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A grammar of Paku: a language of Central Kalimantan

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Abstract

This thesis describes the phonology, morphology and syntax of Paku, a highly endangered East Barito language spoken in four villages in the southeast of Central Kalimantan province, Indonesia. It has currently about fifty speakers (conservative estimate, including semi-speakers) and since children, for a variety of reasons, no longer learn the language, it is classified as moribund. This thesis is part of a ARC-funded project *The South East Barito languages in Indonesia and Madagascar: Safeguarding their past and future* concerned with the documentation of Southeast Barito languages which Paku was thought to be a member of until the recent reclassification of languages in Borneo by Smith (2017). It is a contribution to the description of the rapidly declining linguistic diversity in Borneo and other parts of the world. In doing so, this thesis will also contribute data of Bornean languages to broader typological research.

Like many other endangered languages Paku is virtually undescribed and one of the main aims of this part of the project is the thorough documentation of Paku and the compilation of an extensive corpus of data consisting of both narratives and elicited material. This will help create a record of the language before it disappears, a fate which at this stage seems inevitable. The examples used in this thesis are taken from the recorded materials as well as field notes. The data was collected during five field trips totalling nine months conducted between July 2013 and June 2017.

Chapter one will introduce the Paku language and the people who use it. It will address the current linguistic situation and provide a brief overview of their traditions and customs. It also includes an overview of the methodology employed in both data collection and analysis and explain some of the conventions used in this thesis. Chapter two is concerned with the phonology in Paku and includes a description of the various and at times unusual phonological processes found in Paku. Chapter three describes word classes that need to be recognised in Paku while chapters four and five focus on nominal and verbal morphology respectively. They furthermore discuss the internal structure of phrases headed by nominals and verbs. Chapter six introduces prepositional phrases which can have various functions both at the phrase and clause level. Chapter seven is the beginning of the syntactic description of Paku and includes a discussion of grammatical relations and word order. It also identifies the different clause types found in the language. Chapter eight looks at question formation and chapter nine explores complex sentences. In Paku they include coordinated clauses, adverbial clauses, and complementation.

The most intriguing features of Paku are found in the phonology of the language. For instance, Paku features extensive harmony systems. Firstly, there is comprehensive nasal harmony. This in itself is not unusual in the Austronesian world, but Paku has developed a mechanism of preventing nasal spread which is almost exclusively found in languages of Borneo - nasal preplosion. Furthermore, the majority of affixes are subject to vowel harmony, a feature which sets Paku apart from other Barito languages in the area and which provides valuable insight for potential reconstruction work. Finally, Paku features nasal substitution and accretion.

Declaration of Authorship

I, Daniela Diedrich, confirm that:

(i) this thesis contains only my original work towards the PhD,

(ii) due acknowledgement has been made in the text to all other material used,

(iii) the length of this thesis, exclusive of tables, maps, references, and appendices, is under 100,000 words.

Signed:

Date:

To my dad.

Acknowledgements

Writing this thesis was possibly the most challenging thing I've ever done and finishing it one of my biggest accomplishments. And as with all big achievements, there are a number of people who were instrumental in the completion of this thesis.

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PhD life comes with many challenges. It has the potential to be isolating, it is often financially strenuous, and can be taxing on one's mental health. I would therefore like to acknowledge the LAL Postgrad Club for providing students with a platform for socialising and sharing the burden of PhD life. Many thanks also to Tim McNamara who taught our first year research workshop and who made a conscious effort to foster a community of support within the cohort. Thanks to my lab mates past and present in both the Language Documentation and Phonetics labs for countless chats and encouragement. A special shout out to Ham and Josh - your friendship is one of the most valuable things I have gained during my candidature. The School of Languages and Linguistics has many excellent people - postgraduate, academic, and professional. Thanks for the interesting chats, helpful advice, and for creating a fantastic work environment.

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List of Abbreviations

1	first person
2	second person
3	third person
ADJP	adjective phrase
ADVS	adversative
AV	actor voice
ART	article
AUX	auxiliary
C	consonant
CAUS	causative
CLF	classifier
DEF	definite/definitiser
DEM	demonstrative
DETR	detransitiviser
DIR	directional
DIST	distal
DS	different subject
DYN	dynamic
EMP	emphatic particle
EXCL	exclusive
EXIST	existential marker
HORT	hortative particle
HYP	hypothetical
INCL	inclusive
INDF	indefinite
INTR	intransitive/intransitiviser
INTS	intensifier
IPA	International Phonetic Alphabet
LE	linking element
LOC	locative
MED	medial
NEG	negator
NOMZ	nominaliser
NP	noun phrase
NVOL	non-volitional
ORD	ordinal
PART	particle
PASS	passive
PERS	personal
PL	plural
PMP	Proto-Malayo-Polynesian
POT	potentive
PP	prepositional phrase
PROG	progressive
PROH	prohibitive
PROX	proximal
PSA	Privileged Syntactic Argument
Q	question word/particle
REC	reciprocal
RED	reduplicant
REFL	reflexive
REL	relativiser
RES	resultative
RRG	Role and Reference Grammar
SG	singular
SS	same subject
STA	stative
SUP	superlative
S-LIKE	sentence-like
TAG	question tag
TR	transitive/transitiviser
UV	undergoer voice
V	vowel
VERB	verbaliser (morpheme deriving verbs)

Chapter 1

Introduction

Paku is a critically endangered East Barito language spoken by about fifty speakers in the East Barito regency of Central Kalimantan, Indonesia. With the exception of a few minor publications Paku is virtually undescribed.

Indonesia is a country with a high number of endangered and un- or underdocumented languages. The world's largest archipelago nation, it is marked by high linguistic diversity with over 700 languages (Holton 2011; Simons and Fennig 2018)[1]. However most of them are endangered and gradually being replaced by major languages (e.g. Indonesian) through education and the media. In fact, eastern Indonesian languages are among the most endangered in the Austronesian region (Florey 2005:52) and possibly as few as five percent have been the subject of modern linguistic documentation (Florey and Himmelmann 2010:123). Although the amount of documentation work[2] in Indonesia has increased significantly during the last decade, a region still receiving little attention from (descriptive) linguists is Kalimantan, the Indonesian section of Borneo.

Borneo is known for its linguistic, cultural and ethnic diversity (Adelaar 2010). It is an equatorial island located between Java to the south, Sumatra to the west, the Malay peninsula to the northwest, the Philippines to the north, and Sulawesi (previously known as Celebes) to the east. Being one of the largest islands in the world, it covers a landmass of almost 750,000 square kilometres and is home to approximately 20 million people[3]. Borneo is politically divided between three countries. The northern states of Sarawak and Sabah (formerly known as [British] North Borneo) are part of Malaysia. The Islamic sultanate of Brunei Darussalam lies in the north of Borneo. Apart from its coastline with the South China Sea it is completely surrounded by the Malaysian state of Sarawak. Finally, by far the largest part of the island constitutes Kalimantan (sometimes also referred to as Indonesian Borneo) and covers about two thirds of Borneo (roughly 544,150 square kilometres). It contains the five provinces West Kalimantan (Kalimantan Barat), Central Kalimantan (Kalimantan Tengah), North Kalimantan (Kalimantan Utara), East Kalimantan (Kalimantan Timur), and South Kalimantan (Kalimantan Selatan). While Kalimantan makes up about 28 percent of Indonesia's landmass, its population density is comparatively low. In 2010 the population in Java was 129 million while Kalimantan, which is four times the size of Java, only has about 14 million inhabitants. In fact, according to Brown (2009) Kalimantan is among the most sparsely populated regions in the world. This can be attributed to its generally harsh geographical conditions with dense primary and secondary forests, swamps, giant rivers running across the

1. Indonesia also has the highest concentration of Austronesian languages in the world (Adelaar 2010:23).
2. Documentation work here is defined as the collection of a large corpus of recordings, transcriptions and annotations (Florey and Himmelmann 2010:123).
3. Combined census data from Malaysia (2010), Indonesia (2010) and Brunei (2011).

entire island, and mountain ranges making travel difficult. The climate in Borneo is tropical with temperatures between 27 and 32 degrees Celsius all year round, 70 - 90 percent humidity, and an average annual rainfall of 3,810 mm (Brown 2009). There are two seasons: dry season from about May to October and wet season from November to April. During wet season, there are many floods and travelling between villages without paved roads is only possible during certain hours of the day.

Traditionally there are three distinct ethnic groups in Borneo: the Malay, the Chinese, and the Dayak[4]. The Dayak are the indigenous population of Borneo. They mostly inhabit the interior of the island. However, some ethnic groups, such as the Iban, are also found near the coast. There is great diversity among the Dayak with each of the ethnic groups having their own distinct cultural practices, religious convictions, and different languages. The Malay were among the earliest migrants to Borneo and predominantly settled along the coast. The term 'Malay' in this context is not necessarily to be understood as referring to the Malays as an ethnic group, but is instead often used as a cover-term referring to the Muslim population of Borneo (Hudson 1967). Whatever their various ethnic backgrounds, over the past centuries, the Malay remain at least culturally and religiously distinct from the Dayak. The Chinese have been more recent migrants. They came as traders and, like the Malay, settled mainly along the coast (Adelaar 1995). Nowadays there are numerous other ethnicities in Borneo such as Filipinos, Buginese, Javanese, and Madurese. The Filipinos have a particularly strong presence in Sabah whereas the Buginese are mostly found along the coast of East Kalimantan. The majority of the Javanese population settled in Kalimantan as the result of the Indonesian transmigration program which aims at the relocation of mainly poor farmers from the crowded islands of the archipelago to less crowded areas (Fearnside 1997; Hoey 2003). The Madurese came to Kalimantan mostly of their own accord.

In 2009 the Indonesian government, under the then president Susilo Bambang Yudhoyono, adopted Law Nr. 24 on the National Flag, Language, Emblem and Anthem which, among other things, states that Indonesian is the national language of Indonesia and is therefore to be used in all official documents, in education and in all public work places. The law even applies to place names, names of buildings, streets, et cetera. This strengthening of Indonesian as the uniting language of the country (which admittedly started well before the introduction of Law Nr. 24) is one of the causes of the loss of many domains for local languages and their presence in the public sphere.

The remainder of this introductory chapter looks at aspects of this endangered culture in more detail and examines some of the issues and mechanisms leading to the rapid progression of language loss faced by not only the Paku and other Dayak tribes but also hundreds of other small minority communities across Indonesia. 1.1 introduces the Paku language and its vitality whereas 1.2 discusses Paku's genetic affiliations within the Barito group. 1.3 looks at the people who use the language, their history, their environment, and some of the factors which led to their language shift. 1.4 reviews existing literature on the Paku and neighbouring languages. Section 1.5 discusses the methodology for data collection and introduces the fieldsite. 1.5 also introduces the theoretical framework used for data analysis, discusses the nature of the corpus, and explains the conventions used for the presentation of examples in this thesis. 1.6 is an overview of Paku's most striking and typologically interesting grammatical features which are discussed more thoroughly in subsequent chapters.

4. In older literature sometimes spelled 'Dajak', 'Djak', or 'Dyak'.

1.1 The Paku language

Paku is spoken by about fifty[5] people in Tampa, Tarinsing, Bantei Napu, and Kalamus, four villages in the *kabupaten* Barito Timur (East Barito regency) of Central Kalimantan (Figure 1.1). With 1130 inhabitants (Census 2010) Tampa is the largest of these villages and is furthermore the seat of the *kecamatan* Paku (Paku district). The *kecamatan* Paku is the governmental unit covering all original Paku villages which, in addition to Bantei Napu, Kalamus, Tampa, and Tarinsing, consists of the villages Gandrung, Kupang Baru, Luau Jawuk, Paku Beto, Pangkan, Patung, Runggu Raya, and Simpang Bingkuang. It is located near the border of Central and South Kalimantan. Travelling by car it is about five hours from Palangkaraya, the provincial capital of Central Kalimantan, and seven hours from Banjarmasin, the provincial capital of South Kalimantan.



FIGURE 1.1: East Barito regency in Central Kalimantan

As is customary among Dayak tribes, the name Paku, which is used for both the language and the people, is originally the name of the main local river and is used both by outsiders and the Paku people themselves. The river Paku, which is fairly small by Kalimantan standards, runs through all the original Paku villages and used to play an important role in peoples' everyday lives. Kalimantan is known for having an abundant number of rivers so instead of building roads through the dense forest, people used to travel by longboat. Even though it is no longer the main mode of travel[6], the boats are still in use.

The majority of fluent speakers is found in Bantei Napu and Tarinsing. Kalamus was one of the original Paku villages, but only a small number of speakers remains there. Another of the original Paku villages is Paku Beto but unfortunately the language is no longer spoken there and the majority of inhabitants identify as Maanyan. Children are not actively learning Paku anymore, a tendency which led to its classification as moribund with speaker numbers declining rapidly. According to information obtained from the head of the *kecamatan* Paku, the *camat*, there are about

5. This number differs significantly from the 3500 Paku speakers listed by the Ethnologue.
6. Most people own scooters or motorbikes these days.

one hundred speakers of Paku in the area plus a small number who have moved away. However, upon visiting the Paku villages it becomes clear that this number is unrealistic. According to the speakers, their children do have passive competence in the language but because their friends at school do not speak Paku, they want to learn and use Maanyan instead. The older speakers often complain about their children's (or in some cases grandchildren's) lack of interest in their heritage language and culture, and one mother even reported that her children were refusing to learn the language because it sounds 'weird' and the other kids at school would make fun of them if they used it. This is a tendency that can be observed all over the island with many Dayak languages being considered 'backwards', especially by speakers of Malay varieties. This obvious lack of status might indeed be a major factor in the decline of speakers of endangered Dayak languages. Santoso et al. (1989) attribute the language loss for Paku to the trading of forest products with neighbouring (and more dominant) ethnic groups. In these interactions either Maanyan or Banjarese is used. Unfortunately the authors fail to explain how this domain loss extended to the local and eventually the family domain.

The factors involved in language shift observed in the Paku community are similar to those described in other endangered language scenarios (e.g. Florey 2005; Grenoble 2011; Coluzzi 2010). The main forces driving the linguistic changes are attitudinal and have been described above. However, examining what caused people to have that kind of view of their own heritage, it is obvious that the situation is more complex and the factors intertwined. They include political and socio-economic factors all of which serve to reinforce the idea that local languages are 'backwards' and 'useless'. On a political level, for example, despite having their own *kecamatan* by name, no Paku are actually represented in the local government and according to the *camat* and his employees, the working languages are Maanyan and Indonesian. Therefore, it is should not come as a surprise that Paku has no recognition as a native language of the area, and people who do know about the language, are often referring to it as Paku Maanyan, creating the impression that it is a dialect of Maanyan rather than a language in its own right. It is impossible to discuss the impact of politically driven changes without considering the effect of national policies such as the previously mentioned Law nr. 24, which reduce the natural domains and prestige of local languages.

The natural resources of Kalimantan attract many large companies such as for instance mining, logging, and plantation companies which tend to bring in managerial staff from other parts of Indonesia and use locals only as labourers. As a result economic power in East Barito often lies with non-Dayak people. With increased economic development in the region improvement of infrastructure followed. This includes better roads, built to transport resources from the interior of the island to the coast, and better access to the internet and education, a need which resulted from increased migration both from within Kalimantan and from other islands. Despite these modernisation efforts, finding work outside of the labour sector remains a difficult undertaking for the young Paku. Their parents' agriculture-based lifestyle is no longer sustainable and given the perceived hardship and isolation in the Paku villages, the young frequently choose to move to more urban settings in order to find better work or pursue higher education. Slowly, the living conditions in the villages are improving and all villages have access to electricity[7].

With these power structures in place it is hardly surprising that the perception of small minority languages such as Paku is overall negative and that their prestige is declining. The high rate of intermarriage also facilitates the abandonment of the minority language in favour of the more

7. That of course does not mean that all villagers can afford to have their homes connected to the grid.

dominant local language Maanyan and in some cases Banjarese. Unfortunately, in such scenarios parents believe that they are thereby improving their children's prospects in life when in fact they inadvertently underline the 'unimportance' of their own heritage language. While modernisation efforts in East Barito certainly are not all negative, the traditional isolation of its speakers was vital to the survival of Paku.

1.2 Genetic affiliations

Based on the initial classification of the languages of Borneo by Hudson (1967) Paku was for a long time viewed as belonging to the Southeast Barito language group together with Maanyan, Malagasy, Dusun Malang, Dusun Witu, and Samihim. These Southeast Barito languages were considered to be closely related. This was confirmed by the Ethnologue[8] (Simons and Fennig 2018) which posited a lexical similarity between Paku and Maanyan at 77 percent and between Paku and Dusun Witu at 73 percent. Hudson's classification[9] can be seen in Figure 1.2.

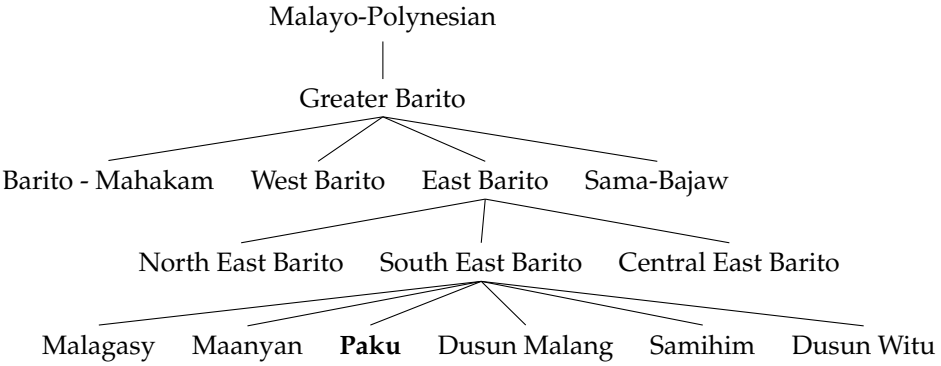


FIGURE 1.2: The Southeast Barito language group based on Hudson (1967)

The classification of Bornean languages has recently been updated (Smith 2017). In this new classification Paku has been placed in the Central-East Barito group together with Dusun Malang, Dusun Bayang[10], and Samihim. Maanyan, Malagasy and Dusun Witu remain members of the Southeast Barito branch. Smith also reclassified the Greater Barito node, which in his analysis connects the Southeast Barito and Central-East Barito subgroups, to be a linkage rather than a traditional subgroup. The difference between the two is that in a subgroup languages exclusively share phonological innovations inherited from a single proto-language whereas in a linkage languages are closer related to each other than any other language outside of the linkage but they cannot be grouped together by exclusively shared phonological innovations. Smith's classification of Barito languages is shown in Figure 1.3. Due to the frequent reference to Maanyan, Figure 1.3 not only shows the Central-East Barito language subgroup but also includes the Southeast Barito languages.

8. A comprehensive reference system organised by SIL International cataloguing information about all known languages.
9. For the present analysis, a Greater Barito group was added to Hudson's analysis which is based on the classification by the *Ethnologue*
10. More frequently referred to as Dusun Bayan.

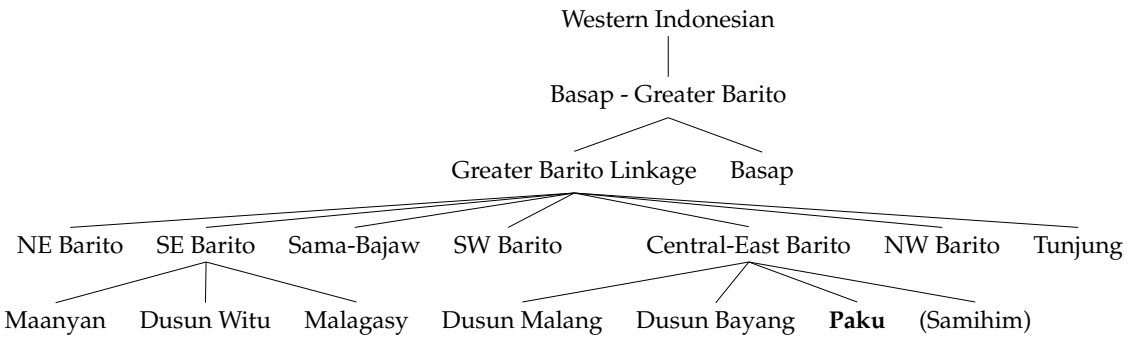


FIGURE 1.3: The Central-East and Southeast Barito subgroups based on Smith (2017)

Apart from the fact that Paku and Maanyan are no longer in the same subgroup, another major difference between Hudson's and Smith's classifications is that Smith also separates Samihim from Maanyan and places it in the Central-East Barito group with Paku. Some older publications (e.g. Dahl 1951) also view Samihim as a separate language from Maanyan. However, according to Adelaar (personal communication) Samihim is a closely related dialect of Maanyan.

Since a comparative study is not within the scope of this thesis, Paku will be referred to as an East Barito language. East Barito will be used as a cover-term for Southeast, Central-East, Southwest, and Northeast Barito groups. This is done with the aim to avoid taking a position with regard to the exact placement of Paku within the language group. Moreover, using this term acknowledges the high lexical and structural similarities between Paku and Maanyan while at the same time recognising the updated classification.

The possibly most prominent relative of Paku is Malagasy, spoken in Madagascar. Dahl's (1951) finding that the Malagasy have originated in the area around the Barito basin and the established link between their language and the Barito languages still spoken in the area is proof of one of the greatest migrations in history (Adelaar 1995) and has been subject to extensive study. It has also been referred to as one of the greatest achievements in Bornean linguistics (Blust 2013:64).

Within the Central-East Barito group, Paku is the only language considered moribund. Data on Dusun Malang, Dusun Bayang, and Samihim is limited[11] but based on speaker reports, speaker numbers for these languages are declining rapidly. Within the Southeast Barito group Malagasy and Maanyan are still vital whereas Dusun Witu is classified as having around 5000 speakers by the Ethnologue.

1.3 The Paku people

The Paku are a small Dayak tribe in the east of Central Kalimantan. Traditionally they have lived fairly isolated from other Dayak tribes in the forest interior which in the past has ensured the survival of their language and culture. For a variety of reasons discussed at the beginning of this chapter, their linguistic and cultural heritage is now severely threatened. Unlike many other Dayak tribes, they never lived in longhouses and they never participated in the practice of head-hunting. Instead they lived in small huts in village communities and in order to make a living the Paku gathered and traded forest products while also cultivating rice and other crops. It was

11. The Ethnologue lists an estimated 4,500 speakers for Dusun Malang.

common practice that a number of families would take care of a rice field collectively and then share the harvest which would not only spread the hard labour more evenly but would also help to foster strong bonds within the community. East Barito is furthermore known for having an abundance of tropical fruit and the soil allows for the cultivation of various vegetables which would either be consumed by the family or sold at the local market. Each Paku family grows rubber on their land and twice a day they will go and tap their trees. The dried rubber is then collected by a middle man at the local market. In more recent years, selling rubber has become the primary source of income for the majority of Paku families. With the global rubber price plummeting (due to synthetic rubber) and regional large-scale development programs, they now find themselves in a position in which this source of income is no longer sustainable. Although some Paku still grow vegetables and maintain orchards, this is done within the nuclear family only and the custom of collective food cultivation has mostly vanished. While the Paku continue to grow and sell rubber, they now increasingly rely on selling their labour to supplement their income and purchase all the goods needed for their daily lives.

