

THE PHONOLOGY OF WANO

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Conventions

Special typefaces

Italics are used for (i) Wano forms when written orthographically, (ii) forms from languages other than English, such as: Dani, Walak, Nggem, Melayu-Papua, and Indonesian, and (iii) grammatical categories used in the glossary (appendix 1).

SMALL CAPITALS are used for (i) grammatical categories and (ii) stressed syllables where such detail is necessary. Exceptions are:

<i>Adr</i>	addressee, in deictic markings
ds	different sex, in translation for kinship relations
K.O.	kind of..., or species of...
<i>Sp</i>	speaker, in deictic markings
ss	same sex, in translation for kinship relations

Number and numeral markings, in grammatical glosses, for singular and plural are presented as follows: In grammatical glosses, **s** and **p** indicate numbers, while SG and PL indicate numerals.

<i>kit</i>	<i>ninyaburi</i>	<i>inyoku</i>	Wano form
kit	n- in -abut- i	ø- in -ot-k- u	Morphophonological form
you	1 s-p -child o.m- PL	3 s.U-p -hit-REAL- p.A	Grammatical gloss
	'You (plural) hit our children.'		Free translation

Abbreviations

A	Agent
C	Consonant, as in CV, CVC (CV-structure), or as in C ₁ C ₂
GEN	Generic
HAB	Habitual
INCEP	Inceptive
IPN	Inalienably Possessed Noun (inalienable possessee)
LATIN	Latin (names in Latin taken from Peckover and Filewood (1976) and Beehler, Pratt, and Zimmerman (1986))
LOC	Locative
N	Nasal, Noun
o.f	Of Female
o.m	Of Male
PAUS	Pausal
PM	Papua-Melayu
pers. comm.	Personal communication
PN	Proper Name/Noun
POL	Polar question
PRO	Pronoun

PROG	Progressive
PURP	Purpose
Q	Question marker
REAL	Realis
REFL	Reflexive
REM	Remote
SI	Standard(-ised) Indonesian
SPEC	Specifier, Specific
TOP	Topicaliser
U	Undergoer
V	Vowel, as in CV, CV (in CV-structure), V ₁ V ₂ (in syllable-structures)

General Symbols

σ	syllable
(...)	or, optional entry
{...}	morpho(-phono)logical representation/ structure
/.../	phonological representation
[...]	phonetic realisation
→	becomes
-/	in a phonological environment of
#	word boundary
=	clitic boundary
-	morpheme boundary
:	portmanteau morpheme boundary
.	(1) syllable boundary, (2) grammatical gloss boundary as in SPEC.TOP reads 'specific topic'
<	is derived from, or is of
∅	zero morpheme
+	obligatory element or constituent
±	optional element or constituent
' '	meaning or free translation
" "	direct speech
	short pause in discourse
	long pause in discourse
↘	(short) closure, end of an utterance
*	unacceptable expression/form
?	(1) questionable form or entry, (2) uncertain (in the interlinear gloss)
1	first person
2	second person
3	third person

IPA symbols and definitions used

Except prenasalised plosives, phonetic symbols with their definitions used in this study are of the Handbook of the International Phonetic Association – *A Guide to the Use of the International Phonetic Alphabet* (revised to 1993, updated 1999) – with comparison to Pullum and Ladusaw

(1996), Crystal (1997:xviii), and Carr (1993:11). Should a different definition be used, this will be indicated in the footnotes.

Suprasegmental

- ˈ primary stress, located preceding stressed syllable
- ˌ secondary stress, located preceding stressed syllable

Non-pulmonic consonants

- ɓ voiced glottalic ingressive (i.e., implosive) bilabial stop
- ɗ voiced glottalic ingressive (i.e., implosive) alveolar stop

Pulmonic consonants

- p voiceless bilabial plosive
- b voiced bilabial plosive
- m voiced bilabial nasal
- β voiced bilabial fricative
- d voiced alveolar plosive
- t voiceless alveolar plosive
- n voiced alveolar nasal
- r voiced alveolar flap
- ʒ voiced post-alveolar fricative
- ɲ voiced palatal nasal
- ç voiceless palatal fricative
- j voiced palatal fricative
- j voiced palatal approximant
- g voiced velar plosive
- k voiceless velar plosive
- ɣ voiced velar fricative
- w voiced labial-velar approximant
- ʔ glottal plosive

No audible release (i.e., unreleased) consonants

- p̚ voiceless bilabial plosive
- b̚ voiced bilabial plosive
- t̚ voiceless alveolar plosive
- d̚ voiced alveolar plosive
- k̚ voiceless velar plosive

Labialized consonants

- p^w voiceless bilabial plosive
- k^w voiceless velar plosive
- g^w voiced velar plosive
- ɣ^w voiced velar fricative

Prenasalised consonants

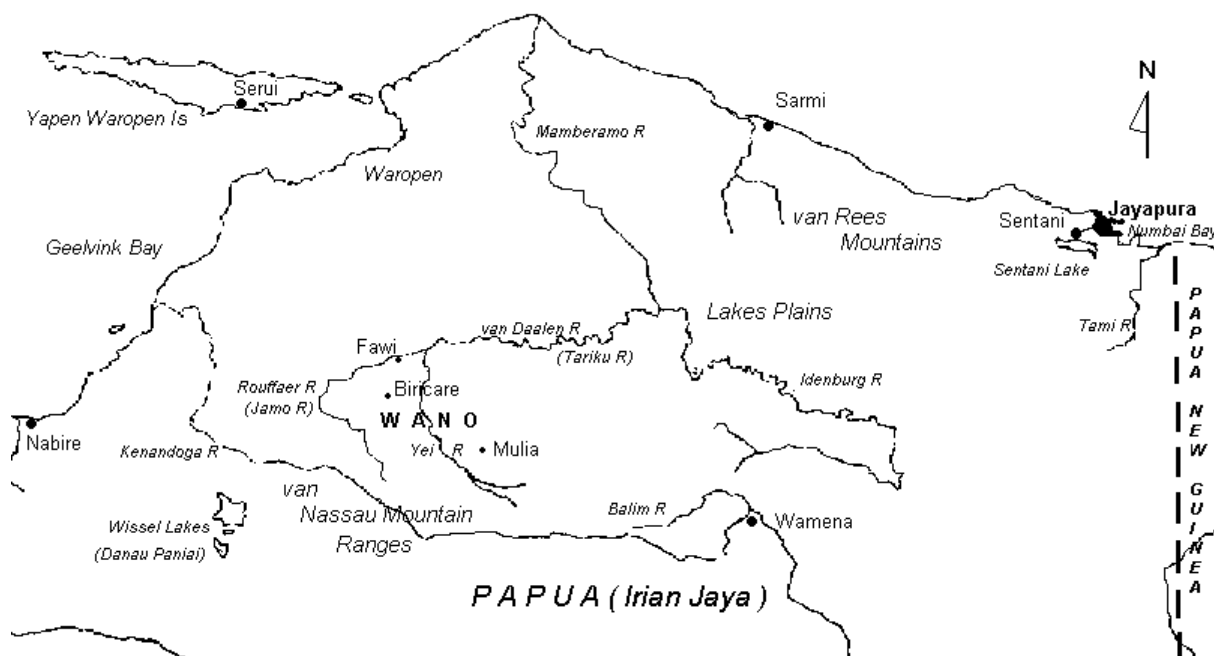
- ^mb voiced bilabial plosive
- ⁿd voiced alveolar plosive
- ^ŋg voiced velar plosive
- ^ŋg^w voiced labio-velar plosive

Vowels

	Front	Central	Back
Close	i		u
Near-close	ɪ		
Close-mid			
Open-mid	ɛ	ə	ɔ
Open		a	

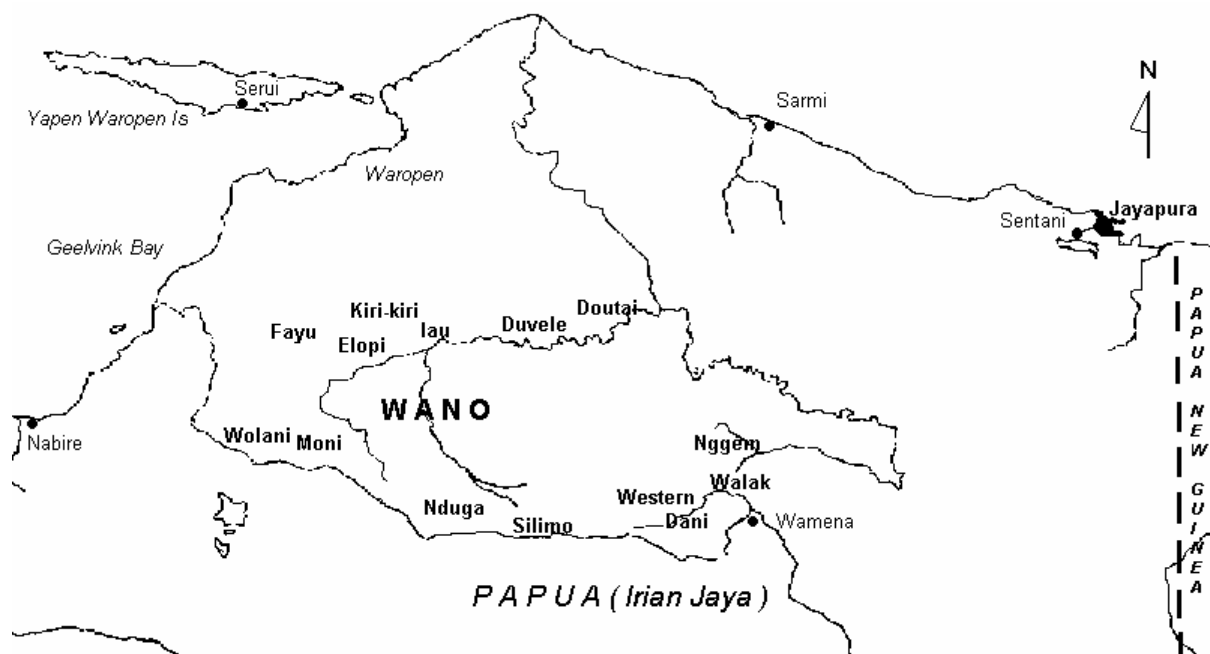
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Map 1: Wano land



Map 1: *Wano land* – Based on Wurm 1982, Wurm and Hattori 1983, Voorhoeve 1975b and 1975c in comparison to Nieuw Guinea Kaartmateriaal of the Topographic Service 1941 and Grimes 2000.

Map 2: Wano and its neighbouring languages



Map 2: *Wano and its neighbouring languages* – Based on Wurm 1982, Wurm and Hattori 1983, Voorhoeve 1975b and 1975c in comparison to Nieuw Guinea Kaartmateriaal of the Topographic Service 1941 and Grimes 2000.

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Many people have contributed to this study. First and foremost, my appreciation goes to Enos Mirib who introduced me to the language of his people, Wano. Enos had been a good friend and language instructor during my early stage of learning the language. Despite his faithfulness and eagerness in helping me, he did not live to see his language in a written form. He passed away in 1992. Later in 1994, Barnabas Medenggwa became my main language teacher and has been ever since. *Kit mbere kinyambit, wawi-o, nombawi wawi ki-o, kinyaye nak, iyetik-o.*

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ABSTRACT

This paper presents a descriptive analysis of the phonological properties of Wano, a Papuan language of the Trans-New Guinea Phylum of the Dani-Kwerba stock. The analysis is based on data from the author's personal fieldwork. The paper provides an initial framework of Wano phonemes and their graphemes. It is intended to be a starting point for future grammatical analysis. It also describes some socio-linguistic phenomena regarding the adaptation of Melayu-Papua (Papuan-Malay). A preliminary dictionary (Wano-English, English-Wano) and a sample wordlist are included as appendices.

1 INTRODUCTION

1.1 Background

This study is based on my understanding of the *Wano* language which I have gained through fieldwork since 1992. During my fieldwork, I regularly visited the villages of Iratoi (1992–1994) and Biricare (1994–1998). The length of each visit in the Wano area ranged from two weeks to three months, with three to four visits in a year. Since 1994, the study was mainly conducted in Biricare. The reason was that Biricare is central and has easy access to the Wano region. To go there, I fly from Sentain to Fawi, the nearest airstrip, by a single-engine Cessna for about one to two hours, depending on the wind. From Fawi, I walk about eight hours to Biricare. It rains almost every night. The temperature is around twenty-five to thirty degrees celcius in the daytime, and twenty degrees at night.

Wano was an unwritten language and so the language-learning situation has been nearly monolingual. There has been no comprehensive linguistic research published on the language. The purpose of the present study is therefore to provide a preliminary description on the phonological features of the language.

Previous works that supply some data on *Wano* are: (i) Swadesh wordlist by Larson and (ii) Survey report of Walker and Moxness (1988) as well as some short papers by Bromley (1967, 1973) and Larson (1977).

On our earlier visits in 1992,¹ my wife Corrie and I also collected some *Wano* words, using the UnCen-SIL² wordlist. I then used these together with Larson's data (1977)

¹Having completed an MA (in linguistics) in 1991 at the School of Oriental and African Studies (SOAS), University of London, I went to the province of Papua in Indonesia, with my wife Corrie and our two sons: Jonathan and Mark. This paper is a result of my fieldwork under the auspices of Queen's Road Church, Wimbledon (Great Britain) and the Stichting Kabar Baik, Dordrecht (the Netherlands). Papua was then called Irian Jaya. The island was known as Nederlands Nieuw Guinea before 1963.

as the basis for my first phonological analysis. I found Larson's wordlist and the data we gathered ourselves to be very much in agreement.

In their report, Walker and Moxness (1988) indicate that the villages of the *Wanos* are *Iratoi*, *Turumo*, *Nggweri*, and *Lumo*. Our research, however, indicates that of these villages, only *Lumo* is currently a *Wano* settlement. Around the 1970s, after the opening of government, as well as mission posts, some of the *Wano* migrated to the lowlands (which are *Iratoi*, *Turumo*, and *Nggweri*) with the hope of a new life. There were clinics for better treatment of health, and schools where their children could attend.

The self-referent term *Wano* ['wanɔ], refers to both the people and the language.³ It is a derivation of an interjection *wa* 'greetings' and the topic marker *no* 'GEN.TOP'. According to Wano tradition, when the first Wano people came out of the earth, they greeted each other by saying: *wa ... wa ... no ...*, which roughly means "we welcome each other as a group of people belonging together." When speaking of the language, the inalienably possessed noun follows the term: *Wano inyone* 'Wano 3s-pl-voice'. When referring to the *Wano* people, the nominal term referring to 'people, person, or man' follows: *Wano ap* 'Wano people/person/man'.

As recorded in the Smithsonian Institution Archives (SIA),⁴ in 1926 Matthew W. Stirling, an American archaeologist,⁵ conducted a Netherlands-American expedition⁶ (cf. Stirling 1934:1) with the following purpose: "...to penetrate the unknown parts of the Nassau range lying on the northern slope of the central chain." (SIA: US consult report, dated Batavia, Java, February 5, 1926, page 3).⁷ The objective of the expedition was, according to Stirling, to find "the negritos of the central Nassau mountains" (SIA: Stirling's letter to Wetmore, dated Upper Rouffaer River, September 9th. 1926).

Stirling experienced no difficulties finding the native people whom he identified as the *Tapiro*, the *Pesechem*, and the *Nogullo*, as well as the *Ekaris* and the *Moni* (Stirling 1934:12). Contact with the *Pesechem* people was reported earlier by Lorentz (1913). It is spelled *Pesegem* in Bromley (1973). *Nogullo* is mentioned in Bromley as the

² A cooperative work between Universitas Cenderawasih and the Summer Institute of Linguistics, done in 1985. Appendix 2 is the example of the wordlist.

³ Bromley (1973) suggests that the outsiders also used the same term to refer both to the speakers and the language of *Wano*.

⁴ Record unit 7006, Alexander Wetmore Papers, 1898-1976 (unprocessed).

⁵ Some archives about this expedition were kindly given to me by Mike Moxness as I started the research on *Wano*.

⁶ The expedition was stimulated by the book of Dr. A. F. R. Wollaston (1912), *Papuans and Pygmies* (SLA: US consult report, *ibid.*).

⁷ Nassau range is now Pegunungan Sudirman, Batavia is Jakarta, and Java is Jawa.

alternative name of upper *Jamo* – it is spelled *Nogolo*, the self-referent term for the Rouffaer River. There is no mention of *Tapiro* since Stirling's expedition.

Stirling also made a note about the people who were living in the caves, whom he was not able to find. Could they be the *Wano* people? Lack of evidence makes it difficult to determine. However, during my time spent with the Wanos, I was once taken to some caves and was told that "our ancestors used to live here." Bromley, as well as Larson, gives promising observations. In Bromley (1973:6) we read: "Wano is spoken on the north side of the Jamo valley" and in Larson (1977:6-7), he writes,

The Wano, though dispersed over a rather large area, are the least in number of all members of the Greater Dani family. They occupy areas on the north side of the Jamo of the upper Rouffaer, and are also found in scattered pockets to as far north of Jamo as where the foothills join the Lakes Plains, and west of Jamo on into the lower Dugindoga.

By oral information, Bat Medenggwa⁸ claims that one of their original places was *Kimbin*, the name mentioned in Bromley (1973) as the area of Western *Dani*. Further, observing the geographical setting of Stirling's journey and the Nieuw Guinea Kaartmateriaal of the Topographic Service 1941,⁹ it is not unreasonable to assume that the *Wano* people were in the area at the time of the expedition. Consider, for instance, names like Explorer Bivouac, which has about the same coordinate as *Wodegoduk*, a *Wano* village, as well as Bad-luck Bivouac for *Dukibeci*.

Due to its geographical surroundings, I was not able to personally visit the whole area on foot nor by other means of transportation, in order to identify the geographical boundaries of the region where the *Wano* people are found. In my attempt to draw the boundary lines, the Nieuw Guinea Kaartmateriaal is used, in comparison to the linguistic boundary provided by Wurm (1982:16-17). Then I stretched a line to link some villages which are located closest to some places of the neighbouring tribes and estimated their coordinates. The coordinates of some villages are by the courtesy of Roger Stuber (pers. comm.). Others are my own estimation.

Based on this evidence we can tentatively mark the boundaries of the *Wano* land (cf. map 1). For convenience, *e-l* reads east-longitude, *s-l* reads south-latitude, *alt* is altitude in metres above sea level. When different names are given to a place – those recorded in the Nieuw Guinea Kaartmateriaal (NGK) versus present names – they are indicated in brackets.

⁸ Bat has been my language teacher since 1994.

⁹ The 1900–1963 edition of Nederlands Topographic Service 1954, no. 23, 31. Prepared and reproduced by USASOS, SWPA December 1942–January 1943, from Dutch map printed by Topographische Dienst (Topographic Service) Batavia 1941. My appreciation goes to Dr. At Ipenburg.

If we take *Biricare* (Stuber, 137° 42' 13" *e-l*, 03° 18' 44" *s-l*, ± 650 *alt*) as the central point, we estimate that: the east-most position is somewhere between *Kiagai* (NGK, 137° 53' 05" *e-l*, 03° 35' 10" *s-l*, ± 1.500 *alt*) through *Lumo*¹⁰ (Stuber, 137° 53' 10" *e-l*, 03° 40' 25" *s-l*, ± 1.900 *alt*). The southeast-most position is *Lumo*. The south-most position is *Weiga* (NGK, 137° 45' 47" *e-l*, 03° 40' 41" *s-l*, ± 2.000 *alt*) through *Puduk*¹¹ (NGK, 137° 34' 50" *e-l*, 03° 40' 55" *s-l*, ± 900 *alt*). The southwest-most position is east of the *Jamo* river (NGK, Upper Rouffaer, 137° 19' 50" *e-l*, 03° 40' 00" *s-l*, ± 500 *alt*). The west-most position is *Wodegoduk* (NGK, Explorer Bivouac, 137° 20' 05" *e-l*, 03° 35' 15" *s-l*, ± 700 *alt*). The northwest-most position is east of the *Jamo* river at the foot of the mountain around *Kendo-kendo* river (NGK, 137° 19' 02" *e-l*, 03° 24' 00" *s-l*, ± 600 *alt*) through *Dukibeci* (NGK, Bad-luck Bivouac, 137° 28' 48" *e-l*, 03° 23' 34" *s-l*, ± 700 *alt*). The north-most position is from *Dukibeci* through *Mui* river (NGK, 137° 35' 17" *e-l*, 03° 17' 05" *s-l*, ± 500 *alt*) to *Fawi* (Stuber, 137° 43' 56" *e-l*, 03° 13' 86" *s-l*, ± 120 *alt*). The northeast-most position is *Nggweri* (Stuber, 137° 49' 86" *e-l*, 03° 17' 40" *s-l*, ± 120 *alt*) through *Dagai* (Stuber, 137° 56' 61" *e-l*, 03° 18' 22" *s-l*, ± 85 *alt*) to *Acodi* (NGK, 138° 01' 00" *e-l*, 03° 22' 00" *s-l*, ± 650 *alt*). *Nggweri* and *Dagai* are not villages of the *Wano*, even though evidence suggests that they once lived there.¹² The northeast-most position should be *Mbomban*, a hamlet about four hours walking distance, south of *Dagai*. A significant place for the *Wano* people is *Yei* (NGK, 137° 49' 30" *e-l*, 03° 31' 10" *s-l*, ± 1.000 *alt*). It is the place where the stone axes (*ye*) were made and bartered with the *Dani* people from *Mulia* (Stuber, 137° 54' 47" *e-l*, 03° 42' 16" *s-l*, ± 1.900 *alt*). These people used to travel via *Lumo* and *Kiagai* to exchange *ye* for cowries (*wu*) or necklace-beads (*dimit*).

Other villages of the *Wano* are *Wuduma*, *Tigit*, *Lumo* (mixed with Western *Dani*), *Kirudumo*, *Puduk*, *Mburumeiyome*, *Biricare*, *Mbomban*, *Yedome* (or *Yei*), *Acodi*, *Wanggiva*, *Kawaimu*, *Damuk*, *Anevawi*, *Ambogobak*, *Tumbwi*, *Nggibaga*, *Nggubugani*, *Wandini*, and *Yevamu*. Villages that have been deserted or become hamlets are *Weiga*, *Dukibeci*, *Kembemu* (NKG *Kembu*), *Keramu*, *Mbidik*, *Mbowid*, *Mburu*, *Mocami*, and *Wodegoduk*. Some of the *Wano* people are found living in *Iratoi* and *Turumo* (among the *Elopi* ethnic) and *Fawi* (with the *Iau* people).¹³ Except for *Ambogobak*, *Kembemu*, *Keramu*, *Dukibeci*, *Mbidik*, *Mbowid*, *Mburu*, *Mburumeiyome*, *Mocami*, *Wandini*, *Weiga* and *Wodegoduk*, a mission church was found in every village.

Regarding its linguistic boundaries (see map 2), the *Wano* language is surrounded by languages of *Duvele* and *Doutai* (to the east), *Nggem*, *Walak*, *Western Dani* (southeast),

¹⁰ The name for *Dumo* in *Wano*. It is *Lumo* on the map.

¹¹ Referred to as *Puluk* by other tribes.

¹² Cf. various episodes in the *Wano* oral texts (Burung 1994b).

¹³ The *Elopi* (or *Edopi*) and *Iau* ethnic groups are referred to as *Turu* by the *Wano* people.

Silimo and *Hupla* (south), *Damal*, *Dem*, and *Nduga* (southwest), *Moni* and *Wolani* (west), *Kiri-kiri* and *Fayu* (northwest), *Iau*, *Elopi*, and *Duvele* (north).

Genetic relationships between Papuan languages, in terms of the Swadesh list,¹⁴ have been established by previous works in Wurm (1975a, 1982). This paper cites the works of Wurm (1972, 1975a, 1982), Voorhoeve (1975a), Wurm and McElhanon (1975), and Laycock (1975). Most Papuan languages are classified as affiliated with Trans-New Guinea Phylum (TNGP) languages – Foley (1986:229–245) for an overview of the different genetic groups, as well as Grimes (1996, 2000) for the listing of such groupings.

Wano is a Papuan language, a member of the *Dani* family spoken by approximately 7,000 native speakers.¹⁵ Among its sisters are Western *Dani* and Grand Valley *Dani*. According to Voorhoeve (1975a), the members of the *Dani* languages closely related to *Wano* are: Western *Dani*, *Nggem*, *Walak*, *Silimo*, and *Hupla*.

Regarding the relationship between *Wano* and Western *Dani*, *Nggem*, and *Walak*,¹⁶ Wurm, Laycock, and Voorhoeve (WLV, 1975) make some general observations on Papuan language features. Phonologically, the liquids [r] and [l] have no phonemic contrast, and are often allophones of a single phoneme. I found *Wano* lacks /l/ but has /r/ in the form of flaps. The others (Western *Dani*, *Walak*, and *Nggem*) make

¹⁴ Traditionally, in order to establish the interrelatedness of languages, a standard wordlist of approximately two hundred non-cultural items is used (known as the Swadesh list). Two languages which share over 81% cognates are said to be dialects of the same language; languages sharing 29%–80% cognates are members of one and the same language family; languages sharing 12%–28% cognates belong to different families, but are related on stock level. Cognation percentages of 6%–11% place the languages in different stocks, but in the same phylum. Cognation percentages of less than 6% are not accepted as proof of genetic relationship (Wurm and McElhanon 1975:152). Loving (1977a) provides good examples on works on the genetic relationship by field linguists, such as Callister, Collier, Combs, Ezard, and Larzen.

¹⁵ The estimate is 3,000 in Larson (1977:7), 1,500 in Foley (1986:239), and is 3,500 in Grime's *Ethnologue* (1996). My estimation is the result of counting family members of each clan in every village or hamlet. This was done by the method of consulting some *Wano* elders of some of the villages, during my visit to *Mbomban* and *Yei*. Some elders came to *Biricare* (where I mostly stayed) from *Puduk*, *Acodi*, *Kiagai*, and *Lumo*. They informed me of the names of the clans including the family members.

¹⁶ These observations are from wordlists and some phrases including counting. Data was collected on random dates and occasions. In 1992 I managed to get the wordlist of Western *Dani*. This was in *Iratoi* and *Mulia*. At the same time I visited *Kobakma* for the data on *Nggem*. I could only get some wordlists done. Later, more information on the language was provided courtesy of Paul Etherington, who was working in that area, mostly by email or personal communication when I visited *Wamena*. The data of *Walak* was obtained from Markus Kilungga (Pyramid 1994, Sentani 1999) and Elius Wantik (Sentani 1999). (These are wordlists whereby Markus Killungga and Elius Wantik are the indigenous respondents.) For Western *Dani*, I have also consulted some works of Bromley, in particular, his 1961 M.A. thesis and the unpublished and undated manuscript on the Grand Valley *Dani* verb.

distinctions on both, disagreeing with what has been suggested in WLV. The implosives /b/ and /d/ are found in all languages. *Nggem* goes further, distinguishing these sounds with the preglottalised implosives. The /s/ is found in all the languages except *Wano*. All have prenasalisation of stops. As to the glottal fricative /h/, *Nggem* and *Walak* employ the sound while such is not found in *Wano* and Western *Dani*. Bilabial and velar fricatives, [β] and [ɣ] are found in all languages. The frequent interchange of /t/ and /k/, particularly in final position, is a typical feature. Sounds that are absent in these languages are retroflex and interdental. WLV have indicated that as to the consonant allophones, stops may have fricative allophones and vice-versa. I find this true in *Wano* and *Nggem* for /b/ to have [β]. Regarding the suprasegmental features, stress falls on the final syllable.

1.2 Purposes

The purposes of this study are to: (1) Formulate Wano phonology for a better solution to its orthography, (2) record Wano phonology as a written language, and (3) give general guidelines for further write-ups of a grammar of Wano.

This research offers only a limited amount of the phonological information. But it is my hope that this study will help to shed light on some universal features pertaining to Papuan languages, particularly those that belong to the Dani-Kwerba stock.

1.3 Summary

Phones are the “[physical] realisations of the phonemes,” whilst – “[phonic] variants were referred to as allophones of the phonemes.” (Crystal 1985:228). Sixteen phonemes are found in Wano. These consist of eleven consonants and five vowels.

The consonantal phonemes consist of five bilabials: /p, b, m, v, w/, three alveolars: /t, d, n/, one palatal: /j/, one velar: /k/, and the glottal stop: /ʔ/. The vocalic phonemes are /i, e, a, o, u/. Table 1.1 outlines Wano phonemes.

Table 1.1: Consonants and vowels

	Bilabial	Alveolar	Palatal	Velar	Glottal	
Stop	b	p	d	t	k	ʔ
Nasal	m	n				
Fricative	v					
Approximant	w		j			

	Front	Central	Back
Close	i		u
Open-mid	e		o
Open		a	

Table 1.2 outlines the allophones of the consonantal phonemes, consisting of at least eight bilabials: [b, b̥, p, p̥, m, β, w], seven alveolars: [d, d̥, t, t̥, n, r], two palatals: [ɲ, j], four velars: [k, k̥, ŋ, ɣ], and the glottal: [ʔ].

Table 1.2: Allophonic consonants

	Bilabial	Alveolar	Palatal	Velar	Glottal	
Implosive	ɓ	ɗ				
Plosive	b	p	d	t	k	ʔ
	b̥	p̥	d̥	t̥	k̥	
Nasal	m	n	ɲ	ŋ		
Fricative	β			ɣ		
Approximant	w	r	j			

When symbols appear in pairs, the right-most one represents a voiceless segment.

Coalescent (or reciprocal) assimilation is found. In a construction of /NASAL + STOP/, there are allophonic variants [ᵐb], [ᵐd], and [ᵐg]. In a sequence of /ALVEOLAR + j/, [j] and [ç] occur. In adjacent phones of /STOP + w/, [pʷ], [kʷ], and [ŋʷ] occur. A juxtaposition of /NASAL + STOP + w/ gives [ᵐgʷ]. These assimilations are outlined in table 1.3. Detailed discussion is given in section 6.

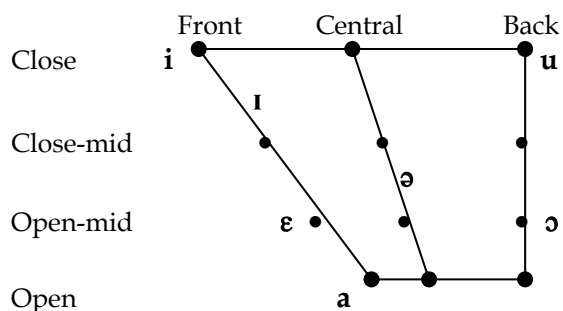
Table 1.3: Coalescent assimilation of phonemic consonants

	Bilabial / p /	Alveolar / d /		Velar / g / / k /	
/Nasal + Stop/	^m b		ⁿ d	^ŋ g	
/Alveolar + j/		j	ç		
/Stop + w/	p ^w			ɣ ^w	k ^w
/Nasal + Stop +w/				ŋ ^w g ^w	

When symbols appear in pairs, the right-most one represents a voiceless segment.

