas*	*yami*	*ogo*	***jojoo***
	sisia	*noN-ala*	*te=bayas*	*yami*	*ogo*	***jojoo***
	3PL	AV.RLS-take	NM=sand	from	river	**all**
	'**All of them** took the sand from the river.'					
	'They took **all the sand** from the river.'					
	*'They took sand **from all the rivers**.'					

In some applicative constructions, animate obliques are marked by the preposition *mao* 'to' and in this case they are considered to be oblique-objects, i.e., core arguments (see Section 6.4.1.1). Being a core argument, this kind of oblique-object can be modified by the floated quantifier *jojoo* 'all', as illustrated by example (83), where the reading 'They sent the letter to **all teachers**' is also acceptable.

(83)	*sisia*	*nomaatuao*	*tesura'*	*mao*	*teguru*	***jojoo***
	sisia	*noN-paatu-ao*	*te=sura'*	*mao*	*te=guru*	***jojoo***
	3PL	AV.RLS-send-APPL	NM=letter	to	NM=teacher	**all**
	'**All of them** sent a letter to the teacher.'					
	'They sent **all the letters** to the teacher.'					
	'They sent the letter to **all the teachers**.'					

Example (84) illustrates that the secondary predicate *naate* 'dead' can be used to modify the subject *sisia* '3PL' and the object *teasu* 'dog', but not the oblique-PP *ri ariong Pak Ma'es* 'downward at Mr. Ma'es'.

(84) *sisia* *norumpak* *teasu* *ri* *ariong* *pak ma'es*
sisia *noN-rumpak* *te=asu* *ri* *ariong* *Pak Ma'es*
3PL AV.RLS-hit NM=dog LOC down.ward PN

naate
nV-ate
ST.RLS-dead
'They hit a dog downward at Mr. Ma'es (=and **they**) died.'
'They hit a dog downward at Mr. Ma'es (=and **it**) died.'
*'They hit a dog downward at Mr. Ma'es (=and **Mr. Ma'es**) died.'

8.4.2.2 Word order

With respect to word order, the main characteristic of AV constructions is that the verb is followed by the object (i.e., V_{AV}-O) and the subject can be placed before or after the verb phrase, yielding S-V_{AV}-O or V_{AV}-O-S. Likewise in UV constructions, the verb and the object are treated as a unit with the object following the verb (V_{UV}-O).

These AV and UV word order patterns are useful for distinguishing objects from obliques. The object is always placed adjacent to the verb and no argument can be inserted between V-O (but see below for one exception in AV). In contrast, obliques are not particularly closely attached to their verbs and they do not have to immediately precede or follow them. They can either be placed before or after the V-O unit.

Example (85) illustrates the different behavior of objects and obliques in an AV construction. As a unit, the verb *nombeta* 'to put' and the object *tetangkoyak* 'cacao beans' cannot be separated. In contrast, the oblique-PP *i karung* 'in the sack' can be placed before or after the V-O unit, but cannot be inserted between the V-O structure, as in (85)d.

(85) a. *sia'u* *[nombeta* *tetangkoyak]* ***i*** ***karung***
sia'u *noN-mbeta* *te=tangkoyak* ***i*** ***karung***
1SG AV.RLS-put NM=cacao.beans **LOC** **sack**
'I put the cacao beans in the sack.'

b. ***i*** ***karung*** *sia'u* *[nombeta* *tetangkoyak]*
i ***karung*** *sia'u* *noN-mbeta* *te=tangkoyak*
LOC **sack** 1SG AV.RLS-put NM=cacao.beans
'I put the cacao beans in the sack.'

c. *[nombeta* *tetangkoyak]* *sia'u* ***i*** ***karung***
noN-mbeta *te=tangkoyak* *sia'u* ***i*** ***karung***
AV.RLS-put NM=cacao.beans 1SG **LOC** **sack**
'I put the cacao beans in the sack.'

d. **sia'u* *nombeta* ***i*** ***karung*** *tetangkoyak*
sia'u *noN-mbeta* ***i*** ***karung*** *te=tangkoyak*
1SG AV.RLS-put **LOC** **sack** NM=cacao.beans
For: 'I put the cacao beans in the sack.'

Example (86) illustrates that the same restrictions apply to UV constructions. Although the object *Manding* is marked by the genitive marker *ni=*, it cannot be split apart from the UV verb *nimbeta* 'to put'. The oblique-PP *i karung* 'in the sack', however, can be placed before or after the V-O unit, but is not permitted to intervene between the constituents of the V-O unit, as in (86)d.

(86) a. *tetangkoyak* *[nimbeta* *nimanding]* ***i*** ***karung***
te=tangkoyak *ni-mbeta* *ni=Manding* ***i*** ***karung***
NM=cacao.beans UV.RLS-put GEN.HON=PN **LOC** **sack**
'The cacao beans were put in the sack by Manding.'

b. ***i*** ***karung*** *tetangkoyak* *[nimbeta* *nimanding]*
i ***karung*** *te=tangkoyak* *ni-mbeta* *ni=Manding*
LOC **sack** NM=cacao.beans UV.RLS-put GEN.HON=PN

'The cacao beans were put in the sack by Manding.'

c. *[nimbeta* *nimanding]* *tetangkoyak* ***i*** ***karung***
ni-mbeta *ni=Manding* *te=tangkoyak* ***i*** ***karung***
UV.RLS-put GEN.HON=PN NM=cacao.beans **LOC** **sack**
'The cacao beans were put in the sack by Manding.'

d. **tetangkoyak* *nimbeta* ***i*** ***karung*** *nimanding*
te=tangkoyak *ni-mbeta* ***i*** ***karung*** *ni=Manding*
NM=cacao beans UV.RLS-put **LOC** **sack** GEN.HON=PN
For: 'The cacao beans were put in the sack by Manding.'

8.4.2.3 Reflexive binding

Reflexive binding can be used to distinguish core arguments from non-core arguments. One of the reflexive pronouns in Tajio is *tealae* 'body'. In its reflexive use, it is normally accompanied by a possessive pronoun which agrees in person and number with its antecedent. The behavior of reflexives in Tajio seems to be determined by semantic roles rather than grammatical relations in that the reflexive pronoun must not outrank its antecedent on the semantic hierarchy. The semantic role hierarchy presented below is quoted from Bresnan and Kanerva (1992).

agent > beneficiary > recipient/experiencer > instrument > theme/patient > locative

Example (87)a illustrates that the actor-subject can bind the reflexive undergoer-object. In contrast, the reflexive actor-subject in (87)b cannot be bound by the undergoer object.

(87) a. ***siwada*** *neita* ***tealaenya*** *i* *lilinduan*
si=Wada *N-pe-ita* ***te=alae=nya*** *i* *lilinduan*
HON=PN AV.RLS-SF-see **NM=body=3SG.GEN** LOC mirror
'Wada saw herself in the mirror.'

b. ***tealaenya*** *neita* ***siwada*** *i*
te=alae=nya *N-pe-ita* ***si=Wada*** *i*
NM=body=3SG.GEN AV.RLS-SF-see **HON=PN** LOC
lilinduan
lilinduan
mirror
For: 'Wada saw herself in the mirror.'