The social structure in the Paku tribe is relatively even with only two positions of authority. The village chief (*pamakal*) holds the political power in the village. As is common in Dayak tribes, the Paku live according to their *adat*, customary tribal law which regulates all aspects of life based on how things are done traditionally. The adat keeper is not only the preserver of knowledge of traditions and customs, but he is also responsible for passing down the history of his people. As the authority on Paku *adat*, he often acts as a judge, mediating conflicts brought before him based on customary law. His decisions are accepted by the community.

The Paku have traditionally followed a bilateral descent system in which one's lineage is traced through both the paternal and maternal descent groups. Even though many Paku nowadays choose to follow a more conservative family model with the man working and the woman staying at home to raise the children and take care of the household, equal respect is shown to men and women. Although the village chiefs and adat keepers have traditionally been men, women are often actively participating in discussions and decision making. Age is more important than gender in terms of social hierarchy and despite not having any nominal authority, in practice a lot of weight is given to older members' opinions.

A household typically consists of two generations as unmarried children stay in with their families until they move out to form their own family. They tend to get married fairly early on, around the age of twenty, and start having children shortly after. Older community members are looked after by their children once they are unable to support themselves. This model was possible because the children typically stayed in their home village.

In Kalimantan, as in other parts of Indonesia, being overly frank and direct is considered impolite and there is certainly a certain degree of face-saving culture observable. As part of this avoidance culture, the Paku do not use a person's given name when addressing them or talking about them once they have reached adulthood. Furthermore, the second person singular pronoun *iko'* 'you' is avoided. Most often, people use teknonyms to refer to and address each other. Teknonymy is the practice by which a parent is referred to as the mother or the father of the first-born child. Once the child has been named, for example Nita, the parents will henceforth be called *Ine' Nita* 'mother of Nita' and *Uma' Nita* 'father of Nita'. In this tradition, the child's gender is irrelevant. This practice is so common that sometimes people, even if they have known each other for a long time, do not know each others given names. Once people become a grandparent, they get a new

teknonym, namely that of *itak* 'grandmother' or *kakah* 'grandfather' plus name of first-born grandchild. Hudson (1972) notes that for the Paju Epat, a Maanyan subdivision, a person's name and status in the community changes throughout their life. This change of status is strongly bound to the person's family situation and expressed through the use of teknonyms. Many parallels can be drawn with the Paku community and both the Paju Epat and the Paku traditionally progress to a new stage in life once a new generation is born, i.e. a person goes from being a child to being a parent with more responsibility and rights to being a grandparent and an elder whose opinions carry a lot of weight. These stages are reflected in the system of terms of address.

Another way of addressing someone, which is typically used when the person's teknonym is unknown to the speaker, involves the use of a kinship term. The particular term a speaker chooses is usually governed by the addressee's age. In this context kinship terms are used regardless of whether the addressee is genealogically related to the speaker or not. Table 1.1 shows a list of recorded terms of address and their appropriate usage.

Term of address	**Basic meaning**	**Used for**
ine'	'mother'	Women who are old enough to already have children. Also used as a generic term of address for women.
uma'	'father'	Men who are old enough to already have children. Also used as a generic term of address for men.
mena	'aunt'	Women of mother's age who are close to the nuclear family
mama'	'uncle'	Men of father's age who are close to the nuclear family
itak	'grandmother'	Women of grandparents' generation.
kakah	'grandfather'	Men of grandparents' generation.
adi'	'younger sibling'	Someone in one's own age group who is younger.
tata	'older sibling'	Someone in one's own age group who is older. Also frequently used for young adults who are not yet married.
uma'ine'	'ladies and gentlemen'	A crowd of elders and less familiar people.
pulot senai	'siblings'	A crowd of peers, more informal and communal than uma'ine'.

TABLE 1.1: Paku terms of address

The kinship terms *uma'ine'* and *pulot senai* are used when addressing crowds for example at a village gathering. The former is perceived as slightly more formal than the latter, which is reflected in the translation. The terms *mena* 'aunt' and *mama'* 'uncle' are often used when the addressee is one's actual kin and typically by children.

Most Paku are able to speak at least four languages: Paku, Maanyan, Banjarese, and Indonesian. Maanyan is the lingua franca in East Barito. Many merchants at the local markets are from

Banjarmasin which makes it essential for local people to know Banjarese. Indonesian is the language of education and the media. Furthermore, it is the language used to communicate with migrants from other Indonesian islands. Depending on their spouse's origin, people may speak a fifth language, often Ngaju[12], a Southwest Barito language spoken in and around Palangkaraya. Paku is exclusively used within the village and even then mostly between older speakers. Given the mixed nature of the villages today, the default language is Maanyan. The high rates of intermarriage also mean that these days, Maanyan is typically used at home. Only speaker Hakel exclusively uses Paku at home with her husband.

Unfortunately, there are no bilingual programs in local schools and education is delivered in Indonesian. No local languages are taught as part of the curriculum.

Like in most regions in Indonesia, religion plays a central role in people's everyday lives. Although Indonesia has the world's largest Muslim population, most Dayak are either Protestant or Catholic. Some practice Kaharingan, a formalised form of the animist beliefs of Barito Dayaks in the past. The Paku are no exception. They are close to their land and traditionally they practised an animistic religion which consists of ancestor worshipping among others. The Dayak continue to incorporate elements from their original faith into their official religion and while they do practice their Christian faith, Paku and other Dayak on occasion believe it to be beneficial to sacrifice food to the ghosts. This is done in order to secure the approval of the potentially malicious ghosts of their ancestors and to keep nature in balance. The sacrifice is traditionally performed by a *welian*, a female shaman. Linguistically these *Kaharingan* rituals, as they are called today, are interesting in that the *welian* use a ritual language called *Pangunraun* which is passed on from a *welian* to her apprentice and not normally revealed to outsiders.

Since Indonesian independence the Dayak have faced a number of difficulties, which are having a direct and irrevocable impact on the local population, including the Paku. These issues continue to interfere with their traditional way of life. They are multifaceted but always involve fundamental changes to the Dayak's natural environment due to the extraction of natural resources on the island. The most sought after resources in Central Kalimantan are coal, timber, gold, oil, natural gas, and land for palm oil plantations. Over the last few decades this attracted many companies from different industries both from within Indonesia (predominantly Java) and overseas. In East Barito and the surrounding *kabupaten*, coal mines and oil palm plantations are particularly prominent.

For the people of Kalimantan, including the Paku, this development at least partially contributed to the slow but progressive loss of their traditional land. As was mentioned previously, these days the villagers struggle to live off the rubber sales profit alone and are now increasingly looking for additional employment to supplement their income[13]. In remote areas of Kalimantan, employment opportunities are rare and often the only non-governmental employers are plantations and mines. Some farmers also opt to sell their land to the plantation owners which is then subsequently burned to make room for the palms. In some cases farmers are not even compensated for the destruction of their land or loss of livelihoods. This is frequently the case when villagers do not officially own their land but have traditionally used it under customary law.

12. Also known as Kapuas.
13. In terms of employment, the Paku and other Dayak in East Barito mostly work on plantations. For a case study of the impact of mining on the local population in the north of Central Kalimantan, the reader is referred to Morgan Harrington's 2014 PhD thesis.

The decrease in income of the locals in the Paku villages and the ensuing diminished spending capacity has led to local vendors refusing to come to the village markets. This has resulted in very limited food supply for all those who do not grow their own food and especially older villagers are now dependent on others who have the means to get food and other commodities from larger towns.

Some activists in the area are now trying to educate the farmers on how to make a more sustainable living using their land and to show viable alternatives to selling. For instance, they could begin to cultivate orchards and grow vegetables. That way they would not have to purchase these goods and they could sell the surplus on markets, thereby creating a stable source of income in addition to rubber. Furthermore, the following generations will still have land which could potentially encourage some of them to stay in their villages.

At this point in time, the Paku are divided in their opinion on the plantations and mines. Many of them are unhappy about how the companies are exploiting them and their land with none of the profits from the local resources staying or being invested on the island. With the prospect of economic growth, local governments readily hand out permissions to clear local forest and in this process the needs of the local population, especially small tribes like the Paku, are often overlooked. While many of the Paku seek employment on the plantations and mines, not only as labourers but also as teachers and nurses, higher positions are filled by 'imported' people from other parts of Indonesia, reducing local people's involvement to cheap labour.

The developments described in the previous sections did not go unnoticed by the Paku elders. They are very much aware that their language and culture are disappearing. Therefore, the Paku have expressed the wish to preserve their heritage for future generations and are keen to have their language documented.

1.4 Existing literature

Compared to other parts of Indonesia, or even other parts of Borneo, little research has been conducted on the Dayak of Kalimantan, especially Central Kalimantan. Much of the literature that is available deals with either anthropological aspects of individual ethnic groups and their religious practices. The Borneo Research Council regularly publishes research findings from various academic fields concerned with the island. This includes publications on various aspects of Dayak languages.

There are only two publications dealing exclusively with the Paku and their language; in 1989 Santoso et al. published a phonological description and more recently Iper et al. (2002) wrote a monograph about the grammatical structure of the language. They were published under the umbrella of the *Badan Pengembangan dan Pembinaan Bahasa* (Language Development and Fostering Agency, BPPB). The BPPB is normally concerned with the standardisation and regulation of the Indonesian language but also publishes descriptions of local languages all over the country. However, the authors are typically not trained linguists, and both publications on Paku include some analytical flaws such as not distinguishing between phones and phonemes or between native words and loan words. Moreover, both publications are in Indonesian and therefore largely inaccessible to a broader academic audience. However, these materials offer a good introduction to the language, its vitality and use. Paku is mentioned in a few other publications, but almost

exclusively in the context of listing the members of the Southeast Barito group. Grammatical features of the language are not discussed.

In addition, there are a number of relevant publications dealing with related languages and with the broader linguistic situation in Borneo. In 1958 Cense and Uhlenbeck published a survey of linguistic work in Borneo in which they note that among the four large islands of Indonesia (Java, Sumatra, Sulawesi and Borneo) Borneo is the one whose languages have been studied the least, which is partly due to the fact that many indigenous languages in Borneo are spoken in remote, interior regions (Blust 2013). The Cense and Uhlenbeck survey has been surpassed by Blust and Smith (2014) who present the most up-to-date bibliography of the languages of Borneo. They explain that since Cense and Uhlenbeck compiled their survey, the field of Bornean linguistics has grown dramatically which created the need for not only an updated version of Cense and Uhlenbeck (1958) but also one that is more selective with regard to the publications included in the bibliography. Estimates as to how many distinct languages are spoken in Borneo vary which is mainly due to difficulties in determining a reliable language/dialect distinction, especially in dialect chaining situations (Blust and Smith 2014). In some cases different names have been used to refer to the same language community, e.g. by the speakers themselves, by neighbours or by strangers which in turn might have caused confusion as to the actual number of distinct languages (Cense and Uhlenbeck 1958).

A relevant publication with regard to Paku is Hudson's (1967) classification of the Barito languages. He subsequently expanded his classification to include all languages of Borneo (Hudson 1978). This classification was initially revised by Blust (2010) which was then surpassed by Smith (2017).

In his comprehensive book about the Austronesian languages Blust (2013) includes a brief introduction to the languages of Borneo. He lists both the ten most and the ten least spoken languages on the island. Paku does not occur on either of those lists, but Maanyan is listed as the ninth most spoken language in Borneo. The most widely spoken language in Borneo is Banjarese which is not surprising given that Banjarmasin is located by the sea and has been a centre of trade for centuries. In addition, Banjarese is used as a lingua franca in markets in South and Central Kalimantan. Blust argues that the enduring commercial contact between the Maanyan and Banjarmasin might have contributed to the growth of Maanyan making it one of the largest languages on the island. He also discusses Malagasy, Paku's most well-described relative, which is described as being structurally similar to the Philippine-type languages found in the Philippines, North Sulawesi and North Borneo. This is evidence that Malagasy has preserved an earlier stage of the Barito languages and that the simplified morphosyntax of the other languages in the East Barito group is due to contact with Malay (Adelaar 2006).

With regard to Maanyan, the Lingua Franca in East Barito and Paku's close relative, there are an article (1912) and a sketch grammar (1913) in German by Sundermann, a missionary stationed both in Tamiang Layang and among the Paku in Paku Beto. He was the only missionary at the time to recognise the Paku as being a distinct ethnic group. There is also a newer grammar by Gudai (1985) and a comparative study by Dahl (1951) which examines the relationship between Maanyan and Malagasy. Moreover, Mage (2006) wrote about *Pangunraun*, the ritual language used by shamans in both Maanyan and Paku rituals, and its use in wedding negotiations. There are efforts within the Maanyan community to produce a dictionary of the language. However, the preliminary version was self-published and hence not available to the public. Another dictionary was produced in Palangkaraya by Rubay et al. (1997).

To my knowledge, there are no publications available for Dusun Witu, Dusun Malang, Dusun Bayan, and Samihim. However, Tjia is currently collecting data on Dusun Malang and Dusun Bayan (some materials with annotations are already available in the PARADISEC catalog under the URL http://catalog.paradisec.org.au/collections/JT1) whereas Adelaar has recently collected texts in Maanyan, Dusun Witu, and Samihim.

1.5 About this thesis

This thesis is part of the ARC-funded project *The South East Barito languages in Indonesia and Madagascar: Safeguarding their past and future* (ID Nr. 120100390) led by Alexander Adelaar. The objectives of this thesis are threefold: Firstly, it will result in a grammatical description of a moribund language which will secure a record of the language for future generations. This is a rather urgent undertaking as there are only few fluent native speakers left and no sound record of the language has been produced until now. Secondly, it will also contribute to the understanding of Southeast Barito languages more generally and facilitate comparative studies. Thirdly, it will contribute to typological research more broadly by providing a descriptive study of a previously undescribed language.

The emphasis is on describing Paku as it is used and spoken today. Paku speakers these days have varying degrees of Maanyan influence in their speech and differ in terms of their competence of their native tongue. Some Paku prefer a 'purer' version of their language and put emphasis on distinguishing their language from Maanyan. Others are less concerned about this and will frequently use forms found in Maanyan. Due to the high lexical similarity between Paku and Maanyan, it is at times difficult to tell whether a speaker is code-switching or if the forms are simply identical in both languages. Given that this thesis is not a historical study, the question of which form is native and which one is borrowed is of less relevance and all utterances of native speakers will be included in the data and used for analysis. Wherever possible and/or relevant, the original Paku form will be provided.

1.5.1 Methodology

The grammatical analysis presented here is based on data collected during five field trips to the East Barito regency. The first one was a preliminary three-week visit to the field site in July 2013. The aim of this trip was to familiarise myself with the area and the people, to find speakers who would work with me, and to collect preliminary data on the language. I was able to make a few recordings which included both elicited materials and natural speech (e.g. dialogues and narratives) as well as a history of the Paku people narrated by the *adat* keeper Iterman, who would subsequently become one of the main informants in this project. I was also introduced to the *camat* of the Paku district (not himself a Paku speaker) as well as prominent members of the Paku community and village chiefs. The four subsequent trips were two months each in duration and were undertaken June - August 2014, December 2014 - February 2015, July - September 2015, and May - June 2017.

All recordings are archived with the Pacific and Regional Archive for Digital Sources in Endangered Cultures (PARADISEC) and made accessible to members of the Paku community as well as fellow researchers (http://catalog.paradisec.org.au/collections/DD2). They were recorded at

96kHz sample rate and 24bit audio in wav format using a Zoom H4n recorder during the initial field trip in 2013 and subsequently a Zoom H6 recorder with external Lavalier microphones.

In order to create a comprehensive review of previous literature, part of the research conducted for this thesis was archival research. Early missionaries were often active in describing local languages to then facilitate the translation of the Bible into that language. For that reason, I spent a week at the archive of the Basel mission in Basel, Switzerland and a week and a half in the archives of the *Vereinigte Evangelische Mission* (United Evangelical Mission), the successor organisation of the *Rheinische Missionsgesellschaft* (RMG, Rhenish Missionary Society), in Wuppertal, Germany. The work in these archives involved going through correspondence between the missionaries in Central Kalimantan and their home mission, entries in annual publications as well as personal documents and writings of the missionaries and their families. Despite there being a large number of documents, the Paku were only mentioned in passing a couple of times and the missionaries mostly reported about the Maanyan and their traditions. Considering that one of the missions was in Beto, this provides evidence that the missionaries even back then did not recognise the Paku as a tribe separate from the Maanyan. I furthermore spent a week at the University of Leiden in the Netherlands working in the special collections section of their library which houses the *Koninklijk Instituut voor Taal-, Land- en Volkenkunde* (KITLV, Royal Netherlands Institute of Southeast Asian and Caribbean Studies) heritage collection which was moved to the university in 2014. This collection is the largest collection of written documents both on and from Indonesia based outside of Indonesia itself and contains a variety of media ranging from manuscripts and books to picture postcards and prints to maps and atlases. Again, the aim of this research trip was to find early documentation work relating to any aspect of culture and language of the Paku or other tribes in the region.

1.5.2 The fieldsite and fieldwork

Getting to the fieldsite can take several days depending on the place of origin of the journey. The first step is getting to the Indonesian capital Jakarta. Afterwards, there are a couple of flights into the provincial capital of Central Kalimantan, Palangkaraya. However, it is usually not possible to book a connecting flight for the same day so a night in Jakarta is required. After arriving in Palangkaraya, one needs to make arrangements for further travel into the interior of the island. The best way to get there is either by bus or by *travel* (collective taxi) and it takes around five to six hours to get to Ampah, which is the closest town to the Paku villages. It is also possible to fly into Banjarmasin and then take a bus or *travel* into the interior. This takes slightly longer (between seven to eight hours) but the buses and travels leave more frequently.

During the initial trip I was mostly staying at the Catholic complex in Ampah which is headed by Pastor Garin, a Maanyan priest. The complex was founded by a German missionary, Hermann Stahlhacke, who introduced me to the Paku members of his congregation. One of the people Pastor Hermann introduced me to was Fernandez Dominikus whose spouse is a Paku and who has a keen interest in the preservation of the local Dayak languages and cultures despite being from Flores himself. Being a well-respected community member, Fernandez was instrumental in participant recruitment and gaining trust and acceptance among the Paku. He introduced me to numerous Paku speakers, heads of villages and even the head of the *camat* of the *kecamatan* Paku. The authorities were provided with a plain language statement and were supportive of the research project.

The fieldwork was sometimes challenging and it took some time to get used to local climate, diet, and customs. Despite being friendly and welcoming people, it was at times difficult to get speakers to commit to recording sessions which naturally impacted data collection. In addition, some of the villages I needed to visit are quite remote and transportation was initially hard to organise since it required that someone not only drive me one hour to the village but also stay there and then drive me back. During my third trip, Pastor Garin helped me buy a scooter which subsequently helped increase the time I was able to spend with the Paku in their villages. During certain periods of the year, nature made it hard to reach the villages. Especially after heavy rainfall, the muddy unpaved roads would make it impossible to get to Tarinsing and Bantai Napu and the villagers would be unable to leave their villages.

During the third field trip I had established good relationships with the speakers and was initiated into the community which meant being adopted by three Paku families; Fernandez' family in Tampa, Iterman's family in Bantei Napu, and Ilun's family in Tarinsing. This provided me with greater access to the community which among other things meant that I was able to spend more time in the villages and stay with my new families in their homes. This naturally provided me with additional insights into their family interactions. Given that from that point onwards I was a member of the family and therefore had family relations with most of the villagers, everyone felt more comfortable around me which meant that I was able to collect more spontaneous data and get a better understanding of the Paku's way of life and their current use of their language.

1.5.3 Theoretical approach

Finding a suitable theoretical framework for linguistic description can be a difficult task. Most linguists these days agree that a language should be described in its own right and without imposing a preconceived formal framework on it. As Haspelmath (2008) points out, it is important to overcome any potential bias one might have from other, perhaps more prestigious, languages (the linguist's own native language or a Lingua Franca) or certain theoretical research traditions (i.e. theoretical frameworks).

However, as Dryer (2006) points out, it is important to distinguish between descriptive and explanatory frameworks. While the former contain theories about what language is like and what tools are needed to describe them accurately, the latter are concerned with why languages are the way they are. He explains that there is always an underlying assumption of what tools are needed for descriptive work and that therefore an atheoretical grammar is conceptually not possible.

With this in mind the grammar writer needs to "balance a respect for the distinctive genius of the language with an awareness of how other languages work" (Evans and Dench 2006:1). Taking of all these reasonable approaches into account, this grammatical description was written largely (formal) theory-neutral and can be best described as following a 'Basic Linguistic Theory' approach to linguistic description (Dixon 1997). The primary aim of this thesis is to describe and present both form and function of Paku as it is spoken today in a precise and salient manner. This is particularly important since at this point it is at times hard to tell how much of what the speakers say is 'original' Paku and how much Maanyan has already penetrated the language as a result of prolonged influence. Even the speakers often do not agree on this point. This decision is neither relevant for this thesis nor possible based on the data currently available. It is important to keep this in mind when reading this grammatical description of Paku.

However, in some areas of the grammar theoretical considerations have weighed in on the analysis and typological research was considered as evidence. One very obvious example for this is terminology. With the goal of comprehensibility in mind, traditional Austronesian terminology is used unless otherwise specified. Although some others over the last four or so decades the notion of subjects in Austronesian languages can be problematic (e.g. Schachter 1977; Kroeger 1993b,a; LaPolla 1993, 2002; Dixon 2009), there is not enough convincing evidence to suggest that this is also the case in Paku and thus traditional terminology has been retained for the description of grammatical relations.

1.5.4 The corpus

The corpus used for the present analysis consists of mostly voice recordings and also a few videos taken at village gatherings and at ceremonies. In terms of the speakers who contributed to this grammar, the corpus is balanced. The Paku described in this thesis is based on data provided by eleven speakers. They reside in Tampa, Tarinsing, Bantai Napu, or Kalamus with the majority of regular participants living in Tarinsing. Four of the speakers are female, aged 52-68 (in 2013), and seven male, aged 51-79 (in 2013). All of these speakers are native speakers and grew up in a Paku-speaking household. With the exception of the oldest speaker, all consultants have non-Paku spouses and do not use the language in their own homes. For more detailed information on the individual speakers involved in my research, including their initials used to reference them in this grammar, see 9.2.2.11.

Overall there are three different types of examples in this thesis:

- Recorded narrative: The speakers were prompted to talk about a certain topic in their native tongue.
- Elicited materials: These examples are forms translated into Paku from either Indonesian or Maanyan. They form the largest part of the corpus.
- Spontaneous speech: These are examples in which a speaker spontaneously begins speaking Paku. They were not recorded but only written down in a notebook.

Although I am aware of the potential complications arising from elicited materials and an imbalance within the data, the majority of examples used in this thesis are elicited. This was done to accommodate speaker preferences. Given that Paku is no longer used as a means for every day communication and speakers predominantly use Maanyan at home and in interactions with other villagers some speakers feel that their Paku is 'rusty'. Yet others are keen to get it right and therefore insist that they get time to write down stories in advance or get a list of structures to translate over night and discuss them during the next session. Considering the stigma attached to small minority languages of remote Kalimantan, yet other speakers do not feel comfortable using their native tongue freely. Similarly, the recording sessions would differ significantly depending on the village. In Tarinsing for instance, the main informant would consistently mid-session invite other speakers to join recording sessions which would result in lively discussions on how a well-formed Paku-sentence should be structured. Unfortunately these discussions were in Maanyan or Indonesian. Working with the *adat* keeper of the tribe in Bantei Napu, I gained valuable insight into the influence that Maanyan had on Paku over time and how the language is used now compared to then. In Tampa, the two speakers I was mostly working with were the most comfortable speaking freely in their own language. However, due to family commitments and health

problems that they had, I was not able to work with them much. The same is true for a highly competent elderly speaker in Tarinsing.