The allophones of the vocalic phonemes are [i, ɪ, u, ε, ə, ɔ, a], as shown in table 1.4.

Table 1.4: Allophonic vowels



Two types of diphthongs are found. The rising-diphthong occurs when the second vowel is stressed (or more sonorous), that is, [i^a]. The falling-diphthong is found when the first vowel is stressed (or more sonorous), that is, [ɛⁱ], [aⁱ], [a^u], [ɔⁱ], [ɔ^u], and [uⁱ]. (See Crystal 1997: 117 for the notion of rising- and falling-diphthongs.)

Table 1.5: Diphthongs

	Front	Central	Back
Rising diphthong	i ^a		
Falling diphthongs			u ⁱ
	ɛ ⁱ		ɔ ^u
			ɔ ⁱ
	a ⁱ	a ^u	

I shall describe each phoneme with its allophone(s) based on (i) articulatory criteria of voicing, that is voiced versus voiceless, (ii) place and manner of articulation, and (iii) air mechanism, that is, with ingressive or egressive pulmonic air. The following discussion is organised with respect to sets of points of articulation.

In section 2, I present the *consonantal phonemes* (that is, bilabial, alveolar, palatal, and velar positions). In section 3, the *glottal stop* is described. Section 4 deals with the *approximant segments*, /w/ and /j/, pertaining to their interpretation. Some illustrations on the phonemic contrast of the consonants are given in section 5. In section 6, I then turn to the *vocalic phonemes*. Observations on their phonemic contrast are given in section 6.4. In section 7, *phonotactics* is presented under four subheadings. Section 7.1 deals with *syllabification*. Section 7.2 discusses *sequences of vowels*. Section 7.3 discusses *sequences of consonants*. Section 7.4 presents *complex sequences*. Further, in section 8, patterns of *word-stress* are presented. A discussion on *morphophonological* features is given in section 9. Finally, in section 10, *adaptation of Melayu-Papua* (Papuan-Malay) by the Wano phonology is discussed. At least two examples of both monosyllabic and disyllabic words are given chronologically in accordance with their (i) phonemic structure, (ii) phonetic articulation, (iii) graphemes convention, and (iv) approximate English gloss. The graphemes, printed in italics, are the ones used throughout this study as the Wano orthography. The proposed orthography is given in table 1.6.

Table 1.6: **Wano orthography**

1.6a **VOWELS**

Phonemes	Allophones	Graphemes
/i/	[i, ɪ]	<i>i</i>
/e/	[ɛ, ə]	<i>e</i>
/a/	[a]	<i>a</i>
/o/	[ɔ]	<i>o</i>
/u/	[u]	<i>u</i>

Table 1.6: Wano orthography

1.6b CONSONANTS

Phonemes	Allophones	Graphemes	(Morpho)phonological Constraints	
/ p /	[p]	<i>p</i>		
	[p̣]			
	[p ^w]		p + w	
	[p:]		p# + #t	
	[b ₁]		p# + =o	
/ b /	[b ₂]	<i>b</i>	m + p	
	[ḅ]	<i>b</i>		
	[ḅ]			
	[β]		b# + =o	
/ m /	[m]	<i>m</i>		
	[ṃ]		m + p	
	[m:]		m# + #t	
/ v /	[β]	<i>v</i>		
/ w /	[w]	<i>w</i>		
	[ẉ]		p, k + w	
/ t /	[t]	<i>t</i>		
	[ṭ]			
	[r]		<i>r</i>	V_V, Vt# + #V, V# + #tV
	[d]		<i>d</i>	n + t, n# + #t
	[ɕ]		<i>c</i>	t + j
/ d /	[Ø]	COVERT	t + k	
	[ḍ]	<i>d</i>		
	[ḍ]			
	[i]		Vt + jV	
/ n /	[n]	<i>n</i>		
	[ṇ]		n + t	
	[ŋ]		<i>ng</i>	only for n in n + k
	[ɲ]		<i>ny</i>	i + n, it + n
/ j /	[j]	<i>y</i>		
/ k /	[k]	<i>k</i>		
	[ḳ]			
	[ɣ]		<i>g</i>	
	[k ^w]		<i>kw</i>	k + w
	[g ^w ~ ɣ ^w]		<i>gw</i>	Vk + wV
	[^h g]		<i>ngg</i>	n + k
	[^h g ^w]		<i>nggw</i>	n + k + w
	[ʔ]		<i>'</i>	see section 3
	[k]		<i>k</i>	see section 3
	[Ø]		COVERT	see section 3

2 CONSONANTAL PHONEMES

The phonemes of the bilabial set are shown in sections 2.1–2.4.

2.1 /b/

There are two allophonic variants of the phoneme /b/, which are [β] when found in the position of #b (2.1a)–(2.1d) and VbV (2.1e)–(2.1h), and [bʰ] when in the position of b# (2.1i)–(2.1k).

(2.1)	a.	/bu/	[βu]	<i>bu</i>	‘unwilling’
	b.	/bok/	[βɔkʰ]	<i>bok</i>	‘good’
	c.	/ba.ki/	[βaʰyi]	<i>bagi</i>	‘K.O. cuscus’
	d.	/bo.nko/	[βɔʰŋgɔ]	<i>bonggo</i>	‘crab’
	e.	/ba.bo/	[βaʰβɔ]	<i>babo</i>	‘K.O. tree’
	f.	/na.bi/	[na.βi]	<i>nabi</i>	‘dream’
	g.	/te.bon/	[teʰβɔn]	<i>tebon</i>	‘fly (N)’
	h.	/nke.bak/	[ŋgeʰβakʰ]	<i>nggebak</i>	‘canoe’
	i.	/mi.tib/	[miʰribʰ]	<i>mirib</i>	‘Mirib (PN)’
	j.	/do.nkob/	[dɔʰŋgɔbʰ]	<i>donggob</i>	‘wild chicken’
	k.	/na.neb/	[naʰneβʰ]	<i>naneb</i>	‘you (pl) eat (imperative)’

2.2 /p/

There are two allophonic variants of the phoneme /p/, which are [p] when in the positions of #p (2.2a)–(2.2d) and VpV (2.2e)–(2.2g), and [pʰ] when in the position of p# (2.2h)–(2.2k).

(2.2)	a.	/pit/	[pitʰ]	<i>pit</i>	‘K.O tree’
	b.	/pou/	[pɔʰ]	<i>pou</i>	‘short’
	c.	/po.de/	[pɔʰdɛ]	<i>pode</i>	‘thin’
	d.	/pa.vuk/	[paʰβukʰ]	<i>pavuk</i>	‘bush’
	e.	/a.pu/	[aʰpu]	<i>apu</i>	‘desire to consume’
	f.	/a.pik/	[aʰpikʰ]	<i>apik</i>	‘all’
	g.	/tu.pu/	[tuʰpu]	<i>tupu</i>	‘K.O. tree’
	h.	/ap/	[apʰ]	<i>ap</i>	‘people/person/man’
	i.	/dip/	[dipʰ]	<i>dip</i>	‘K.O. pandanus’
	j.	/a.nkup/	[aʰŋgupʰ]	<i>anggup</i>	‘pulp’
	k.	/a.nkop/	[aʰŋgɔpʰ]	<i>anggop</i>	‘tip’

2.3 /m/

The phoneme /m/ occurs as [m] in all environments. Thus it is found in the environments of #*m* (2.3a)–(2.3d), *VmV* (2.3e)–(2.3g) and *m#* (2.3h)–(2.3k).

(2.3)	a.	/ma/	[ma]	<i>ma</i>	‘don’t (prohibitive)’
	b.	/mek/	[mekʷ]	<i>mek</i>	‘impossible’
	c.	/ma.de/	[ma'dɛʷ]	<i>made</i>	‘arrow’
	d.	/mo.no/	[mo'no]	<i>mono</i>	‘like that’
	e.	/da.mit/	[da'mitʷ]	<i>damit</i>	‘horse fly’
	f.	/di.mit/	[di'mitʷ]	<i>dimit</i>	‘necklace’
	g.	/na.mok/	[na'mɔkʷ]	<i>namok</i>	‘porcupine’
	h.	/wom/	[wɔm]	<i>wom</i>	‘(domestic) pig’
	i.	/jum/	[jum]	<i>yum</i>	‘net bag’
	j.	/ta.vom/	[ta'βɔm]	<i>tavom</i>	‘K.O. bird’
	k.	/ku.vem/	[ku'βɛm]	<i>kuvem</i>	‘afternoon’

2.4 /v/

The phoneme /v/ occurs as [β] in all environments. Thus it is found in environments of #*v* (2.4a), *VvV* (2.4b)–(2.4e) and *v#* (2.4f).

(2.4)	a.	/vi.ju/	[βi'ju]	<i>viyu</i>	‘fawn-breasted bower bird’
	b.	/e.ve/	[ɛ'βɛ]	<i>eve</i>	‘body’, ‘also’
	c.	/ta.vi/	[ta'βi]	<i>tavi</i>	‘rain’
	d.	/ko.vu/	[kɔ'βu]	<i>kovu</i>	‘tomorrow’
	e.	/di.vud/	[di'βudʷ]	<i>divud</i>	‘K.O. tree’
	f.	/duv/	[dʊβ]	<i>duv</i>	‘K.O. tree’
	g.	/a.wiv/	[a'wiβ]	<i>awivo</i>	‘K.O. tree’

2.5 /w/

See section 4 for a more detailed discussion of approximants.

The phonemes of the alveolar set are shown in sections 2.6–2.8.

2.6 /d/

There are two allophonic variants of the phoneme /d/, which are [d] when in the environments of #*d* (2.5a)–(2.5d) and *VdV* (2.5e)–(2.5h), and [dʷ] when in the environment of *d#* ((2.5i)–(2.5l)).

(2.5)	a.	/de/	[dɛ]	<i>de</i>	'cry'
	b.	/dem/	[dɛm]	<i>dem</i>	'K.O. tree'
	c.	/da.ku/	[da'ɣu]	<i>dagu</i>	'pandanus'
	d.	/do.nkob/	[dɔ ^h gɔb ^h]	<i>donggob</i>	'wild chicken'
	e.	/a.dom/	[a'dɔm]	<i>adom</i>	'root'
	f.	/a.di/	[a'di]	<i>adi</i>	'treasure', 'secret'
	g.	/mu.di/	[mu'di]	<i>mudi</i>	'leech'
	h.	/ke.de/	[kɛ'dɛ]	<i>kede</i>	'rattan'
	i.	/tid/	[tid ^h]	<i>tid</i>	'pig's snout'
	j.	/baid/	[βa ^h d ^h]	<i>baid</i>	'cuscus'
	k.	/deid/	[dɛ ^h d ^h]	<i>deid</i>	'banana'
	l.	/mpo.wid/	[^m bɔ ^h wid ^h]	<i>mbowid</i>	'Mbowid (PN)'

2.7 /t/

There are three allophonic variants of the phoneme /t/, which are [t] in the environment of #t (2.6a)-(2.6d), [ɾ] when VtV (2.6e)-(2.6h), and [t^h] when in the environment of t# (2.6i)-(2.6l).

(2.6)	a.	/tu/	[tu]	<i>tu</i>	'path'
	b.	/tid/	[tid ^h]	<i>tid</i>	'pig's snout'
	c.	/ta.vo/	[ta'βɔ]	<i>tavo</i>	'tobacco'
	d.	/te.ben/	[tɛ'βɛn]	<i>teven</i>	'bat'
	e.	/bi.ti/	[βi'ri]	<i>biri</i>	'white'
	f.	/bi.tu/	[βi'ru]	<i>biru</i>	'lake'
	g.	/e.tuk/	[ɛ'ruk ^h]	<i>eruk</i>	'hair'
	h.	/ja.tak/	[ja ^h rak ^h]	<i>yarak</i>	'harvested garden'
	i.	/it/	[it ^h]	<i>it</i>	'they'
	j.	/kat/	[kat ^h]	<i>kat</i>	'you'
	k.	/ti.kit/	[ti ^h yit ^h]	<i>tigit</i>	'K.O. tree'
	l.	/mpi.nit/	[^m βi ^h nit ^h]	<i>mbinit</i>	'sand'

2.8 /n/

There are two allophonic variants of /n/, which are [n] and [ŋ]. The variant [n] is found in all positions. Thus, it is found in the environments of #n (2.7a)-(2.7c), VnV (2.7d)-(2.7g), and n# in (2.7h)-(2.7k).

(2.7)	a.	/ni/	[ni]	<i>ni</i>	'other'
	b.	/nit/	[nit ^ɿ]	<i>nit</i>	'we'
	c.	/na.kwan/	[na ^h y ^w an]	<i>nagwan</i>	'lord'
	d.	/o.ne/	[ɔ ^h ne]	<i>one</i>	'voice', 'sound'
	e.	/a.nop/	[a ^h nɔp ^ɿ]	<i>anop</i>	'head'
	f.	/na.no/	[na ^h nɔ]	<i>nano</i>	'what'
	g.	/ke.na/	[kɛ ^h na]	<i>kena</i>	'three'
	h.	/en/	[ɛn]	<i>en</i>	'sugar cane'
	i.	/nkwen/	[^h g ^w ɛn]	<i>nggwen</i>	'earth'
	j.	/di.an/	[di ^h an]	<i>dian</i>	'blood'
	k.	/a.nken/	[a ^h gɛn]	<i>anggen</i>	'fruit'

The variant [ɲ] is found in the environment of *Vn#* when the *V* is either [i] (2.8a)–(2.8c) or [u] (2.8d)–(2.8f).

(2.8)	a.	/min/	[miɲ]	<i>min</i>	'cold'
	b.	/oin/	[ɔiɲ]	<i>oin</i>	'husband'
	c.	/wein/	[weɪɲ]	<i>wein</i>	'bayan tree'
	d.	/wun/	[wuɲ]	<i>wun</i>	'ash'
	e.	/i.nom/	[i ^h ɲɔm]	<i>inyom</i>	'with'
	f.	/wu.nom/	[wu ^h ɲɔm]	<i>wunyom</i>	'up high'

The /n/ remains [n] intervocalically, i.e., *VnV*, when both vowels are close vowels in a sequence of either /i + i/ (2.9a), /i + u/ (2.9b), /u + i/ (2.9c), or /u + u/ (2.9d).

(2.9)	a.	/mpi.nit/	[^m bi ^h nit ^ɿ]	<i>mbinit</i>	'inside'
	b.	/i.nu/	[i ^h nu]	<i>inu</i>	'sand'
	c.	/mu.ni/	[mu ^h ni]	<i>muni</i>	'that'
	d.	/pu.nu/	[pu ^h nu]	<i>punu</i>	'K.O. pigeon'

2.9 /j/

See section 4 for a more detailed discussion of approximants.

The phoneme of the velar set is shown in section 2.10.

2.10 /k/

There are three allophonic variants of the phoneme /k/, which are [k] when found in the environment of *#k* (2.10a)–(2.10d), [ɣ] when in the environment of *VkV* (2.10e)–(2.10h) and [k^ɿ] when in the environment of *k#* (2.10i)–(2.10l).

(2.10)	a.	/kit/	[kitʰ]	<i>kit</i>	'you(pl)'
	b.	/kup/	[kupʰ]	<i>kup</i>	'dark'
	c.	/ka.bi/	[ka'bi]	<i>kabi</i>	'iguana'
	d.	/ku.kwi/	[ku'kwi]	<i>kugwi</i>	'witch'
	e.	/te.ken/	[tɛ'kɛn]	<i>tegen</i>	'K.O. palm tree'
	f.	/ta.ket/	[ta'kɛtʰ]	<i>taget</i>	'spider'
	g.	/ju.kum/	[ju'kum]	<i>yugum</i>	'stone'
	h.	/ku.kup/	[ku'kupʰ]	<i>kugup</i>	'thick'
	i.	/jak/	[jakʰ]	<i>yak</i>	'after', 'afterward'
	j.	/mek/	[mekʰ]	<i>mek</i>	'impossible'
	k.	/wa.dik/	[wa'dikʰ]	<i>wadik</i>	'abandoned garden'
	l.	/ma.duk/	[ma'dukʰ]	<i>maduk</i>	'bad', 'evil'

3 GLOTTAL STOP

Only one member of the glottal set, that is, the phoneme //, is found. The // usually only occurs in word-final position. It is possible in word medial position only when a word is inflected.

There are two things that need to be considered concerning the phonetic realisation of //. First, we need to consider the variations in its allophonic expression, that is, [ʔ], [kʰ], or zero. (Bear in mind that zero realisation, indicated here by Ø, is not an allophone. The symbol Ø simply refers to the elision of //.) Second, we need to consider its semantic function pertaining to its phonetic variants.

At the first impression, the realisation of // seems to be heavily dependent on the speaker. However, thorough observation suggests otherwise. There are at least six variations of // relating to its phonetic realisations as [ʔ], [kʰ], or Ø, as well as in some cases differences of meaning. Here, such variations are referred to as types 1-6. When present, they will determine whether the word with [ʔ] has the same meaning as or different meaning from its counterpart variants, that is, the same word with [kʰ] or Ø.

Table 3.1 outlines some constraints of // in word-final position pertaining to its phonetic realisation as [ʔ], [kʰ], and Ø. The following conventions read: = same meaning, ≠ different meaning, × versus or contrasts with, ~ fluctuates with, same meaning, ≈ fluctuates with, different meaning, and * not attested.

Table 3.1: Variant realisations of glottal stop in word-final position

Realisation type	Variant realisations		Meaning	
	[kʰ]	∅	[kʰ]	∅
1	~	~	=	=
2	~	×	=	≠
3	×	~	≠	=
4	*	~	*	=
5	*	≈	*	≠
6	≈	≈	≠	≠

Based on table 3.1, the following discussion is sufficient to demonstrate that [ʔ] and [kʰ] are the allophones of the phoneme /ʔ/ when used in context, while at the same time it is possible to have ∅ as well.

In Type 1, /ʔ/ is realised in free fluctuation with [ʔ], [kʰ], and ∅. Given that, a word can be pronounced with either /[…ʔ]#/ , /[…kʰ]#/ or /[…∅]#/ without changing the meaning of the word. For example, the word for ‘be afraid of’ and the elevative deictics for ‘up’ and ‘down’ vary in their articulations.

- (3.1) a. [ɛʔ] ~ [ɛkʰ] ~ [ɛ] ‘up’
 b. [ɔʔ] ~ [ɔkʰ] ~ [ɔ] ‘down’
 c. [iʔdiʔ] ~ [iʔdikʰ] ~ [iʔdi] ‘be afraid of’

Type 2 illustrates that /ʔ/ of a same word is realised [ʔ] ~ [kʰ] × ∅. Thus fluctuation occurs between [ʔ] and [kʰ], but not with ∅. The latter conveys a different meaning. In terms of articulation, the formula /ʔ/ → [ʔ] ~ [kʰ] × ∅ is attested. In terms of meaning, [...ʔ] = [...kʰ] ≠ ∅ is the formula.

- (3.2) a. [iʔruʔ] ~ [iʔrukʰ] × [iʔru] ‘hot’ × ‘hole’

Type 3 is the mirror image of type 2. Thus, /ʔ/ → [ʔ] ~ ∅ × [kʰ] in terms of articulation, and [...ʔ] = ∅ ≠ [...kʰ] in terms of meaning.

- (3.3) a. [jɔʔ] ~ [jɔ] × [jɔkʰ] ‘steal’ × ‘now’
 b. [aʔjaʔ] ~ [aʔja] × [aʔjakʰ] ‘awesome’ × ‘breast’
 c. [aʔmɔʔ] ~ [aʔmɔ] × [aʔmɔkʰ] ‘palm’ × ‘fat’

The elevative¹⁷ deictic ‘down’ in (3.1b) is sometimes found in type 3, since [ɔʉkʰ] may refer to a kind of bird as well as to ‘down’.

The fluctuation between [ʔ] and \emptyset , as shown in type 4, is the most common one. In such a paradigmatic relation, there is no occurrence with [kʰ]. The formula is: // → [ʔ] ~ \emptyset * [kʰ] and [...ʔ] = \emptyset * [kʰ].

(3.4)	a.	[ʃɛʔ]	~	[ʃɛ]	*	[ʃɛkʰ]	‘small’ × *
	b.	[ʙbɛʔ]	~	[ʙbɛ]	*	[ʙbɛkʰ]	‘secret’ × *
	c.	[iʰndiʔ]	~	[iʰndi]	*	[iʰndikʰ]	‘name’ × *
	d.	[taʰɛʔ]	~	[taʰɛ]	*	[taʰɛkʰ]	‘lightning’ × *

In a speech community, we may come across expressions like [aʰpu] ~ [aʰpuʔ], meaning ‘desire to consume’, but never *[aʰpukʰ]. Likewise, we may find [aʰɣɔ] ~ [aʰɣɔʔ] ‘upset’, but *[aʰɣɔkʰ] is not attested. For non-native speakers of Wano, the presence of the glottal stop is hardly heard; only when the enclitic =o ‘PAUS’ occurs is it clearly audible: for example, [aʰpuɔ] versus [aʰpuʔɔ].

Type 5 exemplifies the presence and absence of the glottal stop bearing phonemic functions, whilst [kʰ] is not possible. The formulas are: // → [ʔ] ≈ \emptyset * [kʰ] and [...ʔ] ≠ \emptyset * [...kʰ].

(3.5)	[maʔ]	≈	[ma]	*	[makʰ]	‘vomit’ × ‘sacred’ × *
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Finally, type 6 demonstrates that all three phonetic expressions are possible in conveying different semantics.

(3.6)	[wuʔ]	≈	[wu]	≈	[wukʰ]	‘moth’ × ‘cowrie’ × ‘battle cry’
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Type 6 as illustrated in (3.6) is, however, dubious. The reason being, that the expression for ‘battle cry’ is often realised with [ʔ] instead of [kʰ]. Thus, [wuʔ] can be either ‘moth’ or an interjection to express a battle cry. The difference here is [wukʰ] is the artificial form, while [wuʔ] is the actual phonetic expression. This is to say that, when talking about ‘battle cry’ either in a discourse or in artificial data elicitation, the form with [kʰ] is expressed. On the other hand, when it is orally expressed in a direct speech, the form with [ʔ] is produced.

¹⁷ The term elevative is used to refer to elevational deictics which is a set of two-term systems – ‘up’ and ‘down’.

4 APPROXIMANTS /W/ AND /J/

The phonetic glides [w] and [j] may be interpreted as either consonants, /w/ and /j/, or vowels, /u/ and /i/. Thus, something like (4.1) and (4.2) are permissible:

- (4.1) a. /#wV/ or /#uV/
 b. /VwV/ or /VuV/
 c. /Vw#/ or /Vu#/
 (4.2) a. /#jV/ or /#iV/
 b. /VjV/ or /ViV/
 c. /Vj#/ or /Vi#/

If we base our analysis on (4.1a), for example, then the term for expressing ‘gratitude’ in Wano can be /wa/ or /ua/ and ‘cowrie’ can be /wu/ or /uu/. Likewise, referring to (4.2a), the word for ‘axe’ can be /je/ or /ie/ and ‘this’ can be either /ji/ or /ii/. In the medial position, the possessive form for ‘his cowrie’ can be /awu/ or /auu/ (see [4.1b]), and ‘spirit’ /aju/ as well as /aiu/ (see [4.2b]). In the final position, the elevative deictic ‘down’ can either be /ow/ or /ou/ (see [4.1c]), and ‘up’ can be /ej/ or /ei/ (see [4.2c]). In this section I will discuss possibilities to disambiguate /w/ and /j/ from /u/ and /i/.

Let me begin with their configurational properties. In word-initial position, Wano allows phonemic contrast between /w/ and /u/, since the word for ‘hawk’ is *u* while *wu*, as we have seen above, is ‘cowrie’. Clearly, the term for ‘hawk’ is realised with the vocalic close-back rounded [u], and the term for ‘cowrie’ with [u] following the frictionless continuant [w], which yields [wu]. Such contrast holds for /j/ and /i/ as well.¹⁸ We have *yi* ‘this’ versus *i* ‘water’. Here, the term for ‘water’ is expressed simply by the vocalic close-front unrounded [i], as opposed to *yi* ‘this’ where the frictionless continuant [j] precedes the vowel, thus yielding [ji].

It is then appropriate to orthographically represent [wu] as *wu* ‘cowrie’ and not *uu*, as well as [ji] as *yi* ‘this’ and not *ii*. Consider further examples below where /w/, given in (4.3), and /j/, in (4.4), precede a vowel. The asterisk indicates the undesirable form.

¹⁸ The approximant /j/ is produced with notable friction, but very softly, given that /j/ is, more or less, [ʒ], a voiced alveo-palatal fricative (IPA: voiced alveolo-palatal median laminal fricative, Pullum and Ladusaw 1996:204), rather than merely an approximant. When occurring intervocally, the quality of friction is stronger, making it sound somewhere in between [j] and [ji]. In this study, I will treat it as a voiced palatal approximant.

- (4.3) a. /wu/ [wu] *wu* **uu* 'cowrie'
 b. /we/ [wɛ] *we* **ue* 'he/she/it comes'
 c. /wi/ [wi] *wi* **ui* 'plural marker'
 d. /wo/ [wɔ] *wo* **uo* 'soft'
- (4.4) a. /ju/ [ju] *yu* **iu* 'they say'
 b. /je/ [jɛ] *ye* **ie* 'axe'
 c. /ji/ [ji] *yi* **ii* 'this'
 d. /jo/ [jɔ] *yo* **io* 'steal'

Contrast sequence in (4.3) and (4.4) with (4.5a), (b), (c), and (d), respectively.

- (4.5) a. /u/ [u] *u* 'hawk', 'desire'
 b. /e/ [ɛ] *e* 'wood', 'tree'
 c. /i/ [i] *i* 'water'
 d. /o/ [ɔ] *o* 'place'

Evidence can also be found in word-medial position. There is phonemic contrast between /V^hwV/ and /V^hjV/ and /V^hV/. Here, a clear distinction is audible with respect to the suprasegmental feature as well, in which primary stress falls on the final syllable in the following contrastive words.

- (4.6) a. /a.wi/ [a^hwi] *awi* **awi* 'house'
 b. /ta.we/ [ta^hwɛ] *tawe* **tae* 'young'
- (4.7) a. /a.je/ [a^hjɛ] *aye* **aie* 'penis'
 b. /ta.je/ [ta^hjɛ] *taye* **taie* 'light'

Contrast the forms in (4.6) and (4.7) with (4.8a) and (b), respectively.

- (4.8) a. /a.i/ [a^hi] *ai* 'eternal'
 b. /ta.e/ [ta^hɛ] *tae* 'lightning'

In word-final position, however, such contrastive features are not possible. The problem for Vw# ~ Vu# (in 4.1c) and Vj# ~ Vi# (in 4.2c) remains unsolved, since the elevative deictic 'down' can be [ɔu] as well as [ɔw] (see [4.1c]) and 'up' can either be [ɛi] or [ɛj] (see [4.2c]). However, as has been pointed out in section 3, such deictics freely fluctuate with /k/ and /ʔ/ in their phonetic realisation, that is, [ɔukʔ] ~ [ɔuʔ] and [ɛikʔ] ~ [ɛiʔ]. The conventions *ou* 'down' and *ei* 'up' are preferred to *ow* and *ej*. Choosing the latter will provide us with the addition of CC-sequence in the coda

position: *owk* ~ *ow'* and *ejk* ~ *ej'*, whereas in sections 7 and 8 it will be clear that CC-sequence is not a permissible constituent in the coda position.

For such reasons, I conclude that the contrast between /w/ and /j/ with their vocalic counterparts /u/ and /i/ is neutralised in the word-final position. Therefore occurrences of any [w] or [j] in word-final position are considered to be vowels and are written as *u* and *i*, respectively.

Thus, the phonetic glides [w] and [j] are approximants /w/ and /j/ when found in word-initial and medial positions before a vowel. They are written orthographically as *w* and *y*. In word-final position, they are neutralised and are written *u* and *i*.¹⁹

5 CONTRAST OF PHONEMIC CONSONANTS

Nearly minimal pairs, displaying the least contrast between phonemic consonants, are given in all possible distributions (initially, medially or intervocalically, and finally) of each phoneme. Contrast between bilabial phonemes is given in section 5.1, and contrast of alveolar phonemes in section 5.2.

5.1 Contrast within bilabial phonemes

The contrast between /b/ and /p/ word-finally is either neutralised to [p̚] or is hardly noticeable between [b̚] and [p̚]. There is only one example found regarding contrast between /m/ and /v/ in word-final position (see *wom* 'domestic pig' [5.2c] and *awiv* 'K.O. tree' [5.8c]).

(5.1)	/b/		/p/	
a.	<i>bu</i> ~ <i>bu'</i>	'unwilling'	<i>pu</i>	'to blow'
b.	<i>a.but</i>	'child of male'	<i>a.pu</i>	'desire to consume'
c.	<i>wab</i>	'time'	<i>ap</i>	'person'
(5.2)	/b/		/m/	
a.	<i>be</i>	'small', 'little', 'few'	<i>me</i>	'and'
b.	<i>a.but</i>	'child of male'	<i>a.mok</i>	'fat'
c.	<i>wab</i>	'time'	<i>wom</i>	'domestic pig'
(5.3)	/b/		/v/	
a.	<i>be</i>	'small', 'little', 'few'	<i>ve</i>	'lift up'
b.	<i>ta.bi</i>	'K.O. vegetable'	<i>ta.vi</i>	'rain'

¹⁹ For details on the notion of 'neutralisation', see Akamatsu 1988.