In an UV construction as in (88)a, it is the actor-object which binds the reflexive undergoer-subject. This clearly shows that it is not grammatical relations but semantic roles that determine the binding relations here. In contrast, the reflexive actor-object in (88)b cannot be bound by the undergoer-subject.

(88) a. ***tealaenya*** *niita* ***niwada*** *i* *lilinduan*
te=alae=nya *ni-ita* ***ni=Wada*** *i* *lilinduan*
NM=body=3SG.GEN UV.RLS-see **GEN.HON=PN** LOC mirror
'Herself was seen by Wada in the mirror.'

b. ***siwada*** *niita* ***nialaenya*** *i* *lilinduan*
si=Wada *ni-ita* ***ni=alae=nya*** *i* *lilinduan*
HON=PN UV.RLS-see **GEN.HON=body=3SG.GEN** LOC mirror
For: 'Wada was seen by herself in the mirror.'

Reflexive binding is restricted to core arguments. Example (89)a shows that the subject-actor *si Asman* binds the object-patient *tealaenya* 'himself'. The oblique-beneficiary *siinanya* 'his mother', however, cannot bind the object-patient *tealaenya* 'herself' although beneficiary is higher than patient in the semantic role hierarchy, as in (89)b.

(89) a. ***siasman***$_i$ *nomacingi* ***tealaenya***$_{i/*k}$ *untuk*
si=Asman *noN-pacing=i* ***te=alae=nya*** *untuk*
HON=PN AV.RLS-clean=APPL **NM=body=3SG.GEN** for

siinanya$_k$
si=ina=nya
HON=mother=3SG.GEN
'Asman$_i$ cleaned himself$_i$ for his mother.'

b. ***siwada***$_i$ *nomacingi* ***tealaenya***$_{i/*k}$ *untuk*
si=Wada *noN-pacing=i* ***te=alae=nya*** *untuk*
HON=PN AV.RLS-clean=APPL **NM=body=3SG.GEN** for

siinanya$_k$
si=ina=nya
HON=mother=3SG.GEN
For: *'Wada$_i$ cleaned herself$_k$ for his mother$_k$.'

8.4.2.4 Adjunct fronting and deletion

A final test that can be applied in order to distinguish core arguments from non-core arguments involves adjunct fronting and deletion. Core arguments are required by their predicates; thus they have a close semantic relationship to the verb and without them the clause is incomplete (Kroeger 2005:58).[29] In contrast, adjuncts are not obligatory and can always be omitted. There is a fundamental difference between omitting a core argument and omitting an adjunct. As stated in Kroeger, omitting adjuncts does not create any sense of incompleteness, but omitting core arguments does, as illustrated by examples (90)b and (90)c. In the former, without the adjunct *sono tesensor* 'with the cutting machine' the clause is still grammatical and there is no need to assume that a specific cutting instrument is implicitly specified by the context. On the other hand, in (90)c, the undergoer must be contextually given in order for this to be a grammatical construction.

Core arguments and predicates have certain word order patterns, for example, constituting a fixed V-O unit. Changing the V-O order or inserting other elements between the verb and object results in ungrammaticality (see Section 8.4.2.2). In contrast, non-core arguments and predicates do not necessarily have a fixed order. As adjuncts and verbs do not constitute a fixed unit, adjuncts which canonically occur at the very end of a clause with an unmarked information structure can be fronted to clause-initial position, as shown by example (90)d.

(90) a. *siami* *mongolog* *teayu* ***sono***
siami *moN-olog* *te=ayu* ***sono***
1PL.EX AV.NRLS-cut NM=tree **with**

tesensor
te=sensor
NM=cutting.machine
'We will cut the tree with a cutting machine.'

b. *siami* *mongolog* *teayu*
siami *moN-olog* *te=ayu*
1PL.EX AV.NRLS-cut NM=tree
'We will cut the tree.'

c. *siami* *mongolog*
siami *moN-olog*
1PL.EX AV.NRLS-cut
'We will cut (i.e., wood/thing cut specified by context)'

d. ***sono*** ***tesensor*** *siami* *mongolog*
sono ***te=sensor*** *siami* *moN-olog*
with **NM=cutting.machine** 1PL.EX AV.NRLS-cut

[29] The distinction between core and non-core argument is theoretically more complex than this. See among others Dalrymple (2001), Musgrave (2002) and Van Valin (2005).

teayu
te=ayu
NM=tree
'It is with a cutting machine that we will cut the tree.'

In addition to distinguishing core arguments from adjuncts, it is also useful to distinguish adjuncts from obliques (i.e., oblique-object and oblique-PP). Both adjuncts and obliques are marked by prepositions and they are not required to occur adjacent to the predicate. In example (91), the main difference is a semantic one: omitting the oblique creates a semantically incomplete utterance. Therefore, similar to core arguments, obliques can be less easily ommited than adjuncts.

(91) a. *siami* *nomberek* ***i*** ***kasimbar***
siami *no-mberek* ***i*** ***Kasimbar***
1PL.EX DY.RLS-stay **LOC** **PN**
'We stayed in Kasimbar'

b. ?*siami* *nomberek*
siami *no-mberek*
1PL.EX DY.RLS-stay
'We stayed.'

8.5 Symmetry in Tajio

The last section of this chapter deals with symmetry in voice marking systems and argues that Tajio has a symmetrical voice system, i.e., that it has two basic transitive constructions, the actor voice (AV) and the undergoer voice (UV) construction.

Symmetrical and asymmetrical voice systems can be contrasted, for example, in terms of transitivity or in terms of the behavior of the non-subject argument in each voice system. In asymmetrical voice systems, active and passive voice differ in transitivity. Active voice is typically expressed as a transitive construction while passive voice is intransitive. The non-subject argument in the active and passive voice constructions also functions differently: it is a core object argument in the active voice, but functions as an oblique in the passive voice.

In contrast to asymmetrical voice systems, the actor voice and the undergoer voice in symmetrical voice systems are equally transitive. Thus, the subject and the non-subject arguments are both core arguments in AV and UV constructions.

Riesberg (2014:10) proposes three defining properties of a symmetrical voice language:

a. it has more than one basic transitive construction,

b. the corresponding arguments behave equally in all voices, and

c. the verb is equally morphologically marked in all voices.

Tajio is not fully symmetric, as it only complies with two out of these three requirements. It has two basic transitive constructions: AV and UV (property (i)). Morphologically, AV and UV constructions are equally marked, i.e., the AV construction is marked by active voice morphology (e.g. prefix *noN-/moN-* 'AV.RLS/NRLS') and the UV construction is marked by undergoer voice morphology (prefix *ni-/nu-* 'UV.RLS/NRLS') (property (iii)).