Despite the difficulties encountered, I was able to compile a small number of short narratives. The majority of these came from speakers in Tarinsing and were elicited with the help of Pastor Garin who would ask Paku speakers about their traditions drawing on examples from his own Maanyan background. In such a scenario he would speak to the Paku in Maanyan and explicitly ask that they respond in Paku which he understands due to the high level of lexical similarity. This method was very effective as it especially encouraged older speakers who are less competent in Indonesian. The collected narratives were transcribed with the help of native speakers.

1.5.5 Examples

As for the examples used in this thesis, an effort was made to take them from the recorded materials. However, there were unrecorded instances of spontaneous speech and examples that provided the only examples of certain structures.

Most examples will be glossed using four rows instead of the traditional three. This is done in order to provide root forms of a given form which due to nasal substitution are not always recognisable (or even deductible). In more transparent examples, i.e. those without any morphological modifications, only three rows will be provided.

Morphological boundaries are indicated using dashes. Grammatical morphemes are glossed using small capitals while content roots are glossed in small letters. In cases in which one grammatical morpheme expresses more than one function, this is indicated using full stops, e.g. first person plural exclusive possessive is glossed as 1PL.EXCL.POSS. This method is also used in cases in which the translation of the Paku word in the gloss requires more than one word in English. Round brackets in examples indicate that an element is optional and slashes show that forms can be used interchangeably (unless otherwise mentioned in the discussion). Often a morpheme has different functions depending on the context which results in different glosses for the same morpheme in different environments. However, this approach is only taken for content words. In the case of prepositions and conjunctions, which can express different but semantically related functions, glosses consistently contain all meanings separated by slashes. Round brackets in examples indicate that an element is optional and slashes show that forms can be used interchangeably (unless otherwise mentioned in the discussion). Where possible the Leipzig glossing rules were used. For a full list of glossing abbreviations used, see the list of abbreviations at the beginning of this thesis.

When providing examples, both in-text and interlinear, they will be in the orthography used by the speakers which is based on the Indonesian orthography. In-text example are given in italics. These conventions are exemplified in 2.4. The only exception to this rule is chapter 2 on phonology. This is due to the fact that when discussing phonetics and phonologically conditioned processes, it is often necessary to make more detailed distinctions between phonemes so that all examples in this chapter will be using IPA. Moreover, brackets are used to indicate whether an utterance is transcribed broadly, in which case it is placed in between slashes //, or narrowly, in which case it occurs in square brackets []. There is a high frequency of nasal assimilation in the data and therefore a large number of allophones for prefixes ending in a nasal. For this reason, the nasals in question will be written as *N* and referred to as 'homorganic nasal' in the discussion.

Moreover, a vowel that undergoes vowel harmony under affixation will be written as *V*. For instance, the non-volitional marker will be written *kV-*.

Stress is non-distinctive in Paku and very regularly occurs on the penultimate syllable. Therefore, stress will only be indicated in the discussion of Paku phonology in chapter two.

In some instances in the discussion, it is necessary to distinguish between a morpheme and a word boundary. As is common practice morphological boundaries are marked using the number symbol #. One number symbol (#) signals that the boundary is a morpheme boundary whereas two (##) mark a word boundary.

Despite being analysed differently depending on the position within the word (see 2.1.1.1), diphthongs will always be orthographically represented as a sequence of two vowels. This contradicts conventional Austronesian notations in which word-final diphthongs are written as vowel plus glide.

In Paku there is no gender difference for third person singular pronouns thereby creating difficulties translating examples into English. For this reason, translation will be based on the context in which it was uttered. If uttered in the context of an elicited sentence in which the gender is unclear, the feminine pronoun 'she' will be used in the translation.

1.6 Grammatical overview of Paku

This section very broadly introduces the basic and most interesting grammatical features of Paku. A more detailed discussion of phonology can be found in chapter 2, word classes are introduced in chapter 3 whereas nominal and verbal morphology along with the structure of the phrases they can head are explored in chapters 4 and 5 respectively. Prepositional phrases are covered in chapter 6. The various clause types as well as some fundamental syntactic concepts like grammatical relations and word order are covered in chapter 7. Question types and their structure are discussed separately in chapter 8 whereas complex structures, i.e. those that contain more than one predicate, are explored in more detail in chapter 9.

1.6.1 Phonology and morphophonemics

Paku has a five vowel system consisting of the closed front vowel /i/, the mid-closed front vowel /e/, the central open vowel /a/, the closed back vowel /u/ and the mid-closed back vowel /o/ (2.1). Length is non-distinctive although there are a few recorded instances in which a word-final vowel is produced with a more lax variant and in some cases are noticeably lengthened. Paku does not have phonemic diphthongs (2.1.1.1). Due to considerations based on syllable structure, two adjacent vowels in word-medial position are analysed as belonging to two separate syllables whereas in word-final position such sequences consist of a vowel plus glide.

The consonant inventory consists of the voiceless stops /p/, /t/, /k/, and /ʔ/, the voiced stops /b/, /d/, and /g/, one affricate /ʤ/, four nasals /m/, /n/, /ɲ/, and /ŋ/, two voiceless fricatives /s/ and /h/, two liquids /r/ and /l/, and two glides /w/ and /j/ (2.2).

There are two different kinds of consonant clusters in Paku (2.1.3). One occurs within a root, the second one occurs at morpheme boundaries. The first type consists of a homorganic nasal plus voiceless obstruent. The second type of cluster is found at the morpheme boundary and the result of affixation. Unlike root-medial clusters, a larger number of segment combinations can occur in this type of cluster.

In terms of syllable structure (2.5) Paku has a strong preference for disyllabic roots of the structure CV.CVC followed by CVC.CVC as a secondary preference. Monosyllabic roots exist but are mostly limited to function words. There are also a number of trisyllabic and even quadrisyllabic roots, but they are often shortened to fit a more preferred structure.

Stress in Paku (2.3) occurs on the penultimate syllable of a root and does not change under suffixation. There are some deviant patterns of stress placement, but they are overall negligible.

The most interesting features of Paku phonology are its productive morphophonological processes involving nasality; nasal harmony (2.2.1), nasal substitution and accretion (2.2.3), and nasal preplosion (2.2.2). Nasal harmony is a process in which the feature [+nasal] is spread from an underlyingly nasal segment to surrounding underlyingly non-nasal segments. In Austronesian languages, including Paku, nasal harmony is typically onset-driven, meaning that primary nasalisation spreads from left to right. Different types of segments exhibit different behaviour under nasal harmony, with some of them undergoing nasalisation (target segments), allowing nasalisation to pass through them onto an adjacent segment without undergoing nasalisation themselves (transparent segments), and some of them blocking nasal spreading altogether, preventing all following segments from undergoing nasalisation (opaque segments). Nasal preplosion refers to

the process in which a word-final nasal consonant is phonetically preceded by a short homorganic voiceless stop unless the final syllable begins with a nasal consonant. Nasal preplosion is a process that can directly be related to nasal harmony in that it prevents unwanted nasalisation from the coda (the "wrong" direction) which could otherwise hardly be avoided due to the physiological features of the velar articulators. Nasal substitution is a process in which a prefix-final nasal assimilates in place of articulation to the root-initial segment which is then omitted. The only exception to this rule are /s/ and /h/ which are replaced with /ɲ/ and /n/ respectively. In the data all segment types except /r/ and vowels undergo nasal substitution. /r/ and vowels instead undergo nasal accretion. In the case of /r/ this means that the prefix-final nasal also becomes homorganic but instead of getting deleted, the root-initial segment is retained and forms a cluster with the nasal. Before vowels, the nasal is always realised as [ŋ].

1.6.2 Word classes and morphology

Paku has three open word classes (3.1): nouns, verbs, and adjectives (the latter of which are used to derive manner adverbs). These classes can be defined both in terms of their grammatical features and their semantic content. Most roots can occur in different syntactic frames, i.e. belong to more than one class. These roots are viewed as being vague in terms of their inherent class and can only be defined in context. In addition to nouns, verbs, and adjectives Paku has a number of smaller closed word classes (see 3.2). They include pronouns, numerals, adverbials, articles, classifiers, prepositions, auxiliaries, demonstratives, conjunctions, interrogatives, and particles and interjections. Unlike the open classes these categories are easily defined in terms of their function within the phrase or the clause.

As far as the data shows, a noun phrase (4.1) consists of minimally a noun or pronoun as the head of the phrase. The head noun can optionally be modified by a range of affixes and free morphemes occurring at different positions within the phrase. The negator *bakoi*, cardinal numerals and other quantifiers, the indefinite article, and numeral classifiers occur before the head noun whereas the definite article and demonstratives, ordinal numerals, other nouns and adjectives, relative clauses, modifying prepositional phrases, and possessive markers follow the head within the phrase. Nouns are unmarked for number but a plural reading can be obtained by means of reduplication.

Verbs are morphologically marked for transitivity, voice and volition, which are usually expressed in a portmanteau morpheme merging all three categories. Most affixes in Paku can function both inflectionally and derivationally. Based on morphosyntactic properties, Paku has intransitive verbs (which are subdivided into dynamic and stative verbs), transitive verbs, and complement-taking verbs. A verb phrase (5.1) has to consist of at least a verb in its root form (in imperatives). It can optionally include the negator *bakoi* as well as auxiliaries in pre-verbal position, and objects and oblique elements after the verb. The latter are often expressed in prepositional phrases (chapter 6) which can express a variety of functions within the clause.

1.6.3 Syntax and grammatical relations

Morphosyntactically speaking one of the characteristic features of many Austronesian languages is that they have a symmetrical voice system with at least two equally transitive voices. Paku has two voices, actor voice and undergoer voice, which are obligatorily marked on the verb and

reflected in constituent order. In actor voice it is always the noun phrase in actor role that occurs in pre-verbal position with the undergoer and optional other elements following the verb. In undergoer voice the reverse order occurs and the undergoer occurs before the verb and the actor follows it. In addition to these two transitive voices Paku also has a marked passive. The verbal marking in a passive is the same as in undergoer voice but while in undergoer voice constructions the actor immediately follows the verb, in passives it is marked as oblique by the prepositions *daya* or *ulah* 'by'.

There are two grammatical relations (7.1), subject and the object. Other roles are expressed as prepositional phrases. The subject of a clause needs to be specific and clearly identifiable within the discourse context. Basic word order in Paku is SVO which means the subject (S) is followed by the predicate (V) which is in turn followed by the object (in transitive constructions).

There are eight clause types in the data (chapter 7). They are non-verbal clauses, which have either an adjectival, nominal, or locative predicate. Due to the lack of a formal copula the predicate in these constructions immediately follows the subject. Existential clauses assert or deny the existence of an entity. Given that they can function to introduce a new participant into the discourse, existential clauses are one of the few constructions in which the subject can be indefinite. Syntactically there are two types of verbal clauses, intransitive and transitive clauses. Paku has semantically ditransitive verbs but morphosyntactically these constructions closely resemble transitive clauses. Paku also has imperative and hortative clauses, comparative and superlative clauses, and relative clauses. The latter are different from the other clause types in that they function as nominal modifiers. Based on the data only subjects and possessors are relativised in Paku. The internal structure of the relative clause will differ depending on which constituent is being relativised.

In addition to these eight clause types Paku has four types of questions: polar questions (8.1), alternative questions (8.2), tag questions (8.3), and content questions (8.4). Polar questions are formed using the aspectual auxiliaries *haut* 'already' or *mete'* 'not yet', both of which are also the expected answers. Alternative questions are questions in which the addressee's possible answers are limited by the speaker. Tag questions, in which the speaker seeks confirmation from the addressee, are formed by adding the negator *koi* at the end of a statement which can optionally be followed by *-ne*. Content questions are used to elicit a specific answer from the addressee. They are formed using one of several question words. In terms of clause structure question words can occur in two positions. They can either be fronted or they can occur in situ, i.e. the question word occurs in the same position within the clause as the equivalent non-interrogative element (i.e. the answer to the content question) in a declarative construction.

In the data there are three types of complex sentences: coordinated sentences (9.1), sentences containing adverbial clauses (9.2.1), and sentences whose main predicate requires a sentential argument, i.e. a complement (9.2.2). Coordination involves two independent clauses linked by a coordinating conjunction. Subordinating conjunctions express a variety of adverbial relationships between the two clauses being linked. They can be conditional, express a purpose, causal, concessive, or temporal.

Paku furthermore has a number of complement-taking predicates. Complements are usually juxtaposed to the predicate but can sometimes be introduced by the complementiser *bahawa*. Depending on the type of predicate, the complement can either be sentence-like, i.e. have the same form as declarative clauses, or reduced. The latter occurs in cases in which the subject in the main

clause is identical to the subject in the complement clause and is therefore omitted in the complement clause. Reduced complements also result in serial verb constructions in which two finite verbs occur in sequence.

Chapter 2

Phonology

This chapter describes the phonological structures and processes in Paku. As Blust (2013:169) points out, phonological typology in the languages of Borneo is quite varied, with the distribution of many features spreading unevenly throughout the island. Paku shows very interesting features in its phonology such as extensive nasal operations and harmony systems.

This chapter starts with an introduction to the phoneme inventory and permissible combinations of segments (2.1). The various nasal features are discussed in 2.2. Section 2.3 is dedicated to stress placement, and section 2.4 is a presentation of the practical orthography as used in this thesis and by the speakers. Section 2.5 examines Paku's syllable structure and section 2.6 introduces vowel harmony in Paku.

As was explained in 1.5.5, examples presented and discussed in this chapter are in IPA including indication of stress, and will therefore potentially contrast with examples in subsequent chapters. This is done to clarify how phonemes vary in different environments even when these differences are not phonemic. Throughout the following discussion, segments and words between slashes / / are phonemic in the language, square brackets [ ] are used to refer to phones, i.e. speech sounds that do not necessarily have phonemic status in Paku. Graphemes are presented in italics.

2.1 Segmental phonology

The segmental system found in Paku is rather straightforward. It has five vowels and eighteen consonants. The eighteen consonants are made up of seven stops, one affricate, two fricatives, four nasals, two liquids, and two glides. This overall inventory of 23 phonemes fits in well with typological findings within languages of Borneo which with an average range of 19-25 segments are at the lower end of the world average range of 20-37 (Blust 2013:169; Maddieson 1984:7). There are other features in the segmental inventory of Paku that have been described as characteristic for Austronesian languages (c.f. Himmelmann 2005a:115), such as a low number of fricatives (only two) and a series of nasals mostly matching the place of articulation of stops.

The following discussion of the phoneme inventory is divided into separate sections for vowels and consonants which are in turn further subdivided according to manner of articulation. Table 2.1 and Table 2.2 show the phoneme inventory of vowels and consonants respectively.

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

TABLE 2.1: Vowel phonemes

	Bilabial	**Alveolar**	**Post-alveolar**	**Palatal**	**Velar**	**Glottal**
Plosive	p b	t d			k g	ʔ
Affricate			ʤ			
Nasal	m	n		ɲ	ŋ	
Trill		r				
Fricative		s				h
Approximant	w			j		
Lateral Approximant		l				

TABLE 2.2: Consonant phonemes

2.1.1 Vowels

Paku has a five vowel system consisting of the two front vowels /i/ and /e/, the central vowel /a/, and the two back vowels /u/ and /o/ (see Table 2.1). Although [ə] does occur, it is not phonemic in Paku but merely a free variant of /e/ occurring in unstressed syllables such as in /me'lintaŋ/ 'yellow' which is often pronounced [mə'lɪntaŋ] or /me'riris/ 'thin' which is usually produced as [mə'rɪrɪs]. Himmelmann (2005a:116) points out that it is common for even closely related Austronesian languages to differ in terms of whether they have a phoneme /ə/ or not. However, based on the data available for languages related to Paku the lack of phonemic /ə/ is a common feature in all of them.

Although in the IPA chart, the symbol /a/ is usually reserved for an unrounded open front vowel, in this analysis, it will represent an unrounded open central vowel for which the IPA presently does not offer a separate symbol.

Unlike its close relative Maanyan, Paku has a close-mid back vowel /o/ which corresponds to /e/ in Maanyan. See Table 2.3 for a short list of correspondences between Paku and Maanyan.

	Paku	Maanyan
'two'	/'ruo/	/'rue/
'eye'	/'mato/	/'mate/
'evening/night'	/'malom/	/'malem/
'house'	/'lowu/	/'lewu/

TABLE 2.3: Correspondences between Paku and Maanyan

Vowel length is not distinctive. However, vowels are sometimes uttered longer in word-final position. There are a few instances in which word-medial long vowels have arisen from the loss of a root-medial glottal stop between two vowels of the same quality. However, in this analysis these roots are understood as being disyllabic and what is perceived as a long vowel are two distinct

nuclei in adjacent syllables. This analysis relies in part on evidence from Maanyan which still features the glottal stop in cognate roots. Examples of this kind include /'poo/ ['poː] 'foot/leg', which is /'peʔe/ in Maanyan, and /'raan/ ['raːn] 'stick' whose Maanyan counterpart is /'raʔan/. A more thorough analysis of these roots is presented in 2.5.

/a/:/i/:/e/	/'rama/	'much/many'	/'rami/	'interesting'	/'rame/	'short beard'
/a/:/i/	/'anre/	'wait'	/'inre/	'before'		
/a/:/i/	/'sara/	'manner'	/'sira/	'salt'		
/a/:/o/	/'lawu/	'plate'	/'lowu/	'house'		
/i/:/o/	/'upi/	'dream'	/'upo/	'man, male'		
/e/:/i/	/'anre/	'wait'	/'anri/	'with'		
/e/:/i/	/'hawe/	'which/where'	/'hawi/	'arrive'		
/e/:/o/	/'mate/	'die/dead'	/'mato/	'eye'		
/e/:/u/	/'kelat/	'lightning'	/'kulat/	'mushroom'		
/u/:/o/	/'onru/	'give'	/'onro/	'day'		
/u/:/i/	/'ujuh/	'exhausted'	/'ijuh/	'may'		

TABLE 2.4: Vowel minimal pairs

Table 2.4 shows vowel minimal pairs in Paku. Of particular importance is the pair /'onru/ 'give': /'onro/ 'day' because it provides evidence for the phonemic status of /o/ in Paku. Other examples of this contrast are the pair /'malum/ 'aware' and /'malom/ 'evening, night' for word-medial position, and /'upo/ 'man/male' and /'opo/ 'grandchild' for word-final position.

Word-finally and in unstressed syllables vowels are usually produced using a more lax or centralised variant, e.g. /'mato/ 'eye' is pronounced ['matɔ], /'hieʔ/ 'who' as ['hɪɛʔ], and /se'tua/ 'animal' is produced as [sə'tuɐ].

The question of whether or not vowel-initial glottal stops are phonemic is not always clear in Austronesian languages. Himmelmann (2005a:117) explains that in a fair number of languages, there is sufficient phonetic and phonological evidence to suggest that these glottal stops are in fact phonemic which in turn implies an obligatory onset in these languages. In Paku, evidence suggests that the phonemic glottal stop does not occur word-initially and that therefore onsets are non-obligatory. However, there are some indications that the glottal stop might be part of the root. When produced in isolation, recordings show that there is a glottal stop preceding the vowel. This is irrespective of vowel quality or vowel length. Figure 2.1 and Figure 2.2 show two spectrograms of the word *aku* '1SG' as produced by two different speakers, one male and one female. In both cases there is a clear burst before the initial vowel.

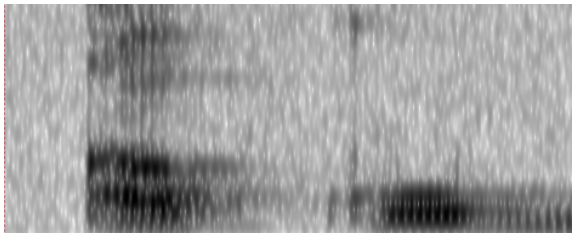


FIGURE 2.1: /'aku/ '1SG' produced in isolation by male speaker Iterman

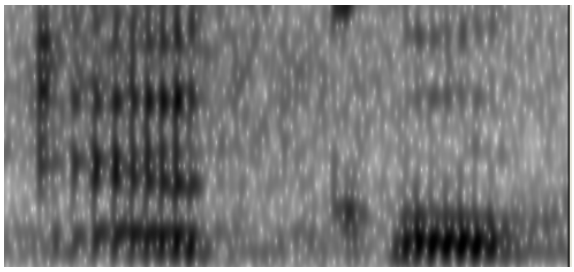


FIGURE 2.2: /'aku/ '1SG' produced during fluent speech by female speaker Maris

However, this can be explained by looking at the physiological make up of the articulators. In order to produce the voicing required for the articulation of vowels, a compression of the vocal chords is required and its initial release at the start of the vibration is the articulatory equivalent to a glottal stop. Therefore this (alone) cannot be used as evidence for an obligatory onset in Paku.

More evidence seemingly comes from phonology where we see that when a prefix is added to a root, a glottal stop occurs between the vowels, hence when the prefix *mV-* attaches to the root *asus* 'good', the resulting form is [*ma*'ʔ*asus*] 'good'. However, upon closer inspection this analysis seems slightly superficial as there are three observations that might dispute such claims. Firstly, the initial glottal stop is seemingly dropped under prefixation if the prefix ends in a consonant. If the glottal stop were part of the root, its retention would be expected. Secondly, there is a strong tendency in the data for vowels of the same quality to be separated by a glottal stop. This mostly happens at a morpheme boundary but has also, albeit in much lower frequency, been observed within roots. However, due to the vowel harmony triggered by many Paku affixes, it becomes almost impossible to distinguish to what extent the glottal stop might be in place to split up a sequence of vowels of the same quality and to what extent its occurrence is a requirement of vowel-initial words more generally. The possibly strongest argument against an obligatory onset in Paku is the observation that elsewhere in the data the vast majority of adjacent vowels, both morpheme-internally and at a morpheme boundary, are not separated by a glottal stop but instead produced with a glide-like articulation. Table 2.5 shows some instances of the glottal stop between vowels of the same quality. It includes instances of affixation as well as compounding.

/'alah/	'labour'	[ma'ʔalah]	'to work in the field'
/'umur/	'age'	[bu'ʔumur]	'to be aged'
/'ukuj/	'tail'	['ruo ku'ʔukuj 'kenah]	'two pieces of fish'
/'asus/	'good'	[ma'ʔasus]	'good'
/'ituŋ/	'remember'	[ki'ʔituŋ]	'to suddenly remember'
/'mato/ 'eye'	/'onro/ 'day'	[mato'ʔonro]	'sun'

TABLE 2.5: /ʔ/ between vowels of the same quality

Given the evidence cited above, it is likely that the glottal stop inserted between vowels of the same quality is an epenthetic consonant used to facilitate pronunciation of the word and to mark morpheme boundaries.

The analysis of the glottal stop as non-phonemic in word-initial position has implications for the analysis of other aspects of Paku phonology. For example, it means that vowels are not restricted in their distribution in that they can occur, at least phonologically, in all positions of the word. The (phonemic) glottal stop is restricted to occurrence in word-medial and word-final position.