(5.4)	/b/		/w/	
a.	<i>bu ~ bu'</i>	'unwilling'	<i>wu, wu'</i>	'cowrie', 'moth'
b.	<i>ta.bi</i>	'K.O. vegetable'	<i>ta.we</i>	'young'
(5.5)	/p/		/m/	
a.	<i>pit</i>	'K.O. tree'	<i>min</i>	'wet'
b.	<i>a.pik</i>	'all'	<i>da.mit</i>	'horse fly'
(5.6)	/p/		/v/	
a.	<i>bu ~ bu'</i>	'unwilling'	<i>vi</i>	'mute'
b.	<i>a.but</i>	'child of male'	<i>a.vud</i>	'abdomen'
(5.7)	/p/		/w/	
a.	<i>pa.vuk</i>	'bush'	<i>wa.vud</i>	'snake'
b.	<i>a.but</i>	'child of male'	<i>a.wu</i>	'his/her cowrie'
(5.8)	/m/		/v/	
a.	<i>me</i>	'and'	<i>ve</i>	'lift up'
b.	<i>ma.duk</i>	'bad', 'evil'	<i>va.vud</i>	'character'
c.	<i>wom</i>	'domestic pig'	<i>a.wiv</i>	'K.O. tree'
(5.9)	/m/		/w/	
a.	<i>me</i>	'and'	<i>we</i>	'he/she/it comes'
b.	<i>a.mu</i>	'home'	<i>a.wu</i>	'his/her cowrie'
(5.10)	/v/		/w/	
a.	<i>a.vud</i>	'abdomen'	<i>a.wot</i>	'his/her younger sibling ss'
b.	<i>da.vo</i>	'rack'	<i>a.wo</i>	'still', 'not yet'

5.2 Contrast within alveolar phonemes

The contrast between /d/ and /t/ word-finally is either neutralised to [t̚] or is hardly noticeable between [d̚] and [t̚].

(5.11)	/d/		/t/	
a.	<i>du</i>	'down-steep'	<i>tu</i>	'path'
b.	<i>tid</i>	'pig's snout'	<i>mbit</i>	'moon'
(5.12)	/d/		/n/	
a.	<i>de</i>	'cry'	<i>ne</i>	'specific topic marker'
b.	<i>ke.de</i>	'rattan'	<i>e.ne</i>	'belonging'
c.	<i>deid</i>	'banana'	<i>wein</i>	'bayan'

(5.13)	/t/		/n/	
a.	<i>ta.vo</i>	'tobacco'	<i>na.no</i>	'what'
b.	<i>kit</i>	'you(PL)'	<i>kin</i>	'visible'

6 VOCALIC PHONEMES

The phonemic properties of Wano vowels are /i, e, a, o, u/. These are the only permissible segments used to construct a nucleus and to bear primary stress in a syllable structure. All Wano vowels are found word-initially (—/#V), medially (—/CVC), and finally (—/V#), as well as in a minimal free form (—/#V#). This is to say that a vocalic phoneme, which is composed of a single nucleus, can be construed as a morphological word,²⁰ taking for granted that, "...a word is the smallest unit that can exist on its own." (Spencer 1991:43). The distribution of Wano vowels follows.

6.1 The phoneme /i/

The phoneme /i/ is found in the following environments: #i# (6.1a), #i (6.1b), i# (6.1c) and (6.1d), and CiC (6.1e) and (6.1f).

(6.1)	a.	/i/	[i]	<i>i</i>	'water'
	b.	/it/	[itʷ]	<i>it</i>	'they'
	c.	/vi/	[βi]	<i>vi</i>	'mute'
	d.	/ni/	[ni]	<i>ni</i>	'as such'
	e.	/kin/	[kin]	<i>kin</i>	'visible'
	f.	/mpit/	[^m bitʷ]	<i>mbit</i>	'moon'

When /i/ is not a nucleus of a syllable that bears primary stress, it is sometimes articulated in free fluctuation with the centralised front-close vowel: [ɪ].²¹ (see (6.2) as opposed to (6.3)).

(6.2)	/i/ → [i] ~ [ɪ] ___/σ 'σ		
		i (C)CV	
	a.	/i.no/	[i ^h nɔ] ~ [ɪ ^h nɔ] <i>inyo</i> 'bread fruit'
	b.	/i.ntu/	[i ^h ndu] ~ [ɪ ^h ndu] <i>indu</i> 'fire'

²⁰ See Dixon and Aikhenvald (2002b:1-14) for the definitions of a grammatical and phonological word.

²¹ IPA: Near-close, near-front unrounded (Pullum and Ladusaw 1996:87)

(6.3)	a.	/da.mit/	[dɑ'mitʰ]	<i>damit</i>	'horse fly'
	b.	/ei.kik/	[e'i'kikʰ]	<i>eikik</i>	'K.O. tree'

6.2 The phoneme /e/

The phoneme /e/ is found in the following environments: #e# (6.4a), #e (6.4b), e# (6.4c) and (6.4d), and CeC (6.4e) and (6.4f).

(6.4)	a.	/e/	[ɛ]	<i>e</i>	'wood', 'tree'
	b.	/en/	[ɛn]	<i>en</i>	'sugar cane'
	c.	/te/	[tɛ]	<i>te</i>	'he/she intends'
	d.	/ka.ne/	[ka'nɛ]	<i>kane</i>	'firewood'
	e.	/dem/	[dɛm]	<i>dem</i>	'K.O. tree'
	f.	/te.ben/	[tɛ'βɛn]	<i>teben</i>	'bat'

When /e/ is an interconsonantal (i.e., C₁eC₂) where C₁ is a plosive and C₂ is a liquid, the phoneme is realised as [ə].

(6.5)	/ni.mpe.te/	[ni ^m bə'rɛ]	<i>nimbere</i>	'two'
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When preceding a sequence of consonants (i.e., eC₁C₂), both allophones [ɛ] and [ə], are realised in free fluctuation.

(6.6)	a.	/e.mpet/	[ɛ ^m betʰ] ~ [ə ^m betʰ]	<i>embet</i>	'sharp'
	b.	/e.nka/	[ɛ ⁿ ga] ~ [ə ⁿ ga]	<i>engga</i>	'leaf'

6.3 The phonemes /a/, /o/, and /u/

The phonemes /a/, /o/, and /u/ are found in the following environments: #V# (6.7a), (6.8a), and (6.9a), #V (6.7b), (6.8b), and (6.9b), V# (6.7c) and (6.7d), (6.8c) and (6.8d), (6.9c) and (6.9d), and CVC (6.7e) and (6.7f), (6.8e) and (6.8f), (6.9e) and (6.9f).

(6.7)	The phoneme /a/				
	a.	/a/	[a]	<i>a</i>	'ah (interjection)'
	b.	/an/	[an]	<i>an</i>	'I'
	c.	/nta/	[nɔda]	<i>nda</i>	'here'
	d.	/pe.ka/	[pɛ'ɣa]	<i>pega</i>	'K.O. fish'
	e.	/kat/	[katʰ]	<i>kat</i>	'you(sg)'
	f.	/ja.tak/	[ja'rakʰ]	<i>yarak</i>	'harvested garden'

- (6.8) The phoneme /o/
- | | | | | |
|----|----------|-----------------------|---------------|------------|
| a. | /o/ | [ɔ] | <i>o</i> | 'place' |
| b. | /op/ | [ɔpʰ] | <i>op</i> | 'finished' |
| c. | /nto/ | [nɔ] | <i>ndo</i> | 'cave' |
| d. | /a.mo/ | [a'mɔ] | <i>amo</i> | 'palm' |
| e. | /mot/ | [mɔtʰ] | <i>mot</i> | 'short' |
| f. | /a.nkop/ | [a ⁿ gɔpʰ] | <i>anggop</i> | 'tip' |
- (6.9) The phoneme /u/
- | | | | | |
|----|----------|-----------|--------------|------------------|
| a. | /u/ | [u] | <i>u</i> | 'hawk', 'desire' |
| b. | /u'.jak/ | [uʔ'jakʰ] | <i>u'yak</i> | 'K.O. bird' |
| c. | /wu/ | [wu] | <i>wu</i> | 'cowrie' |
| d. | /jo.ku/ | [jɔ'ɣu] | <i>yogu</i> | 'K.O. dove' |
| e. | /jud/ | [judʰ] | <i>yud</i> | 'tucan' |
| f. | /wa.vud/ | [wa'βudʰ] | <i>wavud</i> | 'snake' |

6.4 Contrast within vocalic phonemes

The nearly minimal pairs below illustrate the phonemic contrast of the Wano vowels in terms of their distribution.

- (6.10)
- | | | | | |
|----|------------|------------------|------------|-------------------|
| | /i/ | | /e/ | |
| a. | <i>i</i> | 'water' | <i>e</i> | 'wood', 'tree' |
| b. | <i>it</i> | 'they' | <i>en</i> | 'sugarcane' |
| c. | <i>wim</i> | 'arrow' | <i>wem</i> | 'cricket' |
| d. | <i>wi</i> | 'NOMINAL PLURAL' | <i>we</i> | 'he/she/it comes' |
- (6.11)
- | | | | | |
|----|------------|------------------|------------|---------------------------|
| | /i/ | | /a/ | |
| a. | <i>i</i> | 'water' | <i>a</i> | 'ah (interjection)' |
| b. | <i>it</i> | 'they' | <i>at</i> | 'he/she/it' |
| c. | <i>wim</i> | 'arrow' | <i>wab</i> | 'time' |
| d. | <i>wi</i> | 'NOMINAL PLURAL' | <i>wa</i> | 'greeting (interjection)' |
- (6.12)
- | | | | | |
|----|------------|------------------|------------|----------------|
| | /i/ | | /o/ | |
| a. | <i>i</i> | 'water' | <i>o</i> | 'place' |
| b. | <i>it</i> | 'they' | <i>op</i> | 'finished' |
| c. | <i>wim</i> | 'arrow' | <i>wom</i> | 'domestic pig' |
| d. | <i>wi</i> | 'NOMINAL PLURAL' | <i>wo</i> | 'soft' |
- (6.13)
- | | | | | |
|----|------------|------------------|------------|------------------|
| | /i/ | | /u/ | |
| a. | <i>i</i> | 'water' | <i>u</i> | 'hawk', 'desire' |
| b. | <i>it</i> | 'they' | <i>ut</i> | 'moss' |
| c. | <i>wim</i> | 'arrow' | <i>wun</i> | 'ash' |
| d. | <i>wi</i> | 'NOMINAL PLURAL' | <i>wu</i> | 'cowrie' |

For the contrast among /e/, /a/, /o/, and /u/, see examples in (6.10a)–(6.10d) for /e/, (6.11a)–(c) for /a/, (6.12a)–(d) for /o/ and (6.13a)–(d) for /u/, respectively.

7 PHONOTACTICS

To discuss the definition of a well-formed phonological word (see Dixon and Aikhenvald 2002b:1–41), as indicated in section 1, the phonemes /b, p, m, v, d, t, n, k/ are found in initial, medial, and final positions. There is only one example of /v/ occurring in word-final position, that is, *awiv* ‘K.O. tree’. The phonemes /w/ and /j/ are not found in word-final position. Thus the sequences of */(C)CVw/ or */(C)CVj/ are not allowed. The glottal stop occurs only in word-final position. Section 7.2 describes sequences of vowels and section 7.3 describes sequences of consonants.

7.1 Syllabification

The structure of the syllable in Wano may be diagrammed as: (C)V(C), where the initial C could consist of one consonant or sequences of two or three consonants. This allows for eight syllable types: V(C), CV(C), CCV(C), CCCV(C), as shown in (7.1). In disyllabic words, the heavy-syllable²² is not found in the initial position.

(7.1)	a.	V	/i/	[i]	<i>i</i>	‘water’
	b.	CV	/tu/	[tu]	<i>tu</i>	‘path’
	c.	CCV	/nka/	[^ɓ ga]	<i>ngga</i>	‘where’
	d.	CCCV	/nkwe/	[^ɓ g ^w ε]	<i>nggwe</i>	‘sound of pig’
	e.	VC	/ut/	[utʰ]	<i>ut</i>	‘moss’
	f.	CVC	/kat/	[katʰ]	<i>kat</i>	‘you(sg)’
	g.	CCVC	/ntuk/	[ⁿ dukʰ]	<i>nduk</i>	‘thunder’
	h.	CCCVC	/nkwen/	[^ɓ g ^w εn]	<i>nggwen</i>	‘earth’

Vowels are the only permissible segments to construe a nucleus, that is, the central segment of the syllable. All consonants can occur as either an onset or a coda, except /w/ and /j/ which do not occur in the coda position (see section 4). As can be seen in (7.1), sequences of consonants are not possible in the coda position. Regarding syllable onset of (C)CC-sequence, the four corollaries follow.

Corollary 1: In the C₁C₂V(C) type, C₁ is a nasal (/m/ or /n/) and C₂ can be /p/, /t/, or /k/, yielding prenasalised segments as outlined in figure 7.1.

Corollary 2: Still, in the C₁C₂V(C) type, C₁ can be /p/ or /k/ and C₂ is a bilabial approximant /w/, yielding labialised segments. In the layered structure, corollary 2 appears to be a mirror image of corollary 1 as captured in figure 7.2.

²² For definition see Crystal 1997: 417–418.

Corollary 3: Likewise, in the $C_1C_2V(C)$ type, C_1 can be /t/ or /d/ and C_2 is the palatal approximant /j/, as shown in figure 7.3.

Corollary 4: The type $C_1C_2C_3V(C)$ is highly restricted to /nkw/ sequences, as given in figure 7.4.

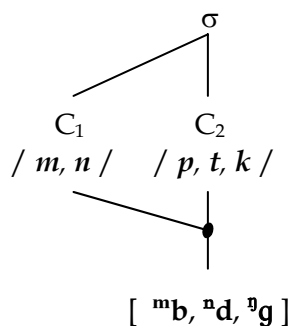


Figure 7.1: Prenasalised segments

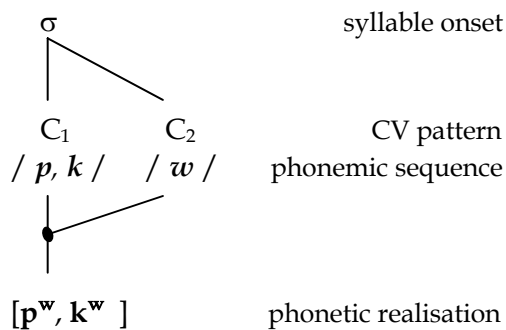


Figure 7.2: Labialised segments

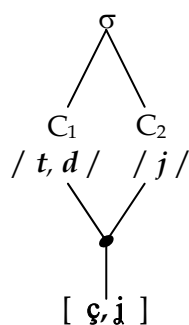


Figure 7.3: Palatalised segments

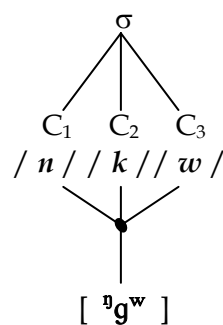


Figure 7.4: Labio-prenasalised segments

7.2 Sequences of vowels

Sequences of vowels are outlined in table 7.1

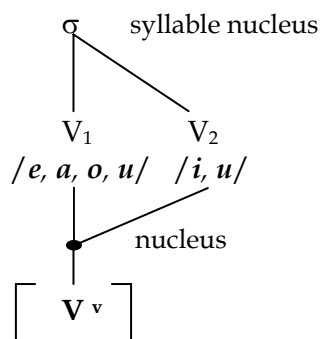
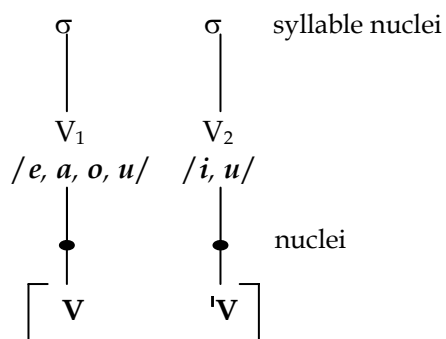
Table 7.1: Sequences of vowels

$V_1 V_2 \rightarrow$	/i/	/e/	/a/	/o/	/u/
/i/	-	-	+	-	-
/e/	+	-	-	-	-
/a/	+	-	-	-	+
/o/	+	-	-	-	+
/u/	+	-	-	-	-

A word consisting of two juxtaposed vocalic segments (V_1V_2) can either be analysed as a monosyllabic word, thus construing a diphthong (as given in table 1.5), or as a

disyllabic word.²³ What distinguishes the two is determined by where the stress is located in the word. If the stress falls on V_1 , the vocalic sequence is a diphthong. When V_2 is more prominent than V_1 , then the sequence comprises two syllables. For instance, a deictic word /ei/ ‘up’ is realised with the stress on V_1 , [‘ei], but when artificially contrasted by locating stress on V_2 , it is rejected: *[ε‘i]. This gives us an onset-less monosyllabic word with a diphthong as its nucleus. On the other hand, a morphologically derived proper noun /jei/ ‘Yei’ is realised with the stress on V_2 , thus: [je‘i]. This realisation suggests a disyllabic word, of which the first syllable employs /e/ as its nucleus, whilst the last syllable has /i/. In this instance, we have evidence of a vocalic sequence: /ei/.

When constructing a single syllable, the sequences /ia/ and /au/ are not attested. Consider the contrast given in figures 7.5 and 7.6 with their examples in (7.2) and (7.3) respectively.

Figure 7.5: V_1V_2 construing one nucleusFigure 7.6: V_1V_2 construing two nuclei(7.2) V_1V_2 construing one nucleus

- | | | | | | |
|----|--------------|---------|------------------------|---------------|-------------|
| a. | i + a | * | | | |
| b. | e + i | /ei/ | [‘ei] | <i>ei</i> | ‘up’ |
| c. | a + i | /kaid/ | [‘ka‘d’] | <i>kaid</i> | ‘sprout’ |
| d. | a + u | * | | | |
| e. | o + i | /nkoid/ | [‘ ^h gɔ‘d’] | <i>nggoid</i> | ‘landslide’ |
| f. | o + u | /ou/ | [‘ɔ‘u] | <i>ou</i> | ‘down’ |
| g. | u + i | /a.bui/ | [a‘bu‘i] | <i>abui</i> | ‘possum’ |

²³ Here, in a disyllabic word, we have evidence of a vocalic sequence. V_1 is then a nucleus of syllable initial, and V_2 is a nucleus of syllable final. The first syllable will always be a light-syllable.

(7.3) V₁V₂ construing two nuclei

a.	i + a	/di.an/	[dʰi'an]	<i>dian</i>	'blood' (see [2.7j])
b.	e + i	/je.i/	[jɛ'i]	<i>yei</i>	'Yei'
c.	a + i	/a.i/	[a'i]	<i>ai</i>	'eternal'
d.	a + u	/kau.be/	[ka ₁ u'βɛ]	<i>kaube</i>	'K.O. tree'
e.	o + i	/ko.mpo'id/	[kɔ ^m bɔ'id']	<i>komboid</i>	'ulcer'
f.	o + u	/mpo.u/	[^m bɔ'u]	<i>mbou</i>	'lizard'
g.	u + i	/du.kui/	[dʰuɣu'i]	<i>dugui</i>	'K.O. tree'

7.3 Sequences of consonants

Sequences of consonants are outlined in table 7.2.

Table 7.2: Sequences of consonants

C ₁ C ₂ →	/d/	/p/	/t/	/k/	/m/	/n/	/w/	/j/
↓								
/d/	-	-	-	-	-	-	-	+
/p/	-	-	-	-	-	-	+	-
/t/	-	-	-	-	-	-	-	+
/k/	-	-	-	-	-	-	+	-
/m/	-	+	-	-	-	-	-	-
/n/	-	-	+	+	-	-	-	-
/w/	-	-	-	-	-	-	-	-
/j/	-	-	-	-	-	-	-	-

In addition, a sequence of three juxtaposed consonants is also found. This is /nkw/ which is discussed in section 7.3.8.

As pointed out in the introduction section (see table 1.3), phonetic realisations such as prenasalised, palatalised, and labialised segments are considered sequences of at least two juxtaposed consonants in a CC-sequence. They are /mp, nt, nk/, /pw, kw/, and /dj, tj/. A CCC-sequence is found, which is /nkw/.

The sequences are not encountered in word-final position. The sequence /pw/ is not possible in word-medial position, and /dj/ is not found in the initial position. Only one example is found for /tj/, that is, *codea* /tjo.de.a/ [çɔdɛ'a] 'wallaby'.

The following is the outline of the sequences of consonants which occupy the (C)CC-slots in the (C)V(C) pattern (see CCV [7.1c] and CCVC [7.1g]). The vowels that may

precede (and follow) the sequences will be indicated. I will present only their distribution in monosyllabic and disyllabic words.

7.3.1 /mp/

Table 7.3 displays the distribution of /mp/ in monosyllabic and disyllabic words. Their examples are given in (7.4).

Table 7.3: Distribution of *mp* in monosyllabic and disyllabic words

<i>mp</i>	<i>i</i>	<i>e</i>	<i>a</i>	<i>o</i>	<i>u</i>
CCV	–	+	–	–	+
CCVC	+	–	–	+	+
CCV-σ	+	+	–	+	+
σ-CCV	–	–	–	–	–
σ-CCVC	+	+	+	+	+

(7.4)	a.	/mpe/	[^m bɛ]	<i>mbe</i>	'complain'
	b.	/mpu/ ²⁴	[^m bu]	<i>mbu</i>	'thorny grass'
	c.	/mpit/	[^m bit ^ʔ]	<i>mbit</i>	'moon'
	d.	/mpok/	[^m bɔk ^ʔ]	<i>mbok</i>	'secret'
	e.	/mpuk/	[^m buk ^ʔ]	<i>mbuk</i>	'grass-skirt'
	f.	/mpan/	[^m ban]	<i>mban</i>	'only'
	g.	/mpi.juk/	[^m bi'juk ^ʔ]	<i>mbiyuk</i>	'K.O. bird of paradise'
	h.	/mpe.te/	[^m bɛ're]	<i>mbere</i>	'two'
	i.	/mpo.wid/	[^m bɔ'wid ^ʔ]	<i>mbowid</i>	'Mbowid (PN)'
	j.	/mpu.tu/	[^m bu'ru]	<i>mburu</i>	'lake'
	k.	/a.mpit/	[a ^h ^m bit ^ʔ]	<i>ambit</i>	'sake'
	l.	/e.mbet/	[ɛ ^h ^m bɛt ^ʔ]	<i>embet</i>	'sharp'
	m.	/a.mpan/	[a ^h ^m ban]	<i>amban</i>	'back'
	n.	/e.mpok/	[ɛ ^h ^m bɔk ^ʔ]	<i>embok</i>	'strong'
	o.	/u.mpun/	[u ^h ^m bun]	<i>umbun</i>	'shoulder'

Some possible patterns, such as CCVV, CCVVC, CCVV-σ, CCVVC-σ, σ-CCVV, and σ-CCVVC are not yet considered in this analysis.

²⁴ This form is almost always reduplicated, thus: *mbu-mbu*. It expresses a numerous amount of the 'thorn'. This way of reduplication is a typical Melayu-Papua expression (cf. *rumput duri-duri* 'grass thorn-thorn').

7.3.2 /nt/

The distribution of /nt/ is captured in table 7.4. The examples are given in (7.5).

Table 7.4: Distribution of *nt* in monosyllabic and disyllabic words

<i>nt</i>	<i>i</i>	<i>e</i>	<i>a</i>	<i>o</i>	<i>u</i>
CCV	+	+	+	+	+
CCVC	–	+	+	+	+
CCV-σ	+	–	+	–	+
σ-CCV	+	+	–	+	–
σ-CCVC	+	–	+	+	+

(7.5)	a.	/nti/	[ⁿ di]	<i>ndi</i>	‘this’
	b.	/nte/	[ⁿ dɛ]	<i>nde</i>	‘over there’
	c.	/nta/	[ⁿ da]	<i>nda</i>	‘here’
	d.	/nto/	[ⁿ dɔ]	<i>ndo</i>	‘cave’
	e.	/ntu/ ²⁵	[ⁿ du]	<i>ndu</i>	‘downward’
	f.	/ntet/	[ⁿ dɛtʰ]	<i>ndet</i>	‘in here’
	g.	/ntat/	[ⁿ datʰ]	<i>ndat</i>	‘equal’ (cf. [7.5q])
	h.	/ntok/	[ⁿ dɔkʰ]	<i>ndok</i>	‘K.O. reed’ (cf. [7.5r])
	i.	/ntuk/	[ⁿ dukʰ]	<i>nduk</i>	‘thunder’
	j.	/nti.mit/	[ⁿ di'mitʰ]	<i>ndimit</i>	‘necklace bead’
	k.	/nta.pu/	[ⁿ da'pu]	<i>ndapu</i>	‘ball’
	l.	/ntu.mpuk/	[ⁿ du ^{mb} ukʰ]	<i>ndumbuk</i>	‘cassowary’
	m.	/e.nti/	[ɛ ^{ln} di]	<i>endi</i>	‘leave it (interjection)’
	n.	/i.ntit/	[i ^{ln} ditʰ]	<i>indit</i>	‘side’
	o.	/ma.nte/	[ma ^{ln} dɛ]	<i>mande</i>	‘how many’
	p.	/a.nto/	[a ^{ln} dɔ]	<i>ando</i>	‘other’
	q.	/e.ntat/	[ɛ ^{ln} datʰ]	<i>endat</i>	‘equal’ (cf. [7.5g])
	r.	/a.ntok/	[a ^{ln} dɔkʰ]	<i>andok</i>	‘K.O. reed’ (cf. [7.5h])
	s.	/a.ntuk/	[a ^{ln} dukʰ]	<i>anduk</i>	‘pain’

7.3.3 /nk/

Table 7.5 shows the distribution of /nk/. The examples are presented in (7.6).

²⁵ An inflection of *n-d-u* ‘ADV-steep-down’.

Table 7.5: Distribution of *nk* in monosyllabic and disyllabic words

<i>nk</i>	<i>i</i>	<i>e</i>	<i>a</i>	<i>o</i>	<i>u</i>
CCV	–	–	+	–	–
CCVC	+	–	–	+	+
CCV-σ	+	+	+	+	+
σ-CCV	–	–	+	–	+
σ-CCVC	+	+	–	+	+

(7.6)	a.	/nka/	[^ɔ ga]	<i>ngga</i>	'where'
	b.	/nkik/	[^ɔ gik ^ɿ]	<i>nggik</i>	'Nggik (PN)'
	c.	/nkok/	[^ɔ gɔk ^ɿ]	<i>nggok</i>	'erosion'
	d.	/nkut/	[^ɔ gut ^ɿ]	<i>nggut</i>	'K.O.bird'
	e.	/nki.vot/	[^ɔ gi ^ɿ βɔt ^ɿ]	<i>nggivot</i>	'K.O. bird'
	f.	/nke.bak/	[^ɔ gɛ ^ɿ ʔak ^ɿ]	<i>nggebak</i>	'canoe'
	g.	/nka.bok/	[^ɔ ga ^ɿ ʔɔk ^ɿ]	<i>nggabok</i>	'K.O. pandanus'
	h.	/nko.te/	[^ɔ gɔ ^ɿ rɛ]	<i>nggore</i>	'cold'
	i.	/nku.num/	[^ɔ gu ^ɿ num]	<i>nggunum</i>	'K.O. bird'
	j.	/e.nka/	[ɛ ^ɪ ga]	<i>engga</i>	'leaf'
	k.	/a.nku/	[a ^ɪ gu]	<i>anggu</i>	'awesome'
	l.	/a.nkin/	[a ^ɪ gin]	<i>anggin</i>	'heaviness'
	m.	/e.nken/	[ɛ ^ɪ gɛn]	<i>enggen</i>	'necklace'
	n.	/a.nkop/	[a ^ɪ gɔp ^ɿ]	<i>anggop</i>	'tip', 'nail'
	o.	/a.nkup/	[a ^ɪ gup ^ɿ]	<i>anggup</i>	'pulp'

7.3.4 /tj/

In monosyllabic words, /tj/ is not attested. Its distribution in disyllabic words is given in table 7.6, and the examples are found in (7.7). For convenience, × indicates “not attested at this stage.”

Table 7.6: Distribution of *tj* in disyllabic words

<i>tj</i>	<i>i</i>	<i>e</i>	<i>a</i>	<i>o</i>	<i>u</i>
CCV	×	×	×	×	×
CCVC	×	×	×	×	×
CCV-σ	–	–	–	+	–
σ-CCV	+	–	+	+	–
σ-CCVC	–	–	–	+	+

(7.7)	a.	/tjo.dea/	[çɔ'dɛa]	<i>codea</i> ²⁶	'wallaby'
	b.	/ma.tji/	[ma'çi]	<i>maci</i>	'forget'
	c.	/i.tja/	[i'ça]	<i>ica</i>	'mother'
	d.	/i.tjo/	[i'çɔ]	<i>ico</i>	'K.O. tree'
	e.	/a.tjok/	[a'çɔkʷ]	<i>acok</i>	'foot/feet'
	f.	/i.tjuk/	[i'çukʷ]	<i>icuk</i>	'glue' ²⁷

7.3.5 /dj/

Like /tj/, /dj/ is not found in monosyllabic words. Table 7.7 presents its distribution in disyllabic words. Examples follow in (7.8).

Table 7.7: Distribution of *dj* in disyllabic words

<i>dj</i>	<i>i</i>	<i>e</i>	<i>a</i>	<i>o</i>	<i>u</i>
CCV	x	x	x	x	x
CCVC	x	x	x	x	x
CCV-σ	–	–	–	–	–
σ-CCV	–	–	+	+	–
σ-CCVC	–	–	+	+	–

(7.8)	a.	/a.dja/	[a'ja]	<i>aja</i>	'stunning'
	b.	/ta.djo/	[ta'jɔ]	<i>tajo</i>	'K.O. banana'
	c.	/a.djak/	[a'jakʷ]	<i>ajak</i>	'breast'
	d.	/i.djom/	[i'jom]	<i>ijom</i>	'grasshopper'

7.3.6 /pw/

There is only one example found for /pw/ in monosyllabic words as evidenced in table 7.8 and example (7.9). It is not found in disyllabic words.

Table 7.8: Distribution of *pw* in monosyllabic words

<i>pw</i>	<i>i</i>	<i>e</i>	<i>a</i>	<i>o</i>	<i>u</i>
CCV	+	–	–	–	–
CCVC	–	–	–	–	–
CCV-σ	x	x	x	x	x
σ-CCV	x	x	x	x	x
σ-CCVC	x	x	x	x	x

²⁶ Stress and distribution of /tj/ rule out the common Wano phonological rules. Most probably, *codea* is a loan-word.

²⁷ From the sap of a tree. It may be the tree called *ico*.

(7.9) /pwi/ [p^wi] *pwi* 'louse (head)'

7.3.7 /kw/

The sequence /kw/ is not attested with back vowels, as table 7.9 shows. The examples are presented in (7.10).