As to property (ii), the arguments of AV and UV are not equally marked in both voices. Neither subjects nor objects are marked in AV constructions. In UV constructions, however, subjects are unmarked while objects are marked, either by prefixation or clitization.

Evidence from relativization, control and raising constructions supports the analysis that AV and UV are in fact transitive, with subject arguments and object arguments behaving alike in both voices. Only the subject can be relativized, controlled, raised or function as the implicit subject of subjectless adverbial clauses. In contrast, the objects of AV and UV constructions do not exhibit these features.

Further, word order also provides evidence that AV and UV are structured in the same way. Basic word order in AV and UV constructions is V-O, which as a unit can be preceded or followed by the

subject. Thus, basic word order in both AV and UV is S-V-O or V-O-S. Subject as well as non-subject arguments may be omitted when contextually specified.

Despite the evidence for the symmetry of the voices in Tajio, evidence for asymmetry also exists. In an AV construction, either the subject or the object can be modified by the secondary predicate or the floated quantifier. In this case, the object can only be modified if it is directly followed by a modifier. In UV constructions, however, the secondary predicates or floated quantifiers can only be interpreted as modifying the subjects. Hence, objects in AV and UV constructions do not have the same properties. Thus, one could argue that the object (i.e., actor) in UV constructions is less core-like than the object argument in an AV construction. However, given that most facts support the conclusion that Tajio is indeed a symmetrical voice language, the most fitting analysis remains one emphasizing this symmetry. As Riesberg (2014:11) states, "symmetrical voice languages do not necessarily show all these properties in the same manner, i.e., languages might differ to the degree in which they are symmetric. (…) it is often the case that some of the characteristics can only partly be found in a given language. Nevertheless, these languages still differ crucially from languages with asymmetrical voice systems".

9 Complex constituent structure

Complex constituent structures as discussed in this chapter involve coordination on phrase and clause levels as well as subordination on the clause level. These two types of constituent combinations are discussed in Section 9.1 and 9.2, respectively. The discussion on coordination covers three types of coordination found in Tajio: conjunctive coordination, disjunctive coordination, and adversative coordination. The types of subordination described here are complement clauses and adverbial clauses. Relative clauses have been already dealt with in Section 7.3. In addition to coordination and subordination, serial verb constructions are discussed in Section 9.3.

9.1 Coordination

A structure is defined as a coordination structure if two units that belong to the same category are combined to form a larger unit of that category (Kroeger, 2005:218).

Conjunctive coordination involves the use of the comitative marker *sono* 'with'. This marker is not only used to mark phrasal coordination, but it can also be used to mark prepositional phrases. In phrasal coordination, *sono* is mostly used to coordinate noun phrases: *sono* conjoins two NPs which are placed adjacent to each other. Syntactically, the conjoined NPs have the same syntactic function, i.e., subject or object, as can be seen in examples (1) and (2). The conjoined noun phrases are put in square brackets.

(1) *[siardin]* ***sono*** *[siaida]* *nomberek* *i* *kasimbar*
si=Ardin ***sono*** *si=Aida* *noN-berek* *i* *Kasimbar*
HON=PN **with** HON=PN AV.RLS-stay LOC PN
'Ardin and Aida stay in Kasimbar.' (from the dialog *Campur*)

(2) *siwafik* *nomiara* *[teasu]* ***sono*** *[tetumpang]*
si=Wafik *noN-piara* *te=asu* ***sono*** *te=tumpang*
HON=PN AV.RLS-look.after NM=dog **with** NM=frog
'Wafik looked after a dog and a frog.' (from the Frog Story)

Sono can also be used to conjoin prepositional phrases as exemplified in (3).

(3) *tahun* *lapan* *pulu* *noturun* *tepomerinta* *[mami* *Jakarta]*
tahun *lapan* *pulu* *no-turun* *te=pomerinta* *mami* *Jakarta*
year eight ten DY.RLS-go down NM=government from Jakarta

sono *[i* *provinsi]*
sono *i* *provinsi*
with LOC province
'…in the 1980s, government officials came from Jakarta and from the province.'
(from the narrative *Sejarah Kasimbar*)

The fact that *sono* can be used to coordinate prepositional phrases and clauses (as illustrated below) shows that in these uses it is best analysed not as a preposition but as a coordinator. Still, with regard to NPs prepositional and coordinating uses overlap and are difficult to distinguish, as shown by example (4) which illustrates a clearly prepositional use. Here the two NPs perform the action denoted by the predicate together are not conjoined to form a new complex NP and they do not occur in the same function. The first NP *si Hasan* functions as the subject which precedes the predicate at clause-initial position while the second NP *si Sari* which accompanies the first NP performing the action takes the adverbial function at clause-final position (see also Section 4.3.5 where uses of *sono* to mark instrument is discussed).

(4) *[sihasan]* *mao* *i* *posoleong* ***sono*** *[sisari]*
si=Hasan *mao* *i* *posoleong* ***sono*** *si=Sari*
HON=PN go LOC beach **with** HON=PN
'Hasan went to the beach with Sari.'

In clausal coordination, it is a common practice to omit co-referent arguments. As stated by Haspelmath (2007:38), such ellipsis is due to reasons of parsimony, avoiding the repetition of identical material. The omitted argument does not necessarily have to be the subject, it is generally possible to omit all kinds of constituent, as illustrated by the following examples.

Example (5) illustrates the coordination of two intransitive clauses: (i) *Tevuvut nisari nelenda.* 'Sari's hair is long' and (ii) *Tevuvut nisari neitong.* 'Sari's hair is black'. In this case, the subject argument is omitted and the coordinator *sono* conjoins the predicates of the two independent clauses. The two predicates take the same mood marker, i.e., the realis mood.

(5)	*tevuvut*	*nisari*	*nelenda*	***sono***	*neitong*
	te=vuvut	*ni=Sari*	*nV-lenda*	***sono***	*nV-itong*
	NM=hair	GEN.HON=Sari	ST.RLS-long	**with**	ST.RLS-black
	'Sari's hair is long and dark.'				

The omission of the subject argument can also be seen in example (6) where the locative phrase is additionally omitted from the first clause.

(6)	*siwada*	*nomberek*	***sono***	*nokaraja*	*i*	*kasimbar*
	si=Wada	*no-mberek*	***sono***	*no-karaja*	*i*	*Kasimbar*
	HON=Wada	DY.RLS-live	**with**	DY.RLS-work	LOC	Kasimbar
	'Wada lives and works in Kasimbar.'					

Example (7) shows the omission of subject argument in transitive AV clause coordination. It derives from two AV clauses: (i) *Sisia nopombosi teato'.* 'They fixed the roof.' and (ii) *Sisia nopapacing tevombong.* 'They cleaned the door.'

(7)	*sisia*	*nopombosi*	*teato'*	***sono***	*nopapacing*
	sisia	*no-PO-mbosi*	*te=ato'*	***sono***	*no-PO-pacing*
	3PL	AV.RLS-CAUS-good	NM=roof	**with**	AV.RLS-CAUS-clean

tevombong
te=vombong
NM=door
'They fixed the roof and cleaned the door.'