Moreover, this approach simplifies the syllable structure as a syllable can consist of only a vowel nucleus. If the word-initial glottal stop were analysed as being indicative of an obligatory onset, it would be more difficult to incorporate the aforementioned long vowels and other instances of adjacent vowels found in the data as all syllables need to begin with a consonantal onset (see 2.1.1.1).

2.1.1.1 Diphthongs

The topic of diphthongs has always been controversial in the literature. The core of the problem is that the term itself has been used differently by different scholars (Lass 1984; Maddieson 1984) and that therefore the distinction between diphthongs, juxtaposed vocalic segment, and vowel plus glide sequences has often more to do with differences in descriptive practice than with substantive phonetic or phonological differences between the two sequence types. This is particularly true in (historical) Austronesian linguistics where the term diphthong is used to refer to reconstructed word-final sequences which are actually vowel plus glide sequences. The need for this comes from the fact that *-ay* [aj], *-aw* [aw], *-uy* [uj], and *-iw* [iw] are the diachronic source of vowel phonemes in many daughter languages and therefore need to be treated differently from other word-final VC sequences (Blust 2013:590)[1]. In the phonological literature diphthongs are often defined as two vocalic qualities occupying the same syllable, i.e. forming a complex nucleus (e.g. Ladefoged 2006:39; Miret 1998:27). In this approach distribution of diphthongs is not limited as in Austronesian linguistics and they can theoretically occur in word-initial, -medial, and -final position. Other authors might use the term to refer to any vocalic sequence regardless of whether they occur within the same syllable or across syllable boundaries.

Phonetically these vocalic sequences are marked by rapid transition from one vowel target to another, the duration of which should typically be roughly equivalent to that of a monophthong in order to qualify as a diphthong (Maddieson 1984:162). Vocalic sequences in Paku are analysed using a combination of the Austronesian tradition and a more typological approach in which evidence from distribution, phonotactics and syllable structure of the language are considered. For example, does an analysis as for instance vowel plus glide create consonant combinations that are not otherwise observed in the language? Does the syllable structure permit complex nuclei? Based on this, Paku does have word-final diphthongs as in the Austronesian tradition. As was explained above, this means that they are non-phonemic and should be analysed phonologically as a combination of vowel plus glide.

Vocalic sequences in root-medial position are viewed as adjacent vowels belonging to separate syllables. This is based on several different observations in the phonology of Paku. Firstly, there are no recorded minimal pair contrasts between root-medial vocalic sequences and monophthongs in the data. The analysis of vocalic sequences as two adjacent nuclei is furthermore supported by evidence from Paku's syllable structure. Paku shows a clear preference for disyllabic roots (see 2.5). In the data, most adjacent vowels occur in roots that, if analysed as one segment, would be monosyllables. However, if regarded as a sequence of vowels in two separate nuclei, these roots would be disyllabic in structure and thereby adhere to the predominant syllable structure in Paku. In addition, analysing the second element in such root-medial sequences as a glide would lead to glide plus consonant clusters in the coda which are otherwise not attested in the

1. The status of these diphthongs has been the subject of debate in the literature. While it is undisputed that these word-final diphthongs existed on a phonetic level, the question of whether or not they should be reconstructed on a phonological level is more controversial (e.g. Clynes 1997; Blust 1998)

data. An example for this is the word <pain> 'bat' which if analysed as /'pajn/ results in the sequence -jn- in the coda. Not only are there no recorded instances of complex codas, the sequence itself is unlike other clusters in Paku. Considering comparative data about syllable structure in other languages in the area, an analysis as /'paj.n/ with a syllabic nasal is even more unlikely. This leaves /'pa.in/ as the most logical syllable structure which not only results in a disyllabic root structure but also fits well with other documented syllable-internal combinations of segments in Paku.

Looking at syllable structure can also be useful for the analysis of word-final diphthongs in the Austronesian tradition. If they were interpreted as two adjacent vowel nuclei in the same fashion as root-medial vocalic sequences, the majority of these roots would be trisyllabic and thus again deviate from the favoured disyllabic structure in Paku. Therefore, these sequences are likely to be part of the same syllable. However, the question remains if this sequence is a unitary segment or if the sequence is underlyingly that of a vowel plus glide as is argued for Austronesian word-final diphthongs. The data shows that roots in Paku tend to be disyllabic and that syllables, especially in word-final position are often closed making the preferred root structures CV.CVC and CVC.CVC which is true in the majority of Austronesian languages (Himmelmann 2005a:116; Blust 2013:212). Moreover, when a vowel-initial suffix is added to a root also ending in a vowel, unless the vowels are of the same quality, the sequence is produced with a glide between the two vowel qualities.

A final observation comes from stress placement. In most roots in Paku stress is on the penultimate syllable. Take for instance /'roŋoi/ 'hear' in which stress is on the first syllable. Based on the general stress pattern and preferred syllable structure then /'roŋoi/ is phonologically best analysed as /'ro.ŋoj/ rather than /'ro.ŋo.i/. This analysis also has the effect of a more regular segmental distribution since there are no restrictions on which consonants can occur in coda-position. Without these word-final glides, there would be no instances of glides in the coda of a syllable resulting in an unnecessary gap in the phonology. Unlike in the analysis of root-medial sequences of vowels, length is not a good indicator in word-final sequences. This is due to the fact that vowels are sometimes lengthened in this position (see 2.1.1).

With regard to orthographic representation of diphthongs, they will be written in accordance with the practical orthography as used by the speakers. This means that they will be spelled as a sequence of two vowels, both root-medially and word-finally.

2.1.2 Consonants

Paku has eighteen consonant phonemes. For reasons of clarity they are discussed according to manner of articulation. It has been argued by some that the glottal stop /ʔ/ and the glottal fricative /h/ are best treated as a separate class of glottals since they often share more features with each other than with other stops or fricatives. In Paku this is particularly obvious when discussing nasal harmony (2.2.1), however, given that in terms of distribution they do not deviate much from other segments within their respective classes, /ʔ/ will be discussed together with the stops, and /h/ together with the fricatives.

2.1.2.1 Stops

Paku distinguishes four different places of articulation for stops: bilabial, alveolar, velar and glottal. The bilabial, alveolar, and velar stops occur in both voiceless and voiced variants, creating a total of seven distinctive stops for Paku: /p/, /b/, /t/, /d/, /k/, /g/, and /ʔ/. Table 2.6 shows some (near-) minimal pairs for some stop consonants in Paku.

Stop (near-) minimal pairs				
/p/:/k/:/l/	/'pain/	'bat'	/'kain/	'1PL.EXCL'
	/'lain/	'other'		
/p/:/m/	/'puluh/	'tens'	/'muluh/	'cook rice'
/p/:/w/:/k/	/'pare/	'rice plant'	/'ware/	'heal'
	/'kare/	'heron'		
/p/:/t/	/'mape/	'hard'	/'mate/	'die, dead'
/b/:/d/	/'aba/	'shadow'	/'ada/	'PROH'
/b/:/r/	/'obo/	'tall'	/'oroʔ/	'far'
/b/:/m/	/'sabe/	'chilli'	/'same/	'together with, same'
/b/:/k/	/'bulat/	'round'	/'kulat/	'mushroom'
/b/:/t/	/'banaʔ/	'thing'	/'tanaʔ/	'soil'
/b/:/t/	/'buli/	'go home'	/'tuli/	'play'
/t/:/l/	/'tataw/	'rich'	/'talaw/	'lose'
/t/:/k/	/'tonroŋ/	'wound'	/so'konroŋ/	'stand'
/t/:/n/	/'kumat/	'sharp'	/'kuman/	'eat'
/t/:/h/	/'elet/	'room'	/'eleh/	'wake sb. up'
/t/:/w/	/'eto/	'look for'	/'ewo/	'smell'
/d/:/t/	/'iduʔ/	'big'	/'itu/	'DEM.PROX'
/d/:/r/	/'daya/	'by, because'	/'raya/	'blood'
/k/:/n/	/'muka/	'front'	/'muna/	'mute'
/k/:/m/:/r/	/'kai/	'want, will'	/'mai/	'light (adj.)'
	/'rai/	'forehead'		
/k/:/g/:/l/	/'ukah/	'after'	/'ugah/	'open'
	/'ulah/	'because, by'		
/k/:/l/	/'kewi/	'left'	/'lewi/	'more'
/k/:/s/	/'wisik/	'ant'	/'wisis/	'calf'
/g/:/k/	/'genaʔ/	'baby'	/'kenah/	'fish'
/ʔ/:/g/	/'ʤaʔuŋ/	'type of frog'	/'ʤaguŋ/	'corn'
/ʔ/:/h/	/'uaʔ/	'fruit'	/'uah/	'true'

TABLE 2.6: (Near-) minimal pairs stops

There are a few general observations that can be made regarding the bilabial, alveolar, and velar stops. The voiceless stops /p/, /t/, and /k/ can occur in all positions of the word and in word-final position they are usually unreleased. Aspiration is not distinctive in stops, and as a rule, stops are unaspirated. However, if uttered in isolation voiceless stops can be released with aspiration for clarity. Their voiced counterparts /b/, /d/ and /g/ only occur word-initially and word-medially. See Table 2.7 and Table 2.8 for examples of stops in all environments in which they occur in the data.

As discussed in 2.1.1 the glottal stop follows a separate distributional pattern and does not, phonemically, occur in word-initial position. Word-medially there are those glottal stops that are part of the root, which are rare, and those which surface as a result of affixation, separating the grammatical morpheme from the root. While the former has phonemic status in Paku, the latter does not. /ʔ/ frequently occurs in word-final position in which it contrasts with other segments.

	Word-initial		Word-medial		Word-final	
Bilabial /p/	/pu'luko/	'shoulder'	/'upo/	'man'	/'anup/	'hunt'
	/'pea/	'child'	/'rupak/	'close'	/'tiap/	'every'
Alveolar /t/	/'tolu/	'three'	/'mate/	'dead'	/'riwut/	'wind'
	/ti'liŋo/	'ear'	/'ituŋ/	'remember'	/'lawut/	'bum'
Velar /k/	/'kewi/	'left'	/'liki/	'seed'	/'ulok/	'head'
	/'kenah/	'fish'	/'ukuj/	'tail'	/'lunok/	'muscle'
Glottal /ʔ/	-	-	/ma'ʔasus/	'good'	/'tueʔ/	'know'
	-	-	/tu'ʔulaŋ/	'bone'	/'genaʔ/	'baby'

TABLE 2.7: Distribution of voiceless stops

	Word-initial		Word-medial		Word-final	
Bilabial /b/	/'bereʔ/	'dirty'	/'ubis/	'lie (position)'	-	-
	/'buʤaŋ/	'adult'	/'obo/	'long'	-	-
Alveolar /d/	/'dimo/	'five'	/'iduʔ/	'big'	-	-
	/'duaʔ/	'vomit (v.)'	/ka'rado/	'green'	-	-
Velar /g/	/gi/	'LOC'	/'ogaŋ/	'well (N.)'	-	-
	/'gaer/	'worried'	/ta'maga/	'copper'	-	-

TABLE 2.8: Distribution of voiced stops

2.1.2.2 Nasals

According to Himmelmann (2005a:115) it is common in Austronesian languages that the places of articulation for nasals match those for stops. This is also the case in Paku which has bilabial, alveolar, and velar nasals. In addition, Paku also has a palatal nasal. Bilabial, alveolar, and velar nasals can occur in all environments, although the velar nasal is rare in word-initial position unless it is in the form of the actor voice marker *N-* preceding either a /k/- or /g/-initial root, or a vowel-initial root. However, in this case the velar nasal is the result of an assimilatory process and not a reflection of the underlying phonemic system (see 2.2.3). In the data, the palatal nasal is a rare segment in all environments and does not occur at all in word-final position. Word-initial occurrences of this segment are due to prefixation of *N-* to an /s/- or /ʤ/-initial root. Table 2.9 shows minimal pairs for all nasals except the palatal nasal, for which no minimal contrasts were recorded, and Table 2.10 illustrates distributional properties of nasals.

Nasal (near-) minimal pairs				
/m/:/n/	/'lalom/	'inside'	/'lalan/	'street'
/m/:/w/	/'malah/	'thirsty'	/'walah/	'slave'
/m/:/p/	/'umak/	'for'	/'upak/	'skin'
/m/:/p/	/'umo/	'rice field'	/'upo/	'man, male'
/m/:/r/:/k/	/'mai/	'light (adj.)'	/'rai/	'forehead'
	/'kai/	'want, will'		
/m/:/h/:/s/	/'manaŋ/	'win'	/'hanaŋ/	'pain'
	/'sanaŋ/	'happy'		
/m/:/l/	/'kumat/	'sharp'	/'kulat/	'mushroom'
/n/:/t/	/'kuman/	'eat'	/'kumat/	'sharp'
/n/:/ŋ/	/'wintan/	'fish (v.)'	/'wintaŋ/	'iron'
/n/:/l/	/'manah/	'necklace'	/'malah/	'thirsty'
/n/:/k/	/'muna/	'mute'	/'muka/	'front'
/n/:/ʔ/	/'tanan/	'leave'	/'tanaʔ/	'soil'
/ŋ/:/h/	/'laŋit/	'sky'	/'lahit/	'sweat'

TABLE 2.9: (Near-) minimal pairs nasals

	Word-initial		Word-medial		Word-final	
Bilabial /m/	/'malaj/	'begin'	/'kuman/	'eat'	/'lalom/	'inside'
	/'mansi/	'bowl'	/'umaʔ/	'father'	/'malum/	'aware'
Alveolar /n/	/'nipo/	'snake'	/a'nule/	'half-orphan'	/'kain/	'1PL.EXCL'
	/'neuj/	'coconut'	/'ronu/	'brave'	/'ulun/	'person'
Palatal /ɲ/	-	-	/'naɲap/	'afternoon/dusk'	-	-
	-	-	/'gaɲah/	'PROG'	-	-
Velar /ŋ/	/'ŋaran/	'name'	/lili'ŋiren/	'gums'	/'eteŋ/	'dog'
	/'ŋampan/	'in order to'	/'tuŋka/	'ball of the foot'	/ka'hapaŋ/	'thigh'

TABLE 2.10: Distribution of nasal phonemes

2.1.2.3 Fricatives

Paku has two fricatives /s/ and /h/. The voiceless post-alveolar fricative [ʃ] occurs with some speakers as a free variant of /s/ in word-initial or word-final position. It never alternates with another phoneme and can therefore not be analysed as a separate phoneme in Paku. It was very rare in the elicited material and its use was inconsistent even for the same speaker. Table 2.11 illustrates some minimal pair contrasts for fricatives.

(Near-) fricative minimal pairs				
/s/:/l/	/'siaŋ/	'visit'	/'liaŋ/	'burrow'
/s/:/b/	/'suan/	'centre'	/'buan/	'wake up'
/s/:/r/:/k/	/'suku/	'tribe'	/'ruku/	'langsat (fruit)'
	/'kuku/	'fingernail'		
/s/:/h/:/m/	/'sanaŋ/	'happy'	/'hanaŋ/	'pain'
	/'manaŋ/	'win'		
/s/:/w/	/'suŋe	'river'	/'wuŋe/	'flower'
/s/:/k/	/'wisis/	'calf'	/'wisik/	'ant'
/h/:/t/	/'eleh/	'wake sb. up'	/'elet/	'room'
/h/:/l/	/'huaŋ/	'inside'	/'luaŋ/	'hole'
/h/:/l/	/'ihaw/	'borrow'	/'ilaw/	'oil'
/h/:/r/	/'ahoŋ/	'think'	/'aroŋ/	'charcoal'
/h/:/ŋ/	/'lahit/	'sweat'	/'laŋit/	'sky'

TABLE 2.11: Minimal pairs fricatives

In terms of distribution both /s/ and /h/ can be found in all positions of the word as illustrated in Table 2.12.

	Word-initial		Word-medial		Word-final	
Alveolar /s/	/'suŋe/	'river'	/'basa/	'language'	/'mamis/	'sweet'
	/'sapo/	'roof'	/pa'sara/	'cemetery'	/'mais/	'thin'
Glottal /h/	/'haut/	'already'	/ba'haya/	'crocodile'	/'walah/	'slave'
	/'hieʔ/	'who'	/'puhor/	'navel'	/ka'rawah/	'help (v.)'

TABLE 2.12: Distribution of fricative phonemes

2.1.2.4 Trills, glides, and lateral approximants

The phoneme inventory of Paku features one trill, /r/, two glides, /j/ and /w/, and one lateral approximant, /l/. Minimal pairs are presented in Table 2.13.

(Minimal pairs for trills, glides, and laterals				
/l/:/t/	/'talaw/	'lose'	/'tataw/	'rich'
/l/:/m/	/'kulat/	'mushroom'	/'kumat/	'sharp'
/l/:/n/	/'malah/	'thirsty'	/'manah/	'necklace'
/l/:/s/	/'laŋit/	'sky'	/'saŋit/	'angry'
/l/:/k/:/g/	/'ulah/	'because, by'	/'ukah/	'after'
	/'ugah/	'open'		
/l/:/k/	/'lewi/	'more'	/'kewi/	'left'
/r/:/m/:/k/	/'rai/	'forehead'	/'mai/	'light (adj.)'
	/'kai/	'want, will'		
/r/:/j/	/'iro/	'there'	/'ijo/	'3SG'
/r/:/j/	/'wuruŋ/	'bird'	/'wujuŋ/	'black'
/r/:/l/	/'roŋon/	'deaf'	/'loŋon/	'arm/hand'
/r/:/s/	/'ruku/	'langsat (fruit)'	/'suku/	'tribe'
/r/:/h/	/'aroŋ/	'charcoal'	/'ahoŋ/	'think'
/r/:/w/	/'uran/	'rain'	/'uwan/	'grey-haired'
/w/:/p/:/k/	/'ware/	'heal'	/'pare/	'rice plant'
	/'kare/	'heron'		
/w/:/t/	/'ewo/	'smell'	/'eto/	'look for'
/w/:/s/	/'wuŋe/	'flower'	/'suŋe/	'river'
/w/:/k/	/'riwut/	'wind'	/'rikut/	'grass'
/w/:/m/	/'wijah/	'uncooked rice'	/'mijah/	'part of death ceremony'

TABLE 2.13: Minimal pairs trills, glides, and laterals

Although typologically speaking the lateral approximant can be expected to have allophonic realisations, e.g. a voiceless lateral fricative (Himmelmann 2005a:116), no such allophonic variation has been observed in Paku. The phoneme /r/ is rarely realised as an actual trill but rather as an alveolar tap [ɾ], especially in intervocalic position. The glide /w/ has two free variants, [ʋ] and [v] both of which are usually used in an intervocalic context, although there are a small number of instances in the data in which they can be found word-initially.

The segment /r/ can occur in all positions of the word, although it is quite rare in word-final position. /l/ is rare in word-final position and both /r/ and /l/ have not been observed in a word-medial coda.

With regard to glides, /w/ and /j/ do not share the same distribution. /w/ can occur in all positions of the word whereas /j/ has not been recorded in word-initial position.

The distributional patterns for all four segments are illustrated in Table 2.14.

	Word-initial		Word-medial		Word-final	
/r/	/'ranu/	'water'	/'uran/	'rain'	/'ator/	'deliver'
	/'roŋoj/	'hear'	/pa'saran/	'tomb'	/'pasar/	'market'
/w/	/'wuɲe/	'flower'	/'ʤawoh/	'vanish'	/'tataw/	'rich'
	/'wigas/	'hard'	/'wawe/	'woman'	/'danaw/	'lake'
/j/	-	-	/'raja/	'blood'	/'roŋoj/	'hear'
	-	-	/'wujuŋ/	'black'	/'bakoj/	'NEG'
/l/	/'loŋon/	'arm/hand'	/'wulan/	'moon'	-	-
	/'lowu/	'house'	/ali'maŋo/	'scorpion'	-	-

TABLE 2.14: Trills, glides, and lateral approximants

2.1.2.5 Affricates

There is only one phonemic affricate in Paku, /ʤ/. It occurs infrequently in the data and hence there are only a limited number of (near-) minimal pairs recorded which are shown in Table 2.15.

(Near-) minimal pairs for /ʤ/				
/ʤ/:/b/	/'ʤereʔ/	'push'	/'bereʔ/	'dirty'
/ʤ/:/b/	/'ʤuʤut/	'pull'	/'ʤubut/	'forest'
/ʤ/:/t/	/'ʤari/	'become'	/'tari/	'dance'
/ʤ/:/s/	/'ʤapo/	'just (aspectual)'	/'sapo/	'roof'
/ʤ/:/l/	/'ʤawoh/	'vanish'	/'lawo/	'mouse'

TABLE 2.15: (Near-) minimal pairs /ʤ/

/ʤ/ only occurs word-initially and word-medially. Some examples of /ʤ/ in those positions are presented in Table 2.16.

Word-initial		Word-medial		Word-final	
/'ʤubut/	'forest'	/'riʤeŋ/	'heel'	-	-
/'ʤaŋkeŋ/	'stick'	/'buʤaŋ/	'adult'	-	-
/'ʤapo/	'just (aspectual)'	/'oʤo/	'lie'	-	-
/'ʤokoŋ/	'boat'			-	-

TABLE 2.16: Distribution of the voiced alveolar affricate

2.1.3 Consonant clusters

There are two types of consonant clusters observed in Paku, both of which can only occur word-medially. The first one involves clusters within the root which consist of a homorganic nasal followed by a voiceless obstruent or /r/. The second segment in these clusters is almost always a stop such as in for instance /'tumpuk/ 'village' or /'hantek/ 'when'. Examples of root-medial -ns- and -nr- include /'nasinsi/ 'swing', /'morunsia/ 'mankind', /'onro/ 'day', and /'tanruk/ 'horn'. Despite being a voiceless obstruent as well, /h/ has not been observed in root-medial clusters. Table 2.17 shows examples of all types of root-medial consonant clusters from the data.

As can be seen in the table, all nasals with the exception of the palatal nasal /ɲ/ can occur as the first element in such clusters.

Segment combination			**Examples**	
/m/	+	/p/	/'dumpu/ 'sweet potato'	/'hampe/ 'until'
/n/	+	/t/	/'munte/ 'orange'	/'intur/ 'compare'
/n/	+	/s/	/'mansi/ 'bowl'	/'punsi/ 'banana'
/n/	+	/r/	/'inre/ 'before'	/so'konroŋ/ 'stand'
/ŋ/	+	/k/	/'eŋke/ 'from'	/'tuŋke/ 'stick'

TABLE 2.17: Nasal clusters

Since in Paku complex codas are not permitted, these nasal plus voiceless obstruent and /n/ plus /r/ clusters always occur at a syllable boundary with the nasal forming the coda of the first syllable and the obstruent or /r/ the onset of the second syllable. The same pattern has been observed in Maanyan and Blust (2013:217) explains that the -nr- cluster, which is the only cluster whose second segment is not an obstruent, actually reflects *nd. Blust furthermore points out that there have been some differences in descriptive practice for these sequences in the Austronesian literature. For some languages, mainly those of the Philippines and western Indonesia, they are viewed as clusters. In Oceanic languages, however, sequences of homorganic nasal plus voiced stop are viewed as prenasalised. This means that they are phonemically interpreted as voiced stops with nasal onset and hence as unitary segments with a secondary feature. In Paku, in line with observations in other Western Austronesian languages, the view is held that the nasal plus voiceless obstruent or /r/ sequences described above consist of two segments and are therefore clusters. This analysis is supported by observations from a study by Cohn and Riehl (2008) which looked at acoustic and nasal airflow data from six Austronesian languages for which different types of nasal plus stop sequences are reported (including prenasalised stops and nasal plus stop clusters). The results show that in all combination types except nasal plus voiceless stop clusters the vast majority of the sequence is nasal and that the obstruent forms only a minor portion of it. This observation makes it unlikely that the nasal in the sequence is only a secondary feature as in the traditional description of Oceanic languages. Nasal plus voiceless stop sequences show the expected pattern in which the nasal and the stop each last roughly half the sequence. The latter type of nasal cluster is found in Paku.