Table 7.9: Distribution of *kw* in monosyllabic and disyllabic words

<i>kw</i>	<i>i</i>	<i>e</i>	<i>a</i>	<i>o</i>	<i>u</i>
CCV	+	+	+	-	-
CCVC	-	-	+	-	-
CCV-σ	-	+	-	-	-
σ-CCV	+	-	-	-	-
σ-CCVC	-	-	+	-	-

(7.10) a. /kwi/ [k^wi] *kwi* 'red'
 b. /kwe/ [k^wɛ] *kwe* 'but'
 c. /kwa/ [k^wa] *kwa* 'woman'
 d. /kwam/ [k^wam] *kwam* 'turtle'
 e. /kwe.mpa/ [k^wɛ^lmba] *kwemba* 'grass'
 f. /pi.kwi/ [pi^lk^wi] *pikwi* 'K.O. pandanus'
 g. /na.kwan/ [na^lɣ^wan] *nagwan* 'lord'

7.3.8 /nkw/

As shown in table 7.10 and examples in (7.11), the sequence /nkw/ does not take the back vowel /u/ (cf. CCCV [7.1d] and CCCVC [7.1h]).

Table 7.10: Distribution of *nkw* in monosyllabic and disyllabic words

<i>nkw</i>	<i>i</i>	<i>e</i>	<i>a</i>	<i>o</i>	<i>u</i>
CCCV	-	+	+	-	-
CCVC	-	+	-	-	-
CCCV-σ	-	+	+	-	-
σ-CCCV	+	-	-	-	-
σ-CCVC	-	-	-	+	-

(7.11)	a.	/nkwe/	[^ŋ g ^w ε]	<i>nggwe</i>	'sound of pig'
	b.	/nkwen/	[^ŋ g ^w εn]	<i>nggwen</i>	'earth'
	c.	/nkwe.ti/	[^ŋ g ^w ε ^l ri]	<i>nggweri</i>	'Nggweri (PN)'
	d.	/nkwa.ne/	[^ŋ g ^w a ^l nε]	<i>nggwane</i>	'pigeon'
	e.	/ja.nkwi/	[ja ^ŋ g ^w i]	<i>yanggwi</i>	'cockatoo'
	f.	/a.nkwom/	[a ^ŋ g ^w ɔm]	<i>anggwom</i>	'his/her pig'

7.4 Complex sequences

Constructions like /ei/ 'up' as discussed in section 7.2 illustrate a complex syllable structure: a diphthong construing a syllable. Such is captured in figure 7.5, which is repeated below with specifics in figure 7.7.

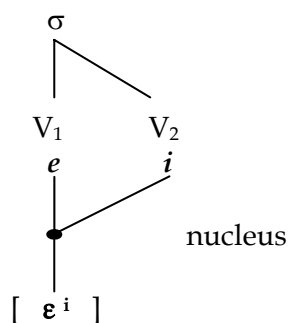


Figure 7.7: V_1V_2 is a nucleus construing a diphthong

When two sequences are adjacent in one syllable, we have evidence of a complex sequence. In this structure, a consonantal sequence and a diphthong are adjoined in occupying the onset and nucleus slots, respectively. Such a phenomenon is very common in Wano phonology. Consider the second syllables of /o.kweid/ 'heart' and /i.nkwoid/ 'κ.O. banana', as illustrated in non-linear structures in figures 7.8 and 7.9. The binary branching of the nucleus indicates that V_1 bears primary stress.

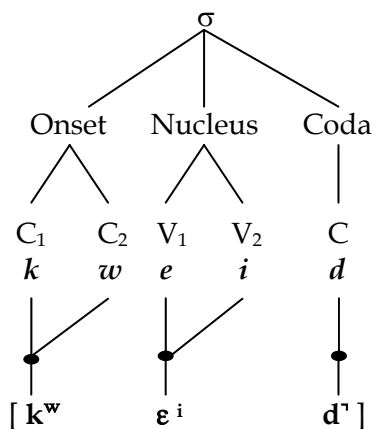


Figure 7.8: Complex sequences of CCVVC

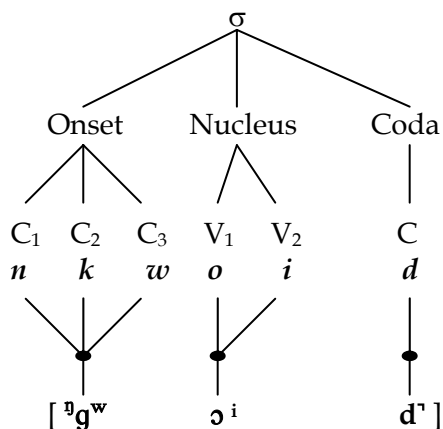


Figure 7.9: Complex sequences of CCCVVC

8 WORD STRESS

As has been pointed out in section 7.1, vowels are the only permissible segments used to construe a nucleus and to bear primary stress. The stress is always syllable final, encountered in any polysyllabic word. In terms of morphophonology, stress may occur on the initial syllable (as in *bok* 'good', *bok-o* 'good-pausal') or penultimate syllable (*a'mok* 'come (sg.imperative)', *a'mok-o* 'come (sg.imperative)-pausal'). The following examples illustrate the final stress in words of three (in [8.1a]) and four syllables (in [8.1b]). Nominal words which consist of four syllables are not many, but are possible. In verbal inflection, however, a word may have up to five syllables.

(8.1)	a.	$\sigma.\sigma.'\sigma$			
		V.CV.CVC	/i.ne.nek/	[iɲɛ'nekʰ]	'K.O. bird'
		CV.CV.CV	/ki.ki.tu/	[kiɲi'ru]	'mosquito'
		CV.C.V.CVC	/ji.vi.vit/	[jiβi'βitʰ]	'butterfly'
	b.	$\sigma.\sigma.\sigma.'\sigma$			
		CV.CV.CV.CV	/na.ka.mpu.tu/	[na,ɣa ^m bu'ru]	'pumpkin'
		CVC.CV.CCV.CV	/mpu.ti.tja.ja/	[^m bu,riça'ja]	'K.O. yam'
		CV.CCV.CV.CCV	/ta.mpa.ta.kwi/	[ta, ^m bara'ɣ ^w i]	'cricket'

Stress is non-phonemic, that is, stress-shifting on a word does not change the meaning of the word. Take the word *mudi* 'leech', for example. It is articulated [mu'di]. If the stress is switched to the first syllable, as in ['mudi], the meaning will remain the same, even though its phonetics no longer represents the nature of Wano stress.

9 MORPHOPHONOLOGY

The phonological changes pertaining to morpheme sequencing are treated hereafter. Section 9.1 deals with juxtaposition of the particle *ta* 'specifier' ('SPEC'). Section 9.2 presents cliticisation of the enclitic =*o*. Section 9.3 discusses verbal inflections. Symbols and abbreviations used in this section follow.

{ }	morphophonological structure
-	morpheme boundary
=	clitic boundary
#	word boundary
//	phonological representation
.	syllable boundary
[]	phonetic realisation
→	'is spelled' or 'becomes'
/	in the environment of

- < 'is derived from' or 'is of'
 V vowel
 C consonant

The conventional graphemes are presented in *italic* typeface. Examples are given following the layered order of: (i) graphemic realisation, (ii) morphophonological representation, (iii) phonetic representation, (iv) grammatical glossings and functions, and (v) free translation.

9.1 The particle *ta* 'SPEC'

The particle *ta* functions as the specifier marker (SPEC). The following allomorphs of *ta* 'SPEC' are attested.

- (9.1) a. *pa* c. *ka* e. *da*
 b. *ta* d. *ba* f. *ra*

9.1.1 The allomorphs *pa*, *ta*, and *ka*

The allomorphs *pa*, *ta*, and *ka* ([9.1a], [9.1b] and [9.1c]) are so realised in the following construction, as given in figure 9.1 where C_2 is the /t/ of {*ta*} and C_1 is a voiceless stop (that is, /p, t, or k/).

$$C_2 \rightarrow C_1 / C_1\# C_2$$

Figure 9.1: Realisation of *ta* as *pa*, *ta*, or *ka*

The phonetic realisation of the preceding consonants (that is, C_1) is somehow produced with a complete closure held a bit longer than normal, then suddenly released, resulting in a slight lengthening of sound. The following consonant (that is, C_2 , which is /t/ of *ta*) then takes the phonetic forms of C_1 (that is, either [p, t, or k] of /p, t, or k/). This is to say that the initial consonant of *ta* 'SPEC' assimilates to the preceding one.

For instance, *op* 'finished' is pronounced [ɔp̄]. In order to emphasise that '(it) is finished', *ta* 'SPEC' is attached to *op* 'finished'. We then have {*op ta*} which is realised [ʔɔp̄:a], giving us a possible phonological structure /*op.ta*/ ~ /*op.pa*/ or morphophonological structure {*op#ta*}. It is apparent that, in one or the other case, the two /p/s in /pp/ are a result of morpheme sequencing, {*op ta*}, and therefore are different in their syllabic status. The preceding *p* is the coda element of the VC syllable type (that is, *op*). The following *p* is the onset element of the CV pattern (that is, *pa*, which is the allomorph of *ta*).

Concerning spelling conventions, this leaves us with at least two possible spellings: (i) the surface form *op pa* or (ii) the underlying form *op ta* as outlined in (9.2a) and (9.2b), respectively, both which roughly mean ‘it is finished’.

(9.2)	{op ta}	Morphophonological form
	['ɔp:a]	Phonetic realisation
a.	<i>op pa</i>	
b.	<i>op ta</i>	

In this study, both conventions (9.2a) and (9.2b) will be used when presenting data interlinearly. For the orthography, the surface form is proposed. With this in mind, examples for the structures in figure 9.1 follow.

(9.3)	a.	{ap#ta}	['ap:a]	<i>ap pa</i> <i>ap ta</i> man SPEC ‘it is a man’
	b.	{kat#ta}	['kat:a]	<i>kat ta</i> <i>kat ta</i> you(sg) SPEC ‘it is you(sg)’
	c.	{yok#ta}	['jɔk:a]	<i>yok ka</i> <i>jok ta</i> now SPEC ‘it is now’

9.1.2 The allomorphs *ba* and *da*

The allomorphs *ba* and *da* (in [9.1d] and [e]) are so found in the following construction, as outlined in figure 9.2.

$C_2 \rightarrow C_1 / C_1\# + C_2$				
<table style="margin: auto;"> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> </tr> <tr> <td style="text-align: center;">[+voiced]</td> <td style="text-align: center;">[nasal]</td> </tr> </table>			[+voiced]	[nasal]
[+voiced]	[nasal]			

Figure 9.2: Realisation of *ta* as *ba* or *da*

Again, C_2 is /t/ of {ta}, while C_1 is a nasal (that is /m, n/). When a word with a nasal final is juxtaposed to the particle *ta* ‘SPEC’ (that is, $C_1\# + C_2$), a progressive assimilation takes place resulting in C_2 being realised as C_3 . Thus, due to its preceding nasal consonants (that is, /m, n/), /t/ of *ta* is affected in terms of voicing and place of articulation. The voiceless stop becomes voiced (as in [9.4a] and [b]), and alveolar becomes bilabial (see [9.4a]). The nasals are, as in the case of /p, t, k/ above, realised with a reasonable phonetic lengthening. Examples follow.

- (9.5) *ndi ra*
nti ta
 this SPEC
 'it is this'

Evidence in (9.5) suggests that the spelling of *ndi ta* 'it is this' is a more logical form than any other (such as *ndi ra*, *nti ra*, or *nti ta*). This also suggests that, in the Wano orthography, (i) any independent (single) lexeme (i.e., phonological word) be written in accordance with its surface form (which is accepted by the native speakers of Wano) and (ii) any lexeme that occurs across a word boundary resulting in the changing of its phonetic shape (i.e., its morphophonological form) be written in accordance with its underlying form.

9.2 The enclitic =o 'PAUS'

The enclitic =o functions as a pausal marker (PAUS). When the enclitic =o 'PAUS' is attached to a word that is a bilabial or an alveolar plosive final, regressive assimilation (_{RAS}) takes place (figure 9.4).

$$\{ \dots C\# \quad + \quad V\# \} \rightarrow [\quad C \quad]_{RAS}$$

$$/ \dots b, p, d, t \quad =o \quad / \rightarrow [\beta, b, j, r]$$

Figure 9.4: Cliticisation of =o 'PAUS' resulting in regressive assimilation

It is asserted in sections 2.1 and 2.2 that /b/ is [b^h] and /p/ is [p^h] in word-final position. In such a distribution, the contrast between /b/ and /p/, however, is either neutralised to [p^h] or hardly noticeable. Only when a vowel, which is mostly the enclitic =o 'PAUS', follows is the difference revealed. In this case, lenition takes place in two ways: (i) Affecting manner of articulation, that is, /b/ → [β] as in (9.6a), and (ii) affecting voicing, that is, /p/ → [b] as in (9.6b). Such holds for the phonemes /d/ and /t/. Thus, /d/ is realised as [j] (9.6c) and /t/ is realised as [r] (9.6d).

- (9.6) a. *woraneb-o*
 wot - -ane**b** =o
 wɔr a'neβ ɔ
 come- -2p.IMP =PAUS
 'you(pl) come (imperative)'
- b. *nanop-o*
 n- -anop =o
 n a'nɔb ɔ
 1s- -head =PAUS
 'my head'

- c. *deid-o*
 deid =o
 'dɛiǰ ɔ
 banana =PAUS
 'banana'
- d. *ambit-o*
 ø- -ambit =o
 a^{lm}bir ɔ
 3s- -sake =PAUS
 'for him/her/it'

To promote a consistent spelling of this form, hyphenation is used, as shown in (9.6). That is, *woraneb* is hyphenated as *woraneb-o* 'you(pl) come (imperative)-pausal' (9.6a), and when cliticised, *nanop* is *nanop-o* 'my head-pausal' (9.6b), *deid* is *deid-o* 'banana-pausal' (9.6c) and *ambit* is *ambit-o* 'sake-pausal' (9.6d). Such holds for words ending with /k/. For instance, *amok* is *amok-o* 'you(sg) come (imperative)-pausal', *netik* is *netik-o* 'I am going-pausal'. Only for the enclitic =o 'paus', hyphenation applies. The reasons follow.

Apart from marking 'utterance ending', the presence and absence of =o in a word does not signify semantic difference of the word. Take the imperative *amok* 'you(sg) come (imperative)', for example. It can be expressed with or without =o, with no distinction in meaning.

Second, one can argue that the enclitic =o functions as a discourse marker in expressions like 'Oh, ...', 'Well, ...' or 'I mean, ...'. If this is so, then /amok/ 'you(sg) come' can be differentiated from /amok + =o/, which is 'I mean, you come'. However, because =o is overwhelmingly found in daily speech, the distinction is disputable. As a result, that the presence and absence of =o in a word is not semantically significant. In a discourse, it simply functions to end an utterance.

In the interlinear representation, after all, hyphenation is used in the surface form, whilst the sign = is used in the underlying form to distinguish a morpheme break from a cliticisation. Here, the phonetic realisation of the surface form is ignored. It follows that (9.7a-9.7e) are the standard forms as opposed to (9.7a'-9.7e'), respectively.

- (9.7) a. *woraneb-o*
wot-aneb=o
come-2p.IMP=PAUS
‘you(pl) come (imperative)-pausal’
- b. *nanop-o*
n-anop=o
1s-head-PAUS
‘my head’
- c. *deid-o*
deid=o
banana=PAUS
‘banana-pausal’
- d. *ambit-o*
ampit=o
sake=PAUS
‘sake-pausal’
- e. *amok-o*
amok=o
come.SG.IMP=PAUS
‘you(sg) come (imperative)-pausal’
- a'. *woranev-o*
- b'. *nanob-o*
- c'. *deidj-o*
- d'. *ambir-o*
- e'. *amog-o*

9.3 Verbal inflections

Assimilation, elision, epenthesis, and vowel harmony are the features found in the verbal morphology.

9.3.1 Assimilation

Reciprocal or coalescent assimilation is attested in a morpheme sequencing in the structure of /n + k/.

$$\begin{array}{ccc}
 \{ \text{NASAL} + \text{C} \} & \rightarrow & [\text{NC}] \\
 | \qquad \qquad | & & | \\
 \mathbf{n} \qquad \mathbf{k} & \rightarrow & \text{ᵑg}
 \end{array}$$

Figure 9.5: Assimilation of *n* and *k*

In the following example, we see that the verb stem for ‘die’ is *kan-*, an *-n* verbs type (Burung 1994a). When it occurs in a realis verb form, the reciprocal assimilation unfolds between /n/ and the realis marker (REAL) /k/. Such affects points of articulation and voicing, and results in the phonetic representation as read in figure 9.5: /n/ is [ŋ] and /k/ is [g]; in coalescence they construe [ᵑg] (see section 8).

- (9.6) *kanggirak*
 kan-k-it-ak
 kaŋ-g-ir-'ak'⁷
 die-REAL-3s.SUBJ-then
 'he/she/it died (and) then'

9.3.2 Elision

When two consonants are juxtaposed across a morpheme boundary, syncopal elision (the omission of the preceding segment) is commonly attested. This is structured in figure 9.6.

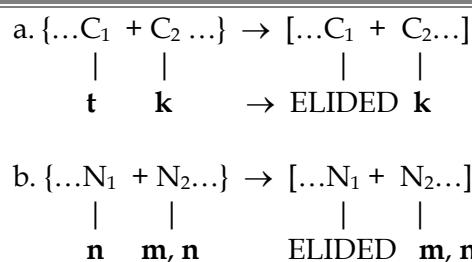


Figure 9.6: Consonantal syncopal elision

For instance, the verb stem for 'roast' is *tat-*, a *-t* verbs type. When it is expressed in realis mode, the /t/ is elided preceding /k/ 'REAL', giving us the phonetic realisation as read in figure 9.6a with the example in (9.7a). Similarly, in figure 9.6b, the preceding /n/ is omitted when followed by a nasal (/m, n/), as illustrated in (9.7b) and (c).

- (9.7) a. *takirak*
 tat-k-it-ak
 taØ-k-ir-'ak'⁷
 roast-REAL-3s.SUBJ-then
 'he/she/it roasted (and) then'
- b. *kambi*
 kan-mpi
 kaØ-'m'bi
 die-curse
 'die due to a curse'
- c. *wanuk*
 wan-nuk
 waØ-n'uk'⁷
 take-next
 'after taking ...'

9.3.3 Epenthesis

A prothetic vowel is often encountered which has its affect on the morphology. Take the sequential suffix *-nuk* (or ~ *-nok*) ‘next’ in (9.7c), for instance. Although it is not easily found, its occurrence as an independent element following a noun phrase is possible. In such circumstances, epenthesis occurs. The phrase *Tiagai enok* ‘after Tiagai, ...’ from an oral text gives evidence of epenthesis in the following example.

- (9.8) *Tiagai enok, Kembu omarib muni nggigit wu*
 tiakai **enok** | kempu ø-omarib muni nkikit w-u
 PN next PN 3s-bottom that pull out come-p.A

nouguarik ka,...
 n-ou-ku-at-ik ta |
 go-REM-REAL-3p.A-PROG SPEC - [Text 35: 4, Burung (1994b, In preparation)]
 “After Tiagai, they were coming along/from the foot of the Kembu mountain,...”

This phenomenon is, however, stylistic. Evidence suggests that *enok* ‘next’ in the given phrase in (9.8) is possible without the epenthesis. See the following example of the same text by the same narrator for the noun phrase *Acodi nok* “after Acodi,...”.

- (9.9) *ando ra, ou Acodi nok mbonggu, ando ra, we*
 anto ta | ou atjodi **nok** mpon-k-u | | anto ta | w-e
 other SPEC down PN next cut-REAL-p.A other SPEC come-s.A

inyom o ma Akbiri ndome ari unggu
 ø-inom o ma akbiti nto-me at-i un-k-u
 3s-with place sacred PN cave-LOC 3s-PL go through-REAL-p.A

unggu uku,
 un-k-u it-k-u | |
 go through-REAL-p.A do-REAL-pl.A - [Text 35: 12, Burung (1994b, In preparation)]
 ‘Some went down to Acodi, some came and they went through the sacred Akbiri cave, ...’

Likewise, the sequential *-ak*²⁸ ‘then’ adds an obligatory /j/ when it stands alone in a discourse, yielding *yak* ‘then’ as shown in (9.10).

²⁸ The variant form of *-ak* is *-iak* ‘then’.

(9.10) *yok ka, ndi, an endarak bane, an novawi ne*
 jok ta | | nti | an entat-ak bane | | an n-ova-wi ne |
 now SPEC this I occur-then INST I 1s-father-PL SPEC.TOP

wiganak ka, ndo dogwe-o, yak yuk-o
 wikan-ak ta | | nto do-k-we=o | jak jot-k=o
 come out-then SPEC cave stay-REAL-HAB=PAUS then say-REAL-s.A

tetig-o.

t-et-ik=o\

intend-1s.A-PROG=PAUS - [Text 37: 1, Burung (1994b, In preparation)]

'Now, this, regarding my birth, that my fathers came out, their staying in caves, I will tell that later.'

9.3.4 Allophonic variants of /n/

In section 2.8, it is stated that /n/ is realised as [n] and [ɲ]. The latter occurs when the phoneme is preceded by high vowels (that is, /i, u/). In the morphophonological feature, there is evidence to suggest that the palatal nasal is found in free variation with the velar nasal (that is, [ŋ]) although the velar nasal is mostly found. Such is possible when /k/ intervenes /i/ and /n/. Consider the elevative deictic *ei* 'up' which is, again, found in free fluctuation with *eik* and *ei'*. When a deictic word is composed of *ei* 'up' + *na* 'as such' the following variations are possible.

- (9.11) a. *ei nya*
 ei na
 'ei ɲa
 up as such
 'up that way (manner)'
 b. *eik nya ~ nga*
 eik na
 'eik ɲa ~ ŋa
 up as such
 'up that way (manner)'

However, when the glottal stop intervenes the realisations of [n, ɲ, and ŋ] are all possible.

- (9.12) *ei' na ~ nya ~ nga*
 ei' na
 'eiʔ na ~ ɲa ~ ŋa
 up as such
 'up that way (manner)'

For the spelling convention, the phonetic variants of /n/ are ignored, while the free fluctuation between /k/, /' /, and zero is maintained; thus giving us *ei na* ~ *eik na* or *ei' na* for the adverbial expression 'up that way'.

9.3.5 Vowel harmony

In verbal inflection, vowel harmony is also attested. In this respect, both progressive and regressive (or anticipatory) assimilation are attested as outlined in figure 9.7.

-
-
- a. {...V₁ C V₂...} → [V₁ C V₁] Progressive
 b. {...V₁ C V₂...} → [V₂ C V₂] Regressive
-
- Figure 9.7: Realisation of vowel harmony
-
-

The properties of V₁ in figure 9.7a are /i, o/ and V₂ are /e, o, and u/ pertaining to the compositions given in (9.13) as found in the verb for 'do'.

- (9.13) a. /i C e/ → [ε C ε]
 b. /i C o/ → [ɔ C ɔ]
 c. /o C u/ → [u C u]

The root for the verb 'do' is *it-*. When inflected, it can be expressed by *e-*, *o-*, and *u-* as shown in (9.14a), (b), and (c), respectively. The 'singular marker' is in fact signalled either by *-e* or *-o*. When 'singular' is marked by /e/, /i/ becomes /e/ (see [9.14a]). When it is indicated by /o/, it becomes /o/ (9.14b). The number for 'plural' is marked by /u/. When this occurs, /i/ becomes /u/ (see [9.14c]).

- (9.14) a. *eke*
it-k-e
 εØ-k-¹ε
 do-REAL-s.A.PROG
 'one is/was doing' or 'singular is/was doing'
- b. *oko*
it-k-o
 ɔØ-k-¹ɔ
 do-REAL-s.A
 'one did' or 'singular did'
- c. *uku*
it-k-u
 uØ-k-¹u
 do-REAL-p.A
 'ones did' or 'plural did'

In terms of the progressive harmonic assimilation (figure 9.8), the property of V_1 is restricted to /u/, and V_2 is /o/ as shown in the following construction.

/u C o/ → [u C u]

Figure 9.8: **Progressive assimilation in vowel harmony**

This feature occurs mostly in the verbs ending with a vowel. Consider (9.15) for example. The root for the existential ‘exist’ is *won-*. The ‘singular’ is marked by /e/, thus *won-e* ‘one exists’ or ‘singular exists’. When ‘plural’ is given, we have *wun-u* ‘ones exist’ or ‘plural exists’ (9.15).

- (9.15) *wunu*
 won-u
 wun-¹u
 exist-p.A
 ‘ones exist’ or ‘plural exist’

Finally, a vowel which is [-high] becomes [+high] when preceded by /u/. This is structured in figure 9.9 and illustrated by a derived personal name in (9.16). V_x marks any vowel.

{ ...	V_1	C	V_2 ... }	→	[V_1	C	V_2]
	u	C	V_x			V_2	C	V_2	
	[+high]	[-high]				[+high]		[+high]	

Figure 9.9: **Vowel harmony with u**

- (9.16) *tavuni*
 tavu ne
 ta¹βu ni
 tobacco SPEC.TOP
 ‘Tavuni (PN)’

10 ADAPTATION OF MELAYU-PAPUA

This section discusses phonological adaptation of Melayu-Papua by the Wano phonology. The following conventions follow van Coetsem (1988): *RL* for “recipient language” and *SL* for “source language”.

Based on van Coetsem’s investigation,

A phonological loan is an imitation, replication or reproduction in the *rl* of a *foreign* or *sl* pronunciation; such an imitation is often only an approximation. ...A phonological loan as an imitation thus something that the imitating *rl* speaker does not have in his integrated or native phonology,... (1988:7).

I will discuss some phenomena of the phonological adaptation noticed among the Wano speakers. In so doing, I adapt his purpose of using the term *phonological loan*, that is, "to indicate any form of loan in the realm of segmental or suprasegmental phonology, regardless of whether it affects the paradigmatic dimension, the syntagmatic dimension or both" (van Coetsem, 1988:7). Such segments and suprasegments refer to *loan-phonemes* and *stress* and are the focus of our discussion in this section. The notion of source language (*SL*) and recipient language (*RL*) is first discussed.²⁹ In van Coetsem's term, *RL-agentivity* takes place if the *RL* speaker is the agent, using some *SL* words while speaking his or her own language. This is the case of *borrowing*. On the other hand, *SL-agentivity* occurs when the agent is the *SL* speaker using his or her native articulatory while speaking *RL*. This is the case of *imposition*.³⁰ Our discussion here is in terms of *RL-agentivity*.

Whilst Wano is clearly the *RL*, the *SL* is either Papuan vernacular such as Melayu-Papua or Indonesian. The mutual contact between the *RL* speakers and the *SL* speakers implies transfer of some phonemes, by means of loan-words, from the *SL* to the *RL*. Evidence can be found among the Wano children who have been to Indonesian local primary schools, or among young men who have been to a local literacy or Bible school set up by various Christian missions in a neighbouring language.³¹ These children would normally be obliged to learn Indonesian, which is taught by teachers with a Melayu-Papua linguistic background. Those who went to a mission school used Melayu-Papua as the *lingua franca*. The introduction of some Melayu-Papua phonemes to Wano, although still premature, is noticed. They are /b/, /d/, /g/, /h/, /l/, and /s/.

The data supplied for the Melayu-Papua (or Papuan-Malay) words with their segmental and suprasegmental behaviours are merely based on my native intuition of the language. It should be of interest to see an analysis from a non-native Melayu-Papua linguist as well. In my analysis here, I have used the term *Melayu-Papua* in a broad sense, which refers to any non-standard Indonesian language spoken in Papua

²⁹ Other terms used are *donor* or *model language* versus *borrowing* or *replica language*.

³⁰ The proposed term for Weinreich's *interference* (1953:1) or Lado's *transfer* (1957:11), quoted from van Coetsem (1988:2).

³¹ For example, a Bible school in Mulia which is conducted in the *Dani* language, and the same in Hitadipa where the language of *Moni* is used.

(formerly Irian Jaya). Further research may distinguish, as I would suggest, (i) *North-coastal* Melayu-Papua, which is spoken in the regions from Jayapura to Sorong, (ii) *South-coastal* Melayu-Papua which is found from the region of Sorong down to Merauke, and (iii) *Inland* Melayu-Papua, which is used mostly in the region of the interior, stretched out from the Western to the Eastern territory of Papua. The introduction and spread of Melayu-Papua is mostly influenced by various foreign missionaries, at the first contact, using Indonesian as lingua franca. Whilst, where a government post is found, some Indonesian (most often spoken by a native of Melayu-Papua) might play a role in introducing new words as well.

I will discuss each phoneme by first describing its phonetic status in the *SL*, Melayu-Papua, and then showing its new phonetic status (if any) in the *RL*, Wano. The characteristics of stress will be presented when needed.

10.1 /b/

The Melayu-Papua /b/ is realised [b], a voiced bilabial plosive, in word-initial and medial positions. It is [p̚], a voiceless unreleased bilabial plosive word finally. It is interpreted in Wano as the implosive [ɓ] discussed in section 2.1. For instance, the Melayu-Papua *bapa* ‘father’ is pronounced with [ɓ] instead of [b] in Wano, while keeping the stress pattern of Melayu-Papua: *bapa*. The /b/ may also be realised [ᵐb] as often heard in words like *begitu* ‘thus so’: [ᵐbɛyitu]. Again, the stress pattern of Melayu-Papua is maintained: *mbeʔgitu*.

In word-medial position, as evidenced in the Melayu-Papua *Habel* ‘Abel’, [ᵐb] is not attested. We then have [aɓɛd̚] with stress switching. Thus, the Melayu-Papua *habel* becomes *aɓed* in Wano. Since there are no loanwords with /b/ word-finally, the phonetic realisation in Wano is not certain (indicated by ? in figure 10.1). The realisation of Melayu-Papua /b/ in Wano is given in figure 10.1.

/b/	Melayu-Papua		Wano
#C	[b]	→	[ɓ] ~ [ᵐb]
VCV	[b]	→	[ɓ]
C#	[p̚]	→	?

Figure 10.1: Realisation of Melayu-Papua *b* in Wano

10.2 /d/

The Melayu-Papua /d/ is realised as [d] in word-initial and medial positions, and [t̚] in word-final position. It is pronounced in Wano in a similar way as the Wano /d/

discussed in section 2.6. In Wano it is [d] in word-initial and medial positions. In loanwords, /d/ may be realised as [ᵐd] as well. This is probably due to a matter of uncertainty in choice made by the *RL* speakers when encountering /d/ in a loanword. For words like *domba* ‘sheep’ (the Indonesian word which is used to introduce the term for ‘sheep’ into Wano), a Wano would say [dɔᵐba] ~ [ᵐdɔᵐba]. Stress is shifted. The usual placement of stress on the penultimate in Melayu-Papua has been shifted to the final syllable in Wano. Thus, Melayu-Papua *domba* is Wano *dom ba* or *ndom ba*.