The deletion of both subject and object arguments in AV clause coordination can be seen in example (8). This example consists of two AV clauses: (i) *Si Manding nomuai tesakulat.* 'Manding dried the cacao.' and (ii) *Si Manding nombaluk tesakulat.* 'Manding sold the cacao.' The first and the second AV clauses share the same subject (i.e., *si Manding*) and the same object (i.e., *tesakulat*). When both clauses are coordinated, the first clause omits its object argument while the second clause omits its subject argument.

(8)	*simanding*	*nomuai*	***sono***	*nombaluk*	*tesakulat*
	si=Manding	*noN-puai*	***sono***	*noN-baluk*	*te=sakulat*
	HON=Manding	AV.RLS-dry	**with**	AV.RLS-sell	NM=cacao
	'Manding dried and sold the cacao.'				

A parallel example of UV clause coordination is presented in example (9). This example consists of the two clauses: (i) *Teanasa nitovong niami.* 'We cut pandanus leaves.' and (ii) *Teanasa niveesi niami.* 'We tied pandanus leaves.' The first UV clause deletes its object argument *niami*, while the second UV clause deletes its subject argument, *teanasa*.

(9)	*teanasa*	*nitovong*	***sono***	*niveesi*	*niami*
	te=anasa	*ni-tovong*	***sono***	*ni-vees-i*	*niami*
	NM=pandanus	UV.RLS-cut	**with**	UV.RLS-tie-UV	GEN.3PL
	'We cut and tied the pandanus leaves.'				

As mentioned above, it is also possible to omit other constituents, if they are repeated in both conjoint clauses. In the following example, not only the subject *si Sari* but also the auxiliary verb *seelunya* is omitted. Thus, example (10) originates from: (a) *Si Sari seelunya nonggabu.* 'Sari likes to cook.' and (b) *Si Sari seelunya nejoong.* 'Sari likes to do the field'.

(10) *sisari* *seelunya* *nonggabu* ***sono*** *nejoong*
si=Sari *seelu=nya* *noN-gabu* ***sono*** *ne-joong*
HON=PN like=3SG.GEN AV.RLS-cook **with** DY.RLS-field
'Sari likes to cook and do the field.'

Furthermore, *sono* may also conjoin two clauses which do not necessarily show the same transitivity or have the same clause structure. Compare examples (11) and (12). In example (11) *sono* conjoins an intransitive verbal clause and a non-verbal clause; in (12) it coordinates an intransitive verbal clause and a transitive verbal clause.

(11) *[siwafik* *nangimpado* *i* *vamba* *nuvatang]* ***sono***
si=Wafik *nangi-mpado* *i* *vamba* *nuvatang* ***sono***
HON=Wafik DY.RLS.REP-climb.to.sit LOC above GEN=log **with**

[teasu *vai* *i* *vamba* *nuvatang]*
te=asu *vai* *i* *vamba* *nu=vatang*
NM=dog also LOC above GEN=log
'Wafik climbed to sit on the log and the dog was also on top of the log.'
(from the Frog Story)

(12) *[sia'u* *netensile* *mao* *i* *vonua* *nongala* *tekarung]*
sia'u *ne-tensile* *mao* *i* *vonua* *noN-ala* *te=karung*
1SG DY.RLS-go.home go LOC hause AV.RLS-take NM=sack
sono *[teponiluk* *nivava'u* *mao* *i* *pomuaiong]*
sono *te=poniluk* *ni-vava='u* *mao* *i* *poN-puai-ong*
with NM=pail UV.RLS-bring=1SG.GEN go LOC NOM-dry.out-NOM
'I went home taking the sack and I brought the pail to the drying yard.'
(from the narrative *Nomupu tesakulat*)

Disjunctive coordination is marked by the conjunctions *ela/la* and *atau/ato.* Despite their differing origins −*atau/ato* are Indonesian loan words−there are no syntactic or semantic differences between *ela/la* and *atau/ato*. They can be used in either phrasal or clausal coordination. In phrasal coordination, they conjoin noun phrases and prepositional phrases. Examples (13)–(15) illustrate it.

(13) A: *to'ainu* *toseelumu*
to'ainu *to=seelu=mu*
which REL=like=2SG.GEN
'Which (meat) do you like?'

[teisi *numanu']* ***ela*** *[te=isi* *nusaping]*
te=isi *nu=manu'* ***ela*** *te=isi* *nu=saping*
NM=meat GEN=chicken **or** NM=meat GEN=cow
'Chicken or beef?'

(14) *ane* *noondak* *teeleo* *[roeleo]* ***ato*** *[tolueleo]*
ane *nV-ondak* *te=eleo* *ro-eleo* ***ato*** *tolu-eleo*
if ST.RLS-hot NM=sun two-day **or** three-day
'If the sun shines brightly, (it takes) two or three days (to dry the coconut)'
(from the dialog *Teulingka*)

(15) *peiolimo* *sisanu* *paame* *[siama*
pei-oli=mo *si=sanu* *paame* *si=ama*
REQ.CAUS-buy=COM HON=someone later HON=father

nigus] ***atau*** *[siunus]*
ni=Gus ***atau*** *si=Unus*
GEN.HON=PN **or** HON=PN
'Ask (someone) Gus's father or Unus to buy (the cacao) later.'

These conjunctions can also be used to conjoin prepositional phrases as exemplified in (16). Meanwhile, example (17) shows noun phrase coordination within a prepositional phrase. In this case, two genitive NPs are conjoined and the head noun of the second NP may be deleted.

(16) *panisiao'u* *[i* *lalong* *nukarung]* ***atau*** *[i*
pa=ni-isi-ao='u *i* *lalong* *nu=karung* ***atau*** *i*
then=UV.RLS-fill-APPL=1SG.GEN LOC inside GEN=sack **or** LOC

karanjing]
karanjing
basket
'…I then put (it) in a sack or in a basket.' (from the narrative *Nomupu Tesakulat*)

(17) *nimbetao'u* *[i* *lalong* *nukaranjing]* ***ato*** *[nukarung]*
ni-mbeta-ao='u *i* *lalong* *nu=karanjing* ***ato*** *nu=karung*
UV.RLS-put-APPL=1SG.GEN LOC inside GEN=basket **or** GEN=sack
'I put (it) in the basket or in the sack.' (from the narrative *Nomupu tesakulat*)

The disjunctive conjunction can also conjoin verbal phrases, as illustrated in (18). The conjoined verbal phrases take the same voice and mood marker.

(18) *ane* *telangkai* *nombava*
ane *te=langkai* *noN-vava*
if NM=man AV.RLS-bring

[niingkingnya] ***ato*** *[nisangkiling]*
ni-ingking=nya ***ato*** *ni-sangkiling*
UV.RLS-carry.hanging.on.the.hand=3SG.GEN **or** UV.RLS-hang.on.shoulder
'If a man carried (it), he carried it hanging on the hand or hanging it on the shoulder.'
(from the narrative *Nonggutu tebalase*)

Examples (19) and (20) present alternative conjoined clauses with the conjunction *ela/la*.