Paku's general tendency to avoid clusters can be seen in the fact that nasal substitution, a morphophonological process further described in 2.2.3, also applies to some voiced initial obstruents. This type of cluster avoidance has also been described for other Austronesian languages, including Maanyan (Blust 2013; Kawi et al. 1984). More evidence for the avoidance of at least voiced clusters comes from the incorporation of loanwords into the phonological system of Paku. When Paku speakers use a loanword they only produce the nasal of the nasal stop sequence. Examples for this is include /'kamiŋ/ 'goat' and /ta'maga/ 'copper' which have been introduced via Indonesian /'kambiŋ/ and /tem'baga/ respectively.

The second type of consonant cluster occurs at morpheme boundaries, mostly when a suffix or clitic is added to the root. The most common examples of this kind are the discourse marker *-ro*, the multi-functional suffix *-ne*, or one of the pronominal clitics *-ku* '1SG' and *-ko*' '2SG'. While in general, none of the affixes and clitics triggers changes in the root, when *-ne* attaches to a

root ending in [n], the cluster is produced as a geminate. For example, /ˈŋaran/ 'name' plus *-ne* '3SG.POSS' is produced as [ˈŋaranːe] 'her name'.

Unlike root-medial clusters in which both positions within the cluster can only be occupied by a small number of segments, the possible consonant sequences at morpheme boundaries are much more free since the first segment can be any segment which has been documented as occurring in coda position (/p/, /t/, /k/, /ʔ/, /s/, /h/, /m/, /n/, /ŋ/, /r/, /l/, /w/, /j/) and the second one consisting of either /n/, /r/, or /k/ when suffixes or clitics are added.

There are only a small number of instances in the data in which a consonant cluster is the result of prefixation which is mostly due to the fact that most prefixes end in a vowel or in a nasal which triggers nasal substitution and subsequently causes the root-initial segment to be deleted (see 2.2.3). One instance in which a cluster is formed under prefixation is when the transitiviser *sVN-* attaches to the root /kahoŋ/ 'meet'. While normally *sVN-* triggers nasal substitution, as can be seen in the resulting form /saŋkahoŋ/ 'meet', the prefix-final nasal assimilates in place of articulation to the root-initial segment and then forms a cluster with it. Another example of a prefix forming clusters is *on-* 'INTR.AV'. The prefix *on-* is rare in the data which is why not many clusters of this variety are recorded. The most frequent word formed with *on-* is *onsoyar* 'to cry'. The nasal plus voiceless obstruent cluster resulting from the prefixation of *on-* is structurally similar to root-medial clusters discussed at the beginning of this section.

2.2 Nasality

Austronesian languages have a rich array of sequences and phonological processes involving at least partially nasal segments such as prenasalised stops, nasal clusters, nasal preplosion, nasal harmony, postploded nasals, and nasal substitution. Some of these, such as for instance nasal substitution and nasal harmony, have received quite a bit of attention in the literature (e.g. Blust 2004; Pater 1999, 2001; Walker 2000, 2003; Cohn 1990, 1993) while others, like nasal preplosion and postplosion, have only been explored in the context of a few languages (e.g. Cohn and Riehl 2008).

With nasal harmony, nasal preplosion, nasal substitution, and clusters involving nasal consonants, Paku features quite a few of the nasal phenomena mentioned above. Before moving on to a discussion of the nasal processes most relevant in Paku, a brief overview of previous studies and publications on the topic is presented. Where appropriate, these will be explored in more detail in relevant chapters which will help locate Paku more broadly in the typological context of nasality.

Evidence from research on Austronesian languages has for a while now informed debate in phonetics and phonology which has posed questions for how nasal consonants are defined in terms of feature phonology (Walker and Pullum 1996). Austronesian linguistics has therefore had, by extension, implications for phonological theory. Furthermore, evidence from Austronesian phonology has contributed to refining the nasal compatibility hierarchy (Levi 2008; Walker 2000, 2003; Cohn 1990, 1993). Features such as nasal preplosion and nasal postplosion have a curious and irregular distribution both in terms of geography and subgrouping while nasal substitution is exhibited by virtually all languages of the Philippines and Borneo (Blust 2013).

Blust (1997) discusses a range of nasal phenomena that have been reported for the languages in Borneo. He particularly focusses on the less well-defined and typologically unusual processes

such as nasal harmony, nasal preplosion and nasal postplosion and demonstrates that in some languages on the island, these features have become embedded in the phonology rather than being motivated purely by articulatory and perceptual realities. Despite its age, Blust's paper remains the only publication surveying multiple nasal phenomena across a number of different and not necessarily related languages. It is also one of the few papers aimed at integrating Bornean languages into the wider linguistic debate as well as general linguistic theory and thereby giving them more exposure in the linguistic literature.

The following sections introduce the most prominent nasal phenomena found in Paku. The discussion begins with an analysis of nasal harmony (2.2.1), followed by nasal preplosion (2.2.2) and nasal substitution and accretion (2.2.3). Note that the analysis of these features is purely impressionistic, meaning that the nasality of a segment was judged without the aid of instrumentation. However, even with the aid of acoustic analysis, nasality is difficult to determine.[2]

2.2.1 Nasal harmony

Nasal harmony describes a process in which a nasal consonant spreads its feature [+nasal][3] to preceding (coda-driven nasal harmony) or following segments (onset-driven nasal harmony). This nasal feature will typically spread until it is blocked by another segment or by a word break. There are three types of segment behaviour that can be observed: *target segments* become nasalised, *opaque* (or simply *blocking*) *segments* remain oral and block nasal spreading, and *transparent segments* remain oral but do not prevent nasalisation from spreading beyond them, i.e., target segments following a transparent segment continue to be nasalised. Blust (1997) furthermore distinguishes primary and contragrade nasal spread. Primary nasal spread refers to the primary direction of nasal harmony, i.e. if it is onset- or coda-driven. It is also measurably stronger than contragrade nasal harmony which spreads in the opposite direction of primary nasality. Contragrade nasal spreading is a result of coarticulatory gestures rather than a productive system. If it was not present the edges of nasal consonants would need to be denasalised when occurring adjacent to an oral vowel. The distinction between primary and contragrade nasality is particularly relevant in the languages of Borneo since some of them have developed a phonological process to prevent unwanted contragrade nasality - nasal preplosion.

Nasal harmony is a prominent feature in Paku. It is onset-driven and spreads rightward until ultimately blocked by an opaque segment or a word boundary. For Paku the exact number of nuclei nasality can spread through is hard to determine given Paku's preference for disyllabic bases and the high frequency of nasals, especially in prefixes. Nasal preplosion is also present in Paku, although not used universally by all speakers. This process has been described as a means to prevent nasal 'spilling' in the wrong direction and although due to coarticulatory gestures this nasal spillage is probably never fully preventable, coda-driven nasal harmony in languages with nasal preplosion has been argued to be negligible (Blust 2013:185).

With regard to segment behaviour, only vowels can be clearly identified as target segments in Paku. Glides and glottals are transparent. However, given the acoustic similarities between vowels and glides, it is possible that the same segment behaviour can be observed for those two

2. See Styler (2015) for a study on vowel nasality using spectral slices. Among other things he outlines difficulties in identifying the feature [+nasal] in a signal.

3. The feature [+nasal] is primarily defined by a lowered velum during articulation. While nasal airflow does usually accompany a lowered velum, studies have shown that the presence of nasal airflow is neither necessary nor sufficient to establish whether a segment is [+nasal] or not (Cohn 1993:347). Nasal airflow is therefore considered epiphenomenal (Walker and Pullum 1999:767).

classes. In fact, there has been some debate around whether seemingly transparent segments only allow nasalisation to spread through them or if they in fact *undergo* nasalisation themselves (Walker and Pullum 1999), which supports the idea that acoustically similar classes such as vowels and glides are likely to behave in the same way when subjected to nasal harmony.[4] The class of liquids is split: /l/ is transparent and /r/ is opaque. Obstruents are opaque segments and thus block nasal spreading in Paku. Unfortunately no data is available for the only affricate in the language /ʧ/ but there is no reason to assume that this segment would not pattern with the other obstruents and prevent nasality from spreading onto following segments. Table 2.18 illustrates the behaviour under nasalisation for all segment classes documented in Paku.

/ma'heŋo/	'to breathe'	→	[mã'hẽŋõ]
/ma'ʔasus/	'good'	→	[mã'ʔãsus]
/na'wintan/	'to fish (UV)'	→	[nã'wĩntan]
/ma'lajoŋ/	'warm'	→	[mã'lãjõŋ]
/me'riris/	'thin'	→	[mə'rɪrɪs]
/so'nolo/	'fat (n.)'	→	[so'nõlo]
/'ŋepot/	'to hold (AV)'	→	['ŋẽpot]
/'ŋobon/	'to protect (AV)'	→	['ŋõbon]
/'mato/	'eye'	→	['mãto]
/'ɲodok/	'to puncture (AV)'	→	['ɲõdok]
/'ɲikah/	'to spit (AV)'	→	['ɲĩkah]
/'ɲogin/	'copper'	→	['ɲõgin]
/'ɲosok/	'to rub (AV)'	→	['ɲõsok]

TABLE 2.18: Nasal harmony

In order to better rank the nasal harmony pattern in Paku against those documented in other languages, the nasal compatibility hierarchy, first introduced by Schourup (1972), is a useful measure. It ranks segments in terms of their harmonicity under nasalisation considering aerodynamic observations in speech production, e.g. the maintenance of sufficient pressure to produce and sustain frication is higher with a simultaneously lowered velum. It also considers aspects of feature phonology, i.e. shared features with nasalisation. As with all measures of this kind, languages differ as to where they rank on the scale. The implication of this hierarchy (illustrated in Table 2.19) is that if one segment in a given language is a target or transparent, all other segments of the same manner of articulation or to its left in the hierarchy will behave in the same way Walker (2000).

Vowels	>	Glottals	>	Glides	>	/l/	>	/r/	>	Fricatives	>	Oral Stops

TABLE 2.19: Nasal compatibility hierarchy

4. Walker (2000, 2003) argues that, not only from a phonological but also from a typological perspective, target and transparent segments should be analysed together as what she refers to as *permeable* segments. She argues, on the basis of a database comprising of 75 languages, that if target and transparent segments were to be analysed separately, it would leave a gap in the typology, namely that there are no languages in which all segments, including stops, allow the continuation of nasal spreading. By analysing targets and transparent segments as one class, all possible steps on the nasal compatibility hierarchy, from languages that do not allow any nasal spreading to languages in which all segments are permeable, are exhaustively attested.

Following the analysis of larger samples and typological evaluations, some authors have suggested modifications and adjustments to the hierarchy which mainly concern the variable behaviour of glottals and in some instances glides. Modifications include claims of an altogether separate path because either the feature [+nasal] can only apply to supralaryngeal segments (Cohn 1993), or because /h/ and /ʔ/ do not necessarily behave as one class and should therefore be analysed with fricatives and stops respectively (Walker 2003). In addition to these "variable ranking hypotheses" (Levi 2008) it was argued that glides need to be divided into derived and underlying glides, the former representing non-syllabic counterparts of vowels and therefore patterning with vowels (Levi 2008).

Looking at the data provided throughout this section it appears like Paku nasal compatibility is best placed between glides and liquids on the hierarchy and therefore patterns nicely with the majority of other Austronesian languages.

2.2.2 Nasal preplosion

The term nasal preplosion refers to a process in which a word-final nasal consonant is phonetically preceded by a short homorganic voiceless stop unless the final syllable begins with a nasal consonant.[5] Phonetically this phenomenon resembles the nasal release of a stop. However, this description might create the misconception that the primary articulation is the stop with the nasal release being a secondary feature when in reality it is the nasal consonant that is the primary segment. As Adelaar (1995) puts it, compared to nasally released stops, the term nasal preplosion "does more justice to the actual phonetic change that has taken place" (p.87). The process of nasal preplosion is illustrated in Table 2.20.

m	$\rightarrow$	[^{p}m]	/	$C_{(}non-nasal)V_\#\#$
n	$\rightarrow$	[^{t}n]	/	$C_{(}non-nasal)V_\#\#$
ŋ	$\rightarrow$	[^{k}ŋ]	/	$C_{(}non-nasal)V_\#\#$

TABLE 2.20: Nasal preplosion

The process shown in Table 2.20 is reflected in Paku in examples such as /tuˈʔulaŋ/ 'bone' which is pronounced [tuˈʔula^{k}ŋ].

Nasal preplosion is a prominent feature of Maanyan. In Paku, while the process of nasal preplosion is undoubtedly present, its use is highly variable among speakers. With regard to this feature there is a divide along geographical lines with speakers in Tarinsing almost invariably using nasal preplosion whereas its use in Tampa is more variable and the one speaker in Bantei Napu never using it. It is furthermore noteworthy that when uttering words in isolation none of the speakers preplode final nasals and those speakers who do preplode nasals in rapid speech, will do so for native words as well as for loanwords[6]. Preploded nasals are in complementary distribution with simple nasals. Due to the fact that they occur in a predictable environment, they cannot be considered separate phonemes in Paku.

5. While a homorganic voiceless stop preceding the nasal is the most common form of nasal preplosion, Adelaar (2005b:207) points out that in some languages, the nasal consonant is preceded by a homorganic voiced stop or a glottal stop.
6. Note that speakers do not seem to be aware of a difference between a simple and a preploded nasal.

Historically, preploded nasals have developed from simple nasals (Blust 2013:241) and in the Austronesian world they are exclusively found in Borneo, Sumatra and parts of mainland Southeast Asia (Blust 1997:155). In addition, there is no evidence that there is a tendency in entire language subgroups to share this innovation and neither subgrouping nor contact provides a satisfactory explanation for this distribution (Blust 2013:241). Any attempts at an explanation are furthermore hindered by the fact that there are still large areas in particularly Borneo that have not yet been systematically researched.

2.2.3 Nasal substitution and nasal accretion

Nasal substitution and accretion are common in Western Austronesian languages. Nasal substitution is the process in which the root-initial consonant is replaced by a homorganic nasal consonant when a prefix ending in a nasal is attached to the root. In Paku the majority of segments, both voiceless and voiced, undergo nasal substitution. The term 'homorganic' is not without shortcomings in this context since strictly speaking not all resulting nasal elements are homorganic with the initial segment of the root, at least not from a synchronic perspective. An example of this is /h/ which in Paku is substituted by [n]. This can be traced back to historical developments. However, these changes are irrelevant in a synchronic analysis, and the substitution of /h/ with [n] is treated as a deviation from the rule. Another substitution not entirely homorganic is that of a root-initial /s/ which is replaced by [ɲ] in this environment. This is most likely a result of a desire to perceptually differentiate /t/- and /d/- initial roots, which are substituted by alveolar [n], from /s/-initial roots. It could potentially also be attributed to the fact that in many languages PMP *s merged with *c (Blust 2004:94), a voiceless palatal affricate.

The remainder of nasal substitutions in Paku are all genuinely homorganic. Initial bilabial segments /p/, /b/, and /w/ are replaced with [m]. The initial alveolar stops /t/ or /d/ are replaced with [n], and velar stops /k/ and /g/ are substituted with [ŋ]. /ʤ/ also undergoes nasal substitution and, like /s/, is replaced by a palatal nasal [ɲ] in this environment. Table 2.21 illustrates nasal substitution for all segments for which the process has been documented. Unfortunately, there are gaps in the data as no occurrences of nasal substitution of verbal roots beginning with /l/ have been recorded. Moreover, there are no verbal roots in the data that begin with a nasal.

N-	+	/'puhut/	'erase'	→	/'muhut/	'to erase'
N-	+	/'wintan/	'fishing rod'	→	/'mintan/	'to fish'
N-	+	/'tanan/	'leave'	→	/'nanan/	'to leave'
N-	+	/'doha/	'hunting spear'	→	/'noha/	'to hunt with a spear'
N-	+	/'hantam/	'strike'	→	/'nantam/	'to strike'
N-	+	/'serut/	'suck'	→	/'ɲerut/	'to suck'
N-	+	/'ʤuʤut/	'pull'	→	/'ɲuʤut/	'to pull'
N-	+	/'gosok/	'rub'	→	/'ŋosok/	'to rub'
N-	+	/'kali/	'dig'	→	/'ŋali/	'to dig'
N-	+	/'eto/	'look for'	→	/'ŋeto/	'to look for'

TABLE 2.21: Nasal substitution in Paku

As was mentioned before Paku substitutes both voiceless and voiced segments. Although from the discussion in the literature one might assume that the pattern found in Paku is typologically

less favoured, Blust (2004:101) argues that, based on his sample, roots beginning with a voiced obstruent are in fact (slightly) more likely to undergo nasal substitution than nasal accretion. Typologically more unusual is that Paku substitutes not only obstruents but also /w/[7]. However, this might be a result of sound change and that /w/ in Paku actually evolved from *b, which has been observed in other Austronesian languages (Blust 2004:116).

Typologically there is a tendency for monosyllabic roots not to undergo nasal substitution (Blust 2004:107). This is also true in Paku where nasal substitution and accretion have only been observed in disyllabic roots.

The term nasal accretion refers to the process in which the prefix-final nasal assimilates in place of articulation to the initial segment of the root. However, instead of replacing it, the root retains its initial consonant which then forms a cluster with the nasal.[8] In Paku this type of segment behaviour is observed with only the alveolar trill /r/ and vowels[9]. Apart from those, there are a few roots in the data that undergo nasal accretion. However, no generalisations can be made with regard to segment behaviour in these cases as other roots beginning with the same segment may undergo nasal substitution. Based on the available data it is unclear which factors determine whether a root undergoes nasal substitution or nasal accretion. It is possible that it is not the root but the prefix that is the decisive factor as the majority of instances of nasal accretion involve the use of the same prefix: the transitiviser *sVN-*. However, as demonstrated in 5.2.3.5, *sVN-* usually triggers nasal substitution in the root.

Examples of nasal accretion from the data are shown in Table 2.22. As can be seen, regardless of vowel quality, whenever a prefix ending in a homorganic nasal attaches to a vowel-initial root, the nasal is realised as [ŋ]. The first two examples feature the transitivising prefix *sVN-* in which the nasal first assimilates and then forms a cluster with /r/ and /k/ respectively. In the first example, *sVN-* is preceded by the actor voice marker *N-*. Note that the homorganic nasal furthermore triggers a root-internal change in /ite/ 'see' which has been observed in all instances of nasal substitution but only for this one root. There are some instances in the data in which a velar stop [k] is inserted between an assimilated prefix-final nasal and a vowel-initial root. An example of this kind is /taŋ'kasus/ 'improve/repair'.

N-	+	*sVN-*	+	/'roŋoj/	'hear'	→	/ɲon'roŋoj/	'to listen'
		sVN-	+	/'kahoŋ/	'meet'	→	/saŋ'kahoŋ/	'to meet (tr.)'
N-	+			/'anup/	'hunt'	→	/'ŋanup/	'to hunt'
N-	+			/'epot/	'hold'	→	/'ŋepot/	'to hold'
N-	+			/'ite/	'see'	→	/'ŋinte/	'to see'
N-	+			/'oɠo/	'lie'	→	/'ŋoɠo/	'to lie'
N-	+			/'ulah/	'make'	→	/'ŋulah/	'to make'

TABLE 2.22: Nasal accretion in Paku

In the data there are four prefixes that can trigger nasal substitution and accretion: the actor voice marker *N-* (5.2.1.1), the derivational prefix *pVN-* which marks an actor or instrument (4.2.3), the transitiviser *sVN-* (5.2.3.5), and *tVN-*, one of the two causative prefixes (5.2.3.4.2).

7. The only word-initial glide in the data.
8. In this sense, the term 'nasal accretion' as first used by Dempwolff (1937) is perhaps not reflecting the actual process given that the nasal is not an accretion but a retention of the prefix coda (Blust 2004:85).
9. Strictly speaking only /r/ undergoes nasal accretion as the nasal before vowels does not form a cluster. However, given that it is ultimately the retention of the coda nasal that defines nasal accretion, vowels are considered to undergo this process.

2.3 Stress

Primary stress within roots in Paku is on the penultimate syllable and is non-distinctive. Stress placement is very regular and predictable with only few exceptions in the data. What this means is that stress is not part of the lexical entry of a word. Evidence for this claim comes from two observations. Firstly, speakers do not reject constructions in which stress has been changed. Secondly, stress never has derivational function, i.e. changing stress does not change the word class of a word as it sometimes does in other languages (cf. *'record* (n.) vs. *re'cord* (v.) in English). Moreover there is both inter- and intra-speaker variation with regard to stress placement: not only do speakers sometimes vary from each other but also on occasion the same speaker will produce the same word differently without any obvious conditioning environment. An example of a root exhibiting a lot of variation is *tekui* 'when' which is sometimes produced as ['tekuj] and other times as [te'kuj]. A common example of irregular stress placement is *bakoi* 'NEG' in which the ultimate syllable is more prominent than the penultimate one.

With regard to the predictability of stress, syllable structure is once again a factor in that the higher the number of syllables the more regular stress placement within the root. The higher the number of syllables, the less variability in stress placement with very few deviation from the norm for trisyllabic words and none for words with four syllables.

Because stress is usually placed on the penultimate syllable, it can furthermore serve as an indicator for syllable structure (see 2.5). However, this can never be the only evidence used, given that stress in Paku is not entirely regular.

Paku stress does not move to the right through suffixation. For instance, when *-an* is suffixed to the verbal root /'*gawi*/ 'work' to form /'gawian/ 'work (n.)', stress remains on the original penultimate syllable of /'*gawi*/. As a result, in /'*gawian*/ stress is now on the antepenultimate syllable.

In the few instances of roots consisting of four syllables, in addition to primary stress on the penultimate syllable secondary stress is placed on the initial one, e.g. [ˌkolo'waŋun] 'how' and [ˌwuwu'nijan] 'bladder'.

Overall, stress in Paku is not a salient feature of its grammar apart from its minor importance in determining syllable structure. Based on impressionistic observations it appears that the intonation unit is more relevant in discourse, e.g. some speakers have a noticeable high rising terminal in rapid speech.

2.4 Orthography

Although no official orthography has ever been devised for Paku, Paku speakers have no difficulty in writing their language. For this they use a practical orthography that is based on the orthography of Indonesian. This is hardly surprising given that the only language they ever learned to write and read is Indonesian and that the sounds found in both languages are similar enough, yet there are still a number of phonemes that are not represented accurately in this system, such as for example the difference between [o] and [u]. Some speakers seem to use the grapheme *o* to refer to /u/ and *u* to spell /o/. In addition, the glottal stop is not always expressed in writing unless it occurs between two vowels of the same quality in which case it is invariably

expressed. Although vowel length is not distinctive in Paku, one of the main informants used a two vowel sequence as opposed to a single vowel word-finally to distinguish words that end in a glottal stop from words that end with the vowel.