Further, in word-medial position, /d/ is sometimes [r] instead of [d], as in *Yahudi* ‘Jews’, which is pronounced [jauḏi] or [jayuri]. Stress is switched from the Melayu-Papua penultimate to the final syllable in Wano. So, Melayu-Papua *ya hudi* is Wano *yau di* or *yagu ri*.

Since loanwords with /d/ in final position are not found, the phonetic prediction is not certain. Figure 10.2 follows.

/d/	Melayu-Papua		Wano
#C	[d]	→	[d] ~ [ᵐd]
VCV	[d]	→	[d] ~ [r]
C#	[tʰ]	→	?

Figure 10.2: Realisation of Melayu-Papua *d* in Wano

10.3 /g/

The Melayu-Papua /g/ is realised [g] in word-initial and medial positions. In word-final position, it is not found. It is realised as [k] or [ᵐg] in Wano, as in Melayu-Papua words like *guru* ‘teacher’, *garam* ‘salt’, *gula* ‘sugar’, *gembala* ‘shepherd’, and *garis* ‘matches’. Thus, a Wano speaker would say [kuru] or [ᵐguru]. Here, stress is also switched to the final syllable, so that Melayu-Papua *guru* is Wano *ku ru* or *nggu ru*.

It is not certain in word-medial position because loanwords with /g/ in such a position have not yet been found, except proper nouns like Melayu-Papua *Magdalena* ‘Magdalene’. In the CC-sequence, it is either [k] or elided in Wano. The realisation is either [makəḏəḏəna] in the lento pronunciation or [maḏəḏəna] when allegro. In this instance, the stress pattern of Melayu-Papua is adapted, so that it is pronounced *ˌmageda ˈdena* or *ˌmada ˈdena*. The realisation of Melayu-Papua /g/ in Wano is shown in figure 10.3.

/g/	Melayu-Papua		Wano
#C	[g]	→	[k] ~ [ᵑg]
VCV	[g]	→	[k] ~ ELIDED
C#	--		

Figure 10.3: Realisation of Melayu-Papua *g* in Wano

10.4 /h/

The Melayu-Papua /h/ is realised [h], the glottal fricative, in word-initial, medial and final positions. In Wano, it is elided word initially and finally. For instance, Melayu-Papua *Herodes* ‘Herod’ is [ɛrɔdɛtʰ] (cf. *Habel* in section 10.1), and *Allah* ‘God’ is [ada] or, rarely but possible, [ara] in Wano. In word-medial position, it is realised [ɣ], as evidenced in the word *Yahudi* ‘Jews’ in section 10.2, or in Melayu-Papua *Rahab* ‘Rahab’ which is [rayabʰ]. The stress pattern, again, is switched to the final syllable. Thus, Melayu-Papua *he’rodes*, *’allah*, and *’rahab* are Wano *ero’det*, *a’da*, and *ra’gab*, respectively.

/h/	Melayu-Papua		Wano
#C	[h]	→	ELIDED
VCV	[h]	→	[ɣ]
C#	[h]	→	ELIDED

Figure 10.4: Realisation of Melayu-Papua *h* in Wano

10.5 /l/

The Melayu-Papua /l/ is [l], a voiced lateral alveolar, found in all positions. It is realised in Wano as [d] in word-initial position. The [d] fluctuates with [r] in the medial position. It is found in word-final position as [dʰ]. For example, in the initial position, Melayu-Papua *Lukas* ‘Luke’ is [dukatʰ] but *[rukatʰ] in Wano. In the medial position, Melayu-Papua *gula* ‘sugar’ is [ᵑgura] or [kura] but *[ᵑguda] or *[kuda]. Here, stress is uncertain; *lukas* is either *’dukat* or *du kat*, and *’gula* is either *’nggura* or *nggu ’ra*.

It is also noticed that [l] of /l/ is more adaptable than the other loan-phonemes, since we may find [ᵑgula] or [kula]. This also suggests that /l/ is more likely to be accepted in Wano than the other phonemes. In a case, for instance, where /l/ is followed by /d/, we will find /d/ remains [d], but /l/ changes to either [d], [r], or [l]. Such can be seen in the proper noun *Magdalena* (see section 10.3); [...d...d...], [...d...r...], or [...d...l...] are possible realisations, and not * [...r...d...] or * [...l...d...]. This is illustrated in figure 10.5.

/l/	Melayu-Papua		Wano
#C	[l]	→	[d]
VCV	[l]	→	[d] ~ [r] ~ [l]
C#	[l]	→	[dʰ]

Figure 10.5: Realisation of Melayu-Papua *l* in Wano

10.6 /s/

The Melayu-Papua /s/ is realised [s], a voiceless alveolar fricative, and found in word-initial, medial and final positions. In Wano, it is [ç] or [t] in the initial position, [ç] in the medial position, and [tʰ] in the final position. For instance, Melayu-Papua *surat* ‘letter’ is realised [çuratʰ] or [turatʰ], *Isak* ‘Isaac’ is [içakʰ], and *Markus* ‘Mark’ is [marakutʰ] in Wano. When a syllable consists of /s/ occupying both onset and coda positions, the onset element ($C_1 = [s]_1$) fluctuates in Wano, that is, between [ç] or [t]. Thus, the Melayu-Papua *Yesus* [jesus] ‘Jesus’ is [jeçutʰ] or [jetutʰ]. Stress does not take the Melayu-Papua pattern, since we have *ˈsurat*, *ˈisak*, *ˈmarkus*, and *ˈjesus* in Melayu-Papua, but *cu ˈrat* ~ *tu ˈrat*, *i ˈcak*, *ma ra kut*, and *je ˈcut* / *je ˈtut* in Wano.

/l/	Melayu-Papua		Wano
#C	[s]	→	[ç] ~ [t]
VCV	[s]	→	[ç]
C#	[s]	→	[tʰ]
C ₁ VC ₂	[s] ₁ V [s] ₂	→	[ç] ~ [t]

Figure 10.6: Realisation of Melayu-Papua *s* in Wano

10.7 The sequence /nt/

It has been noted that /n/ plus /t/ results in [n̪d] in Wano (section 7.3.2). Such affects the pronunciation of some loanwords, when this combination is found in word-medial position only. The Melayu-Papua *unta* ‘camel’ and *mantri* ‘male-nurse’, which are realised [unta] and [manteri] or [mantʰri] in Melayu-Papua, have become [un̪da] and [ma^{n̪}dəri] in Wano, with, again, changes in stress position. It is Melayu-Papua *ˈunta* and *ˈmanteri* or *man ˈteri* but *un ˈda* and *man ˈde ri* in Wano.

/nt/	Melayu-Papua		Wano
#C	--		
VCV	[nt]	→	[ⁿ d]
C#	--		

Figure 10.7: Realisation of Melayu-Papua /n + t/ in Wano

APPENDIX 1: DICTIONARY

This preliminary dictionary is based mostly on recorded texts, personal notes, and some elicited words. There are approximately one thousand entries. Names of birds are obtained mainly by way of (i) direct contact with the item, (ii) comparing pictures based on the works of Peckover and Filewood (PF 1976), Beehler, Pratt, and Zimmerman (BPZ 1986), and (iii) Briley (JB n.d.).

Loanwords are included. The donor language is abbreviated in small capitals: IND—Indonesian, MP—Melayu-Papua. The abbreviated grammatical categories (see Conventions in introduction) are in italics and placed between brackets immediately following the word-entry.

Some interjectional expressions are also included in this dictionary.

If a form appears to be rare or of certain dialects, this is indicated. No attempt has been made to distinguish dialect differences.

In case of bound morphemes and enclitics markings (that is - and =), they are given in between brackets attached to the grammatical category of the given entry. For example, (*-ipn*) reads ‘X inalienable possessee with prefix possessor’, and (*mrk=*) reads ‘X marker, enclitic’.

Stress is only indicated (preceding the stressed syllable) when (i) the nucleus is a diphthong, or (ii) it does not follow the predictable pattern described in section 8. An entry with the indication of stress is given in between slashes after the main entry.

Only the neutral verbs are included. A new term under lexical categories is introduced: ‘experiential-events’.³² Items denoting inalienable possesseees are glossed without indicating the possessor (*indi* ‘name’ for ‘his/her/its name’, *ova* ‘father’ for ‘his/her father’. Such appears in the lexical entry as follows: *eruk* (*-ipn*) ‘hair (of head

³² See Burung (2002, 2003) for the notion of ‘experiential-events’.

or body), feather'—when used as an example in the main body, the full meaning is given. Only the third person singular form is given for items of inalienable possessive nouns, beneficiary, comitative, and experiential-events. Synonyms are also indicated. The alternative names for a proper noun are listed following the given name.

The following abbreviations are used.

<i>adj</i>	adjective	<i>mkr</i>	marker
<i>adv</i>	adverb	<i>mood</i>	mood
<i>adp</i>	adposition	MP	Melayu-Papua
<i>age</i>	age	<i>n</i>	noun
<i>agent</i>	agent	<i>neut</i>	neutral, hypothetical
<i>apn</i>	alienable possessee	<i>num</i>	number; numeral
<i>b.pron</i>	bound-pronoun	<i>obj</i>	object
<i>ben</i>	beneficiary	PF	Peckover and Filewood 1976
BPZ	Beehler, Pratt, and Zimmerman 1986	PM	Papuan-Malay
CF.	compared with	<i>pn</i>	proper noun/name
<i>col</i>	colour	<i>poss</i>	possessor
<i>com</i>	comitative	<i>pp</i>	physical property
<i>conj</i>	conjunction	PROG	progressive
<i>deic</i>	deictic	<i>proh</i>	prohibitive
<i>dim</i>	dimension	<i>pron</i>	pronoun
ENG	English	<i>prox</i>	proximate past
EXC	exclusive	Q	Question particle, wh-question
<i>exev</i>	experiential-events	<i>ques</i>	question
JB	Joyce Briley (nd)	REAL	realis
<i>hp</i>	human-propensity	REM	remote
INC	inclusive	<i>root</i>	root, bare-root root, bare-root
<i>incep</i>	inceptive	SEQ	sequential
IND	Indonesian	<i>stem</i>	stem, bare-stem
<i>imp</i>	imperative	<i>subj</i>	subject
INST	instrument	<i>sx</i>	suffix
<i>interj</i>	interjection	<i>tem</i>	temporal
<i>ipn</i>	inalienable possessee	<i>val</i>	value
LAT	Latin	<i>va r</i>	variant
<i>loan</i>	loanword	<i>vb</i>	verb

WANO-ENGLISH

A — a

- a*₁ (*apn*-) his, her, its. CF. *e*₂, *o*₄.
*a*₂ (*-mkr*) polar question.
*a*₃ (*-num*) singular PURP. CF. *i*₃, *o*₅, *u*₃.
*a*₄ (*interj*) ah!
abua (*-exev*) feeling for, pity, love, compassion.
abui / *a bui* / (*n*) possum. IND. *kusu-kusu*.

- aburi* (*-ipn*) children of male. CF. *acui*.
abut (*-ipn*) child of male. CF. *ayak*.
ac (*-subj*) I, in SEQ prox-past. CF. *er*₁.
Acodi (*pn*) Acodi, Wano village.
acok (*-ipn*) foot, toe.
acui (*-ipn*) children of female. CF. *aburi*.
Ada (*pn-loan*) God. IND *Allah*. CF. *Ara*.
Adam (*pn-loan*) Adam. IND *Adam*.
ade (*-ipn*) old, ancestor.

- adede* (*adj.val*) spicy hot.
ademburu (*-ipn*) tear.
adi (*-ipn*) treasure, belonging, secret. *adi worak*. CF. *munyum*.
Adi (*pn*) Adi, Wano river.
adian (*-ipn*) blood. CF. *dian*.
adik (*-ipn*) self, nothing.
ado (*-ipn*) forefather. CF. *omba*, *oma*.
adom (*-ipn*) root. - *adom mboinggu* Wednesday.
Adombi see Duvede.
aduk (*adj.dim*) long, tall, high.
adunggwanggen (*-ipn*) bladder, bile, gall.
adurik (*-ipn*) fiancé.
aduwon (*-ipn*) heel.
agaktebe (*n*) kind of tree, which is good for making arrows.
ago (*vb root-*) happen. *ago-t-e* 'happen-will-3s', *ago-t-et-ik* 'happen-will-1s-PROG'. (*-exev*) upset. IND *muka murung*. CF. *anini*, *mbe'*, *nggum*.
Agucut ~ *Agutut* (*n-loan*) August. IND *Agustus*.
aguiak (*vb*) spoil, corrupt, damage, decompose, deface, destroy.
agwe (*-ipn*) wife. CF. *oin*.
agwebut (*-ipn*) wives, family of male, household of male. CF. *oinyayak*.
ai (*adj*) eternal, immortal.
*ajak*₁ (*-ipn*) breast.
*ajak*₂ (*interj*) stunning, astonishing. CF. *aye*₂.
*ak*₁ (*-ipn*) tooth, teeth. CF. *enak*.
*ak*₂ (*-asp*) then. CF. *-iak*.
akomi (*n*) women.
akut (*n*) already harvested garden. CF. *yarak*, *yavuk*, *wadik*.
akwi (*-ipn*) nose.
amban (*-ipn*) back. CF. *ombodid*.
ambedak (*adj*) slippery.
ambek (*-com*) without.
ambit (*-ipn*) sake.
ambo (*n*) kind of tree that is used for making canoes.
ambok (*adj.pp*) tough, hard, rough.
amboko (*-ipn*) nephew, niece.
ambudit (*-exev*) diligence. (*adj.hp*) diligent.
ambui / *a'mbui* / (*num*) one.
ambunu (*-ipn*) cousin.
*amburu*₁ (*-ipn*) sap, juice, liquid.
*amburu*₂ (*adj*) fertile.
amea (*ipn*) youngest child.
amede (*-ipn*) tongue.
ameiyo (*-ipn*) urine. CF. *meiyo*.
amewok (*-ipn*) chest.
amo ~ *amo'* (*-ipn*) palm (of hand).
*amok*₁ (*-ipn, adj.dim*) fat, thick.
*amok*₂ (*-imp*) come (to SG)!
amu (*-ipn*) home, land, country.
amumbek (*n*) kind of tree.
amunggut (*-ipn*) corner.
an (*pron*) I. CF. *n*₄ (*b.pron-*) *nit*.
Anavawi (*pn*) Anavawi, Wano village.
Andariat (*pn-loan*) Andrew.
*ando*₁ (*apn*) cave. CF. *ndo*₁.
*ando*₂ (*adv*) other.
andogon (*adj*) dull, blunt. CF. *yik*.
andok (*apn*) kind of reed. CF. *ndok*.
andu (*adj.val*) beautiful.
*anduk*₁ (*-exev*) pain.
*anduk*₂ (*-ipn*) backside, behind, past.
*anduk*₂ (*adv*) before.
anggen (*-ipn*) fruit, stone of fruit, seed, egg.
anggena (*-ipn*) ghost, spirit.
angget (*-ipn*) vagina.
anggi (*n*) meal.
anggin (*-exev*) heaviness. (*adj.dim*) heavy.
angginuk (*-exev*) happiness. (*adj.hp*) happy.
anggo ~ *eanggo* (*-ipn*) ear.
anggogede (*-ipn*) neck.
anggop (*-ipn*) tip, nail.
anggu (*-exev*) awesome, amazement.

anggudi (*adj.age*) new, unripe, lush.
anggun (*-exev*) weariness, sadness. (*adj.hp*)
 weary, sad.
anggundit (*-ipn*) pus. CF. *nggundit*.
anggup (*n*) pulp, soft mass of wood fibre.
angguwet (*-ipn*) mucus. CF. *ngguwet*.
angguri (*n-loan*) wine. IND *anggur*.
anggwom (*apn*) pig. CF. *wom*.
anini (*-exev*) hate. CF. *ago*, *mbe'*, *nggum*.
anop (*-ipn*) head.
ap (*n*) man, person, people.
Aperid (*n-loan*) April. IND *April*.
apik (*n, adv*) all.
apu (*-exev*) desire to consume, hungry,
 thirsty, etc.
*ar*₁ (*-subj*) they, in REAL past. CF. *ir*₁.
*ar*₂ (*-subj*) he/she/it/they, in prox-past
 sub-*t*.
Ara (*pn-loan*) see *Ada*.
are (*n*) uncle.
ari (*n-loan*) day. IND *hari*.
Aricawudigwe (*pn*) Aricawudigwe, Wano
 female name.
aringgu (*-ipn*) snot. CF. *tinggu*.
arip (*-ipn*) lid.
arit (*-ipn*) leg.
Aroni (*pn*) Aroni, Wano river.
arot (*-ipn*) hip.
*at*₁ (*pron*) he/she/it. CF. *it*.
*at*₂ (*obj-*) him/her/it, in REM of 'see' for
 the third person subject. CF. *icat*, *kat*₂.
auk / 'auk/ (*adv, -exev*) hurry, rush.
avodo ~ *avodok* (*-ipn*) skin.
avodok see *avodo*.
avok (*-exev*) desire.
avoke (*-ipn*) body (physical). CF. *eve*.
avovan (*-ipn*) shadow.
avud ~ *avudi* (*-ipn*) abdomen, bottom.
avuda ~ *avuja* (*-ipn*) pregnancy.
avudi see *avud*.
avuja see *avuda*.
*avukwa*₁ (*adj, n*) feminine.

*avukwa*₂ (*adj, n*) lesbian, homosexual.
avurap (*adj, n*) masculine.
Awa (*pn-loan*) Eve. IND *Hawa*. CF. *Eva*.
awang (*-ipn*) liver. NOTE the meaning is
 not certain, CF. *enokweid*.
awedi (*-ipn*) kidney.
awengge (*-ipn*) arm (muscle), *obak owok*
 'spir'.
*awi*₁ (*-ipn*) origin, seed.
*awi*₂ (*apn*) house.
awiv (*n*) kind of tree.
awo (*adv*) still, not yet.
awot (*-ipn*) younger sibling of same sex.
*awu*₁ (*apn*) shell. CF. *wu*₁.
*awu*₂ (*apn*) money. CF. *wu*₂.
ayak (*-ipn*) child of female. CF. *abut*.
*aye*₁ (*-ipn*) penis.
*aye*₂ (*interj*) expression of awesomeness.
 CF. *ajak*₂.
ayenggodan (*-ipn*) sperm, semen. CF.
yenggodan.
ayu (*n*) spirit. CF. *ai*.

B — b

ba (*mkr*) specifier. CF. *ta*.
babo (*n*) kind of tree.
bado (*n*) kind of vegetable.
bagai / ba'gai/ (*n*) spotted cuscus. LAT
spilocuscus maculatus, BPZ.
bagam (*n*) kind of pandanus.
bagi (*n*) kind of cuscus.
bago (*n*) kind of tree.
Baguci (*pn*) Bagusi, Turu hamlet.
baiak (*vb*) set.
baid / baid/ (*n*) cuscus. ENG *yellow-footed*
rock wallaby. LAT *petrogalexanthropus*,
 BPZ.
bako (*n*) kind of bird. IND *burung raja*
udang berparuh kuning – *jenis pekakak*,
 JB.
bane (*mrk*) instrument.
baniak (*vb*) put down.

bariak (*vb*) open.
barip (*n*) kind of pandanus.
Bat (*pn*) Bat, Wano name.
bato (*n-loan*) corn.
batok see *bato*.
be ~ *be'* (*adj*) small, little, few.
bedamot (*n*) kind of tree which is considered good for making bows.
bedeniak (*vb*) clear up.
bekorak (*vb*) visit.
benabena (*n*) kind of banana.
Benebet (*pn-loan*) Barabas. IND *Barabas*.
beriak (*vb*) meet, visit.
bid (*n*) sound/act of sucking (sugar cane).
bingginok (*n*) musical instrument.
bir₁ (*adj.val*) clean, clear.
bir₂ (*adj.col*) white.
birica (*n*) kind of pandanus.
Biricare (*pn*) Biricare.
birop (*n*) mud.
biru (*n*) lake. CF. *mburu*.
bo (*n*) kind of tree.
bogubuge (*n*) kind of sweet potato.
boicagwa (*n*) housemaid.
bok (*adj.val*) good, right.
bongga ~ *bonggo* (*n*) crab.
bonggo (*n*) see *bongga*.
boranggen (*n*) kind of sweet potato.
bu ~ *bu'* (*interj*) unwilling, reluctance.
bugod (*n*) kind of bird. IND *burung kuping kucing hitam/putih*, JB.
buicinogot (*n*) kind of bird. IND *burung sikatan kecil*, JB.
buk (*adv*) near. CF. *muk₂*.
bunggu (*n*) kind of tree.
burome (*n*) kind of bird. IND *burung katik indah*, JB.

C — c

ca (*-mrk*) purposive.
Caduki (*pn-loan*) Saducees. IND *Saduki*.
Camaria (*pn-loan*) – *Samaria*.

codea / *co'dea*/ (*n*) wallaby.

D — d

d (*mrk-*) steep.
da (*mrk*) specifier. CF. *ta*.
Dagaid (*pn*) Dagai, Duvele village.
dagu (*n*) pandanus.
Damad ~ *Ndamad* (*pn*) Damal, a tribe to the southwest.
dambuniak (*vb*) unite, mix.
dame (*n*) kind of palm tree. IND *damar*.
damit (*n*) horsefly. IND *lalat babi*.
danggu (*n*) family of owl. IND *elang* or *burung betet kukuk berdada hitam*, JB.
Dani ~ *Ndani* (*pn*) Dani, a tribe to the south and south-east.
daniak (*vb*) chew.
Dauda ~ *Ndauda* (*pn*) Dem₂, a tribe to the south-west.
davo₁ (*n*) rack, platform. PM *para-para*.
davo₂ (*n*) pigsty.
de (*n*) cry.
Decembet (*n-loan*) December. IND *desember*.
Dedome ~ *Ndedome* (*pn*) Moni, a tribe to the west.
dei / *'dei*/ ~ *dei'* ~ *deik* (*deic*) up-steep.
deiak (*vb*) cry.
deid / *'deid*/ (*n*) banana.
deidnebuk / *,deidne'buk*/ (*n*) regent-whistler. LAT *pachycephola griseiceps* or *rufousnaped whistler* or *aleadryas rufinucha*, BPZ.
dem₁ (*n*) kind of tree. IND *kayu susu*.
Dem₂ ~ *Ndem* – see *Dauda*.
dembeniak (*vb*) peel, skin, break, divide.
demburu (*ipn*) tear. CF. *ademburu*.
deniak (*vb*) stitch.
dian (*n*) blood. CF. *adian*.
dianggen (*n*) fish.
diare (*n*) eel.
dicariak ~ *icariak* (*vb*) cook.

- dik*₁ (*mrk*) negator, no, not.
*dik*₂ (*interj*) look!, I tell you what!
Dikmu (*pn*) Dikmu, Wano name.
dima (*num-loan*) five. IND *lima*.
dimit ~ *ndimit* (*n*) necklace-bead. IND
manik-manik.
dingge (*adv*) noon, midday.
dinimbuk (*n*) poisonous snake.
dip (*n*) kind of pandanus.
dirivu (*n*) dust. CF. *wun*.
divud (*n*) kind of tree, which is used for
making combs.
Dogodem (*pn*) Dogodem, Turu hamlet.
doiak (*vb*) stay.
dombak (*n*) finger click.
dombawom ~ *ndombawom* (*n-loan*) sheep.
IND *domba*.
dombok (*deic*) above.
donggob (*n*) wild chicken. PM *ayam hutan*,
maleo.
Donggobgwe (*pn*) Donggobgwe, Wano
female name.
donggoniak (*vb*) drown.
doniak (*vb*) barter, buy, pay.
dope (*n*) kind of tree.
dou / 'dou/ ~ *dou'* ~ *douk* (*deic*) down-
steep. CF. *du*.
du ~ *dum* ~ *duk* (*deic*) down-steep. CF. *dou*.
dua (*num-loan*) two. IND *dua*.
dugui (*n*) kind of tree.
duk see *du*.
Dukat (*pn-loan*) Luke. IND *Lukas*.
Dukibeci (*pn*) Dukibeci, Wano river.
dum see *du*.
duniak (*vb*) catch.
duv (*n*) kind of tree.
Duvede ~ *Nduvede*, *Adombi* (*pn*) Duvele, a
tribe to the northeast.
- E — e*
*e*₁ (*n*) tree, wood, forest, jungle.
*e*₂ (*apn-*) see *a*₁.
- e*₃ (*-num*) singular, in PROG non-past sub-*t*.
CF. *u*₁.
*e*₄ (*-mrk*) remote singular sub-*t*.
*e*₅ (*interj*) stutter (expressing doubting,
correction or a short break).
eb (*-subj*) you plural, in *incep* non-past.CF.
*u*₂.
ede ~ *ede'* ~ *pede* (*adj.val*) bitter, sour.
edeme (*deic*) in front of.
Edicabet (*pn-loan*) Elizabeth. IND *Elisabet*.
Egemba (*pn*) Egemba clan.
egin (*apn*) bow.
ei / 'ei/ ~ *ei'* ~ *eik* (*deic*) up.
eikik (*n*) kind of tree.
Ek (*pn*) Ek, Wano name.
ekanok (*interj*) never mind, don't worry.
embedak (*-ipn*) remember. CF *omaci*, *maci*.
emberiak (*vb*) think, remember, ponder.
*embet*₁ (*adj*) sharp, spiky.
*embet*₂ (*n-loan*) bucket. IND *ember*.
embok (*adj*) strong.
emboro (*-ipn*) knee.
emit (*-exev*) laziness.
en (*n*) sugar cane.
enak (*-ipn*) tooth, teeth. CF. *ak*₁.
enan (*-ipn*) excrement, faeces, intestine.
enap (*-ipn*) mouth.
*end*₁ (*-subj*) you, in PROG non-past sub-*t*.
CF. *ep*.
*end*₂ (*-subj*) you, in REAL past verbs. CF. *ep*,
up.
endak see *ndat*.
endanggan (*-ipn*) thigh.
endarak (*vb*) occur.
endat see *ndat*.
endi (*interj*) leave it, forget it.
ene (*-ipn*) belongings, possession.
engga (*-ipn*) leaf.
enggadi (*-exev*) shame.
enggavid (*-ipn*) wing.
enggawok (*-ipn*) tail.
enggebok (*adj.val*) delicious.

- enggen* (-apn) necklace.
enggit (-ipn) finger, hand.
enik (-ipn) breath.
enok (deic) next. CF. *nok*.
enokweid (-ipn) liver: *nenokweid waka* 'I think it back', 'I recall'.(-ipn) mind, soul, spirit: *bok enokweid* 'his good spirit'.
- Enot* (pn-loan) Enos.
ep₁ (-subj) you plural, in PROG non-past. CF. *end*, *ond*.
ep₂ (-subj) you plural, in SEQ REAL past. CF. *end*.
Epo (pn) Epo, Turu Hamlet.
er₁ (-subj) I, in REAL past verbs. CF. *ac*, *ic*.
er₂ (-subj) we, in prox-past sub-t. CF. *ir₂*.
erani (n) slope, of mountain.
eravun ~ *aravun* (-ipn) menstruation, period. CF. *tavun*.
Erodet (pn-loan) Herod. IND *Herodes*.
erok₁ (adj) slow.
erok₂ (adv) slowly.
eruk (-ipn) hair (-of head and body), feather.
et (-subj) I, in PROG non-past sub-t. CF. *uer*.
Eva – see *Awa*.
eve₁ (-ipn) body. CF. *avoke*.
eve₂ (-conj, adv) also.
Evet (pn) Evet.
eyedoman (-ipn) servant.
eyo (-ipn) appendix.
- I — i**
i₁ (n) water.
i₂ (-mrk) plural. CF. *wi₁*.
i₃ see *a₃*.
i₄ (-mrk) REM singular. CF. *ou₂*.
iak (-asp) then. CF. *ak₂*.
ic (-subj) I, in PROG prox-past. CF. *er₁*.
ica (-ipn) mother.
Icadipa (pn) Hitadipa, Moni village.
icadok (adj.age) fresh, raw, lush, virgin.
- Icak* (pn-loan) Isaac. IND *Isak*.
icat (obj-) them, in REM of 'see' for the third person subject. cf. *kat₂*, *at₂*.
icawo (-ipn) aunt, sister of one's mother.
ico (n) kind of tree.
icombon (n) kind of tree.
icuk (n) kind of tree, of which sap is used as glue.
id (-subj) I, in INCEP non-past. CF. *uid*.
idanggen (-ipn) buttock.
idi₁ (-ipn) fear.
idi₂ (adj) afraid.
ijak (-ipn) breast. CF. *ajak*.
ijom (n) grasshopper.
ik (-asp) progressive.
indi (-ipn) name.
indirowok (-ipn) rib, side-bone. CF. *owok*. IND *tulang rusuk*.
indit₁ (-ipn) side. IND *lambung*. CF. *pe*.
indit₂ (-ipn) cheek.
indu (n) fire, flame.
inenek (n) black-faced cuckooshrike. LAT *coracina novaehollandiae*, cuckooshrike or *cocarina*, BPZ.
inevek (n) kind of bird. IND *burung dara berkerah*, JB.
ingge (-ipn) eye.
inggwebuk ~ *inggebok* (adj) blind.
inggwoid (n) kind of banana.
iniak (vb) climb up.
inu (adv or ipn) inside. CF. *ombat*.
inummu (deic) in the inside. CF. *inu*.
iny₁ (ipn-) their.
iny₂ (ben-) for them.
iny₃ (obj-) them. CF. *k₃*, *ninye*.
iny₄ (b.pron-) they.
inye (obj-) them, in REM of 'see'. CF. *iny₃*.
inyo (n) bread-fruit.
inyom (-com) with.
Inyoriakkwe (pn) Inyoriakkwe, Wano female name.
Inyoro (pn) Inyoro, Wano name.

Inyorogwi (*pn*) Inyorogwi, Wano female name.

ir₁ (*-subj*) he/she/it, in REAL past. CF. *ar₁*.

ir₂ (*-subj*) I, in prox-past sub-*t*. CF. *er₂*.

irakut (*n*) waterfall.