(19) *[mogombo'i* *tejoong]* ***la*** *[mogombo'i* *teparuja]*
mo-gombo'-i *te=joong* ***la*** *mo-gombo'-i* *te=paruja*
AV.RLS-talk-APPL NM=field **or** AV.RLS-talk-APPL NM=rice.field
'Talking about the field or talking about the rice field.'

(20) *jio* *niotoi'u* *[majaok* *siia]* ***ela*** *[ajio]*
jio *ni-otoi='u* *ma-jaok* *siia* ***ela*** *ajio*
NEG UV.RLS-know-1SG.GEN ST.NRLS-come 3SG **or** NEG
'I don't know whether she will come or not.'

In addition to the two types of conjunctions discussed so far, the adversative conjunctions *boi* and *tetapi/tapi* (borrowed from Indonesian) can also be used to conjoin phrases and clauses. The conjoined constituents in adversative conjunction are in opposition.

In example (21), the opposition of two constituents is achieved by negating the verb of the first constituent, i.e., *ajio nelenda* 'not long' which is then opposed to another verb *nopuduk* 'short'. In example (22) the opposed constituents are two clauses which involve opposing verbal auxiliaries, i.e. *seelu* 'want' and *kua* 'not want'.

(21) *tevuvutu* *ajio* *[nelenda]* ***tapi*** *[nopuduk]*
te=vuvut='u *ajio* *nV-lenda* ***tapi*** *nV-puduk*
NM=hair=1SG.GEN NEG ST.RLS-long **but** ST.RLS-short
'My hair is not long but short.'

(22) *[tepaku* *seelu'u* *mombava]* ***boi*** *[tegola*
te=paku *seelu='u* *moN-vava* ***boi*** *te=gola*
NM=nail want=1SG.GEN AV.NRLS-bring **but** NM=sugar

kua=’u *mombava]*
kua’u *moN-vava*
not.want=1SG.GEN AV.NRLS-bring
‘I want to bring the nail, but I don’t want to bring the sugar.’

Opposed constituents are not restricted to verbal phrases, it is also possible to contrast noun phrases which function as subject arguments, as non-subject arguments or as predicates. In example (23), the subject NP *ajio tetuainya* ‘not his younger sibling’ is contrasted with *sikakanya* ‘his older sibling’, and in example (24) the subject NP *ajio tepae* ‘not rice’ is opposed to *tecanggoreng* ‘peanuts’.

(23) *ajio* *tetuainya* *noborowa* ***boi***
ajio *te=tuai=nya* *no-borowa* ***boi***
NEG NM=younger.sibling=3SG.GEN ST.RLS-parsimonious **but**

sikakanya
si=kaka=nya
HON=older.sibling=3SG.GEN
‘It is not his younger sibling who is parsimonious, but his older sibling.’

(24) *ajio* *tepae* *tonitudanya* ***boi*** *tecanggoreng*
ajio *tepae* *tonitudanya* ***boi*** *te=canggoreng*
NEG NM=rice REL=UV.RLS-plant=3SG.GEN **but** NM=peanut
‘He did not plant rice, but (he planted) peanut.’

Contrasted non-subject arguments are exemplified in examples (25) and (26). In the former, the nominal adverb *telangkai* ‘male’ is contrasted with *tevevine* ‘female’ and in the latter, the PP adverb *i Palu* ‘in Palu’ is contrasted with *i Kasimbar* ‘in Kasimbar’.

(25) *sisia* *ajio* *nongoli* *teruriang* ***boi*** *terambutan*
sisia *ajio* *noN-oli* *te=ruriang* ***boi*** *te=rambutan*
3PL NEG AV.RLS-buy NM=durian **but** NM=rambutan
‘They did not buy durian, but rambutan.’

(26) *kasim* *jio* *nokaraja* *i* *palu* ***boi*** *i* *kasimbar*
Kasim *jio* *no-karaja* *i* *Palu* ***boi*** *i* *Kasimbar*
Kasim NEG DY.RLS-work LOC Palu **but** LOC Kasimbar
‘Kasim did not work in Palu, but in Kasimbar.’

Example (27) shows the adversative conjunction *boi* opposing two NPs functioning as predicate: the first NP is negated, while the second NP is not negated.

(27) *teayu* *eua* *ajio* *teayu* *jati* ***boi*** *teayu*
te=ayu *eua* *ajio* *te=ayu* *jati* ***boi*** *te=ayu*
NM=wood DIST NEG NM=wood teakwood **but** NM=wood

ulin
ulin
ironwood
‘That wood is not teakwood, but ironwood.’

9.2 Subordination

In subordination structures, a clause functions as a noun phrase, a noun modifier, or a modifier of verb phrases or entire propositions. There are three basic types of subordinate clauses in Tajio: complement clauses, adverbial clauses and relative clauses. In this section, I will only discuss complement and adverbial clauses. Relative clauses functioning as modifiers are discussed in detail in Section 7.3.

9.2.1 Complement clauses

Complement clauses are clauses that function as sentential expansions of subject or object slots. Adverbial clauses function as modifiers of verbs and propositions and relative clauses function as modifiers of a noun phrase (cf. Kroeger 2005:219 and Longacre 2007:374).

Complementation in Tajio does not always occur with an overt marker, as illustrated by examples (28)a and (29). These examples are considered complement clauses because syntactically, the second clause functions as the subject of the first clause. If the second clause is omitted from the sentence, the example is not grammatical, as seen in (28)b, unless it is understood from context.

(28) a. ***niularaonya*** ***ri*** ***sia'u*** *tesapingnya*
ni-ular-ao=nya ***ri*** ***sia'u*** *te=saping=nya*
UV.RLS-tell=3SG.GEN **LOC** **1SG** NM=cow=3SG.GEN

nepeesong
nV-pees-ong
ST.RLS-sickness-VBLZ
'He told me that his cow was sick.'

b. ****niularaonya*** ***ri*** ***sia'u***
ni-ular-ao=nya ***ri*** ***sia'u***
UV.RLS-tell=3SG.GEN **LOC** **1SG**
'He told me'

(29) ***jio*** ***niepemu*** ***ja*** *teasu* *nivava*
jio ***ni-epe=mu*** ***ja*** *te=asu* *ni-vava*
NEG **UV.RLS-hear=2SG.GEN** **FOC** NM=dog UV.RLS-bring

nikadek *jojo*
ni=Kadek *jojoo*
GEN.HON=PN all
'Don't you hear that all the dogs were brought by Kadek?'

(from the dialog *Noasu*)

Tajio does not have a specialized complement marking subordinator. Subordinating conjunction *ane* 'if' in example (30) or question words such as *i payo* 'where' in example (31) can introduce complement clauses.