Table 2.23 shows the orthography used for Paku which will also be used throughout the remainder of this thesis. It is fairly straightforward with only a few phonemes that need to be expressed through digraphs (*ny* for the palatal nasal and *ng* for the velar nasal). The glottal stop, if written, is indicated with an apostrophe; the palatal glide [j] with *y*, and the affricate [ʤ] with *j*.

IPA		**Practical Orthography**
[*p*]	→	p
[*b*]	→	b
[*t*]	→	t
[*d*]	→	d
[*k*]	→	k
[*g*]	→	g
[ʔ]	→	'(apostrophe)
[*m*]	→	m
[*n*]	→	n
[ɲ]	→	ny
[ŋ]	→	ng
[ʤ]	→	j
[*s*]	→	s
[*r*]	→	r
[*l*]	→	l
[*w*]	→	w
[*j*]	→	y
[*h*]	→	h
[*i*]	→	i
[*e*]	→	e
[*a*]	→	a
[*o*]	→	o
[*u*]	→	u

TABLE 2.23: Paku orthography

As was briefly mentioned in 2.1.1.1, despite phonologically being analysed as vowel plus glide sequences, vocalic sequences as in ['danaw] 'lake' are written as a sequence of two vowels so ['danaw] is spelled *danau*, in accordance with the practical orthography used by the speakers. Given that the same orthography is used for the description of related languages, it furthermore facilitates cross-linguistic comparison.

2.5 Syllables

The vast majority of roots in Paku are disyllabic, as is common more generally in Austronesian languages (Himmelmann 2005a:116). This is followed by a smaller number of trisyllabic ones

and an even smaller number of roots with four syllables. The syllable structure in Paku can be illustrated as (C)V(C) with closed syllables being favoured in word-final position. Monosyllabic roots do occur, but they are limited to a small number of mostly function words. In the data those monosyllables are either structured as CV, as in *gi* 'LOC' or as CVC, as in *pah* DIR. Monosyllabic roots consisting of only a vowel are not attested. Table 2.24 illustrates attested root structures in Paku.

Monosyllabic roots				
CV	/gi/	'LOC'	/hi/	'ART.PERS'
CVC	/pah/	'DIR'	/non/	'what'
Disyllabic roots				
V.CV	/'aku/	'1SG'	/'uro/	'young'
V.CVC	/'upak/	'skin'	/'eteŋ/	'dog'
VC.CVC	/'ampeŋ/	'thunder'	/'eŋkat/	'lift (v.)'
VC.CV	/'inre/	'earlier'	/'onro/	'day'
CV.V	/'reo/	'2/3PL'	/'poo/	'foot, leg'
CV.VC	/'pain/	'bat'	/'naan/	'exist'
CV.CV	/'basa/	'language'	/'ronu/	'brave'
CV.CVC	/'manah/	'necklace'	/'babur/	'war'
CVC.CV	/'tunti/	'ask'	/'tuŋka/	'ball of the foot'
CVC.CVC	/'monsak/	'cooked, ripe'	/'wuntuŋ/	'stomach'
Trisyllabic roots				
V.CV.CV	/a'nule/	'half orphan'	/e'leme/	'close (v.)'
CV.CV.CV	/so'nolo/	'fat (n.)'	/te'liŋo/	'ear'
CV.CV.CVC	/ka'tamah/	'swim'	/mo'roŋin/	'fever'
CV.CV.VC	/ka'lait/	'struggle (v.)'		
CVC.CV.V	/mon'tuo/	'old'		
CVC.CV.CVC	/han'tekuj/	'when'	/saŋ'siŋut/	'mustache'
VC.CV.VC	/am'pait/	'bitter'		
CV.CVC.CV	/si'hinra/	'first cousin'	/se'laŋka/	'collarbone'
CV.CVC.CVC	/me'lintaŋ/	'yellow'		
Quadrisyllabic roots				
CV.CV.CV.CVC	/kolo'waŋun/	'how'	/wuwu'nijan/	'bladder'
CV.CVC.CV.V	/morun'sia/	'mankind'		

TABLE 2.24: Attested syllable structures

The most common root structure in Paku is CV.CVC followed by CVC.CVC in which the medial cluster consists of a nasal plus homorganic voiceless obstruent or /r/ (see 2.1.3). Here the argument could be made that if the clusters were analysed as prenasalised obstruents and therefore as a unitary segment, these words would fit more neatly into the predominant pattern observed in Paku. However, as has been shown for nasal sequences in other Austronesian languages (Cohn and Riehl 2008), only if the two components within such a sequence share the same value for voicing can the nasal be analysed as a superimposed feature. In cases in which the value for voicing within a sequence are different, such as in Paku, both segments have the roughly the same duration and an analysis a unitary segment is not supported. Therefore, such root-medial consonants at a syllable boundary need to be viewed as genuine clusters.

Table 2.24 is not indicative of the prevalence of root structures in Paku as it exhibits a large number of trisyllabic roots. In reality these roots are not so common but are included to demonstrate the larger variety in their internal structure. Some structures are only attested once in the corpus, as is evident from the gaps in Table 2.24. In addition, many roots listed as trisyllabic can actually be traced back to a disyllabic root plus affix. For example, /si'hinra/ '(first) cousin' comes from /si 'hinra/, a combination of personal article /si/ and /'hinra/ 'first'.[10]. Other examples include many forms beginning with the verbal prefix *kV-* which marks accidental or non-volitional action. However, there are also some trisyllabic roots with initial *kV-* which semantically convey the notion of being performed without full control. Given that the affix can no longer be removed from the root (the root does not have any meaning by itself), at some point the accidental marker was probably reanalysed as part of the root. Further evidence for this is that trisyllabic roots beginning with *kV-* display the characteristic vowel harmony in the initial syllable (see 2.6), and that they do not occur with inflectional prefixes. In addition to /ka'tamah/ 'swim' and /ka'lait/ 'struggle', /ku'tuju/ 'like' or /ki'kihi/ 'laugh' also fall in this category.

The nucleus of a syllable is always occupied by a vowel. All consonants except /j/ occur in onset position. With the exception of voiced stops, all consonants can appear in the coda but there is a strong tendency for it to be occupied by an obstruent, most often a stop, particularly in word-final position. In the data, liquids only rarely occur in coda position.

There are a number of roots in Paku that appear to be monosyllabic with a phonetically long vowel. However, as is evident from Table 2.24, these roots are still analysed as disyllabic. This is based on three considerations: a) cognate roots in related languages, most notably Maanyan, feature an intervocalic glottal stop breaking up the vocalic sequence into two separate syllable nuclei, b) the root structure of content words is overwhelmingly disyllabic and monosyllabic roots in the data are either function words or abbreviations, and c) the occurrence of long vowels has otherwise not been attested in Paku.

If the final syllable of a word combines an oral onset with a nasal coda, its final nasal is phonetically preceded by a short homorganic stop. This strategy generally known as nasal preplosion is used to prevent secondary nasal spreading and has been discussed in more detail in 2.2.2. It is furthermore the only process in Paku in which segments have a superimposed, secondary articulation.

Given the regularity of stress in Paku, it can sometimes be used as a cue to the syllabic structure of a root. As is shown in 2.3, stress in Paku is almost always on the penultimate syllable. Therefore, in cases in which it might not be immediately clear if a root is di- or trisyllabic, if stress is on the first syllable, the root is likely to be disyllabic in structure whereas if stress is on the second one, it is probably trisyllabic. However, given that stress is not lexical, stress placement alone should never be used as an indicator of root structure in Paku.

Often speakers will abbreviate trisyllabic words such as for instance /han'tekuj/ 'when' which is typically abbreviated to /'tekuj/. This observation provides further evidence for the preference of disyllabic roots in Paku. Given the prevalence of this root structure, it informs the analyses in other parts of Paku's phonology and morphology, as for instance the discussion of diphthongs (2.1.1.1).

10. [s] developed into [h] in these languages (Adelaar, personal communication) which explains the change in form of the personal article from [si] to [hi].

2.6 Vowel harmony

A feature of particular interest in Paku is vowel harmony. This process works from right to left with the vowel in the prefix assimilating at a distance to the first vowel occurring in the root. Although attested in a number of Austronesian languages, vowel harmony is overall rare in this language family (Blust 2013:257). However, it is not used by all speakers and some affixes are more likely to consistently elicit vowel harmony than others. Vowel harmony occurs in the majority of prefixes. Table 2.25 shows some representative examples of vowel harmony in Paku using the stative intransitive marker *mV-*, the dynamic intransitive marker *bV-*, the actor voice non-volitional marker *kV-*, the undergoer voice non-volitional marker *tV-*, the classifier marker *kV-*, the transitiviser *sVN-*, one of the causative prefixes *tVN-*, and the nominaliser *pVN-*. Of those eight, the triggering of vowel harmony in *tV-*, *bV-*, *mV-* are the least consistent among speakers, including those that use vowel harmony with other prefixes.

mV-	'INTR.STA'	+	/'hinroj/	'wait for a short time'	→	/mi'hinroj/	'wait for a long time'
mV-	'INTR.STA'	+	/'umeh/	'roar'	→	/mu'ʔumeh/	'roar'
mV-	'INTR.STA'	+	/'haruŋ/	'sit'	→	/ma'haruŋ/	'sit down'
mV-	'INTR.STA'	+	/'herok/	'snore'	→	/me'herok/	'snore'
mV-	'INTR.STA'	+	/'roŋin/	'sick'	→	/mo'roŋin/	'sick'
bV-	'INTR.DYN'	+	/'himat/	'save'	→	/bi'himat/	'plenty'
bV-	'INTR.DYN'	+	/'leoh/	'drool'	→	/be'leoh/	'drool'
bV-	'INTR.DYN'	+	/'gawi/	'work'	→	/ba'gawi/	'work'
bV-	'INTR.DYN'	+	/'tolu/	'three'	→	/bo'tolu/	'three (of sth.)'
bV-	'INTR.DYN'	+	/'rundiŋ/	'discuss'	→	/bu'rundiŋ/	'discuss'
kV-	'AV.NVOL'	+	/'ituŋ/	'remember'	→	/ki'ʔituŋ/	'remember'
kV-	'AV.NVOL'	+	/'elaŋ/	'wake up'	→	/ke'ʔelaŋ/	'wake up' (e.g. from a noise)
kV-	'AV.NVOL'	+	/'taru/	'understand'	→	/ka'taru/	'understand'
kV-	'AV.NVOL'	+	/'roŋoj/	'hear'	→	/ko'roŋoj/	'(over-)hear'
kV-	'AV.NVOL'	+	/'tueʔ/	'know'	→	/ku'tueʔ/	'know'
tV-	'UV.NVOL'	+	/'antuh/	'mention'	→	/ta'ʔantuh/	'mentioned'
tV-	'UV.NVOL'	+	/'oit/	'bring'	→	/to'ʔoit/	'taken accidentally'
tV-	'UV.NVOL'	+	/'tutup/	'close'	→	/tu'tutup/	'closed'
kV-	'CLF'	+	/'wila/	'roll'	→	/ki'wila/	'small round object'
kV-	'CLF'	+	/'wataŋ/	'branch'	→	/ka'wataŋ/	'large round object'
kV-	'CLF'	+	/'soyot/	'slice'	→	/ko'soyot/	'flat, sliced object'
kV-	'CLF'	+	/'ulun/	'person'	→	/ku'ʔulun/	'human'
sVN-	'TR'	+	/'risak/	'cold'	→	/sin'risak/	'cool (v.)'
sVN-	'TR'	+	/remeh/	'trivial'	→	/sen'remeh/	'trivialise'
sVN-	'TR'	+	/kahoŋ/	'meet'	→	/saŋ'kahoŋ/	'meet'
sVN-	'TR'	+	/'roŋoj/	'hear'	→	/son'roŋoj/	'listen'
sVN-	'TR'	+	/'rupak/	'close'	→	/suŋku'rupak/	'live close to'
tVN-	'CAUS2'	+	/'wisa/	'wet'	→	/ti'misa/	'make wet'
tVN-	'CAUS2'	+	/'kariŋ/	'dry'	→	/ta'ŋariŋ/	'make dry'
tVN-	'CAUS2'	+	/'buka/	'wide'	→	/tu'muka/	'make wide'
pVN-	'NOMZ'	+	/'wolum/	'live'	→	/po'molum/	'life'
pVN-	'NOMZ'	+	/'okan/	'eat'	→	/po'ŋokan/	'food'
pVN-	'NOMZ'	+	/'suruj/	'sleep'	→	/pu'ɲuruj/	'rapist'

TABLE 2.25: Vowel harmony in Paku

Some examples in Table 2.25 furthermore undergo nasal substitution (see 2.2.3). However, while in some instances this might have the effect of making the composition of a word less transparent, it has no impact on the spread of vowel harmony.

Chapter 3

Word classes

This chapter examines which word classes should be recognised in Paku along with criteria for distinguishing them.

A basic distinction to be made in any discussion on word classes, or lexical categories as they are sometimes called, is that between open and closed classes. Open classes allow new items into the lexicon through borrowing or coinage whereas closed classes as a general rule do not permit new items to be added. The former contain content words whereas the latter typically, but not exclusively, include function words. In Paku the closed classes are pronouns, numerals, adverbials, articles, demonstratives, numeral classifiers, prepositions, auxiliaries, conjunctions, interrogatives, and other discourse-related elements with less straightforward functions which for convenience are grouped together as 'particles and interjections'. Closed classes can usually be identified based on their grammatical properties within the phrase or clause (i.e. distribution and co-occurrence with other elements). However, with regard to open classes there has been some dispute in the typological literature more generally over the criteria that should be applied when determining word class membership (e.g. Givón 2001; Schachter and Shopen 2007; Sasse 1993; Rijkhoff 2007; Evans 2000). In the Austronesian literature more specifically, there has been some debate over how many distinct classes should be recognised (e.g. Blust 2013; Himmelmann 2005a, 2008; Gil 2013; Mosel and Hovdhaugen 1992). Particularly the question of whether or not there is an identifiable class of adjectives is controversial (Himmelmann 2005a; Lynch et al. 2002). It has been claimed that the reason much earlier work has posited a separate class of adjectives is the eurocentrism prevalent at the time (Gil 2001:104) and that when purely considering grammatical evidence, there is often no basis for the distinction between adjectives and verbs (Davies 2010; Schachter and Shopen 2007; Evans 2000; Adelaar 2005a; Donohue 1999; Van den Berg 1989; Klamer 2005). As will be demonstrated in 3.1.2.1, roots expressing qualities and properties in Paku, which are usually cited as the typical domain of adjectives, often behave like intransitive stative verbs morphologically and syntactically. However, there are also a number of roots expressing adjectival concepts which do not behave in this way. The best way to accommodate for this is by analysing Paku as having two types of roots expressing properties: one that is a subcategory of intransitive stative verbs and one that forms its own small word class.

Another topic which is of special interest in particularly the symmetrical voice languages of Austronesia is the question of whether there are in fact different categories of open word classes or whether they need to be grouped together as one open class of predicates. The latter claim is sometimes made based on the observation that in some languages there seems to be a basic lack of morphosyntactic evidence differentiating even nouns from verbs (e.g. Gil 2000, 2013; Himmelmann 2005a; Sasse 2001; Rijkhoff 2002), a distinction that is often described as universal among

languages (Givón 2001:49; Croft 2002:183; Dixon 1982:2). In the past there have been varying attempts at explaining systems in which lexical items are seemingly more flexible with regard to possible morphological modifications and syntactic frames in which they can occur. For example, some authors (e.g. Thieberger 2006; Evans and Osada 2005; Don and Lier 2013), especially when describing Oceanic languages, analyse cases in which a lexeme can, without any modification, occupy both nominal and verbal slots as involving so called zero conversion, a derivational process which converts the word class without morphological marking. Others place those roots into a separate and distinct class of flexible lexical items (Van Lier and Rijkhoff 2013; Hengeveld 2013; Bisang 2013), and yet others view these lexemes as precategorial (Davies 2010; Donohue 1999, 2008; Don and Lier 2013; Adelaar 1992). Although the exact definition of precategorial roots varies (Himmelmann 2005a:129), precategoriality generally refers to a system in which lexemes are not preclassified for syntactic category in the lexicon but instead occur in different syntactic frames without overt morphological modification. As was briefly hinted at above, there have also been claims that some languages lack word classes altogether[1] as is the case in for example some accounts of Mundari, an Afroasiatic language spoken in parts of India, Bangladesh, and Nepal (Evans and Osada 2005), Salishan languages of the Pacific Northwest (e.g. Jelinek and Demers 1994; Jelinek 1995; Kinkade 1983), and some Austronesian languages like Tagalog (e.g. Lemaréchal 1982, 1989; Kaufman 2009a; Himmelmann 1987, 1991, 2008; Evans 2000; Don and Lier 2013; Gil 2001), and Riau Indonesian (Gil 1994, 2001, 2013).

Upon closer inspection it becomes evident that these different conclusions and analyses are often the result of differing approaches to word class determination and their identifying criteria. For example, there are those who argue that when determining word classes in a language, grammatical criteria should be of primary concern as often semantic criteria are not precise enough and leave too much room for misinterpretation (e.g. Schachter and Shopen 2007:1). Others include semantic evidence in their analyses (e.g. Givón 2001; Klamer 1998) or at least recognise their value in explaining the motivation for the division of content words into word classes (Dixon 1982; Sasse 1993; Evans 2000). Semantic evidence often serves to define a prototype of a given word class against which certain forms can be compared. In that sense, the determination of word class membership needs to be considered as a continuum in which roots are viewed as being more or less like the prototype of a category. With regard to grammatical criteria Schachter and Shopen (2007:2) list a word's distribution, its syntactic functions, and the morphological and syntactic categories for which it is specifiable as relevant diagnostic tools for the determination of a root's word class which will also be the criteria applied in the following analysis of Paku. Moreover, Evans and Osada (2005) argue that it is important to distinguish morphological from syntactic evidence because "word classes distinguishable by morphological criteria could be indistinguishable by syntactic criteria"[p. 358]. They also point out that for a language to be considered to truly lack word class distinctions, criteria applied need to be exhaustive across the lexicon and not just apply to a few selected lexemes [p. 366]. Another distinction that some authors make is that between lexical and syntactic category which often offers a clearer view of word classes in a given language because it is often that mapping of lexical items onto syntactic roles where there are difficulties and mismatches.

As will become clear in the following discussion, in Paku all content words, i.e. roots belonging to an open word class, share a great number of grammatical features, both in terms of morphological valence and in terms of syntax, i.e. their distribution and syntactic function within the clause - which can typically change without any overt modification of the word. Based on the criteria put

1. On either morphological or syntactic grounds, or both.

forward by Evans and Osada (2005) Paku certainly makes a distinction between at the very least nominal and verbal roots because firstly the fluidity observed in the Paku system does not apply to all roots and there are a great number which can only occur in one syntactic frame. Secondly, a combination of grammatical and semantic criteria typically yields a conclusive result as to a lexeme's word class.

The view taken here is that open class roots in Paku are generally precategorial with regard to word class membership until they are morphologically modified and/or used in a specific syntactic frame after which they can be identified as belonging to a word class based on morphological and syntactic properties. Moreover, the definition of a semantic prototype can aid in the determination of word class membership for roots as well as motivate a more thorough distinction into subcategories once the primary class has been established. Note that some roots can be clearly assigned to one of the open classes based on their meaning and/or the fact that they can only occur in one grammatical frame.

The grammatical criteria taken to be relevant in the present analysis are those put forward by Schachter and Shopen (2007): a word's distribution, its syntactic functions, and the morphological and syntactic categories for which it is specifiable. As for semantic properties, the guidelines put forward by Givón (2001:50) will be applied. They include concepts such as time-stability, concreteness, and complexity which are used to define a prototype for each of the open word classes.

The first part of this chapter deals with open word classes (3.1) and discusses the identifying features of nominals, verbs, and adjectives. It is important to bear in mind that based on the reasoning given in the above discussion, these identificational criteria apply to the word within context, i.e. in a specific morphosyntactic environment.

The second part of this chapter introduces the closed word classes (3.2). Adverbials will be discussed in two separate sections. Manner adverbs are an open word class readily derived from adjectives whereas the remainder of adverbials form a closed word class of their own. The former will therefore be discussed with adjectives while the latter will be introduced with the closed word classes.

3.1 Open word classes

As mentioned in the introduction to this chapter, determining word class membership solely based on morphosyntactic properties can be problematic. In some instances a root can, without modification, occur in a nominal (referential) or verbal (predicative) context. This is illustrated in (3.1) and (3.2).

(3.1) *Iyo ngepot jalakne.*
iyo N-kepot jalak-ne
3SG AV-hold spear-ART.DEF

'She is holding the spear.'

(3.2) *Jalak kenahne!*
jalak kenah-ne
spear fish-ART.DEF

'Spear the fish!'

The examples in (3.1) and (3.2) show the word *jalak* 'spear' first in nominal and then in verbal use. In the nominal syntactic frame, it occurs as the head of the noun phrase *jalakne* 'the spear' which is then further modified by the definite article *-ne*. In the second example the root is used as an imperative verb, i.e. morphologically unmodified (see 5.1.2), instructing someone to perform the action indicated by the root. Examples (3.1) and (3.2) illustrate the precategoriality of roots in Paku as examining only the root in these constructions without reference to meaning, it is not possible to assign it to a word class. While such structures are indeed proof of there being at least some overlap between nouns and verbs in Paku, if considered in their grammatical context and together with semantic evidence, distinguishing between those two major word classes is generally a straightforward task. This kind of vagueness with regard to the noun-verb distinction is by no means exclusive to Paku or even the Austronesian language family. As is reflected in the translation of (3.1) and (3.2) there are examples of this kind in English and other languages as well (e.g. Sasse 2001; Rijkhoff 2007, 2002; Van Lier and Rijkhoff 2013). However, it is an important feature to address as it is a salient feature of the lexicon in Paku.

As will be demonstrated in the subsequent discussion, Paku has three open word classes: nouns (3.1.1), verbs (3.1.2), and adjectives (3.1.2.1). One syntactic feature all open word class members have in common is that they can all occur in predicate position, a property demonstrated in (3.3)-(3.5). This is the result of Paku's lack of a copula so that both non-verbal, as seen in (3.3) and (3.4), and verbal (3.5) predicates immediately follow the subject. However, in the data predicative function for nouns and adjectives is somewhat more limited than that of verbal predicates as the latter can occur in a wider range of clause types (see 7.4 and 7.6).

(3.3) *Gawianne guru sekolah dasar.*
gawi-an-ne guru sekolah dasar
work-NOMZ-3SG.POSS teacher primary school

'Her work is teaching at primary school.'

(3.4) *Nipone karado.*
nipo-ne karado
snake-ART.DEF green

'The snake is green.'

(3.5) *Reo nyokonrong lowu wayo.*
reo N-sokonrong lowu wayo
3PL AV-stand house new

'They are building a new house.'

The subsequent discussion of nominals and verbs focuses on identificational criteria and in the case of adjectives includes a more thorough discussion of similarities and differences between adjectives and verbs as well as a small introduction to manner adverbs. The full array of possible morphological modifications for nominals and verbs, their syntactic functions, and the structure of noun phrases and verb phrases are discussed in depth in chapters 4 and 5 respectively.