Iratoi (*pn*) Iratoi, Turu village.

iri (*-ipn*) sibling of different sex.

iriak (*vb*) do.

iru (*n*) hole.

iru' ~ **iruk** (*adj.pp*) hot.

irudik (*n*) sorcery, magic power, charm.

it (*pron*) they. CF. *at₁*. (*b.pron-*) *iny*.

iyanggo ~ **inyanggok** (*-ipn*) outer ear.

iyanggok see *iyanggo*.

K — k

k₁ (*ipn-*) your.

k₂ (*ben-*) for you.

k₃ (*obj-*) you.

k₄ (*b.pron-*) you. cf. *kat*.

k₅ (*-mood*) realis.

ka (=mrk) specifier. CF. *ta*.

kabi (*n*) iguana. IND *biawak*, *soa-soa*.

kadea (*n*) rat, mouse.

Kadedo (*pn*) Kadedo, Wano hamlet.

kadeniak (*vb*) climb over: *yugut kadeniak* 'climb over the mountain'; (*vb*) break: *e kadeniak* 'break the stick'.

kago (*adv*) like, about.

kagu (*n*) kind of dove. IND *burung merpati berdada kuning*, JB.

kagude (*n*) kind of bird. IND *pitohui kepala hitam*, JB.

kaid / **kaid** / *n* sprout.

kainggambuk / **ka,ingga'mbuk** / (*n*) crinkle-collared manucode. IND *burung sri gunting lencana hitam*, JB.

kainiak (*vb*) collect. see *take*.

kainyik (*adv*) part.

kambiak (*vb*) die because of a sorcery.

kambuniak (*vb*) tie.

Kamit (*n-loan*) Thursday. IND *Kamis*.

Kana (*pn*) Kana, Wano name.

kane (*n*) firewood.

kaniak (*vb*) die.

kanyik (*adv*) part.

Kareki (*pn*) Kareki, Wano river.

kat₁ (*pron*) you. CF. *kit*. (*b.pron-*) *k₄*.

kat₂ (*obj-*) him/her/it, in REM of 'see' for the third person subject. cf. *icat*, *at₂*.

kaube (*n*) kind of tree, which is good for making arrows.

kawo (*n*) kind of bird. IND *burung mina emas/kuning*, JB.

Kayapat (*pn-loan*) Kajafas. IND *Kayafas*.

ke (*obj-*) you, in REM of 'see'. cf. *kinye*, *k₃*.

keat (*obj-*) you, in REM of 'see' for the third person subject. cf. *kicat*.

kedamben (*n*) kind of bird. IND *burung kepinis berdada putih*, JB.

kede (*n*) rattan, string.

Kedo (*pn*) Kedo, Wano name.

Kembe (*pn*) Kembe, Wano river.

Kembemu (*pn*) Kembemu, Wano hamlet.

Kembu (*pn*) Kembu, Wano mountain.

kena (*num*) three.

kendang (*n-loan*) potato. IND *kentang*.

kende (*n*) ginger.

keni ~ **keni'** (*n*) burping.

keniniak (*vb*) burp.

Keramu (*pn*) Keramu, Wano hamlet.

Kericut (*pn-loan*) Christ. IND *Kristus*.

kevem ~ **kuvem** (*adv*) late-afternoon. CF. *kevim*.

kevewok (*n*) penis gourd.

kevim (*adv*) afternoon. CF. *kevem*.

ki₁ (*adv*) very.

ki₂ (*adj*) true. (Friday) - *ki wone woniak*.

Kiagai / **kia'gai** / see *Tiagai*.

kibi ~ **kivi** (*n*) kind of tree.

kicat (*obj-*) you, in REM of 'see' for the third person subject. cf. *keat*.

kiduk (*n*) smoke.

- kigiru* (n) mosquito.
- kigivu* (n) crowned dove. IND *burung mambruk*.
- kik*₁ (adj.val) dirty.
- kik*₂ (adj.col) black.
- kin* (adj) visible.
- kiniak*₁ (vb) appear, visible.
- kiniak*₂ (vb) pick up, take out.
- kiny*₁ (ipn-) your plural.
- kiny*₂ (ben-) for you plural.
- kiny*₃ (obj-) you plural.
- kiny*₄ (b.pron-) you plural. CF. *kit*.
- kinye* (obj-) you, in REM of 'see'. CF. *ke*, *kiny*₃.
- kinyombowigiduk* (pn) rainbow.
- kinunggua* (n) centipede. IND ular cincin.
- kirugwi* (n) kind of bird. IND *burung katik berdada putih*, JB.
- kit* (pron) you plural. CF. *kat*. (b.pron-) *kiny*.
- kivi* – see *kibi*..
- kivit* (adj) yesterday.
- kobun* (n) kind of pandanus.
- kodak* (n) bedding.
- kodariak* (vb) have.
- kode* (adj.age) old, ripe. CF. *tawe*₂.
- kodiak* (vb) get, find, discover.
- kom* (n) yam.
- kombi* (n) sago.
- komboid* (n) ulcer, wound.
- konak* (n) kind of bird. IND *burung gagak berkepala hitam/bersuara merdu*, JB.
- kondumbugwa* (n) northern scrub robin. IND *burung kukuk semak/ekor kipas (jenis tekukur)*, JB.
- koneniak* (vb) listen, hear.
- koniak* (vb) correct.
- korak* (vb) see him/her/it.
- korok*₁(adj) near.
- korok*₂ (n) seeking.
- Kourare* (pn) Kourare, Wano name.
- kouwak* (adj) short. CF. *mot*, *pou*.
- Kovakkwe* (pn) Kovakkwe, Wano female name.
- kovu* (adv) tomorrow.
- koyabi* (n) kind of tree.
- Koyon* (pn) Koyon, Wano village.
- kudik* (n) kind of sugar cane.
- kuduk* (adj) female animal. CF. *weyat*.
- kugup* (adj.dim) thick. CF. *pode*₁.
- kuguru* ~ *kuguruo* (n) demon, evil spirit, witch.
- kugwi*₁ (n) witch. IND pesihir. PM *suanggi*.
- kugwi*₂ (pn) Kugwi, Wano name.
- kugwidom* (n) articles of witchcraft, sacred articles. IND *benda-benda berhala*.
- Kugwigwe* (pn) Kugwigwe, Wano female name.
- kum*₁ (n) owl.
- kum*₂ (interj) scream, shout, a call.
- kuma* (n) peanut, shell. CF. *wu*.
- kumbuk* (n) kind of tree, which is not good for firewood.
- kun*₁ (adv) again. CF. *kundigu*.
- kun*₂ (n) kind of yam.
- kundigu* (adv) again. CF. *kun*₁.
- kuni* ~ *kuni'* (n) war.
- kuniak* (vb) make a fire.
- kunik* (n) bond, relationship. (vb) related, integrated. IND. (n) hubungan, kaitan, (vb) tertangkap, terkait, tersambung.
- Kunumgwe* (pn) Kunumgwe, Wano female name.
- kunyawi* (n) men's dorm. CF. *kunyawu* with locative suffix. Young men live here to be prepared for their future. The motto of the Wano people "in *kunyawi* there is *wone mawi*" advises about essential strength and wisdom. Individual right is highly appreciated and protected. In a *kunyawi*, if someone has put his belonging in a special place nobody can take or

remove it. A parental dorm is a central core to educate its young men for their future. A *tiruk* 'central poll of the house' erected in the middle of *wunawi* 'fireplace' symbolising *ninyombo ovok* 'our grandfather's leg' (from knee down) or *ninyombo acok* 'our grandfather's foot' is to be treated with awe and respect. In a *kunyawi* there must be *kani* 'firewood' all the time to keep *indu* 'fire' alight, the symbol of life. The opposite of *kunyawi* is *kwenyawi* 'women's dorm', which has no cultural significance as strong as *kunyawi*.

kunyedungwi (*n*) kind of necklace.

kup (*n*) dark. CF. *kupmu*.

kuperak (*adv*) morning.

kupmu (*adv*) evening, night.

kurik (*n*) kind of sugar cane.

kuru (*n-loan*) see *ngguru*.

kwa (*n*) woman.

kwam (*n*) turtle. CF. *pode₂*.

Kwanggarek (*pn*) Kwanggarek, Wano female name.

kwe (*conj*) but.

kwecuk (*n*) kind of bird. IND *burung pitohui berjambul*, JB.

kweidiak (*vb*) sit down.

kwemba (*n*) grass.

kwevi (*adj, adv*) endless.

kwi (*adj.col*) red.

M — m

ma (*adj*) forbid, sacred. (*proh*) don't!

ma' (*n*) vomit, vomiting.

maci (*n*) negligence, forgetfulness.

Madadena ~ *madarena* (*pn-loan*)

Magdalene. IND *Magdalena*.

Madarena see *Madadena*.

madaria / *mada'ria*/ (*pn-loan*) malaria. IND *malaria*.

made (*n*) arrow for small games, i.e., birds, chickens, or ground rats. CF. *wim*.

mado (*n*) wild pig. CF. *nggoca* ~ *nggoica*.

maduk (*adj*) bad, evil, mistake, wrong.

maminiak (*vb*) learn, investigate.

mande (*Q*) how many, how much.

manderi (*p-loan*) male nurse. IND *mantri*.

mandom (*Q*) when. CF. *ndikim*.

mangga₁ (*adj.col*) brown.

mangga₂ (*n*) kind of tree, which its fruit is used to colour one's face for a war or a ceremony. CF. *mangga₃*.

mangga₃ red/brown-facial decoration. CF. *mangga₂*.

mangge₁ (*n*) frog.

mangge₂ (*n*) kind of tree, whose leaf is used for making netbag.

manggo (*n*) biceps band.

manggu (*n*) first born.

Marakut ~ *marekut* (*pn-loan*) Mark. IND *Markus*.

Maret (*n-loan*) March. IND *Maret*.

Mareta (*pn-loan*) Martha. IND *Marta*.

Maria (*pn-loan*) Mary. IND *Maria*.

mariak (*vb*) make, build, squeeze, prepare (food).

Matiut (*pn-loan*) Matthew. IND *Matius*.

mayuk (*n*) salt.

Mbadiakwe (*pn*) Mbadiakwe, Wano female name.

mbaiak (*vb*) wiggle.

mban (*adv*) only.

Mbanda (*pn*) Mbanda clan.

mbareniak (*vb*) knot.

mbariak (*vb*) fasten.

mbe (*n*) fuss, complain, agitate, irritate. CF. *ago, anini, nggum*.

mbere (*num*) two. CF. *nimbre*.

mbiak (*vb*) curse.

mbicariak (*vb*) search.

Mbidik (*pn*) Mbidik, Wano hamlet.

- mbininiak* (*vb*) recite, announce, proclaim.
mbinit (*n*) sand.
mbit (*n*) moon, month.
mbiyuk (*n*) kind of bird of paradise, that is the one which has two thin tails.
mboid / *'mboid*/ (*n*) sweet potato: *mboid me mboid engga me uku* 'Saturday'.
mboinyi / *,mboi'nyi*/ (*n*) kind of pandanus.
mboinyiak / *,mboinyi'ak*/ (*vb*) slice, write.
mbok (*n*) secret. CF. *nadi*.
Mbomban (*pn*) Mbomban, Wano village.
mbon (*n*) kind of tree.
mbona (*n*) sin.
Mbonawe (*pn*) Mbonawe, Wano female name.
mboniak (*vb*) cut, cross.
mboriak (*vb*) whistle (by putting finger in the mouth).
mbou (*n*) lizard. IND *cecak*.
mbou' / *'mbou'*/ (*n*) sky, heaven, universe.
Mbou'mu *Nagwan* (*pn*) God.
Mbowid (*pn*) Mbowid, a Wano village.
mbu ~ *mbu-mbu* (*n*) thorny grass. PM *rumpud baduri, rumpud duri-duri*.
mbud (*n*) stick.
Mbudo (*pn*) Mbudo, Wano name.
mbuk₁ (*n*) kind of reed.
mbuk₂ (*n*) grass-skirt.
mbuk₃ (*adj.pp*) dry. CF. *min*.
Mbunggarigwe (*pn*) Munggarigwe, Wano female name.
mburica (*n*) kind of yam.
mburicaya (*n*) kind of yam.
mburu₁ (*n*) lake. CF. *biru, amburu*.
Mburu₂ (*pn*) Mburu, Wano hamlet.
Mburumuome (*pn*) Mburumuome, Wano hamlet.
me₁ (*conj*) and.
me₂ (*-mrk*) LOCATIVE. CF. *mu*.
Medenggwa (*pn*) Medenggwa clan.
medeniak (*vb*) roll a tobacco. CF. *pereniak*.
mediak (*vb*) lift up, lean on, erect.
- megop* (*n*) kind of tree.
Mei₁ (*pn*) Mei, Wano female name.
Mei₂ (*n-loan*) May. IND *Mei*.
meinyiak / *,meinyi'ak*/ (*vb*) pull out. CF. *niriak*.
meiyo (*n*) urine. CF. *ameiyo*.
mek (*adj, interj*) impossible.
mendarak (*vb*) wrap, put on. CF. *pungguniak*.
mende (*mrk*) source.
meriak (*vb*) rise, stand up.
merom (*n*) kind of sweet potato.
midinggiriak (*v*) to block.
min (*adj*) wet, cold (substance). CF. *mbuk₃*.
Minggu (*n-loan*) Sunday. IND *Minggu*. CF. *tamba*.
miriak (*vb*) fell, cut down.
Mirib (*pn*) Mirib clan.
Mocami (*pn*) Mocami, Wano hamlet.
moinyiak / *,moinyi'ak*/ (*vb*) capture.
mono (*deic*) like that. CF. *ndo²*.
mot (*adj, adv*) short. CF. *aduk, muk*.
mowid (*n*) python.
mu (*-mrk*) locative. CF. *me₂*.
Muca (*pn-loan*) Mozes. IND *Musa*.
mudi₁ (*n*) leech, of the small type. CF. *yanambok*.
mudi₂ (*adj.col*) blue.
mudu (*interj*) gee!, help! (expressing surprise and dislike).
Mui (*pn*) Mui, Wano river.
muk₁ (*adj*) long. CF. *mot*.
muk₂ (*adv tem, dim*) far.
muni (*deic*) that.
muniak (*vb*) dry.
munyum (*n*) treasure. CF. *adi*.
murinid (*n*) kind of bird. IND *burung jalak*, JB.
- N — n**
n₁ (*ipn-*) my.
n₂ (*ben-*) for me.

- n*₃ (*obj-*) me. CF. *niny*₃, *ne*.
*n*₄ (*b.pron-*) I. CF. *an*.
na (*deic*) as such. CF. *ni*.
nabi (*n*) dream, vision.
naboiak (*vb*) throw away.
naci (*n-loan*) rice. IND *nasi*.
Nacid Mbedagwe (*pn*) Nacid Mbedagwe,
Wano female name.
nacimbak (*n*) kind of yam.
nadi (*n*) secret. CF. *mbok*.
nagamburu (*n*) pumpkin.
nagwan (*n*) lord, chief.
nambeniak (*vb*) glue.
namok (*n*) porcupine, hedgehog. IND
landak.
nano (*Q*) what.
nariak (*vb*) close.
Nawid-nawidgwe (*pn*) Nawid-nawidgwe,
Wano female name.
nda (*deic*) here.
ndak see *ndat*.
Ndamad – see *Damad*.
Ndani – see *Dani*.
ndap (*n*) smacking (eating with sound).
ndapu (*n*) ball.
ndariak (*vb*) immerse, wash, bathe,
shower, swim. PM *molo, tobo, tum*.
ndat ~ *ndak* (*adj, adv*) equal, same.
Ndauda ~ *Dauda* (*pn*) Dem, a tribe to the
southwest.
ndawi (*n*) song.
nde (*deic*) in here.
Ndedome ~ *Dedome* (*pn*) Moni, a tribe to
the west.
ndei / 'ndei/ ~ *ndei'* ~ *ndeik* (*deic*) upward-
steep.
ndeniak (*vb*) dig.
ndet (*deic*) this is it.
ndi (*deic*) this.
ndikim (*Q*) when. CF. *mandom*.
ndimit see *dimit*.
*ndo*₁ (*n*) cave.
*ndo*₂ (*deic*) like this.
ndok (*n*) kind of reed.
Ndok Tedakkwa (*pn*) Ndok Tedakkwa,
Wano female name.
ndombawom see *domba-wom*.
ndoniak (*vb*) spread, weave.
ndoriak (*vb*) scoop, take out.
ndou / 'ndou/ ~ *ndou'* ~ *ndouk* (*deic*)
downward-steep. CF. *ndu*.
Ndougwe (*pn*) Ndougwe, Wano female
name.
ndu ~ *ndum* ~ *nduk* (*deic*) see *ndou*.
*nduk*₁ (*n*) thunder.
*nduk*₂ see *ndu*.
ndum see *ndu*.
ndumbuk (*n*) cassowary.
ndup (*n*) kind of tree.
Nduvede ~ *Duvede, Adombi* (*pn*) Duvele, a
tribe to the north.
*ne*₁ (*mrk*) specific topic. CF. *no*.
*ne*₂ (*obj-*) me, in REM of 'see'. cf. *ninye*, *n*₃.
neat (*obj-*) me, in REM of 'see' for the third
person subject. cf. *nicat*.
Neirowak (*pn*) Neirowak, Wano place.
nenggit pemenok apik (*num*) five.
nenggit pemenok apik ambui (*num*) six.
nenggit pemenok apik kena (*num*) eight.
nenggit pemenok apik mbere (*num*) seven.
nenggit pemenok apik mbere-mbere (*num*)
nine.
nenggit pemenok apik nenggit pemenok apik
imbirak (*num*) ten.
ngga (*Q*) where.
nggabok (*n*) kind of pandanus.
nggabunya (*n*) kind of tree.
nggacame (*n*) kind of pandanus.
nggacamuru (*n*) large centipede. IND
kalajenging besar.
Nggamende (*pn*) Nggamende, Wano
name.
ngganduk (*Q*) how.
nggarek (*adj.val*) handsome, pretty.

- nggauma* (n) kind of tree.
nggayo (Q) why.
nggayonduk (Q) how come, what do you think?.
- ngge* (Q) which one.
ngge' (interj) excuse me!
nggebak (n) canoe.
nggembada (n-loan) shepherd. IND *gembala*.
nggemi (n) folklore, folktale.
nggenek (n) kind of bird. IND *burung bayan gunung* or *kesturi raja*, JB.
nggenggema (n) kind of bird. IND *burung nuri kecil hijau*, JB.
nggereja (adj-loan) church. IND *gereja*.
nggerengga (adj.col) green.
nggevado (n) ant.
nggewenu (?)
nggewo (n) dog.
nggidivi (n) lemon.
nggiduk (n) cucumber.
nggigiriak (vb) pull out. CF. *meinyiak*, *nibiniak*, *niriak*.
Nggik (pn) Nggik, Wano river.
nggiraniak (vb) carry on head. CF. *woniak*, *yeriak*.
Nggire (pn) Nggire clan.
nggivit (n) kind of bird.
nggivot (n) kind of bird.
nggoca ~ *nggoica* (n) wild pig. CF. *mado*.
nggoid / *'nggoid*/ (n) landslide, erosion. CF. *nggok*.
*nggok*₁ see *nggoid*.
*nggok*₂ (n) sound of dogs' barking.
Nggom *Ndonakkwe* (pn) Nggom Ndonakkwe, Wano female name.
nggon (n) grub.
nggore (adj.pp) cold. CF. *min*.
nggoriak (vb) shivering.
nggoron (n) kind of bird. IND *burung raja udang berperut merah* (*jenis pekakak*), JB.
- nggum* (adj or n) jealous, or silent anger with vengeful thought. CF. *ago*, *anini*, *mbe'*.
nggundit (ipn) pus. CF. *anggundit*.
nggunum (n) kind of bird. IND *burung berparuh katak*, JB.
ngguret (ipn) mucus. CF. *angguret*.
ngguru (n-loan) teacher. IND *guru*. CF. *kuru*.
nggut (n) kind of bird. IND *burung bangau berparuh besar*, JB.
nggwa (n) screaming (out of pain).
nggwane (n) pigeon.
nggwe (n) sound of pigs.
nggwen (n) earth, soil, ground.
nggwenkuma (n) peanut.
Nggweri (pn) Nggweri, Wano village.
ni (deic) as such. CF. *na*.
nibiniak (vb) pull. CF. *niriak*.
nicat (obj-) us, in REM of 'see' for the third person subject. CF. *neat*.
nimbre (num) two. CF. *mbere*.
*niny*₁ (ipn-) our, ours.
*niny*₂ (ben-) for us.
*niny*₃ (obj-) us. CF. *n₃*, *ninye*.
*niny*₄ (b.pron-) we. CF. *nit*.
ninye (obj-) us, in REM of 'see'. CF. *ne*, *niny₃*.
niriak (vb) pull out. CF. *meinyiak*.
nit (pron) we. CF. *an*. (b.pron-) *niny*.
no (mrk) generic topic. CF. *ne₂*.
no' (n) kind of banana.
nok (deic) next. CF. *enok*, *nuk*.
Nonagai / *nona'gai*/ (pn) Nonagai, Wano river.
nonggobe ~ *nonggobe'* (n) child, toddler, infant.
nonggodunggiwi (n) children, toddlers, infants.
noniak (vb) cross.
*norak*₁ (vb) go.
*norak*₂ (vb) consume, i.e. eat, drink, smoke.

November (*n-loan*) November. IND

November.

Novet (*pn*) Novet, Wano name.

nuakwe (*n*) kind of dove, wallace.

nuk (*deic*) see *nok*.

numbodok-umbodok see *ombodok*₂.

O — o

o₁ (*n*) place, region, environment
(demarcative).

o₂ (*n*) village, hamlet.

o₃ (*-num*) singular, in non-past. CF. *u₁*.

o₄ (*apn-*) see *a₁*.

o₅ see *a₃*.

o₆ (=mrk) pausal.

obak (*-ipn*) branch.

obaruk₁ (*-ipn*) odour.

obaruk₂ (*adj.age*) rotten, old, defective.

obat / *'obat*/ (*n-loan*) medicine. IND *obat*.

od (*-mrk*) reflexive.

odi (*-ipn*) testicle.

odia (*apn*) hut, posthouse, (garden)
shelter.

odiak (*vb*) urinate.

odo (*deic*) centre.

oin (*-ipn*) husband. CF. *agwe*.

oinyayak (*-ipn*) family of female. CF.
agwebut.

ok (*-subj*) he/she/it/they, in INCEP non-
past.

okewok (*-ipn*) forehead.

okweid / *o kweid*/ (*-ipn*) heart.

oma (*-ipn*) grandmother. CF. *omba*.

omaceo (*-ipn*) muscle.

omarib₁ (*-ipn*) bottom.

omarib₂ (*-ipn*) back shoulder, backbone.
CF. *omban*. IND *punggung*.

omawi (*-exev*) strength. (*adj.hp*) strong,
high spirit.

omba ~ *ombo* (*-ipn*) grandfather. CF. *oma*,
ombo. A significant term in the Wano
world view. *Ombo* refers to an old

man who is believed to be the central
core of the life of the Wano people.

He was there before the world.

Everything to do with the welfare of
the society has reference to *ombo*.

Every event of good luck or fortune
relates to him. He is always faithful to
protect his people, the Wano. He is
the provider of the food. After finding
game (hunting) or some greens (food
gathering), the gratitude is due to him
(*ninyombo wa-o*, *kaye nat-o/kenan nat-o*)
while looking towards heaven. People
call to him for help when in trouble or
when they are afraid of evil spirits.

ombagit (*-ipn*) vein.

omban (*-ipn*) shoulder, shoulder blade,
scapula. CF. *omarib₂*.

ombane (*-ipn*) friend. CF. *ombavi*.

ombat (*adv* or *-ipn*) outside. CF. *inu*.

ombatme (*adv* or *-ipn*) in the outside. CF.
ombat.

ombavidu (*n*) prostitute.

ombawi (*-ipn*) friends. CF. *ombane*.

ombo see *omba*.

ombodid (*-ipn*) back. CF. *amban*.

ombodok₁ (*-ipn*) spine.

ombodok₂ (*n*) kind of pumpkin. IND *labu-*
siam.

ome (*n*) in a region, in a place, in a
territory. CF. *o₁* and *me₂*.

on (*adj.pp*) deep.

ond (*-subj*) you, in PROG non-past. CF. *ep*.

ondowok (*-ipn*) chin.

one (*-ipn*) voice, sound, speech, language.

ongga (*n*) kind of palm, whose leaf is used
for the roof of a house.

op (*adv*) already, completed, all up. (*adj*)
finished, used up, all gone.

Orari (*pn*) the name of a river.

- orinukwa** (*n*) lowlands *peltops*, a kind of bird (found in the lowlands), the name used in/by Joyce Briley.
- oru** (*n*) old Wano, the Dani language.
- ot** (*-subj*) I, in PROG non-past. CF. *uer*.
- ou₁** / 'ou/ ~ ou' ~ ouk (*deic*) down.
- ou₂** (*-mrk*) REM plural. CF. *e₄*.
- ouk** (*n*) kind of bird. IND *burung cabak celepuk*, JB.
- oum** (*-ipn*) stomach.
- ova** (*-ipn*) father.
- ovavud** (*-ipn*) character. CF. *vavud*.
- owarid** (*-ipn*) saliva. CF. *warid*.
- owe** (*-ipn*) older sibling of different sex.
- owok** (*-ipn*) bone.
- P — p**
- pa** (*mrk*) specifier. CF. *ta*.
- Padik-padinggungwa** see *Padinggungwa*.
- Padinggungwa** (*pn*) Padinggungwa, Wano village.
- pariak** (*vb*) produce.
- Pavid Owokwe** (*pn*) Pavid Owokwe, Wano female name.
- pavuk** (*n*) bush.
- pe** (*deic*) side. CF. *indit*.
- Peambourarogwe** (*pn*) Peambourarogwe, Wano female name.
- Pebruari** (*n-loan*) February. IND *Februari*.
- pede₁** (*n*) assumption³³
- pede₂** ~ *pede'* see *ede*.
- pega** (*n*) kind of fish. IND *ikan gabus*.
- peko** (*adj*) shallow.
- peme** (*deic.loc*) in one-side, out-side: *o* place, *ome* at-place, *pe* side, *peme* at.side, inside, outside.
- pemenok** (*deic*) in one-side next.
- perenggiak** (*vb*) to protect.
- pereniak** (*vb*) roll. CF. *medeniak*.
- Peterut** (*pn-loan*) Peter. IND Petrus.
- pewo** (*n*) kind of bird. IND *burung tepekong kumis*, JB.
- picuwe** (*n*) kind of bird. IND *burung cabe irian*, JB.
- piganiak** (*vb*) keep, hold.
- pigorak** (*vb*) grab, embrace.
- pikwi** (*n*) kind of pandanus.
- pindimboid** (*n*) kind of sweet potato.
- Pinggik Denggakkwe** (*pn*) Denggakkwe, Wano female name.
- piniak₁** (*vb*) arrive.
- piniak₂** (*vb*) dance.
- piniriak** (*vb*) bind.
- pipiyu** (*n*) kind of pandanus.
- pit** (*n*) kind of tree, which has white bark with the skin as soft as velvet, used for making fences, houses, or combs.
- piyu** (*n*) kind of pandanus.
- poa** (*n*) kind of tree, whose wax is used for making rubber.
- podaniak** (*vb*) bend, curve.
- pode₁** ~ *pode'* (*adj.dim*) thin. CF. *kugup*.
- pode₂** (*n*) turtle. CF. *kwam*.
- podì** ~ *podì'* (*n*) deception, cheating.
- podiak** (*vb*) lie, deceive, trick.
- poiya** (*n*) sun.
- pomo** (*n*) kind of banana.
- ponggo** (*n*) kind of tree.
- ponggurak** (*n*) kind of tree.
- poniak** (*vb*) sweep.
- poriak** (*vb*) split.
- pou** / 'pou/ (*adj.dim*) short.
- pu** (*n*) blowing.
- puduk** (*n*) assemble.
- puk** (*n*) waiting.
- pungguniak** (*vb*) wrap (with leaf). CF. *mendarak*.
- punu** ~ *punu-punu* (*n*) kind of pigeon.
- pupugi** (*n*) kind of bird. IND *burung gagak kelabu*, JB.
- pupugo** (*n*) rufous babbler.

³³ The meaning is not certain.

puriak (vb) wait.

pwi (n) head louse.

R — r

Ra'ab (pn-loan) Rahab. IND *Rahab*. CF.

Ragab.

radio (n-loan) – radio.

Ragab (pn-loan) see *Ra'ab*.

roti-kom (n-loan) bread. CF. *tuaninyomboid*.

T — t

ta (mrk) specifier, who, which. (var) *ba, pa, ta, da, ka, ra*.

taburiak (vb) to cover.

tabi (n) kind of vegetable. IND *sayur gedi*.

tabid (adj) wide.

tabirabi (n) kind of tree.

tabit (n) wind.

tade (n) kind of tree.

tadu (n) kind of yam.

tae ~ *tae'* (n) lightning.

tagaid / *ta'gaid* / (n) kind of sugar cane.

tage (n) kind of bamboo.

taget (n) spider.

tajo (n) kind of banana.

takwa (n) kind of fish. IND *ikan gabus*.

tam (n) kind of tree with edible fruits.

tamba (n) chanting: *tamba kweiku* or *puk wunak uku* Sunday.

tambaragwi ~ *tombaragwi* (n) kind of cricket, which is blue and looks like a long beetle.

tanggeno (n) tomba bower bird. LAT *archboldia sanfordi*, PF.

tariak (vb) roast on or under the ground. CF. *wodeniak*.

tat (n) kind of tree, whose fruit is edible.

tavengga (n) kind of vegetable. MP *sayur genemo*.

tavi (n) rain.

tavo (n) tobacco.

tavom (n) honey eater. IND *burung pengisap madu*, JB.

tavun (n) menstruation, period. CF. *eravun*.

*tawe*₁ ~ *tauwe* (n) kind of bird. IND *burung nuri cokelat*, JB.

*tawe*₂ (adj.age) young.

taye (adj.dim) light.

teben (n) bat.

tebon (n) fly.

Tedaca (n-loan) Tuesday. IND *Selasa*.

tegen (n) kind of palm, the bark of which is used to make a bow. MP *pinang hutan*.

Tegori (pn) Tegori, Wano name.

tebombak (n) kind of tree.

teno (n) kind of tree, which is good for making fences and houses. Its fruit is edible.

Teptembet (n-loan) September. IND *September*.

tevenggiak (vb) to overshadow.

teveniak (vb) cremate.

tevepuven (n) kind of bird. IND *burung dara pinus*, JB.

tewu (n) kind of banana.

ti (n) clipper.