(30) *jio* *niotoi'u* ***ane*** ***simiu*** ***nonyambale***
jio *ni-otoi='u* ***ane*** ***simiu*** ***noN-sambale***
NEG UV.RLS-know=1SG.GEN **if** **2SG.HON** **AV.RLS-slaughter**

tesapingmu
te=saping=mu
NM=cow=2SG.GEN
'I did not know that you slaughtered your cow.'

(31) *siia* *jio* *niotoinya* ***i*** ***payo*** ***tevonua'u***
siia *jio* *ni-otoi=nya* ***i*** ***payo*** ***te=vonua='u***
3SG NEG UV.RLS-know=3SG.GEN **LOC** **where** **NM=house=1SG.GEN**
'He does not know where my house is.'

Examples (28)−(31) all illustrate complement clause constructions in which the first clause is the matrix clause and the second one is the complement clause. Syntactically, the complement clause functions as subject of the matrix UV predicate. In my corpus, there are no examples of complement clauses functioning as the subject of a matrix AV predicate.

In the preceding examples, both subject and object of the complement clauses are overtly expressed, showing that these are complete clauses

Complement clauses functioning as the object of a matrix UV predicate or as the object of an AV matrix clause have only been found in reduced complement clause constructions, i.e., involving

control or raising constructions. Unlike in full clause complementation, the subject of the embedded clause in control or raising constructions is not overtly expressed. As one of the arguments of the matrix clause is co-referential with the subject of the embedded clause, the subject of the embedded clause is omitted. Further discussion on control and raising constructions can be found in Sections 8.4.1.2 and 8.4.1.3.

9.2.2 Adverbial clauses

In contrast to complement clauses which are required by the predicate to fulfil the subject or object function, adverbial clauses provide optional information about time, place, manner, purpose, reason, etc. (cf. Kroeger 2005:227).

9.2.2.1 Time

Conjunctions which mark subordinate clauses as temporal clauses are *pas/papas* 'when', *sarongnya* 'while', and *touk* or *notouk* 'after' (which is often combined with the completive aspect marker *=mo*). Other conjunctions are borrowed from Indonesian, for example, *sementara* 'while' and *waktu* (which also occurs as *i waktu*) 'as'. Examples are given in (32)–(35), the temporal clauses are in bold.

(32) *e* ***notouk*** ***nombobak*** ***tesapa*** ***ua***
e ***notouk*** ***noN-bobak*** ***te=sapa*** ***ua***
eh **after** **AV.RLS-hit** **NM=what** **DIST**

teanganaku *ja* *i* *ariong* *i* *vonua*
te=anganak='u *ja* *i* *ariong* *i* *vonua*
NM=child=1SG.GEN really LOC down.there LOC house
'After hitting that thing (the pig), my child was down there, at home.'
(from the dialog *Noasu*)

(33) ***nosondokmo*** ***teeleo*** *sia'u* *nendiis* *apa*
nV-sondok=mo ***te=eleo*** *sia'u* *ne-ndiis* *apa*
ST.RLS-sunset=COMP **NM=sun** 1SG DY.RLS-bath then

nenginang
neN-inang
AV.RLS-eat
'As the sun went down, I took a bath and then had supper.'

(34) ***sementara*** ***siia*** ***nerai*** *nijaok* *nuvuata*
sementara ***siia*** ***ne-rai*** *ni-jaok* *nu=vuata*
while **3SG** **DY.RLS-wash.hair** UV.RLS-meet GEN=guest
'While she washed her hair, she was found by the guest.'
(from the narrative *Tana Tajio*)

(35) ***papas*** ***temandar*** ***najaok*** *nesimbar* *teeleo*
papas ***te=Mandar*** ***nV-jaok*** *nV-simbar* *te=eleo*
as **NM=PN** **ST.RLS-arrive** ST.RLS-shine NM=sun
'As the Mandar came, the sun was shining.' (from the narrative *Sejarah Kasimbar*)

'Before' is conceptually "negative" in Tajio, in the sense that the event in the 'before'-clause has not taken place by the time of the event denoted in the main clause. 'Before' is marked by the negative marker *jio* and the continuative aspect marker *=po*, (i.e., *jiopo* or *jopo*). Examples are given in (36) and (37). In addition, *jiopo* is also used to negate predicates meaning 'not yet' (see Section 5.3.2).

(36) ***jiopo*** ***sia'u*** ***nilulesinya***
jio=po ***sia'u*** ***ni-lules-i=nya***
NEG=CONT **1SG** **UV.RLS-bite-UV=3SG.GEN**

niita'umo *telinganya*
ni-ita='u=mo *telinga=nya*
UV.RLS-see=1SG=COMP ear=3SG.POSS
'Before it (the pig) bit me, I saw his ears' (from the dialog *Noasu*)

(37) ***jiopo*** ***natandak*** *niepenyamo* *tekareva*
jio=po ***nV-tandak*** *ni-epe=nya=mo* *te=kareva*
NEG=CONT **ST.RLS-arrived** UV.RLS-hear=3SG.GEN=COMP NM=news

naatemo *ja* *tonipalainya*
nV-ate=mo *INJ* *to=ni-palai=nya*
ST.RLS-dead=COMP INJ REL=UV.RLS-leave=3SG.GEN
'Before (he) arrived (at home), he heard that the thing that he had left (the pig) was already dead.'
(from the dialog *Noasu*)

9.2.2.2 Purposive clauses

Purposive clauses are marked by the subordinator *tau* 'so that' and *supaya* 'so that', the latter being a loan word from Indonesian. Purposive connections of events show an *action–(intended) result/purpose* relation in which the action is either in the process of being done at the time of speaking or has been done in the past (with the verb being marked with realis mood) while the result will take place at some point in the future (in non-realis mood). The purposive constructions are further discussed in Section 5.1.3.2.

9.2.2.3 Conditional clauses

Conditional clauses in Tajio are used to express *condition–result* relations. Clauses indicating the condition are marked by the conjunction *ane* 'if'. There are two kinds of conditional clauses in Tajio, hypothetical and counterfactual clauses. Details on the distinction between the two clauses are given in Section 5.1.3.3.

9.2.2.4 Causation

Causation or causal clauses express *cause-effect* relation. Causal markers in Tajio are *apa*[30] 'because' or *karna* and *lantaran* 'because', the latter two being loan words from Indonesian. The effect is presented in the matrix clause whereas the cause occurs in the subordinate clause. The subordinate clause can precede or follow the matrix clause. Examples of causal clauses are given in (38) and (39).

(38) ***lantaran*** *jio* *noujang* *roeleo* *tetana* *noogal*
lantaran *jio* *nV-ujang* *ro-eleo* *te=tana* *nV-ogal*
because NEG ST.RLS-rainy two-day NM=soil ST.RLS-dry
'Because it was not raining for two days, the soil is dry.'

(39) *topobaluk* *ajio* *nobaluk* *terisa*
topo-baluk *ajio* *N-po-baluk* *te=risa*
AG.NOM-sell NEG AV.RLS-SF-sell NM=chili

apa *teolinya* *nasuli'* *pia*
apa *te=oli=nya* *nV-suli'* *pia*
because NM=price=3SG.GEN ST.RLS-expensive very
'Many sellers do not sell chili, because its price is very expensive.'