3.1.1 Nominals

The category of nominals includes both nouns and pronouns. The latter technically form a small closed word class of their own, but due to the fact that they occur in place of nouns and therefore show similar grammatical features, especially with regard to distribution, the two classes are discussed together.

Nouns form one of the largest word classes in Paku with new items constantly entering the lexicon through borrowing from mainly Indonesian and Maanyan. Paku has common and proper nouns, the latter including place names, terms of address, and personal names (see Table 4.3). Proper nouns differ only slightly from common nouns, mainly in the form of the modifications they allow. As for common nouns, there are derived nouns and nominal roots. While the former can be easily recognised based on the derivational affix(es) used (see 4.2), a nominal root can only be identified in context via the co-occurrence with articles and demonstratives, and the fact that only nouns can be modified by numerals and quantifiers, classifiers, adjectives, possessors, other nouns, and prepositional phrases, and relative clauses.

Compared to verbs, there is not much morphological marking associated exclusively with nominals. Syntactically, they act as the head of a noun phrase which can occur in referential (as arguments) as well as predicative function. Possessive pronouns always occur as modifiers within the noun phrase following the noun they modify and with regard to predication only nouns (not pronouns) are found in this environment.

Unlike in some other Austronesian languages there is no difference in negation between noun phrases and verb phrases. In Indonesian, for example, a nominal is negated using *bukan*, as in the clause *Dia bukan guru* 'She is not a teacher'. If verbs or verb phrases are negated, the particle *tidak* is used, e.g. *Dia tidak mau pergi ke pasar* 'She does not want to go to the market'. In those languages the negation particle used provides conclusive evidence for word class membership. However, this tool is not available in Paku since both noun and verb phrases are negated using *bakoi* or its abbreviated form *koi* (see 4.1.3 and 5.1.4).

Semantic criteria are helpful for dividing nominal roots into subcategories such as for instance concrete entities such as individuals and materials, and abstract entities and concepts like 'heaven' and 'idea'. However, given that the present analysis is more concerned with identificational criteria for word class determination, subcategorisation cannot be discussed in more detail here. A more relevant application of semantic criteria is using them towards the definition of a prototype for nounhood. For instance, Givón (2001) defines prototypical nouns as being the most time-stable and concrete entities of all word classes. Naturally some subtypes are more prototypical than others, e.g. abstract nouns are less concrete than things that occupy physical space. Similarly, count nouns are more prototypical than mass nouns. This leads to the conclusion that proper nouns denoting place names and personal names also rank highly on the nounhood spectrum given the extent to which they fit the above criteria. However, due to the fact that these semantic criteria

cannot aid in the identification of nominal or verbal roots, they can only be viewed as supplemental evidence, and morphosyntactic criteria will carry the most weight in the following discussion.

Examples (3.6)-(3.12) show seven instances of complex noun phrases demonstrating some of the identificational criteria that can be applied for nouns.

(3.6) *kakao karado*
tree green

'Green tree'

(3.7) *pea urone*
pea uro-ne
child young-ART.DEF

'The young child'

(3.8) *eteng pehe' iyangku*
eteng pehe' iyang-ku
dog blind friend-1SG.POSS

'My friend's blind dog'

(3.9) *ulun itu*
person DEM.PROX

'This person'

(3.10) *tu'ulang kenah*
bone fish

'Fish bone'

(3.11) *motor karuo*
motor ka-ruo
motorbike ORD-two

'Second motorbike'

(3.12) *tana' iyo karing*
soil REL dry

'Soil which is dry'

In (3.6) the head *kakao* 'tree' is modified by the adjective *karado* 'green'. Adjectives only modify nouns. As such they either occur immediately following the head within the phrase or embedded in a relative clause. Example (3.7) shows a more complex noun phrase in which the head *pea* 'child' is not only followed by the adjective *uro* 'young' but also by the definite article *-ne*. The occurrence of *-ne* is usually a good indicator for nounhood. However, given that it can also function as an, albeit rare, nominalising affix, *-ne* cannot be used as sole evidence that a given root is a noun. The noun phrase in (3.8) is an example of a possessive construction consisting of the head *eteng* 'dog' followed by an adjective *pehe'* 'blind', the possessor noun *iyang* 'friend' and the first person singular possessive pronoun *-ku*. Pronominal clitics are excellent indicators that the head of the phrase is a noun as they do not occur in any other environment in the data. In (3.9) the head noun *ulun* 'person' is modified by a demonstrative pronoun *itu* 'this'. When occurring in their function as modifiers, demonstratives provide evidence that the head of the phrase is noun. The situation with regard to nominal modification as shown in (3.10) is more complicated. As a general rule it is unlikely to aid as an identificational criterion for nounhood given the circular nature of such argumentation. However, in this particular example the two nouns in question are highly prototypical in that they are both concrete and time-stable entities with easily identifiable nominal referents. (3.11) shows an example of a noun modified by an ordinal numeral. Like adjectives, numerals and other quantifiers have not been found to modify non-nominal elements. Another good diagnostic tool for the identification of nouns is that they can be qualified by a relative clause. An example is shown in (3.12) in which the head noun in followed by a relative clause introduced by the relativiser *iyo* and featuring an embedded adjective *karing* 'dry'.

Common nouns can be quantified (4.1.4). Count nouns can directly be modified by numerals. However, in most cases a classifier (preceded by the prefix *kV-*) is used between the numeral and the noun (3.13). Mass nouns can only co-occur with either a combination of numeral plus measurement unit (3.14) or one of several quantifiers (which can be used with count nouns as well). Another strong indicator of nounhood is the occurrence of the plural word *kawan* (3.15) (see 4.3).

(3.13) *ruo ku'ukui kenah*
ruo kV-ukui kenah
two kV-CLF2 fish

'Two pieces of fish'

(3.14) *ruowalas liter ranu*
twelve litre water

'Twelve litres of water'

(3.15) *Kawan wawe nari rupak sunge.*
kawan wawe N-tari rupak sunge
some woman AV-dance near river

'Some women are dancing near the river.'

Dependants in prepositional phrases are most often noun phrases[2]. Syntactically these prepositional phrases can function as nominal modifiers within the noun phrase. To illustrate, an example is shown in (3.16). Here, the proper noun *Tampa* is a dependent within the prepositional phrase *gi Tampa* 'in Tampa' which in turn modifies the noun *pasar* 'market.' The internal structure and various functions of prepositional phrases are discussed in chapter 6.

(3.16) *Aku pah pasar gi Tampa.*
1SG DIR market LOC Tampa

'I'm going to the market in Tampa.'

Proper nouns usually occur in unmodified form. Personal names, kinship terms, and teknonyms can be preceded by the personal article *hi* (see 3.2.4 and 4.1.9). In some instances adjectival modification, which has been identified as a good criterion for nounhood, is also accepted. Due to having a real and concrete referent, which is the domain of prototypical nominals, a proper noun can be clearly identified as a noun despite the lack of morphosyntactic criteria.

Paku has personal and possessive pronouns, which due to their shared distributional features with nouns are analysed as a subclass of nominals. Personal pronouns have singular and plural forms whereas possessive pronouns only have a dedicated singular form (see 4.1.2.1). Plural pronominal possessors are expressed in a regular possessive construction (see 4.1.11). For personal pronouns there is a distinction between inclusive and exclusive in first person plural. In undergoer voice singular personal pronouns are expressed as enclitics that attach to the verb, a form in which they resemble singular possessive pronouns (but their distributional properties are different). Paku does not distinguish grammatically between masculine and feminine third persons and the same form is used for both. Moreover, third person pronouns can only have animate referents. Personal pronouns usually form a noun phrase on their own but can be modified by numerals, quantifiers, and demonstratives.

3.1.2 Verbs

Paku has three different verb types based on valency: intransitive verbs, transitive verbs, and complement-taking verbs. Intransitive verbs can be further subdivided into dynamic and stative intransitives, and some complement-taking verbs are able to form serial verb constructions (see 5.1.1). They can typically be identified based on the morphology they take within a clause. In default constructions, dynamic intransitive verbs are marked by the prefix *bV-*, stative intransitives take *mV-*, and transitive verbs are preceded by *N-* in actor voice and by *na-* in undergoer voice. In addition Paku has verbs of transfer which syntactically are transitive but semantically require a third argument which is expressed in a prepositional phrase. These constructions occur with the

2. The only non-nominal elements in this function are demonstratives, see 4.1.10.

actor voice marker *N-*. Complement-taking verbs take mostly actor voice but in some instances also undergoer voice morphology. As shown in 5.3, with the exception of *na-*, all of these prefixes also function to derive verbs from roots belonging to other lexical categories. This multifunctionality makes it difficult to differentiate between derivational and inflectional morphology at times and therefore these affixes alone do not make for conclusive criteria for word class membership. Moreover, considering how readily the majority of affixes function to derive new lexemes there is no reason to assume the lack of *na-* in this function is more than a gap in the data. To make matters even more complicated, there are some verbal roots which either do not occur with any affixation or do not allow for the full range of affixation. These roots are often basic intransitive verbs like *hawi* 'arrive' or reken 'count'.

There are some affixes that can only attach to verbal roots and thus can serve as evidence for verbhood. One of those affixes is the non-volitional marker *kV-* (*kV'-* before vowel-initial roots). Although *kV-* cannot attach to all verbal roots, it can never occur on non-verbal ones. Table 3.1 shows three derivations involving *kV-*.

itung	'remember'	→	*ki'itung*	'suddenly remember'
haba	'meet'	→	*kahaba*	'find (without looking)'
rongoi	'hear'	→	*korongoi*	'(over-) hear'

TABLE 3.1: The non-volitional marker *kV-*

There is another marker indicating non-volitional and accidental action, *tV-* which occurs in constructions that are syntactically passive. The prefix *tV-* is not as productive as *kV-* but just like *kV-* it can only occur with verbal roots and is therefore evidence that the root in question is a verb. Non-volitional constructions are discussed in more detail in 5.2.2.

Syntactically, verbs act as the head of a verb phrase and are the most frequent word class to occur in predicate position. However, as has already been established at the outset of this section, predicates do not have to be verbal which means that distribution alone does not make for a reliable verbhood criterion at least for intransitive constructions. In transitive constructions the verbal predicate is followed by an object noun phrase. Since other post-predicate arguments are typically embedded in a prepositional phrase, if a noun phrase directly follows the predicate, it is a good indicator that the predicate is verbal.

Another diagnostic for verbs is that they can form a complex verb phrase with modal and aspectual auxiliaries (see 5.1.3). Examples of auxiliaries include the modals *tau* 'can' (3.17) and *kai* 'want/will' (3.18), and the aspectual marker *wayo* 'just now' (3.19).

(3.17) *Aku bakoi tau surui.*
1SG NEG can sleep

'I cannot sleep.'

(3.18) *Kai buli.*
want go.home

'I'm going home.' (lit.: 'I want to go home')

(3.19) *Aku wayo monrus.*
1SG just.now bathe

'I just bathed.'

Only verbs can be modified by manner adverbs which take the shape of either a reduplicated adjective or a structure consisting of a comitative *ali* or *anri* plus adjective. An example of such a structure is shown in (3.20). Here *anri wansin* 'quickly' follows the verb in the clause thereby functioning as an adverb of manner. Manner adverbs are discussed in section 3.1.2.1.3.

(3.20) *Adi' nyawab anri wansin.*
adi' N-jawab anri wansin
younger.sibling AV-answer with fast

'My sisters answered quickly.'

The morphosyntactic evidence discussed thus far in this section can again be complemented by considering the semantic characteristics of prototypical verbs. According to Givón (2001) verbs are generally considered to be the least time-stable of all classes in that they denote 'event-like' concepts that are performed and concluded comparatively quickly. With that definition in mind, dynamic verbs are more prototypical than stative verbs as they would rank lower on the time stability continuum.

3.1.2.1 Adjectives

The final open word class that needs to be investigated is that of adjectives. On a semantic level, adjectives express properties and attributes (Sasse 1993; Schachter and Shopen 2007) and are predominantly used to modify common nouns (and some proper nouns, see 4.1.2). Other semantic criteria for adjectives are gradability, intersectivity, and lexical aspect (Hofherr 2010). In particular gradability and comparability have been viewed as two of the prototypical properties of adjectives and will be of importance in the present analysis. As was pointed out in the introduction to this chapter, there has been some debate as to whether adjectives should be recognised as a separate word class in Austronesian languages or be analysed together with verbs as the two usually share a great deal of morphosyntactic properties (e.g. Davies 2010; Schachter and Shopen 2007; Evans 2000; Adelaar 2005a; Donohue 1999; Van den Berg 1989; Klamer 2005). This is also true in Paku where many words denoting properties and attributes are structurally very similar to stative intransitive verbs. As will be demonstrated in the following discussion, based on structural evidence semantic adjectives, i.e. roots that express concepts typically expressed by adjectives, need to be divided into two separate word classes. One of those is a subcategory of verbs, the other one is its own small closed word class.

In some instances one word expresses both an activity and a property. For instance the word *mate* can mean either 'dead' or 'die' depending on the context. This is illustrated in (3.21) and (3.22). Despite verbal marking in the form of aspectual auxiliaries in both cases it is interesting to note that based on anecdotal evidence many speakers will by default interpret (3.21) attributively whereas (3.22) is understood as a recently concluded process.

(3.21) *Iyo haut mate.*
3SG already die/dead

'She is already dead./She already died.'

(3.22) *Iyo wayo mate.*
3SG just.now die/dead

'She just died.'

The following discussion looks at the class of semantic adjectives, i.e. those words that express properties, attributes, and other adjectival notions. The first part outlines similarities between semantic adjectives and verbs (3.1.2.1.1) whereas the second part analyses their differences (3.1.2.1.2).

3.1.2.1.1 Similarities between semantic adjectives and verbs There are a number of ways in which semantic adjectives morphosyntactically behave like stative verbs and those grammatical features can be used to distinguish them from nouns. These similarities are due to the fact that states, which often fall within the domain of adjectives, are mostly marked on verbal roots in Paku.

One of those shared properties is that both stative verbs and semantic adjectives can function attributively (i.e. as modifiers to a noun) as well as predicatively. In both cases the stative verb or semantic adjective occurs after the noun it modifies. However, when used attributively it has to occur adjacent to the noun within the same noun phrase while in predicative use several modifiers belonging to the noun phrase can be inserted between the noun and the stative verb or semantic adjective.

Another distributional feature shared by semantic adjectives and verbs is that they, unlike nouns, can act as a predicate in relative clauses which is demonstrated in (3.23) and (3.24).[3] Example (3.23) shows a construction featuring a relative clause which contains the verb *surui* 'sleep'. The relative clause in (3.24) on the other hand features an adjective in superlative form.

(3.23) *Etengku eteng iyo ganyah surui.*
eteng-ku eteng iyo ganyah surui
dog-1SG.POSS dog REL PROG sleep

'My dog is the dog that is sleeping.'

(3.24) *Ulun iyo pangapintar gi tumpuk itu Budi.*
ulun iyo panga-pintar gi tumpuk itu Budi
person REL SUP-smart LOC village PROX Budi

'The person who is the smartest in the village is Budi.'

3. The only other class to appear in this position are demonstrative pronouns.

Morphologically, some semantic adjectives (the majority of which express a state) take the marker *mV-* in a declarative clause (e.g. *malayong* 'warm', *morouh* 'delicious', *morongin* 'sick/with fever'). In the data this prefix is primarily used inflectionally, marking the word as a stative verb. Predicates marked by *mV-* only occur in intransitive constructions and there are a small number of instances in which *mV-* functions derivationally (see 5.3.3). Unlike other derivational morphemes, *mV-* is not used in derivations that involve a change of word class membership but rather it derives states from dynamic roots.

Both notionally adjectival roots and stative verbs can take the causative markers *ampi-* (3.25) and *tVN-* (3.26). However, when these are attached to a nominal root, the resulting structure is judged ungrammatical by speakers.

(3.25) *Aku kai ngampiobo lowuku.*
aku kai N-ampi-obo lowu-ku
1SG want AV-CAUS1-big house-1SG.POSS

'I will make my house bigger.'

(3.26) *Ulun tumpuk nangkasus lalan.*
ulun tumpuk N-tVN-k-asus lalan
people village AV-CAUS2-LE-good street

'The villagers are fixing the road.'

In cases in which a root that usually takes *mV-* occurs in a causative construction, the causative prefix attaches only to the root (3.27).

(3.27) *Ine' Ina ngampilayong pongokanro.*
ine' Ina N-ampi-layong pVN-okan-ro
mother Ina AV-CAUS1-hot NOMZ-eat-DEF

'Mother of Ina is warming up the food.'

Another feature shared between semantic adjectives and stative verbs is that they can be graded, i.e. they can occur with the degree adverb *tuu* 'very' to express a higher intensity of the attribute or state (Table 3.2).

obo (adj.)	*tuu*	'very tall'
wisa (adj.)	*tuu*	'very wet'
rupak (adj.)	*tuu*	'very close'
mahalin (v.)	*tuu*	'very difficult'
moloma (v.)	*tuu*	'very soft'
miliei (v.)	*tuu*	'very slippery'

TABLE 3.2: The use of *tuu* 'very'

3.1.2.1.2 Differences between semantic adjectives and verbs There are also notable differences in the grammatical treatment of semantic adjectives and stative verbs. Some of those have already been mentioned as identifying features of verbal roots in 3.1.2. One of those differences is the possibility to occur with either of the non-volitional markers *tV-* and *kV-* which can only attach to verbs. An example of a verb marked with *kV-* is presented in (3.28). Example (3.29) demonstrates that the same prefix cannot be attached to words expressing attributes.

(3.28)

Iyo	*ki'itung*	*itakne*	*gi*	*pasar.*
iyo	kV-itung	itak-ne	gi	pasar
3SG	NVOL-remember	grandmother-3SG.POSS	LOC	market

'She suddenly remembered her grandmother was at the market.'

(3.29)

**Adi'ku*	*kipintar.*
adi'-ku	kV-pintar
younger.sibling-1SG.POSS	NVOL-clever

'My little sister is clever.'

Further, in the data only verbs are modified by auxiliaries. This is shown in (3.30) in which the stative verb *maharung* 'sit' is preceded by the progressive marker *desung* (see also 3.2.7).

(3.30)

Itak	*desung*	*maharung*	*gi*	*muka*	*lowune.*
itak	desung	mV-harung	gi	muka	lowu-ne
grandmother	PROG	INTR.STA-sit	LOC	front	house-3SG.POSS

'Grandma is sitting in front of her house.'

One of the most salient features of semantic adjectives absent in verbs is that they can be compared and can occur with superlative morphology. Comparative structures in Paku are formed using one of the following: *same engke* or *same ali* 'same as' which can be used interchangeably, *lewi engke* 'more than' (3.33), or *kurang engke* 'less than'. Interestingly, in constructions with *same engke* or *same ali* the word expressing the property can be nominalised using the definite article *-ne* (3.31) or a possessive pronoun (3.32).

(3.31)

Ine'ku	*same*	*obone*	*ali*	*aku.*
ine'-ku	same	obo-ne	ali	aku
mother	1SG.POSS	same	tall-ART.DEF	with

'My mother is the same height as me.'

(3.32)

Oboku	*same*	*ali*	*ine'.*
obo-ku	same	ali	ine'
tall-1SG.POSS	same	with	mother

'My height is the same as mother's.'

(3.33) *Lowu itu lewi idu' engke lowu gi hila.*
house DEM.PROX more big from house LOC side

'This house is bigger than the one next to it.'

(3.34) *Raan iro orok lewi lebar engke raan gi itu.*
branch DEM.MED far more wide from branch LOC DEM.PROX

'That branch is far thicker than this branch here.'

As demonstrated in (3.34), the degree of the comparison can be specified by inserting a degree adverb, e.g. *orok* 'far' or *dohe* 'a little' before *lewi*.

The superlative is expressed morphologically by attaching the prefix *panga-* to the root as shown in (3.35). In cases in which the root is vowel-initial, the allomorph *panga'* is used (3.36). The resulting structure only occurs predicatively.

(3.35) *Anggun pangapintar.*
Anggun panga-pintar
Anggun SUP-clever

'Anggun is the cleverest.'

(3.36) *Kakao itu panga'obo gi jubut.*
kakao itu panga-obo gi jubut
tree DEM.PROX SUP-tall LOC forest

'This tree is the tallest one in the forest.'

Another feature exclusive to verbs is that they can be modified using manner adverbs. An example of such a structure was presented in (3.20). In Paku, they are expressed using a prepositional phrase. Because unlike other adverbials the formation of manner adverbs follows a productive process, they will be discussed separately in 3.1.2.1.3.

Based on the grammatical evidence presented in this section the analysis best suitable in Paku needs to stipulate two different classes for semantic adjectives. The first class is an open one and comprises those roots that occur with *mV-* (e.g. *ma'asus* 'good', *mahalin* 'difficult', *moloma* 'soft'). This group is morphosyntactically nearly indistinguishable from stative intransitive verbs and is thus regarded as a subcategory of such. The second class is closed and consists of those roots that express adjectival notions but do not take any overt morphological marking in standard constructions. This group of roots is small and includes some of the most basic adjectival concepts such as colour terms, shapes, sizes, flavours, etc. The difference between the two classes is morphological (i.e. whether or not they occur with *mV-*). Both classes can occur in causative, comparative, and superlative constructions, both can modify nouns and function as predicates, and both can be modified by a degree adverb. As noted in Schachter and Shopen (2007) and Dixon (1982) neither the division of semantic adjectives into two separate classes nor the notions expressed by the

closed class of adjectives is typologically unusual. Note that like all word classes (Evans 2000) the classes of stative verbs and adjectives need to be viewed as continua. This means that even within the subclass expressing adjectival notions some words are closer to the prototype than others. For instance states, which are often marked by *mV-*, cannot be compared or occur in superlative constructions due to semantic restrictions (i.e. a door cannot be more 'closed' than another door). Moreover, there are some forms that straddle the line between stative verb and adjective. For example, colour terms typically fall into the second category but there is one term, *melintang* 'yellow', that at least resembles the shape of a stative intransitive verb marked by *mV-* (and in which the prefix is probably a fossilised). There are also forms which in a standard construction typically occur in their morphologically unmarked form but which can also take *mV-*. However, in these cases *mV-* needs to be viewed as functioning derivationally in that it creates a new lexeme with different connotations (see 5.3.3).

For convenience, in the remainder of this thesis all words expressing adjectival concepts, regardless of which word class they belong to, will be referred to as 'adjectives'. A distinction will be made in cases in which members of the two classes behave differently.

3.1.2.1.3 Manner adverbs The adverbial function of qualifying verbs is expressed by manner adverbs. There are two ways in which they can be formed in Paku. Most commonly manner adverbs are expressed using a prepositional phrase consisting of an adjective preceded by one of the comitative prepositions *anri* or *ali* (3.37).

(3.37) *Menaku* *katamah* *ali* *ma'asus.*
mena-ku katamah ali ma-asus
aunt-1SG.POSS swim with good

'My aunt swims well.'

A second way of forming manner adverbs is by reduplication of adjectives as exemplified in (3.38).

(3.38) *Iyo* *malempat* *wansin-wansin.*
Iyo ma-lempat wansin-wansin
3SG INTR.STA-run RED-fast

'She runs fast.'