Tiagai / *tia'gai* / (pn) Tiagai, Wano village.

tid (n) pig's snout.

Tidje (pn) Satan. IND *Setan*.

tigi ~ *tigi'* ~ *tigik* (n) kind of tree whose fruit is edible.

tigiak / *ti'giak* / (adj) shallow.

tigirigit (n) kind of bird. IND *burung kipas dada hitam*, JB.

tigit (n) kind of tree.

Tinak (pn) Sinak, Moni village.

tinggi (n) kind of tree, which is used for making arrows.

Tinggi-ringgi (pn) mountain name.

tinggu (n) snot. CF. *aringgu*.

tinyo (n) scorpion. IND. *kalajengking*.

- tiradi* (n) cloud.
- tiri* (adj.col) yellow.
- tiriak* (vb) miscarry.
- Tivinggi* (pn) Tivinggi, Wano village.
- tiwica* (n) kind of pandanus, yellowish and more delicious.
- tiyu* (n) kind of bird. IND *burung rajawali merah*, JB.
- to* (n) cooking pot, a canoe-like shape, usually used for squeezing pandanus fruit.
- toan* (n) kind of vegetable.
- todik* (adj) quick, fast.
- tobaragwi* ~ *tambaragwi* (n) kind of cricket, which is blue and looks like a long beetle.
- ton* (n) kind of pandanus.
- toniak* (vb) cough.
- torak* (vb) intend, will, want to.
- towaro* (n) kind of banana.
- towe* (n) bird.
- towenan* (n) kind of pandanus.
- towewom* (n) chicken.
- tu* (n) way, path, door.
- tuan* (n-loan) Westerner, sir. IND *tuan*.
- tuaninyene* (n) pineapple.
- tuaninyomboid* (n) bread. CF. *roti-kom*.
- Tukmid* (pn) Tukmid, mountain name.
- tundik* (n-loan) injection. IND *suntik*.
- tuniak* (vb) walk.
- tupermi* (n-loan) kind of food. IND *supermie*.
- tupu* (n) kind of tree, which is used for making canoes.
- Turat* (pn) Turat, Wano name.
- Turu* (pn) Iau, a tribe to the north and northwest.
- Turumo* (pn) Turumo, Turu village.
- tuwi* (n) kind of tree, which is used for making arrows.
- U — u**
- u₁* (-num) plural, in non-past. CF. *e₃*, *o₃*.
- u₂* (-subj) you, in INCEP non-past. CF. *eb*.
- u₃* see *a₃*.
- u₄* (n) desire.
- u₅* (n) hawk. IND *elang hutan*.
- uer* (-subj) we, in PROG non-past. CF. *et*, *ot*.
- ugo* (n) kind of bird. IND *pitohui cokelat bata*, JB.
- ugwid* (n) kind of bird. IND *burung kukuk besar (jenis tekukur)*, JB.
- uiak* (vb) sleep.
- uid* (-subj) we, in INCEP non-past. CF. *id*.
- uja* (n) kind of bird. IND *burung dara pergam*, JB.
- uk* (-asp) next. CF. *nok*.
- umbun* (-ipn) shoulder. IND *bahu*.
- umbun₁* (-ipn) top shoulder. IND *bahu*.
- umbun₂* (-ipn) top head. PM *ubun-ubun*.
- unanggada* (n) kind of bird. IND *burung bayan pantai*, JB.
- undawom* (n-loan) camel. IND *unta*.
- unewakwa* (n) kind of bird. IND *burung rajawali kecil*, JB.
- uni* (n) kind of bird. IND *bebek rawa*, JB.
- uniak* (vb) enter.
- up* (-subj) you plural, in PROG REAL past CF. *end*.
- uru₁* (n) spirit (of an ancestor).
- uru₂* (n) see *urukuma*.
- urukuma* (n) aircraft.
- ut* (n) moss.
- uweruwe* (n) kind of bird. IND *burung nuri ekor panjang*, JB.
- uyak* ~ *u'yak* (n) hornbill. IND *burung kumkum*.
- uyo* (adj.col) soft-brown.
- V — v**
- vavud* (n) character. CF. *ovavud*.
- Vawi* (pn) Fawi, Iau village.
- ve* (n) lifting up.

- vi* (*adj*) mute, deaf.
- vingge* (*n*) kind of tree.
- vinggu* (*n*) cockroach.
- viyu* (*n*) fawn-breasted bower bird. LAT *chlamydera cerviniventris*, PF.
- W — w**
- wa* (*interj*) greetings, expression of gratitude or appreciation.
- wab* (*adv*) time.
- wadik* (*n*) deserted garden. CF. *akut*, *arak*, *yavuk*₁.
- wado* (*n*) gecko. IND *toke*.
- wae* / *'wae/* (*interj*) pardon me?, what did you say?
- Waimu* (*pn*) Waimu, Wano village.
- Wandin Awi Mayugwe* (*pn*) Wandin Awi Mayugwe, Wano female name.
- Wanggiva* (*pn*) Wanggiva, Wano village.
- waniak* (*vb*) take, gather, pick up.
- Wano* (*pn*) Wano, the Wano tribe.
- wanogwak* (*n*) wandering spirit. MP *jiwa pardidu*.
- wariak* (*vb*) hit him/her/it, abuse, stab, shoot, forge, spit, play, attack, poke, spear.
- warid* (*n*) saliva.
- wavi* (*n*) itchy leaf. IND *daun gatal*, leaf causing poison-ivy-like symptoms and rubbed on the skin to relieve pain.
- wavud* (*n*) snake.
- Wedok* (*pn*) Wedok, Wano name.
- Weiga* (*pn*) Weiga, Wano region.
- wein* (*n*) bayan tree. LAT *ficus benyamina*.
- wem* (*n*) cricket.
- wenom* (*attr.deic*) up low.
- wenyom* (*adv.deic*) up low.
- wewo* (*n*) kind of bird. IND *burung nuri*, JB.
- weya* (*n*) wallaby. (*pn*) Weya clan.
- weyat* (*adj, n*) male animal. CF. *kuduk*.
- wi*₁ (*-mrk*) plural. CF. *i*₂.
- wi*₂ (*interj*) wow! (expression of surprise), sheesh! (expression of dislike).
- widiak* (*vb*) fetch.
- wiganak* (*vb*) spread out, develop, come out.
- wim* (*n*) arrow, which is used for big games, such as pigs, cassowaries, and for war. CF. *made*.
- windiriak* (*vb*) come out.
- winiak* (*vb*) come up.
- wiriak* (*vb*) fill up, pull out.
- wo* (*adj*) soft. CF. *ambok*.
- Wo'* (*pn*) Wo', Wano name.
- Wodegoduk* (*pn*) Wodegoduk, Wano village.
- wodeniak* (*vb*) roast on the stake. CF. *tariak*.
- woiak* see *woriak*.
- wom* (*n*) pig, a domestic one. CF. *nggoca*.
- Wonda* (*pn*) Wonda clan.
- wone* (*n*) story.
- wonedom* (*n*) history, journal.
- woniak*₁ (*vb*) carry by hand. CF. *nggiraniak*, *yeriak*.
- woniak*₂ (*vb*) exist.
- worak* (*vb*) come.
- woraneb* (*imp*) you come (to plural). CF. *amok*₂.
- woriak* ~ *woiak* (*vb*) give.
- wu'* (*n*) moth (of butterfly).
- Wu'u* (*pn*) Wu'u, Wano name.
- wu*₁ (*n*) shell. CF. *kuma*.
- wu*₂ (*n*) money.
- wuinje* (*n*) originate.
- wuk-duk* (*n*) battle cry.
- wum* (*adj, adv*) empty.
- wun* (*n*) ash. CF. *dirivu*.
- wunom* (*attr.deic*) up high.
- wunyom* (*adv.deic*) up high.
- wuriak* (*vb*) having sex.

Y — y

- yabok** (*adv*) far. CF. *mot*.
- yadid** (*n*) kind of bird. IND *burung kipas berpunggung cokelat merah*, JB.
- Yaguri** see *Yaudi*.
- yak** (*adv*) then, afterward. CF. PM *lalu, terus, baru*.
- Yakobut** (*pn-loan*) James. IND *Yakobus*.
- yambeniak** (*vb*) count.
- yambuci** (*n*) kind of yam.
- Yamo** (*pn*) Yamo, Wano river. ENG *van Daalen*.
- yanambok** (*n*) kind of leech, the bigger type. CF. *mudi*.
- yanduk** (*n*) bridge.
- Yanet** (*pn-loan*) Yanis.
- yanggwi** (*n*) cockatoo. IND *burung kakatua putih besar berjambul kuning*, JB.
- yaniak** (*vb*) scream, yell.
- Yanuari** (*n-loan*) January. IND *January*.
- yarak** (*n*) harvested garden. CF. *yavuk*¹, *wadik, akut*.
- yariak** (*vb*) plant, grow.
- Yaudi** ~ *Yaguri* (*pn-loan*) Jew, Jewish. IND *Yahudi*.
- yavuk**₁ (*n*) planted/prepared garden. CF. *yarak, wadik, akut*.
- yavuk**₂ (*n*) work, job.
- yawid** (*n*) bird of paradise.
- ye** (*n*) axe.
- yeciniak** (*vb*) sneeze.
- Yecut** (*pn-loan*) Jesus. IND *Yesus*.
- yedok** (*adj.dim*) large, big, huge, many.
- Yedome** (*pn*) Wano village, which is the place where the stone axe is traditionally made and bartered to the Dani tribe. The main river running across the area is called Yei. CF. *yei*.
- yedowi** (*n*) knife.
- yeget** (*n*) fence.
- Yei** / *ye í* / (*pn*) river name, where people used to make stone axes, *ye*. The village of the people there is called Yedome. CF. *yedome*.
- Yek** (*pn*) Wano village.
- yembenak** (*n*) city.
- yenggen** (*n*) fissure, gap, rift, slot.
- yenggodan** (*ipn*) sperm, semen. CF. *ayenggodan*.
- yeniak** (*vb*) wander.
- Yerei** (*pn*) Yerei, Turu village.
- yeriak** (*vb*) carry on shoulder. CF. *nggiraniak, woniak*.
- yewek** (*adj.hp*) weak.
- yi** (*deic*) this.
- yiduwe** (*n*) kind of bird. IND *burung pipit*, JB.
- yigirak** (*vb*) rub both hands against each other.
- yik** (*adj*) dull, blunt. CF. *andogon*.
- Yinggeo** (*pn*) Yinggeo, mountain name.
- yiviniak** (*vb*) scratch, scrape, grate, claw, shave.
- yivivit** ~ *kivivit* (*n*) butterfly.
- yo** ~ *yo'* (*vb*) pick, steal, rob.
- Yoanet** (*pn-loan*) John. IND *Yohanes*.
- yodiak** (*vb*) insert, fill in, put in.
- yogu** (*n*) kind of dove. IND *burung merpati ekor panjang*, JB.
- yoinje** (*n*) torch.
- yok** (*adv*) now.
- yonggoniak** (*vb*) rest.
- yoniak**₁ (*vb*) help.
- yoniak**₂ (*vb*) return, move, shake.
- Yoredan** (*pn-loan*) Jordan. IND *Yordan*.
- yoriak** (*vb*) say, tell.
- Yucana** (*pn*) Johanna, Wano female name.
- Yucup** (*pn-loan*) Joseph. IND *Yusuf*.
- yud** (*n*) tucan. IND *burung taun-taun*. LAT *aceros plicatus*, PF.
- Yudi** (*n-loan*) July. IND *Juli*.
- Yudiap** (*pn-loan*) Juliap.
- yugum** (*n*) stone, rock gravel.
- yugut** (*n*) mountain.

yuk (*interj*) yes.
yum (*n*) netbag: *yum agede kunggu*
 Monday.
yumbuk (*n*) kind of palm tree. PM *nibon*.
 LAT *onco sperma filamentosum*, PF.
yumbuniak (*vb*) fold.
Yuni (*n-loan*) June. IND *Juni*.
yuniak (*vb*) move.

ENGLISH-WANO

A — a

abdomen – *avud, avudi*.
about *see* like.
above – *dombok*.
abuse him/her/it – *wariak*. (see hit, stab, shoot, forge, spit, play, poke, spear, abuse).
Adam – *Adam*.
afraid – *idi2*.
afternoon – *kevim*. (late) – *kevem ~ kuvem*.
again – *kun1 ~ kundigu*.
agitate – *see* fuss.
ah! – *a4*.
aircraft – *urukuma ~ uru2*.
all – *apik*.
also – *eve2*.
amazement – *see* awesomeness.
ancestor – *ade*.
and – *me1*.
Andrew – *Andariat*.
anger – *anini*.
animal (female) – *kuduk*. (male) – *weyat*.
announce – *see* recite.
ant – *nggevado*.
appear – *kiniak1*.
appendix – *eyo*.
appreciation, expression of – *see* greeting.
April – *Aperid*.
arm band – *manggo*.
arrive (*vb*) – *piniak1*.
arrow (for big game) – *wim*. (for small game) – *made*.

as such – *ni, na*.
ash – *wun*. CF. dust.
assemble – *puduk*.
assumption (*n*) – *pede1*.
astonished – *see* stunned.
attack – *wariak*. *see* hit, stab, shoot, forge, spit, play, poke, spear, abuse.
August – *Agucut ~ Agutut*.
aunt (sister of one's mother) – *icawo*.
awesomeness – *anggu*. (expression of) – *aje2*.
axe – *ye*.

B — b

back (*-ipn*) – *amban, ombodid*.
backside – *anduk1*.
bad – *maduk*.
ball (*n*) – *ndapu*.
bamboo – (kind of) – *tage*.
banana – *deid*. (kind of – *bena-bena, inggwoid, no', pomo, tajo, tewu, towaro*)
Barabas – *Benebet*.
barking sound (*n*) – *nggok2*.
barter – *doniak*.
bat (*n*) – *teben*.
bathe (*vb*) – *see* immerse.
battle cry – *wuk-duk*.
bayan tree – *wein*.
bedding – *kodak*.
behind – *see* backside.
belongings – *ene*.
bend (*vb*) – *podaniak*.
biceps – *awengge*.
big – *see* large.
bile – *see* bladder.
bind – *piniriak*.
bird – *towe*. (kinds of – *bako, bugod, buicinogot, burome, inevek, kagude, kawo, kedamben, kirugwi, konak, kwecuk, mbiyuk, murinid, nggenek, nggenggema, nggivit, nggivot, nggoron, nggunum,*

- nggut, ouk, pewo, picuwe, pupugi, pupugo, tawe ~ tauwe, tevepuven, tigrigit, tiyu, uyak ~ u'yak, ugo, ugwid, uja, unanggada, unewakwa, uni, uweruwe, wewo, yadid, yiduwe*
bird of paradise – *yawid*. (kind of) – *mbiyuk*.
bitter – *ede ~ ede' ~ pede*.
black – *kik₂*.
bladder – *adungwanggen*.
blind – *inggwebuk ~ inggebok*.
blood – *adian, dian*.
blowing (*n*) – *pu*.
blue – *mudi₂*.
blunt – *see dull*.
body – (abstract) *eve₁*, (concrete) *avoke*, (integral bond) *kunik*.
bone – *owok*.
bottom of body – *omarib₁*.
bow – *egin*.
branch – *obak*.
bread – *roti-kom, tuaninyomboid*.
bread-fruit – *inyo*.
break – *see peel*.
breast – *ajak ~ ijak*.
breath – *enik*.
bridge – *yanduk*.
brown – *mangga₁*.
bucket – *embet₂*.
build – *see make*.
burp (*vb*) – *keniniak*. (*n*) *keni ~ keni'*.
bush – *pavuk*.
but – *kwe*.
butterfly – *yivivit ~ kivivit*.
buttock – *idanggen*.
buy – *see barter*.
- C — c**
call – *see scream*.
camel – *undawom*.
canoe – *nggebak*.
capture – *moiniyak*.
- carry** (by hand) – *woniak*, (on head) – *nggiraniak*. (on shoulder) – *yeriak*.
cassowary – *ndumbuk*.
catch (*vb*) – *duniak*. CF. *grab*.
cave – *ando, ndo₁*.
central – *odo*.
chanting (*n*) – *tamba*.
character – *ovavud, vavud*.
charm – *see sorcery*.
cheating (*n*) – *see deception*.
cheek – *indit₂*.
chest – *amewok*.
chew – *daniak*.
chicken – *towewom*, (wild) – *donggob*.
chief – *see lord*.
child – *nonggobe*.
child of female – *ayak*, of male – *abut*. (youngest) – *amea*.
children – *nonggodunggwi*.
children of female – *acui*, of male – *aburi*.
chin – *ondowok*.
Christ – *Kericut*.
church – *nggereja*.
claw (*vb*) *see scratch*.
clean – *biri₁*.
clear – *see clean*.
clear up – *bedeniak*.
climb over – *kadeniak*.
climb up – *iniak*.
clipper – *ti*.
cloud (*n*) – *tiradi*.
cockatoo – *yanggwi*.
cockroach – *vinggu*.
cold – *nggore, min*.
collect (*vb*) – *kainiak*. CF. *take*.
come – *worak*.
come! – (sg.imp) *amok₂*. (pl.imp) – *woraneb*.
come out – *windiriak*. CF. *spread out*.
come up – *winiak*. CF. *spread out*.
compassion – *see feeling for*.
complain – *see fuss*.
consume (*vb*) – *norak₂*.

cook – *dicariak* ~ *icariak*.
corn – *bato* ~ *batok*.
corner – *amunggut*.
correct – *koniak*.
corrupt – *see* spoil.
cough (*vb*) – *toniak*.
count (*vb*) – *yambeniak*.
country – *see* home.
cousin – *ambunu*.
crab – *bongga* ~ *bonggo*.
cremate (*vb*) – *teveniak*.
cricket – *wem*. (kinds of) - *tambaragwi* ~ *tambaragwi*.
cross (*vb*) – *noniak*. CF. cut. (*n*) *nonggik-donggik*.
crown dove – *kigivu*.
cry – *de, deiak*.
cucumber – *nggiduk*.
curse – *mbiak*.
curve (*vb*) – *see* bend.
cuscus – *baid*. (kinds of) - *bagai, bagi, codea*.
cut – *mboniak*. CF. cross.
cut down – *see* fell.

D — d

damage – *see* spoil.
dance (*vb*) – *piniak*₂.
dark – *kup*.
day – *ari*.
deaf and dumb – *see* mute.
deceive (*vb*) – *see* lie.
December – *Decembet*.
deception (*n*) – *podi* ~ *podi'*.
decompose – *see* spoil.
deep (*adj.pp*) – *on*.
deface – *see* spoil.
defective – *see* rotten.
delicious – *enggebok*.
demon – *kuguru* ~ *kuguruo*.
desire – *avok, u*₄.
destroy – *see* spoil.
develop – *see* spread.

die – *kaniak*. (because of sorcery) – *kambiak*. CF. curse.
dig (*vb*) – *ndeniak*.
diligence – *ambudit*.
diligent – *see* diligence.
dirty – *kik*₁.
discover – *see* get.
divide – *see* peel.
do – *iriak*.
dog – *nggewo*.
don't worry – *see* never mind.
don't! – *see* sacred.
door (*n*) – *see* path.
dove – (kinds of) - *kagu, kigivu, nuakwe, yogu*.
down – *ou* ~ *ou'* ~ *ouk*.
down-steep – *du* ~ *dum* ~ *duk*.
drink – *see* consume.
drown – *donggoniak*.
dry – *mbuk*₃.
dry (*vb*) – *muniak*.
dull – *andogon, yik*.
dust – *dirivu*. CF. ash.

E — e

ear (outer) – *anggo*.
earth (*n*) – *nggwen*.
eat – *see* consume.
eel – *diare*.
egg – *see* fruit.
eight – *nenggit pemenok apik kena*.
Elizabeth – *Edicabet*.
embrace (*vb*) – *see* grab.
empty – *wum*.
endless – *kwevi*.
enter (*vb*) – *uniak*.
environment – *see* place.
equal – *endat* ~ *ndat* ~ *endak*.
erosion – *see* landslide.
eternal – *ai*.
Eve – *Awa*.

evening – *kupmu*.

evil – *see* bad.

excrement – *enan*.

excuse me! – *ngge'*.

exist (*vb*) – *woniak*.

eye – *ingge*.

F — f

facial-paint (red/brown) – *mangga₃*.

faeces (feces) – *see* excrement.

family (of female) – *oinyayak*. (of male) – *agwebut*.

far – *yabok* (spatial); far away – *yabok, muk₂* (temporal).

fast – *todik*. CF. quick.

fasten – *mbariak*.

fat – *amok₁*.

father – *ova*.

fawn-breasted bower bird – *viyu*.

fear – *idi₁*.

feather – *see* hair.

February – *Pebruari*.

feeling for – *abua*.

fell – *miriak*.

feminine – *avukwa₁*.

fence – *yeget*.

fertile – *amburu*.

fetch – *widiak*.

few – *see* small.

fiancé – *adurik*.

fill in (*vb*) – *see* insert.

fill up – *wiriak*.

find – *see* get.

finger – *enggit*. finger click – *dombak*.

finished – *op*.

fire – *indu*.

firewood – *kane*. make a fire – *kuniak*.

first born – *manggu*.

fish – *dianggen*. (kinds of - *pega, takwa*)

fissure – *yenggen*.

five – *nenggit pemenok apik*.

flame – *see* fire.

fly (*n*) – *tebon*.

fold (*vb*) – *yumbuniak*.

folklore – *nggemi*.

folktale – *see* folklore.

foot – *see* toe.

for (me) – *n₂*. (us) – *niny₂*. (you) – *k₂*. (you plural) – *kiny₂*. (him/her/it) – *see* sake. (them) – *iny₂*.

forbid – *ma*.

forefather – *ado*.

forehead – *okewok*.

forge – *wariak*. *see* hit, shoot, abuse, stab, forge, spit, play, poke, spear.

forget it! – *see* leave it.

forgetfulness – *see* negligence.

four – *mbere-mbere*.

fresh – *icadok*.

Friday – *see* *ki₂*.

friend – *ombane*.

friends – *ombaw_i*.

frog – *mangge₁*.

fruit – *anggan*.

fuss – *mbe*.

G — g

gall – *see* bladder.

gap – *see* fissure.

garden (already harvested) – *akut*.

(deserted) – *wadik*. (in use, harvested) – *yarak*. (prepared, planted) – *yaavuk₁*.

gather (*vb*) – *see* take. (together) – *see* assemble.

gecko – *wado*.

gee! – *mudu*.

get – *kodiak*.

ghost – *anggena*.

give – *woriak, woiak*.

go (*vb*) – *norak₁*.

God – *Mbou'mu Nagwan, Ada, Ara*.

good – *bok*.

grab (*vb*) – *pigorak*.

grass – *kwemba*. (thorn – *diruk*, thorny – *mbu* ~ *mbu-mbu*)

grasshopper – *ijom*.

grass-skirt – *mbuk₂*.

grate (*vb*) – see scratch.

gravel (*n*) – see stone.

green – *nggerengga*.

greeting – *wa*.

ground (*n*) – see earth.

grow (*vb*) – see plant.

grub (*n*) – *nggon*.

H — h

hair – *eruk*.

hamlet – see place.

hand – see finger.

handsome – *nggarek*.

happiness – *angginuk*.

happy – see happiness.

hard – see tough.

have – *kodariak*.

having intercourse – *wuriak*.

hawk – *u₅*.

he – *at₁* (-*subj*) *ar₂*, *ir₁*, *ok*.

head – *anop*. (top of head – *umbun₂*)

hear – see listen.

heart – *okweid*.

heaven – see sky.

heaviness – *anggin*.

heavy – see heaviness.

hedgehog – see porcupine.

heel – *aduwon*.

help (*vb*) – *yoniak₁*, *yeniak*. NOTE: For (*interjection*) see **gee!**

her – see his. (*obj-* of 'see') – see him.

here – *nda*.

Herod – *Erodet*.

high – see long.

him (*obj-* of 'see') *at₂*, *kat₂*.

hip – *arot*.

his *a₁*. CF. *e₂*, *o₄*.

history – *wonedom*.

hit him/her/it – *wariak*. see abuse, stab, shoot, forge, spit, play, poke, spear.

hold (*vb*) – *piganiak*.

hole – *iru*.

home – *amu*.

homosexual – *avukwa₂*.

honey eater – *tavom*.

hornbill – *uyak*.

horsefly – *damit*.

hot – *iru'* ~ *iruk*.

house – *awi₂*.

household of female – see family of female.

household of male – see family of male.

housemaid – *boicagwa*.

how – *ngganduk*.

how come – *nggayonduk*.

how many – *mande*.

how much – *mande*.

huge – see large.

hungry – *apu*.

hurry – *auk*.

husband – *oin*.

hut – *odia*.

I — i

I – *an*. (-*subj*) *ac*, *er₁*, *et*, *ic*, *id*, *ir₂*, *ot*. (*b.pron-*) *n₄*.

I tell you what! – see look!

iguana – *kabi*.

immerse (*vb*) – *ndariak*.

immortal – see eternal.

impossible – *mek*.

in front of – *edeme*.

in here – *nde*.

in the inside – *inumu*.

infant – see child.

infants – see children.

injection – *tundik*.

insert – *yodiak*.

inside – *inu*. in the inside – *inumu*.

instrument (*mrk*) – *bane*.

intend (*vb*) – *torak*.
intestine – *see* excrement.
investigate – *see* learn.
irritate – *see* fuss.
Isaac – *Icak*.
it – *see* he, (*obj-* of ‘see’) *see* him.
its – *see* his, (*obj-* of ‘see’) *see* him.

J — j

James – *Yakobut*.
January – *Yanuari*.
jealousy – *nggum*.
Jesus – *Yecut*.
Jew – *Yaudi, Yaguri*.
Jewish – *see* Jew.
Jews – *Yaudi, Yaguri*.
job – *see* work.
Johanna – *Yucana*.
John – *Yoanet*.
Jordan – *Yoredan*.
Joseph – *Yucup*.
journal – *see* history.
juice – *see* sap.
July – *Yudi*.
June – *Yuni*.
jungle – *see* tree.

K — k

Kayafas – *Kayapat*.
keep (*vb*) – *see* hold.
kidney – *awedi*.
knife – *yedowi*.
knot – *mbareniak*.

L — l

lake – *biru, mburu₁*.
land – *see* home.
landslide – *nggoid ~ nggok₁*.
language – *one* CF. voice.
large – *yedok*.
laziness – *emit*.
lazy – *see* laziness.

leaf – *engga*. (*ichy* – *wavi*)
lean on – *see* lift up.
learn – *maminiak*.
leave it! – *endi*.
leech – *mudi*. (kind of – *yanambok*)
leg – *arit*.
lemon – *nggidivi*.
lesbian – *see* homosexual.
lice of head – *pwi*.
lid – *arip*.
lie (*vb*) – *podiaak*.
lift up – *mediak*.
lifting up (*n*) – *ve*.
light – *taye*.
lightning (*n*) – *tae ~ tae'*.
like – *kago*.
like that – *mono*.
like this – *ndo*.
liquid – *see* sap.
listen – *koneriak*.
little – *see* small.
liver – *awang, enokweid*.
lizard – *mbou*.
locative (*-mrk*) – *me₂, mu*.
long – *aduk, muk₁*.
look for – *see* seeking.
look! – *dik₂*.
lord – *nagwan*.
love – *see* feeling for.
lowlands peltops – *orinukwa*.
Luke – *Dukat*.
lush – *see* fresh, new.

M — m

Magdalene – *Madadena ~ Madarena*.
magic – *see* sorcery.
magic power – *see* sorcery.
make – *mariak*. make a fire – *kuniak*.
malaria – *madaria*.
man – *ap*.
manucode (crinkle-collared) –
kainggambuk.

many – see large.
March – *Maret*.
Mark – *Marakut, Marekut*.
Martha – *Mareta*.
Mary – *Maria*.
masculine – *avurap*.
Matthew – *Matiut*.
May – *Mei*.
me – *n₃, ne₂, neat*.
meal – *anggi*.
medicine – *obat*.
meet – *beriak*. CF. *visit*.
Mei – *Mei₁*.
menstruation – *tavun, era_{vun} ~ ara_{vun}*.
mentally disabled – *anggudi*.
midday – see *noon*.
mind – *enokweid* CF. *liver*. NOTE a derivation of *enuk-okweid* ‘3s-knowledge-3s-heart’.
miscarry – *tiriak*.
mistake – see *bad*.
mix – see *unite*.
Monday – see *netbag*.
money – *awu₂, wu₂*.
month – see *moon*.
moon – *mbit*.
morning – *kuperak*.
Moses – *Muca*.
mosquito – *kigiru*.
moss – *ut*.
moth of butterfly – *wu’₂*.
mother – *ica*.
mountain – *yugut*.
mouse – see *rat*.
mouth – *enap*.
move (*vb*) – *yuniak*. CF. *return*.
mucus – *angguret*.
mud – *birop*.
muscle – *omaceo*.
musical instrument – *bingginok*.
mute – *vi*.
my – *n₁*.

N — *n*

nail – see *tip*.
name – *indi*.
near – *buk, korok₁*.
neck – *anggogede*.
necklace – *enggen*. (kind of - *kunyedungwi*, necklace of bead - *dimit ~ ndimit*)
negator (*mrk*) – *dik₁*.
negligence – *maci*.
nephew – *amboko*.
netbag – *yum*.
never mind! – *ekanok*.
new – see *fresh*.
next – *enok, nok, nuk*.
niece – see *nephew*.
night – see *evening*.
nine – *nenggit pemenok apik mbere-mbere*.
no – *dik* CF. *negator*.
noon – *dingge*.
nose – *akwi*.
not – see *negator*.
not yet – see *still*.
nothing – *adik*. CF. *self*.
November – *November*.
now – *yok*.
nurse – *manderi*.

O — *o*

occur – *endarak*.
odour – *obaruk₁*.
old – (*person*) *kode*. (*thing*) – see *rotten*.
one – *ambui, tatu*.
only – *mban*.
open – *bariak*.
origin – *awi₁*.
originate – *wuinje*.
other – *ando*.
our – *ninye₁*.
ours – see *our*.
outside – *ombat*. at the outside – *ombatme*.

owl – *kum*₁.

P — p

pain – *anduk*₂.

palm of hand – *amo*.

palm tree – *yumbuk* (kinds of – *dame*, *ongga*, *tegen*)

pandanus – *dagu* (kinds of – *bagam*, *barip*, *birica*, *dip*, *kobun*, *mboinyi*, *nggabok*, *nggacame*, *pikwi*, *pipiyu*, *piyu*, *tiwica*, *ton*, *towenan*)

pardon me? – *wae*.

part – *kainyik*.

past – see backside.

path (*n*) – *tu*.

pay – see barter.

peanut – *nggwenkuma*.

peel – *dembeniak*.

penis – *aye*₁. (penis gourd – *kevevok*)

people – *ap* CF. man, person.

person – *ap* CF. man, people.