9.2.2.5 Concessive clauses

The concessive marker in Tajio is *ompo* 'although'. In concessive clause structures, the embedded clause which is marked by *ompo* may be a complete clause, as shown by example (40), or an elliptical clause, where one argument is omitted. This is illustrated by example (41).

(40) *[**ompo*** *siamanya* *nopetuju* *siia* *momupu*
ompo *si=ama=nya* *no-pe-tuju* *siia* *moN-pupu*
although NM=father=3SG.GEN AV.RLS-SF-order 3SG AV.NRLS-harvest

tekopi] *[siia* *kuanya* *momupu* *tekopi]*
te=kopi *siia* *kua=nya* *moN-pupu* *te=kopi*
NM=coffee 3SG don't want=3SG.GEN AV.NRLS-harvest NM=coffee

[30] Note that the conjunction *apa* is also used in sequential events. In this context, *apa* means 'then'.

‘Although his father told him to do so, he won’t pick coffee.

(41) *teuli’u*	*eini*	*[**ompo***	*nendiis]*	*nagabung*
te=uli=’u	*eini*	***ompo***	*ne-ndiis*	*nV-gabung*
NM=skin=1SG.GEN	PROX	**although**	DY.RLS-bath	ST.RLS-dusty

boi
boi
INJ
‘Although (I) took a bath, my skin is still dusty.’ (from the dialog *Campur*)

9.3 Serial verb constructions

Serial verb constructions (SVC) are constructions in which two or more verbs occur in juxtaposition without any sign of overt co- or subordination. They appear to be monoclausal, may share core and non-core arguments and each verb of an SVC must be able to occur in isolation (cf. Aikhenvald (2006), Kroeger (2004)).

An example of a SVC in Tajio can be seen in example (43). The two verbs are not linked by any overt marker of conjunction or subordination. Each verb may occur in isolation, i.e., it is able to function as a simplex predicate as well, as can be seen from examples (42)a, b. In the following, the first verb in a SVC will be label V_1 and the second as V_2, in order to more conveniently refer to the two verbal elements.

(42) a. *sia’u* ***mai*** *joong*
sia’u ***mai*** *joong*
1SG **go.to** field
‘I went to the field.’

b. *sia’u* ***nendiis***
sia’u ***ne-ndiis***
1SG **DY.RLS-bath**
‘I took a bath.’

(43) *sia’u*	*jiopo*	*[**mai***	***nendiis**]*
		V_1	V_2
sia’u	*jio=po*	***mai***	***ne-ndiis***
1SG	NEG=CONT	**go.to**	**DY.RLS-bath**

‘I have not gone for a bath yet.’ (from the dialog *Campur*)

In example (43), the two verbs also are part of the same prosodic unit, as illustrated in Figure 9-1.

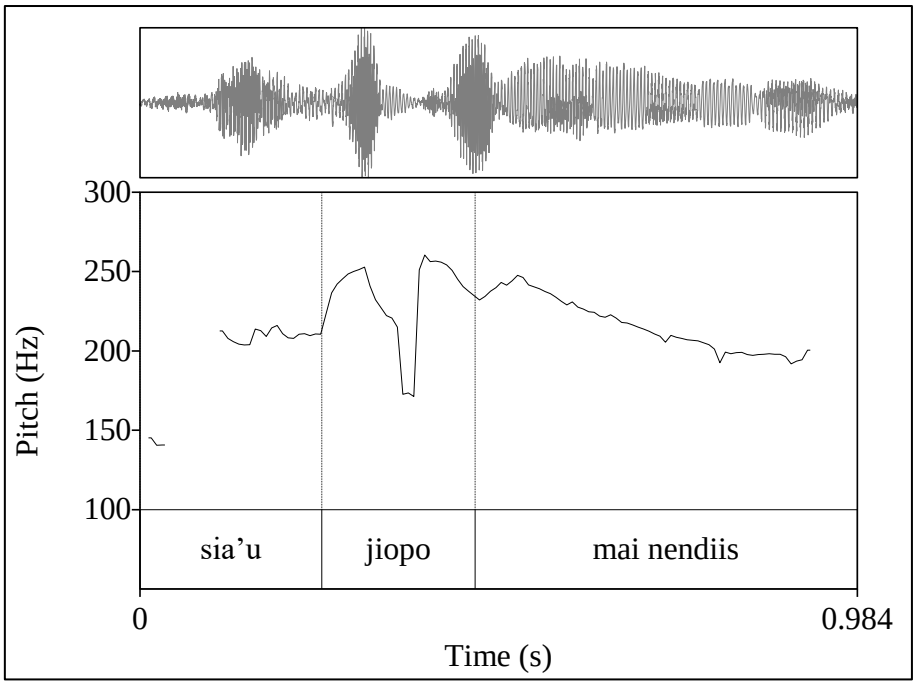


Figure 9-1: F0 for a SVC

SVCs in Tajio always include a directional. The directional verb or the motion verb always comes first and they can be followed by any other verb.

The number of verbs that may occur in V_1 position is rather limited to the following four verbs: *mao* 'go', *mai* 'go to', *minyei* 'go here' or *minyau* 'go there'. *Minyei* and *minyau* can also function as non-verbal directionals, in certain contexts meaning 'hither/upwards/landwards' and 'downwards/seawards', respectively. Unlike other verbal predicates that obligatorily occur with a mood marker, these directionals never take any inflection. The forms *mao, mai, minyei* and *minyau* cannot be considered non-realis forms, because the hypothetical realis forms **nao*, **nai*, **ninyei* and **ninyau* do not exist in Tajio. Although they do not take any inflection, these directionals can occur in a predicate function, as shown by examples (44)–(46).

(44) *siia* ***mao*** *i* *joong*
siia ***mao*** *i* *joong*
3SG **go** LOC field
'I went to the field.'

(45) *sisia* ***minyei*** *mariulumo*
sisia ***minyei*** *mariulu=mo*
3PL **go.here**at.first=COMP
'They went there first (before someone else).' (from the dialog *Campur*)

(46) *simiu* ***minyau*** *sono* *sikapala*
simiu ***minyau*** *sono* *si=kapala*
2SG.HON **go.there** with HON=head.of.village
'You went there with the head of the village?' (from the dialog *Campur*)

9.3.1 *mao*-V2

Examples of SVCs with the directional *mao* are given in (47) and (48). The verb which follows the directional *mao* always takes the non-realis marker. Marking V_2 as realis in this kind of SVC is ungrammatical, as shown by examples (47)b and (48)b.

As is typical for serial verb constructions, the sequence of [*mao*-V_2] cannot be altered. Trying to change the sequence results in ungrammaticality, as illustrated by examples (47)c and (48)c. If negated, the negation scope covers both verbs, as can be seen in example (47)d.