Peter – *Peterut*.

pick – (*vb*) *yo* ~ *yo'*.

pick up (*vb*) – *kiniak*₂, see take.

pig – *wom* – (*-ipn*) *anggwom*. (wild – *nggoca* ~ *nggoica*, *mado* (sound of – *nggwe*)

pigeon – *nggane* ~ *nggwane*. (kind of – *punu-punu*)

pigsty – *davo*₂.

pineapple – *tuaninyene*.

place – *o*.

plant (*vb*) – *yariak*.

platform – see rack.

play – *wariak*. see spit, forge, hit, shoot, abuse, stab, forge, poke, spear.

plural (*-mrk*) – *wi*₁, *i*₂. (*-num*) – *u*₁. (REM) – *ou*₂.

poke – *wariak*. see play, spit, forge, hit, shoot, abuse, stab, forge, spear.

polar question (*-sx*) – *a*₂.

ponder – see think.

porcupine – *namok*.

possession – see belongings.

possum – *abui*.

posthouse – see hut.

pot for cooking – *to*.

potato – *kendang*.

pregnancy – *avuja*, *avuda*.

prepare (food) – see make.

present (*vb*) – see exist.

pretty – see handsome.

proclaim – see recite.

produce (*vb*) – *pariak*.

progressive (*-mrk*) – *ik*.

prostitute – *ombavidu*.

pull (*vb*) – *nibiniak*.

pull out – *meinyiak*, *nggigiriak*, *niriak*.

pulp – *anggup*.

pumpkin – *nagamburu*. (kinds of – *numbodok-umbodok*, *ombodok*₂)

purposive – (*-sx*) *ca*.

pus – *anggundit*.

put down – *baniak*.

put in – see insert.

python – *mowid*.

Q — q

quick – *todik*.

R — r

rack – *davo*₁.

radio – *radio*.

Rahab – *Ra'ab*, *Ragab*.

rain (*n*) – *tavi*.

rainbow – *kinyombowigiduk*.

rat – *kadea*.

rattan – *kede*.

raw – see fresh.

realis (*-mrk*) – *k*₅.

recite – *mbininiak*.

red – *kwi*.

reed – *andok*. (kinds of) – *mbuk*₁, *ndok*.

reflexive – (*-sx*) *od*.

regent-whistler – *deidnebuk*.

region – see place. (in a region) – *ome*.

- reluctance** – see unwilling.
remember – see think.
rest (*vb*) – *yonggoniak*.
return (*vb*) – *yoniak*₂.
rib – *indirowok*.
rice – *naci*.
rift – see fissure.
right – see good.
ripe – see old.
rise – *meriak*.
roast on stake – *wodeniak*, on the ground – *tariak*, under the ground – *tariak*.
robin northern scrub – *kondumbugwa*.
rock (*n*) – see stone.
roll (*vb*) – *pereniak*. a tobacco – *medeniak*.
root – *adom*. Wednesday – *adom mboinggu*.
rotten – *obaruk*₂.
rough – see tough.
rub hands – *yigirak*.
rufous babbler – *pupugo*.
rush – see hurry.
- S — s
- Saturday** – *tabtu*.
sacred – *ma*, articles – *kugwidom*.
sad – see weariness.
sadness – see weariness.
Saducees – *Caduki*.
sago – *kombi*.
sake – *ambit*.
saliva – *warid*, (*-ipn*) *owarid*.
salt – *mayuk*, *tavi*.
same – see equal.
sand – *mbinit*.
sap – *amburu*₁.
Satan – *Tidje*.
Saturday – see *mboid*.
say – *yoriak*.
scapula – *omban*. CF. shoulder.
scoop – *ndoriak*.
scrape (*vb*) – *yiviniak*. CF. scratch.
scratch (*vb*) – *yiviniak*. CF. scrape.
- scream** – *yaniak*.
screaming – *kum*₂.
screaming out of pain (*n*) – *nggwa*.
search – *mbicariak*.
secret – *mbok*.
see – *korak*.
seed – (*-IPN*) *anggen* CF. fruit, origin.
seeking – *korok*₂.
self – *adik*. CF. nothing.
semen – see sperm.
September – *Teptembet*.
set – *baiak*.
seven – *nenggit pemenok apik mbere*.
shake (*vb*) – see return.
shallow – *peko*, *tigiak*.
shame – *enggadi*.
sharp – *embet*, *embedak*.
shave (*vb*) – *yiviniak*. CF. scrape, scratch.
she – see he.
sheep – *dombawom* ~ *ndombawom*.
sheesh – see wow!
shell (*n*) – *wu*₁, *awu*₁.
shelter in garden – *odia* CF. hut.
shepherd – *nggembada*.
shivering (*vb*) – *nggoriak*.
shoot – *wariak*. see hit, abuse, stab, forge, spit, play, poke, spear.
short – *mot*, *pou*, *kouwak*.
shoulder top – (*-ipn*) *umbun*₁. blade – (*-ipn*) *omban*. back – (*-ipn*) *omarib*₂.
shout – see scream.
shower (*vb*) – see immerse.
sibling of different sex – *iri*. older of same sex – *owe*, *ewe*. younger of same sex – *awot*.
side – *indit*₁. (*deic-*) side – *pe*, (*deic-*) on one side – *peme* (*deic-*) on one side next – *pemenok*.
side-bone – see rib.
Sinak – *Tinak*.
singular – (*-num*) *a*₃, *e*₃, *i*₃, *o*₃, *o*₅, *u*₃. (REM) *e*₄, *i*₄.

sir – see Westerner.
sit down! – *kweidiak*.
six – *nenggit pemenok apik ambui*.
skin – *avodo*.
skin (vb) – see peel.
skirt – see grass-skirt.
sky – *mbou'*.
sleep – *uiak*.
slice – *mboinyiak*.
slippery – *ambedak*.
slit – see fissure.
slope – *erani*.
slow – *erok₁*.
slowly – *erok₂*.
smacking, eating noisily (vb) – *ndap*.
small – *be ~ be'*.
smoke – *kiduk*.
snake – *wavud*. poisonous – *dinimbuk*.
sneeze – *yeciniak*.
snot (-ipn) – *aringgu, tinggu*.
snout of pig – *tid*.
soft (adj) – *wo*.
soft-brown – *uyo*.
soil – see earth.
song – *ndawi*.
sorcery – *irudik*.
soul – see mind.
sound – see voice.
sour – see bitter.
source (-mrk) – *mende*.
spear – *wariak*. see play, spit, forge, hit, shoot, abuse, stab, forge, poke.
specifier (mrk) – *ta, da, pa, ka, ba, ra*.
speech – see voice.
sperm – *ayenggodan*.
spicy hot – *adede*.
spider – *taget*.
spiky – see sharp.
spine – *ombodok*.
spirit – *ayu*. (kinds of) – *anggena, kugwi, kuguru ~ kuguruo, uru₁, wanogwak*.

spit – *wariak*. see forge, hit, shoot, abuse, stab, forge, play, poke, spear.
split (vb) – *poriak*.
spoil – *aguiaik*.
spread – *ndoniak*.
spread out (vb) – *wiganak, windiriak*.
sprout – *kaid*.
squeeze – see make.
stab – *wariak*. see hit, abuse, shoot, forge, spit, play, poke, spear.
stand up – see rise.
stay – *doiak*.
steal (vb) see pick.
steep (mrk-) – *d*.
stick – *mbud, mbudo*.
still – *awo*.
stitch – *deniak*.
stomach – *oum*.
stone (n) – *yugum*. (of fruit) – see fruit.
story – *wone*.
strength – *omawi*.
string – see rattan.
strong – *embok*. CF. strength.
stunned – *ajak₂*.
stupid – see bad.
stutter (interj) – *e₃*.
sucking (sound, act of) – *bid*.
sugar cane – *en*. (kinds of) – *kudik, kurik, tagaid*.
sun (n) – *poiya*.
Sunday – see *tamba, minggu*.
sweet potato – *mboid*. (kinds of) – *bogubuge, boranggan, merom, pindimboid*.
swim (vb) – see immerse.

T — t

tail – *enggawok*.
take (vb) – *waniak*.
take-out – see pick up, scoop.
tall – see long.
teacher – *ngguru, kuru*.

tear – *ademburu*.
teeth – see tooth.
tell – see say.
ten – *nenggit pemenok apik nenggit pemenok apik imbirak*.
testicle – *odi*.
thanks – see greeting.
that – *muni*.
their – *iny₁*.
them – *iny₃, inye, icat*. CF. *k₃, ninye*.
then (*adv*) – *yak*. (*-asp*) – *ak, iak*.
there – *mona*.
they – *it* (*-subj*) – *ar₁, ar₂, ok*. (*b.pron-*) *iny₄*.
thick – *kugup*. (*animate*) – see fat.
thigh – *endanggan*.
thin – *pode₁ ~ pode'*.
think – *emberiak*.
thirsty – see hungry.
this – *ndi, yi*. (*this is it*) – *ndet*.
three – *kena*.
thunder – *nduk₁*.
Thursday – *Kamit*.
tie – *kambuniak*.
time – *wab*.
tip – *anggop*.
tobacco – *tavo*.
toddler – see child.
toddlers – see children.
toe – *acok*. CF. foot.
tomba bower bird – *tanggeno*.
tomorrow – *kovu*.
tongue – *amede*.
tooth – *ak*.
top of head – (*-ipn*) *umbun₂*.
topic (*specific mrk*) – *ne*. (*generic mrk*) – *no*.
torch – *yoinje*.
tough – *ambok*.
treasure – *adi, munyum*.
tree – *e*. (*kinds of* – *agaktebe, ambo, amumbek, awio, babo, bago, bedamot, bo, bunggu, dem₁, divud, dope, dugui, eikik,*

ico, icombon, icuk, kaube, kibi ~ kivi, koyabi, kumbuk, mangga, mangge₂, mbon, megop, ndup, nggabunya, nggauma, pit, poa, ponggo, ponggurak, tabirabi, tade, tam, tat, tomba, tembombak, teno, tigi ~ tigi' ~ tigik, tigit, tinggi, tupu, tuwi, vingge, wein.)

trick (*vb*) – see lie.

true – *ki₂*.

tucan – *yud*.

Tuesday – *Tedaca*.

turtle – *kwam*. (*kind of*) – *pode*.

two – *mbere, dua*.

U — u

ulcer – *komboid*.

uncle – *are*.

unite – *dambuniak*.

universe – see sky.

unripe – see new.

unwilling – *bu ~ bu'*.

up – *ei ~ ei' ~ eik*.

up high – *wunom, wunyum*.

up low – *wenom, wenyom*.

upset – *ago*.

up-steep – *dei*.

urinate (*vb*) – (*-ipn*) *odiak*.

urine – *ameiyo, meiyo*.

us – *n₃, niny₃, ninye₃, nicat*.

V — v

vagina – (*-ipn*) *angget*.

van Daalen river – *Jamo, Yamo*.

vegetable – *mboid-engga*. (*kind of*) – *bado, tabi, tavengga, toan*.

vein – *ombagit*.

very – *ki₁*.

village – see place.

virgin – see fresh.

visible – *kin*. (*vb*) see appear.

visit – *bekorak*. CF. meet.

voice – *one*.

vomit – *ma'*.

vomiting – *see vomit*.

W — w

wait (*vb*) – *puriak*.

waiting (*n*) – *puk* (*sg.imp*) – *puk*.

walk (*vb*) – *tuniak*.

wallaby – *weya*. (kind of – *codea*).

wallace (kind of dove) – *nuakwe*.

wander (*vb*) – *yeniak*.

want (*vb*) – *see intend*.

war – *kuni*.

wash – *see clean, immerse*.

water – *i₁*.

waterfall – *irakut*.

way (*n*) – *see path*.

we – *nit*. (*-subj*) *er₂*, *uer*, *uid*. (*b.pron-*) *niny₄*.

weak – *anggudi*, *yewek*.

weariness – *anggun*.

weary – *see weariness*.

weave – *see spread*.

Wednesday – *see root*.

week – *yewek*.

Westerner – *tuan*.

wet – *min*. CF. *mbuk₃*.

what – *nano*.

what did you say? – *see pardon me?*

what do you think – *see how come*.

when – (*Q*) *mandom*, *ndikim*.

where – *ngga*.

which one – *ngge*.

whistle with fingers in mouth – *mboriak*.

white – *biri₂*.

why – *nggayo*.

wide – *tabid*.

wife – *agwe*.

wiggle – *mbaiak*.

will (*vb*) – *see intend*.

wind (*n*) – *tabit*.

wine – *angguri*.

wing – *enggavid*.

witch – *kugwi₁*. CF. *demon*.

witchcraft articles of – *kugwidom*. CF.
sacred articles.

woman – *kwa*.

women – *akomi*.

wood – *see tree*.

work (*n*) – *ya₁uk₂*.

wound – *see ulcer*.

wow! – *wi₂*.

wrap (*vb*) – *pungguniak*.

write – *see slice*.

wrong – *see bad*.

Y — y

yam – *kom*. (kinds of) – *kun*, *mburica*,
mburicaya, *nacimbak*, *tadu*, *yambuci*.

yell – *see scream*.

yellow – *tiri*.

yes – *yuk*.

you – *kat₁*. (*b.pron*) *k₄*. (*-mood*) *k₅*. (*obj-*) – *k₃*,
ke, *keat*. (*-subj*) – *end₁*, *end₂*, *ond*, *u₂*. CF.
kit.

you plural – *kit*. (*b.pron-*) *kiny₄*. (*obj-*) –
kiny₃, *kinye*, *kicat*. (*-subj*) – *eb*, *ep*, *up*. CF.
kat.

young age – *tawe₂*.

your – *k₁*. (*px pl* – *kiny₁*)

APPENDIX 2: WORDLIST

The wordlist used is based on the UnCen-SIL 3/85/1 wordlist, with some modifications. The Indonesian words have been added by the author.

	BAHASA	WANO	[¹ wano]
	Language		
	NAMA/ISTILAH LAIN	--	
	Other Names		
	KABUPATEN	Mulia and Pania	
	Region		
	KECAMATAN		
	District		
	DESA, KAMPUNG	Dagai , Iratoi, Turumo, Fawi, Biricare, Mbomban, and	
	Town, Village	Yei	
	WORDLIST RELIABILITY	Good	
	PENUTUR ASLI	Nama: Various native speakers from the above villages	
	Native Speaker	Name	
		Umur: ranges from 25–45	
		Age	
		Laki-laki: √	Perempuan: √
		Male	Female
	AHLI BAHASA	Wiem Burung	
	Linguist		
	TANGGAL	Since 1992–1994	
	Date		

- | | |
|--|--|
| 1. <i>kepala</i> – head [a ¹ nɔp ¹] | 17. <i>kuku jari</i> – nail finger (see 16) |
| 2. <i>rambut</i> – hair [ɛ ¹ ruk ¹] | 18. <i>kulit</i> – skin [aβɔ ¹ dɔ] |
| 3. <i>bulu badan</i> – body hair (see 2) | 19. <i>daging</i> – flesh [ɛ ¹ ga: ¹ gum] |
| 4. <i>telinga</i> – ear (outer) [a ¹ gɔ] | 20. <i>lemak</i> – fat [a ¹ mɔk ¹] |
| 5. <i>leher</i> – neck [a ¹ gɔgɛ ¹ dɛ] | 21. <i>tulang</i> – bone [ɔ ¹ wɔk ¹] |
| 6. <i>mulut</i> – mouth [ɛ ¹ nap ¹] | 22. <i>payudara</i> – breast [a ¹ jak ¹] |
| 7. <i>gigi</i> – tooth [ak ¹] | 23. <i>dada</i> – chest [amɛ ¹ wɔk ¹] |
| 8. <i>lidah</i> – tongue [amɛ ¹ dɛ] | 24. <i>perut</i> – stomach [a ¹ βud ¹] |
| 9. <i>mata</i> – eye [i ¹ gi] | 25. <i>punggung</i> – shoulder [ɔ ¹ m ¹ bɔ ¹ dɔk ¹] |
| 10. <i>hidung</i> – nose [a ¹ k ¹ wi] | 26. <i>darah</i> – blood [adi ¹ an] |
| 11. <i>tangan</i> – hand [ɛ ¹ gɪt ¹] | 27. <i>jantung</i> – heart [ɛnɔ ¹ k ¹ wɛid ¹] |
| 12. <i>kotor</i> – dirty [kik ¹] | 28. <i>hati</i> – liver [a ¹ wan] |
| 13. <i>tangan kotor</i> – dirty hand [ɛ ¹ gɪt ¹ kik ¹] | 29. <i>kaki</i> – foot [a ¹ çɔk ¹] |
| 14. <i>siku</i> – elbow [ɛ.ŋgɪru ¹ gut ¹] | 30. <i>bengkak</i> – swell [pɛ ¹ kɔ] |
| 15. <i>jari</i> – finger (see 11) | 31. <i>kaki bengkak</i> – swollen foot [a ¹ çɔk ¹ pɛ ¹ kɔ] |
| 16. <i>kuku</i> – nail [ɛ ¹ gɪra ¹ nɔp ¹] | |

32. *luka* – wound [kɔ^mbɔⁱd^ʔ]
33. *sakit* – hurt [aⁿduk^ʔ]
34. *luka sakit* – painful wound
35. *air* – water [i]
36. *laut* – sea [i]
37. *danau* – lake [m^{bu}'ru]
38. *sungai* – river (see 35)
39. *sungai mengalir* – river flows [ɨnɔ^r'rak^ʔ]
40. *pasir* – sand [m^{bi}'nit^ʔ]
41. *tanah* – soil [n^gwɛn]
42. *basah* – wet [mɨn]
43. *lumpur* – mud [ɬi'rɔp^ʔ]
44. *garam* – salt [ma'juk^ʔ]
45. *api* – fire [iⁿdu]
46. *bakar (keladi)* – roast (yam) [tari'ak^ʔ]
47. *tungku* – cooking fire --
48. *debu* – ash [wun] abu-abu [ɬiri'βu]
49. *asap* – smoke [tira'di]
50. *batu* – stone [ju'ɣum]
51. *berat* – heavy [aⁿgin]
52. *batu berat* – heavy rock [ju,ɣum aⁿgin]
53. *licin* – slippery [a^mbe'dak^ʔ]
54. *batu licin* – slippery rock [ju,ɣum a^mbe'dak^ʔ]
55. *satu* – one [a^mb^wi]
56. *dua* – two [m^{be}'rɛ]
57. *tiga* – three [kɛ'na]
58. *empat* – four [m^{be},rɛ^mbe'rɛ]
59. *lima* – five [nɛⁿgit pɛmɛ'nɔk a'pik^ʔ]
60. *satu batu* – one stone [ju'ɣum a^mb^wi]
61. *dua batu* – two stones [ju'ɣum m^{be}'rɛ]
62. *banyak* – many [jɛ'dɔk^ʔ] cf. 137.
63. *batu banyak* – many stones [ju,umjɛ'dɔk^ʔ]
64. *sedikit* – few [ɬɛ(?)] cf. 139.
65. *batu sedikit* – few stones [ju,ɣum'ɬɛ(?)]
66. *semua* – all [a'pik^ʔ]
67. *jalan_N* – road [tu]
68. *sempit* – narrow (see 64)
69. *jalan sempit* – narrow path/way/road [tu'ɬɛ(?)]
70. *lebar* – wide (see 62)
71. *jalan lebar* – [tuje'dɔk^ʔ]
72. *gunung* – mountain [ju'ɣut^ʔ]
73. *awan* – cloud [tira'di]
74. *awan putih* – white cloud [tira,ɬibi'ri]
75. *awan hitam* – black cloud [tira,ɬiyik^ʔ]
76. *pelangi* – rainbow [(k)ɨnɔ^mbɔ^wiɣi'duk^ʔ]
77. *hujan* – rain [ta'βi]
78. *langit* – sky [m^bɔ^u(?)]
79. *kabut* – fog/mist --
80. *angin* – wind [ɔwɔ'ja] [ta'bit^ʔ] lebar
81. *panas* – hot [i'ru?] ~ [i'ruk^ʔ]
82. *hangat* – warm --
83. *angin panas* – hot wind [ta,βiri'ru?] ~ [ta,βiri'ruk^ʔ]
84. *dingin* – cold [n^gɔ?] ~ [n^gɔk^ʔ]
85. *sejuk* – chill [mɨn]
86. *guntur* – thunder [n^{du}k^ʔ]
87. *kilat* – lightning [ta'ɛ(?)]
88. *tongkat* – stick [m^{bu}'dɔ]
89. *lurus* – straight [mɔt^ʔ] CF. 154.
90. *tongkat lurus* – [m^{bu},dɔmɔt^ʔ]
91. *bengkok* – not straight --
92. *tebal* – thick [ku'ɣup^ʔ]
93. *tongkat tebal* – thick stick [m^{bu},dɔɣu'ɣup^ʔ]
94. *tipis* – thin [pɔ'dɛ(?)]
95. *tajam* – sharp [ɛ^mbɛt^ʔ] ~ [ɛ^mbe'dak^ʔ]
96. *tongkat tajam* – sharp stick [m^{bu},dɔɛ^mbe'dak^ʔ]
97. *tumpul* – dull [aⁿdɔ'ɣɔn] ~ [jik^ʔ]
98. *matahari* – sun [pɔⁱ'ja]
99. *siang* – day [ɬiⁿgɛ]
100. *malam* – night [kup'mu] sore [kɔ'βɛm]
101. *bulan* – moon [m^{bit}'ʔ]

102. *bintang* – star [ᵐbɔᵘmumɛˀnɔɛ]
103. *pisang* – banana [dɛˀdʔ]
104. *kebun* – garden [jaʔβukʔ]
105. *alang-alang* – bush [paʔβukʔ]
106. *kering* – dry [ᵐbukʔ]
107. *pohon* – tree [ɛ]
108. *kayu* – wood (see 107)
109. *kayu kering* – dry wood [ɛᵐbukʔ]
110. *babat*_v – cut [ᵐbɔniʔakʔ]
111. *dengan*_{INST} (e.g., *bela kayu dengan kapak*) – with [baʔnɛʔ]
112. *dengan*_{COM} (e.g., *mereka dengan kami*) – with [iʔnɔm]
113. *cabang* – branch [ɔʔɔakʔ] also biceps
114. *daun* – leaf [ɛˀᵒga]
115. *duri* – thorn [kʷɛˀᵐba] ko plant
116. *buah* – fruit [aˀᵒgen]
117. *biji* – stone (fruit) (see 117)
118. *busuk* – rotten [ɔbaʔrukʔ]
119. *bau* – aroma (see 118)
120. *berbau busuk* – rotten aroma --
121. *hutan* – jungle [ɛdɛʔmɛ]
122. *tali* – string, cord [kɛʔdɛ]
123. *putih* – white [biʔri]
124. *hitam* – black [kikʔ]
125. *merah* – red [kʷi]
126. *kuning* – yellow [tiʔri]
127. *hijau* – green [ᵒᵒɛɛˀᵒga]
128. *burung* – bird [tɔʔwɛ]
129. *telur burung* – egg [tɔʔwɛaˀᵒgen]
130. *sayap burung* – wings [ɛkɲaʔβidʔ]
131. *terbang* – fly_v --
132. *kasuari* – cassowary [ᵐduᵐbukʔ]
133. *lalat* – fly_N [tɛʔɔn]
134. *lalat babi* – horse fly [daʔmitʔ]
135. *nyamuk* – mosquito [kiyiʔru]
136. *anjing* – dog [ᵒᵒɛʔwɔ]
137. *besar* – big, large [jɛʔdɔkʔ] CF. 62.
138. *anjing besar* – big dog [ᵒᵒᵒɛʔwɔjɛʔdɔkʔ]
139. *kecil* – small [βɛʔ]
- CF. 64.
-
140. *ini* – this [ᵐdi]
141. *itu* – that [muʔni]
142. *sama* – same [ᵐdakʔ(ᵐdakʔ)]
143. *berbeda* – different [aˀᵐdɔ]
144. *lintah* – leech [muʔdi] ~ [janaᵐbɔkʔ]
145. *gigit* – to bite --
146. *makan* – to eat [nɔʔrakʔ]
147. *ekor* – tail [ɛᵒgaʔwɔkʔ]
148. *ikan* – fish [diaˀᵒgen]
149. *kutu* – lice (hair) [pʷi]
150. *babi* – pig [wɔm]
151. *panah babi* – shoot the pig [wɔmwariʔakʔ]
152. *cacing* (*tanah*) – worm [ᵐbɔidiʔɔ]
153. *ular* – snake [waʔβudʔ]
154. *panjang* – long [mɔtʔ] CF. 89.
155. *ular panjang* – long snake [waʔβudʔmɔtʔ]
156. *pendek* – short [pɔᵘ]
157. *tikus* – rat [kadɛʔa]
158. *penuh* (e.g., *ember* -) – full (e.g., *bucket*) --
159. *rumah* – house [aʔwi]
160. *baru* – new --
161. *rumah baru* – new house --
162. *tua* – old [kɔʔdɛ]
163. *rumah tua/lama* – old house --
164. *atap* – roof [ɔˀᵒga]
165. *di depan* – in front [ɛdɛʔmɛ]
166. *di luar* – outside [ɔᵐbatʔ]
167. *di dalam* – inside [inuʔmu]
168. *di belakang* – at the back [ɔᵐbɔʔdidʔ]
169. *kanan* – right [mɔtkaʔnɛ]
170. *kiri* – left [kɔtkaʔnɛ]
171. *dekat* – near [kɔʔrɔkʔ]
172. *far* – jauh [mɔtʔ]
173. *orang* – person [apʔ]

174. *baik* – good [bəkʰ]
175. *orang baik* – good person [apbəkʰ]
176. *jahat* – bad/evil [ma'dukʰ]
177. *laki-laki* – man [apma'dukʰ]
178. *perempuan* – woman [kʰa]
179. *suami* – husband [ɔʰɲ]
180. *isteri* – wife [a'ɣʷɛ]
181. *bapa* – father [ɔ'βa]
182. *ibu* – mother [i'ça]
183. *anak* – child [nɔʰgɔ'βɛ(?)]
184. *anak* (dari perempuan) – *child* (of female) [a'jakʰ]
185. *anak* (dari laki-laki) – *child* (of male) [a'βutʰ]
186. *saya* – I [an]
187. *kamu* – you [katʰ]
188. *kita* – we_{INC} [nitʰ]
189. *kami* – we_{EXC} (see 188).
190. *dia* – he/she/it [atʰ]
191. *mereka* – they [itʰ]
192. *siapa* – who [ta]
193. *apa* – what [na'nɔ]
194. *nama* – name [i'ndi]
195. *datang* – come [wɔ'rakʰ]
196. *jalan_V* – walk [nɔ'rakʰ]
197. *putar* – turn around --
198. *tahu* (sesuatu) – know (something) [ɛ'nukʰ]
199. *dengar* – hear, listen [kɔnɛni'akʰ]
200. *lihat* – see [kɔ'rakʰ]
201. *cari* – seek, look for [kɔ'rɔkʰ]
202. *bicara* – talk, speak [jɔri'akʰ]
203. *benar* – true [ki]
204. *bicara benar* – tell the truth [jɔriak:i]
205. *minum* – drink [nɔ'rakʰ] CF. 196.
206. *isap* (e.g., *rokok*) – smoke
207. *makan* – eat [nɔ'akʰ] CF. 205.
208. *ludah_V* – spit [wa'ridʰ]
209. *muntah* – vomit [maʔ]
210. *pukul* – hit [wari'akʰ]
211. *tikam* – stab (see 210)
212. *bunuh* – kill (see 210)
213. *mati* – die [kani'akʰ]
214. *hidup* – alive [ɛ'nikʰ]
215. *garuk* – scratch [ɔŋgʷri'akʰ] itchy [anɔ'βɔ]
216. *duduk* – sit down [kʷɛ'djɛ]
217. *berdiri* – stand up [mɛtjɛ]
218. *tidak* – no, not [dikʰ]
219. *mandi* – bathe [i'ndari'akʰ]
220. *tidak mandi* – one doesn't bathe [i'nda'rakdikʰ]
221. *jatuh* (mis., *buah*) – fall (e.g., fruit) [dukʰ] ~ [ndukʰ]
222. *berbaring* – to lie down [u'jakʰ]
223. *tidur* – sleep (see 222).
224. *mimpi* – dream [a'bi]
225. *pegang* – hold [piyani'akʰ]
226. *beri* – give [wɔɣiri'akʰ]
227. *tiup* – blow [pu] ~ [φu]
228. *bernapas* – breath [ɛ'nikʰ] CF. 214.
229. *batuk* – cough [tɔ'mgɔ]
230. *hitung* – count [ja'mbeni'akʰ]
231. *gali* – dig [ndeni'akʰ] must be preceded by a noun, e.g., *nggwen ndeniak*.
232. *takut* – afraid [i'di]
233. *malu* – shy (see 232) [nɛŋga'di]
234. *menangis* – cry [dɛi'ru]
235. *menyanyi* – sing [nda'wiwari'akʰ]
236. *main* – play [nda'puwari'akʰ]
237. *dorong* – push --
238. *tarik* – pull [nikorak] *robek* tear apart [ni'binini'akʰ]
239. *gosok* – rub (hand) [juɣuni'akʰ] *kasih hancur* grind [jiyi'akʰ]
240. *hapus* – erase [ndɔri'akʰ], [m'bedeni'akʰ]
241. *cuci* (*pakaian*) – wash (clothes) [bi'ri:ri'akʰ]

242. *jepit* – clip [ti]
 243. *lempar (batu)*– throw (stone)
 [ju'ɣumwari'akʰ]
 244. *enam* – six [nɛ'ŋgit pɛmɛ'nək a'pik
 a^mb^wi]
 245. *tujuh* – seven [nɛ'ŋgit pɛmɛ'nək a'pik
^mbɛ'rɛ]
 246. *delapan* – eight [nɛ^lgit pɛmɛ'nək a'pik
 kɛ'na]
 247. *sembilan* – nine [nɛ^lgit pɛmɛ'nək a'pik
^mbɛ,rɛ^mbɛ'rɛ]
 248. *sepuluh* – ten [nɛ^lgit pɛmɛ'nək a'pik
 nɛ^lgit pɛmɛ'nək a'pik i^mbi'rakʰ]

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