(47) a. *sia'u* ***[mao moleler]*** *paame* *ini*
V_1 V_2
sia'u ***mao*** ***moN-leler*** *paame* *ini*
1SG **go** **AV.NRLS-draw** at.the.moment PROX
'I will go to draw (rattan) a moment later.'

b. **sia'u* ***[mao noleler]*** *paame ini*

c. **sia'u* ***[moleler mao]*** *paame ini*

d. *sia'u* ***jio*** ***[mao*** ***moleler]*** *paame* *ini*
sia'u ***jio*** ***mao*** ***mo-leler*** *paame* *ini*
1SG **NEG** **go** **AV.NRLS-draw** at.the.moment PROX
'I will not go to draw (rattan) a moment later.'

(48) a. *panivava* ***[mao*** ***melolo]*** *teanes*
V_1 **V_2**
pa=ni-vava ***mao*** ***M-pe-lolo*** *te=anes*
then=UV.RLS-take **go** **AV.NRLS-SF-search** NM=bird
'…then having taken (the spear), (we) will go hunting birds.'
(from the narrative *Tesumpit*)

b. **panivava* ***[mao nelolo]*** *teanes*

c. **panivava* ***[melolo mao]*** *teanes*

9.3.2 *mai*-V2

Unlike SVCs with *mao*, verbs which follow *mai* always appear in realis mood. An example of a SVC with the directional *mai* was given above as example (43), which is repeated here for convenience as example (49).

(49) *sia'u* *jiopo* ***[mai*** ***nendiis]***
V_1 V_2
sia'u *jio=po* ***mai*** ***ne-ndiis***
1SG NEG=CONT **go.to** **DY.RLS-bath**
'I have not gone to take a bath yet.' (from the dialog *Campur*)

Note that *mai* also occur after another verb in a construction, which at first glance, may look like another SVC constructions, as in (50)–(52).

(50) *siina* ***nobalanja*** ***mai*** *pasar*
si=ina ***no-balanja*** ***mai*** *pasar*
HON=mother **DY.RLS-shop** **DIR** pasar
'Mother went to the market shopping.'

(51) *teanganaku* ***nomenek*** ***mai*** *kadera*
te=anganak='u ***noN-penek*** ***mai*** *kadera*
NM=child=1SG.POSS **AV.RLS-climb** **DIR** chair
'My child climbed up the chair.'

(52) *siia* ***netensile*** ***mai*** *mandar*
siia ***ne-tensile*** ***mai*** *Mandar*
3SG **DY.RLS-return** **DIR** PN
'He returned to Mandar.'

In this construction, however, *mai* has a different function. It does not belong to the verbal part of the predication but marks a goal. In addition, nouns which follow *mai* in this case do not retain the noun marker *te=*. This is also the case if nouns follow local prepositions, such as *i* 'at, in' or *yami* 'from'. Therefore, *mai* in this case is better considered a preposition and grouped together with the subsequent NP. In line with this analysis, *mai* is glossed as DIR(ectional) here.

9.3.3 minyei/minyau-V2

SVCs with *minyau* or *minyei* indicate purposive semantics (cf. Quick 2007:331). Verbs which follow the directional *minyei* 'go here' and *minyau* 'go there' can either appear in realis or non-realis mood. Examples are given in (53) – (55). In (54), for example, the speaker describes daily activities of fishermen. Because the event 'go fishing' takes place every day, it is expressed in realis mood. In contrast, the event in (55) will take place after the time of speaking, thus it takes non-realis mood.

(53) *see* *[**minyei*** *__nompongularao__]*
V_1 **V_2**
see ***minyei*** ***noN-po-uar-ao***
who **go.here** **AV.RLS-SF-tell-APPL**
'Who came here to talk about (it)?' (from the dialog *Noasu*)

(54) *dodondong* *nongalivomo* *[**minyau*** ***nomeang**__]__*
V_1 **V_2**
dodondong *noN-alivo=mo* ***minyau*** ***noN-peang***
early morning AV.RLS-depart=COMP **go.there** **AV.RLS-fish**
'Early in the morning (I) leave (the house) to go fishing.'
(from the narrative *Nomeang*)

(55) *tanga* *ndoung* *[**minyei*** ***mosisip**__]__*
V_1 V_2
tanga *mondoung* ***minyei*** ***mo-sisip***
middle night **go.here** **DY.RLS-sneak**
'In the middle of the night (I) will come here to sneak around.'
(from the dialog *Campur*)

Just like *mai* which may also occur after another verb, *minyei* and *minyau* are also found in post-verbal position. When occurring after the verb, *minyei* and *minyau* function as verbal modifiers, as illustrated by examples (56) and (57). In this function, *minyei* and *minyau* are glossed as directionals.

(56) ***vava*** ***minyei*** *ba* *iulu* *tabakomu*
vava ***minyei*** *ba* *iulu* *tabako=mu*
bring **hither** please earlier tobacco=2SG.GEN
'Give me first your tobacco, please.' (from the dialog *Campur*)

(57) ***paniaug*** ***minyau*** *i* *avarong*
pa=ni-aug ***minyau*** *i* *avar-ong*
then=UV.RLS-paddle **downwards** LOC far-NOM
'Then, (the ship) was paddled away into the distance.' (from the narrative *Nomeang*)

9.3.4 No SVCs with 'come'

All examples of SVCs are presented so far involve motion away from the speaker. The question naturally arises whether there are not also similar constructions denoting motion towards the speaker ('come'). And in fact, the verb *jaok* 'come' occurs before other verbs in constructions which at first look like SVCs because the first and the second verb can be marked for the same mood, as illustrated by examples (58) and (59). In addition, both examples share the same subject argument, *sia'u* and *siia*, respectively.

(58) *sia'u* *jo* *[**majaok*** *__mongulam__]*
V_1 **V_2**
sia'u *jio* ***mV-jaok*** ***moN-ulam***
1SG NEG **ST.NRLS-come** **AV.NRLS-cure**
'I will not come to cure (you).'

(59) *siia* *[**najaok*** *__**nongintai**__]* *tetagunya*
V_1 **V_2**
siia ***nV-jaok*** ***noN-intai*** *te=tagu=nya*
3SG **ST.RLS-come** **AV.RLS-visit** NM=friend=3SG.GEN
'She came to visit her friend.'

The following examples, however, provide evidence that *jaok*-V_2 is not a SVC. First, the verb *jaok* and the following verbs do not necessarily take the same mood marker. Second, the negator *jio* can intervene in between *jaok* and the following verb. Examples are given in (60) and (61).

(60) *sia'u* ***najaok*** ***mongintai*** *teanganakmu*
sia'u ***nV-jaok*** ***moN-intai*** *te=anganak=mu*
1SG **ST.RLS-come** **AV.NRLS-visit** NM=child=2SG.GEN
'I came to visit your child.'

(61) *sia'u* *najaok* ***jio*** *mongintai* *sio'o*
sia'u *nV-jaok* ***jio*** *moN-intai* *sio'o*
1SG ST.RLS-come **NEG** AV.RLS-visit 2SG
'I came not to visit you.'

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