Both (3.37) and (3.38) show the typical structure of adverbial modification using manner adverbs. As can be seen in both examples, the adverb always follows the verb it modifies regardless which process of word formation is used to derive it.

Since these manner adverbs are derived from adjectives and the derivational processes used are quite productive, they are the only type of adverb that belong to the open word classes. All other adverbs form a closed word class with only a small number of members and will therefore be discussed with the other closed classes in section 3.2.3.

3.2 Closed word classes

In addition to the open word classes, there are a number of small closed word classes which do not allow new items to enter the lexicon. They include classifiers (3.2.1), numerals (3.2.2), adverbials (3.2.3), articles (3.2.4), demonstratives (3.2.5), prepositions (3.2.6), auxiliaries (3.2.7), conjunctions (3.2.8), interrogatives (3.2.9), and particles and interjections (3.2.10).

3.2.1 Classifiers

Paku has seven numeral classifiers that group count nouns into seven classes. They are listed in Table 3.3. In the data they only occur in combination with cardinal numerals. When classifiers combine with the numeral *erang* 'one', the structure functions as an indefinite article (see 3.2.4 and 4.1.9). However, in conversation classifiers are often omitted.

The choice of classifier is based on the type and shape of the entity in question. While in languages that have grammatical gender any noun typically only has one gender, the classifiers in Paku do not behave that way. Instead some nouns can take different classifiers (although never in the same phrase) and the choice of one classifier over the other is based on speaker preference. One example for this are the classifiers that can be used with *tempeh*, a soy product which is normally flat and rectangular in shape. Some speakers choose to use the classifier *soyot* for flat objects while others choose *totok* for sliced objects. In other instances the choice of classifier depends on context. *Kenah* 'fish', for example, would usually require the classifier *ukui* used for animals. However, if already cooked and sliced speakers would most likely choose *totok* for sliced entities. Table 3.3 shows recorded classifiers for Paku. In order to facilitate the subsequent labelling of examples, the classifiers were furthermore numbered.

Number	Classifier	Use for	Examples
1	*ulun*	people	professions
2	*ukui*	animals	generic reference
3	*ua'*	fruit, large objects or abstract concepts which do not fall into other categories	rambutan, word, house
4	*totok*	sliced things	sliced meats
5	*soyot*	thin, flat things	paper, leaves
6	*watang*	round, thick things	trees
7	*wila*	round, small things	cigarettes, matches

TABLE 3.3: Numeral classifiers

Comparing the Paku system to that of neighbouring, more vital, languages, it is likely that there were originally more classifiers. Regardless of which classifier is used, in a phrase it is always preceded by the prefix *kV-*. This is due to the fact that the classifiers are derived from content words, e.g. *ulun* 'person' and *ukui* 'tail'. In order to differentiate between the content word and the classifier, *kV-* is added to the latter. This prefix is not to be confused with the non-volitional marker *kV-* (see 5.2.2) which is identical in shape, but instead of marking nominal roots it can only attach to verbal roots. Another prefix seemingly similar in form to both these prefixes is the marker for ordinal numbers (see 3.2.2.2). However, not only does this prefix attach to yet another

word class, numerals, it also does not undergo vowel harmony and is consistently produced as *ka-*.

Examples of noun phrases containing classifiers are shown in (3.39)-(3.41). In (3.39) *kenah* 'fish' is preceded by *soyot*, which marks thin and flat objects such as fish served at the dinner table. The tropical fruit *cempedak* in (3.40) is marked by *ua'* used for fruit, and (3.41) shows an example of *watang* which marks thick round objects such as trunks. In all these examples, the initial syllable in the root contains a different vowel, resulting in three different shapes of *kV-*.

(3.39) *ruo kosoyot kenah*
ruo kV-soyot kenah
two kV-CLF5 fish

'two slices of fish'

(3.40) *sapuluh ku'ua' nakan*
sapuluh kV-ua' nakan
ten kV-CLF3 cempedak

'ten pieces of cempedak'

(3.41) *opat kawatang kakao kayu*
opat kV-watang kakao kayu
four kV-CLF6 tree

'four trees'

Speakers are inconsistent with regard to the classifier *wila*, used for round and small objects. While some produce it as *kiwila*, others produce it as *kawila*, without the expected vowel harmony in the prefix. An example of such an exception can be seen in (3.42).

(3.42) *walu kawila udut*
walu kV-wila udut
eight kV-CLF7 cigarette

'eight cigarettes'

Entities that do not neatly fall into one of the categories specified above take the classifier *ua'* which in addition to marking fruit also functions as a catch-all classifier for large objects of different shapes and abstract nouns. The examples in (3.43) and (3.44) illustrate this usage. In both cases the nouns *lowu* 'house' and *umo* 'field' are large entities that do not necessarily have a specified shape and thus take *ua'* as a classifier.

(3.43) *erang* *ku'ua'* *lowu*
erang kV-ua' lowu
ART.INDF kV-CLF3 house

'a house'

(3.44) *erang* *ku'ua'* *umo*
erang kV-ua' umo
ART.INDF kV-CLF3 field

'a field'

3.2.2 Numerals

The numeral system in Paku is a decimal one. Although numerals are generally considered a closed word class, there have been some borrowings from other languages to accommodate the need to count in high numbers which was not possible in the traditional numeral system.

There are two types of numerals: cardinal (3.2.2.1) and ordinal (3.2.2.2) numerals. In addition to numerals, there are various other quantifiers that can indicate the amount of an entity. They are illustrated in 3.2.2.3.

3.2.2.1 Cardinal numbers

Cardinal numbers in Paku are as follows:

Numeral	**Gloss**
erai, erang	'one'
ruo	'two'
tolu	'three'
opat	'four'
dimo	'five'
onum	'six'
pito	'seven'
walu	'eight'
suei	'nine'

TABLE 3.4: Cardinal numbers

As is evident in Table 3.4, the numeral 'one' has two forms. *Erai* is used when counting and *erang* when specifying the number of entities. The functions associated with *erang* are quite diverse. In combination with a classifier it expresses the function of an indefinite article in Paku (see 3.2.4 and 4.1.9). Moreover, it occurs in expressions like *erang alik* 'a while' in which its function also resembles that of an article but lacks the classifier to overtly mark it as such. The noun phrase in (3.45) shows an example of *erang* used in combination with a classifier. Without context this phrase can be interpreted as quantifying the head noun as one or as functioning as an indefinite

article - two functions that have been shown to be diachronically related in the languages of the world (Lyons 2004; Croft 2002).

(3.45) *erang ku'ua' nakan*
erang kV-ua' nakan
one kV-CLF3 cempedak

'one/a cempedak (tropical crop)'

The cardinal numbers 1-9 can be combined with group numerals (Table 3.5).

Group numeral	**Gloss**
puluh	'tens'
walas	'teens'
jatuh	'hundreds'
kuyan	'thousands'

TABLE 3.5: Group numbers

In order to form numbers higher than nine, a group unit is added to the numeral root. Whenever a basic numeral ending in a vowel combines with *puluh* 'tens', *jatuh* 'hundreds', or *kuyan* 'thousands' a bilabial nasal is inserted between the root and the group unit such as in *ruompuluh* 'twenty', *dimomjatuh* 'five hundred', or *wolumkuyan* 'eight thousand' (see Table 3.6).[4] The only exception to this rule is *suei* 'nine' which occurs without the nasal whenever it combines with a group numeral, e.g. *sueipuluh* 'ninety'. Some speakers do not accept *kuyan* 'thousands' as an original Paku word. They claim that in their original environment, there was no need for their ancestors to count beyond the hundreds and that it was much more common to use adverbials such as *wahai* 'many' or *kahai/kanahai* 'all' for expressing larger quantities. Nowadays, for counting beyond the thousands, the Indonesian numerals *juta* 'million' and *milyar* 'billion' are used.

Numeral	**Gloss**
tolumpuluh	'thirty'
opatpuluh	'forty'
ruowalas	'twelve'
onomwalas	'sixteen'
dimomjatuh	'five hundred'
walumkuyan	'eight thousand'
pitomjatuhkuyan	'seven hundred thousand'

TABLE 3.6: Numeral compounds

In combination with group units 'one' is always expressed as *sa-*. Examples for this are the words for 'ten' and 'eleven' which are realised as *sapuluh* and *sawalas* respectively. Except for this prefix, single digit numbers in Paku can stand alone whereas the group numbers generally need to occur

4. Based on comparative data from Maanyan one would expect that the nasal assimilates in place of articulation to the initial segment in the group numeral (Adelaar, personal communication). However, there are only two instances in the data in which a vowel-final basic numeral combines with *jatuh* 'hundreds' and *kuyan* 'thousands' and both times speakers produced the nasal as [m]. This suggests the recent grammaticisation of a word containing an *m.

in combination with one of the single digit numbers. However, the words *jatuh* and *kuyan* are understood to carry the inherent meaning of one unit so they are never preceded by *sa-*.

Smaller numbers follow larger ones in numeral compounds. Since it is a productive system, it is technically possible to form high numbers in the hundreds of thousands. However, as mentioned above the Paku traditionally hardly ever used these higher numerals. Table 3.7 shows some examples of the formation of such higher numerals.

Numeral	**Gloss**
ruompuluh erai	'twenty-one'
sapuluh kuyan toluwalas	'ten thousand thirteen'
walumkuyan ruomjatuh opatpuluh tolu	'eight thousand two hundred forty three'

TABLE 3.7: Complex numeral compounds

Cardinal numerals typically form a noun phrase with the noun they modify and a classifier or unit of measurement. In such a phrase, they directly precede the noun or the classifier/unit of measurement. There is one exception to this, namely when the numeral occurs in combination with a pronoun in which case the numeral follows the pronoun (see 4.1.2.1).

3.2.2.2 Ordinal numbers

Ordinal numbers are formed by adding the prefix *ka-* to a numeral root. If the numeral roots begins in a vowel, *ka-* is realised as *ka'*. The only exception to this otherwise productive way of deriving an ordinal numeral is *pertama* 'first' which, given the otherwise undocumented root-medial consonant cluster -rt-, is potentially a loan. Moreover, given that Maanyan uses a different morpheme in this context, it is likely that Paku also used to have a word other than *pertama* to express the concept of 'first'. Table 3.8 shows examples of ordinal numbers in Paku.

Numeral	**Gloss**
pertama	'first'
karuo	'second'
katolu	'third'
ka'opat	'fourth'
kadimo	'fifth'
kasawalas	'eleventh'
karuompuluhdimo	'twenty-fifth'
kajatuhtoluwalas	'one hundred thirteenth'

TABLE 3.8: Ordinal number formation

Just like cardinal numbers, ordinal numbers form a noun phrase with the noun they modify. However, unlike cardinal numbers which precede the noun and typically combine with a classifier, ordinal numbers follow the noun within the phrase and do not co-occur with a classifier. This can be seen in (3.46) which shows an example of a noun phrase containing a head noun *wawen* 'wife' modified by an ordinal numeral *karuo* 'second'.

(3.46) *wawen karuo*
wawen ka-ruo
wife ORD-two

'second wife'

3.2.2.3 Other quantifiers

In addition to numerals there are other quantifiers that are frequently used in Paku. They immediately precede the head noun within the phrase. Quantifiers found in the data are listed in Table 3.9.

Quantifier	**Gloss**
kahai/kanahai	'all'
rama	'much, many'
papire	'some'
tiap	'every'
dohe	'little, few'

TABLE 3.9: Quantifiers

The quantifiers *kahai* and *kanahai* 'all', as well as *rama* 'much, many' and *dohe* 'little, few' can be used on both count and mass nouns. *Papire* 'some' and *tiap* 'every' has only been documented with count nouns. Within a noun phrase, all modifiers listed in Table 3.9 occur before the noun they modify.

If people are unsure of the exact number of entities in question they use the expression *kurang-labih* which translates to 'approximately, more or less' (3.47).

(3.47) *Wietne kuranglabih dimompuluhdimo kilo.*
wiet-ne kurang-labih dimo-m-puluh-dimo kilo
heavy-ART.DEF less-more five-LE-tens-five kilo

'The weight is approximately fifty-five kilos.'

If speakers want to say that something does not exist or that there is nothing of a given object left, they use *awis* 'finished' (3.48) or the negative existential marker *koi uweng* (3.13) to express these concepts. They are also often used as a response to a question as can be seen in (3.49) and (3.50).

(3.48) *Ranu awis.*
water finished

'We're out of water.'

(3.49) Q:. *Naan udut?*
EXIST cigarette

'Do you have cigarettes?'

A:. *Haut awis.*
already finished

'We're already out.'

(3.50) Q:. *Hie' ngaran keluargako'?*
hie' ngaran keluarga-ko'
who name family-2SG.POSS

'What is your family name?'

A:. *Koi uweng.*
NEG EXIST

'I don't have one (lit. There is none).'

The dialogue in (3.49) presupposes a conversation between a shop keeper and a customer. In a different context the same interaction could be translated as 'do you have cigarettes?' and 'they are finished', the latter being a more literal translation.

Mass nouns require one of several measurement units in order to be quantifiable. As with numeral classifiers, with which they are in complementary distribution, the measurement noun used can vary depending on the circumstances and like classifiers it is preceded by a cardinal numeral. In a default construction the resulting measurement phrase precedes the head noun in the noun phrase. Depending on the context, the measurement unit for each noun can change which is shown in (3.51) and (3.52). Both constructions feature the same head noun - *wiyah* 'uncooked rice'. In (3.51) *wiyah* is preceded by a measurement phrase consisting of the numeral *dimo* 'five' and the measurement unit *liter* 'liter' which is a common way to quantify larger amounts of rice. In (3.52) a different measurement unit *lawu* 'plate' preceded by the numeral *ruo* 'two' is used to quantify a smaller amount of rice.

(3.51) *dimo liter wiyah*
five litre uncooked.rice

'five litres of rice'

(3.52) *ruo lawu wiyah*
two plate uncooked.rice

'two plates of rice'

3.2.3 Adverbials

Adverbs are divided into two separate groups. Manner adverbs, which are an open word class derived from adjectives, have been discussed in 3.1.2.1.3. There are furthermore a number of adverbial roots that have no morphological marking associated with them. They include temporal, epistemic, frequency, and degree adverbs. It is not only on morphological grounds that this group is different from manner adverbs. These adverbs differ with regard to distribution in that they modify at the clause level whereas manner adverbs are part of the verb phrase and therefore need to be viewed as phrasal modifiers. This also applies to aspectual and modal markers which due to their occurrence within the verb phrase are considered auxiliaries rather than adverbials and hence are included in the discussion of auxiliaries (see 3.2.7). Despite the fact that adverbials can usually occur at various positions within the clause, there are a few lexical exceptions that always occur at a fixed position relative to another constituent. Moreover, there are adverbials that can function both at the clause and at the phrase level. They will be pointed out in the relevant parts of the discussion.

Temporal adverbials, i.e. those that add information about the time of an event, form a (very) diverse category within the larger group of adverbials. This is due to the fact that in Paku there are two different types of words that can encode temporal information. The first one consists of nominal expressions indicating a deictic or specific point or period in time. They include days relative to the time of speaking (e.g. *pitanin* 'tomorrow' and *anrape* 'yesterday'), and more general expressions such as weekdays (e.g. *ahat* 'Sunday'), time of day (e.g. *suan onro* 'midday' and *pita* 'morning'), periods of time (e.g. *menit* 'minute' and *wulan* 'month'), and, names of months (e.g. *Februari* 'February' and *November* 'November'). They also include specific points in time such as concrete dates. It can be argued that this class is technically not adverbial and at least some members should rather be considered a type of noun. However, given the identical function and often similar distribution, they are treated as one class with temporal adverbials. Nominal expressions providing temporal context are too numerous to list. They will be covered more systematically in 5.1.3.1.

Adverbial	**Gloss**
tataha	'now'
hinang	'soon'
pe'etah	'ago'
pono'	'before'
inre	'earlier'

TABLE 3.10: Temporal adverbials

In addition to these nominal expressions Paku has a small set of other adverbials adding temporal information to the clause. They are listed in Table 3.10. As was mentioned before, the distribution of these adverbials is often similar to that of temporal nominal expressions in that they can occur in several different positions within the clause. Most commonly they occur in clause-initial or clause-final position. An example containing the adverbial *pono'* 'before' occurring first in the clause is shown in (3.53). An adverbial in clause-final position is presented in (3.54) in which *hinang* 'soon' follows the verb *hawi* 'arrive'.

(3.53) *Pono' kain bagawi gi fabrik.*
before 1PL.EXCL INTR.DYN-work LOC factory

'Before, we worked at a factory.'

(3.54) *Iyo kai hawi hinang.*
3SG will arrive soon

'She will arrive soon.'

Inre 'earlier' can function both as an adverbial phrase within the clause and also follow certain temporal nominal expression as a modifier within the noun phrase. *Inre* can co-occur with expressions indicating time of day as for in for example *pita inre* 'earlier this morning' and *malom inre* 'last night'. In such phrases *inre* specifies that it was the last occurrence of the time of day expressed by the noun which serves as the reference for the expression. An example containing *malom inre* 'last night' is shown in (3.55). With regard to distribution within the clause, *malom inre* could also occur in clause-initial position.

(3.55) *Lowune rakit malom inre.*
house-3SG.POSS burn evening earlier

'Her house burned down last night.'

The adverbial *pe'etah* 'ago' display a more limited distribution compared to other adverbials in that it needs to follow a nominal expression indicating a period of time. Examples of this include *ruo onro pe'etah* 'two days ago' and *taun pe'etah* 'last year'. The latter is illustrated in (3.56).

(3.56) *Iyo hawi taun pe'etah.*
3SG arrive year ago

'She arrived last year.'

Both nominal temporal expressions and temporal adverbials listed in Table 3.10 are discussed in more detail in 5.1.3.1.

In the data there are one epistemic adverbial and one evaluative adverbial which are shown together in Table 3.11. Epistemic adverbials typically express a speaker's attitude towards the truth, certainty or probability of the state or event (Givón 2001). At first sight this function might appear similar to that of some modal auxiliaries (see 5.1.3.3), but the two differ in distribution. While epistemic adverbials are flexible with regard to their placement within the clause, modal auxiliaries are always part of the verb phrase. Evaluative adverbials are slightly different from epistemic adverbials in that they express an opinion or evaluation on the part of the speaker.

Adverbial	**Translation**
himat	'maybe, probably, possibly'
japo'	'suddenly'

TABLE 3.11: Epistemic and evaluative adverbials

As the name suggests, frequency adverbs (Table 3.12) express how often or regularly an event takes place. They typically occur before the verb or semantic adjective they modify.

Adverbial	**Gloss**
pute, *gaha*	'always'
jarang, *hantek-hantekne*	'sometimes'
bangat	'often'
koi bangat	'rarely'
suah	'ever'
mete' suah	'never'
kia	'again'

TABLE 3.12: Frequency adverbials

Degree adverbs (Table 3.13) express the intensity of a state or an action or the extent to which an action is performed.

Adverbial	**Gloss**
tuu	'very'
ekat	'only'
uyuh	'too'
kajut	'too'
hampir	'almost'
mayu'	'enough'
sukup	'enough'
kurang-labih	'more or less, roughly'

TABLE 3.13: Degree adverbials

Just like frequency adverbs, degree adverbs typically precede the (semantic) adjective or verb they modify although they can also occur in different positions in the clause. The only exception of this is the intensifier *tuu* 'very' which immediately follows the notional adjective. An example can be seen in (3.57) in which the adverbial follows *malayong* 'hot'.

(3.57)

Tehne	*malayong*	*tuu.*
teh-ne	mV-layong	tuu
tea-ART.DEF	INTR.STA-hot	INTS

'The tea is very hot.'

3.2.4 Articles

Paku has definite, indefinite, and personal articles. They are presented in Table 3.14.

Form	**Gloss**	**Distribution**
-ne	definite article	following the head noun
erang + *classifier*	indefinite article	preceding the head noun
hi	personal article	preceding the head noun

TABLE 3.14: Paku articles

The articles' position within a noun phrase is fixed: the definite article *-ne* takes the final slot in a noun phrase before a relative clause (if one is used) whereas the personal and indefinite articles occur directly preceding the head they modify. The latter is formed by combining the count numeral for 'one', *erang*, with one of the classifiers shown in Table 3.3. The definite and indefinite articles are illustrated in (3.58) and (3.59) respectively. In (3.58) the subject *guru* 'teacher' is followed by the definite article *-ne*. The noun phrase is then followed by the adjectival predicate *sangit* 'angry'. Sentence (3.59) shows the head noun *pangumo* 'farmer' which is preceded by the indefinite article *erang ku'ulun* which consists of the numeral *erang* and the classifier for humans *ulun*. As is obligatory with classifiers they need to be preceded by the prefix *kV-* (see 3.2.1).

(3.58) *Gurune* *sangit.*
guru-ne sangit
teacher-ART.DEF angry

'The teacher is angry.'

(3.59) *Iyo* *erang* *ku'ulun* *pangumo.*
iyo erang kV-ulun pVN-umo
3SG ART.INDF CLF1 NOMZ-field

'She is a farmer.'

The articles discussed above cannot be used with proper nouns or pronouns. However, Paku has a personal article, *hi*, which is exclusively used when referring to animate entities. It can be used in combination with personal names, kinship terms, and teknonyms. An illustrative example of *hi* plus a personal name is shown in (3.60). For further discussion and additional examples of all articles see 4.1.9.

(3.60) *Hi* *Elin* *haut* *surui.*
ART.PERS Elin already sleep

'Elin is already asleep.'

It is possible to argue that based on their distributional features articles do not form a homogeneous word class of their own but they should rather be included in the classes of cardinal numerals (indefinite article) and demonstratives (definite article) with which they are in complementary distribution. However, given the presence of the personal article *hi* which morphosyntactically behaves differently from both the definite and indefinite article (e.g. it does not follow the noun

phrase like the definite article but does not combine with a classifier like the indefinite article), it is feasible to posit a separate class of articles in Paku.

3.2.5 Demonstratives

Paku has three demonstratives which function to indicate the distance of an entity relative to the speaker. They are listed in Table 3.15.

Form	**Gloss**
itu	proximal
iro	medial distance
aro	distal

TABLE 3.15: Paku demonstratives

As can be seen in Table 3.15 *itu* signals proximity to the speaker, *iro* indicates medial distance with the entity typically still in sight, and *aro* is the distal demonstrative marking an entity that is far away and out of sight. Some speakers also use *raha* as a distal demonstrative. However, *aro* is used more commonly so it is treated as the default distal demonstrative. Example (3.61) shows a noun *tumpuk* 'village' (first mention) modified by *itu* 'DEM.PROX'. Demonstrative modification is discussed in more detail in 4.1.10.

(3.61) *Tumpuk itu tumpuk asli Paku.*
village DEM.PROX village original Paku

'This village is an original Paku village.'

All demonstratives can be placed in a prepositional phrase headed by one of the basic locative prepositions *gi* (static position at a place), *pah* (direction towards a place), or *teke/engke* (indicating a source or origin). An example of *gi aro* 'over there' is shown in (3.62). Additional examples are presented in 4.1.10.

(3.62) *Gi aro kahai uran.*
LOC DEM.DIST much rain

'Over there it is raining a lot.'

In some instances the medial distance demonstrative *iro* can function to mark definiteness on a noun phrase without adding spatial information. In these instances *iro* resembles a definite article rather than a demonstrative in that it no longer adds spatial features to the phrase. This is discussed in more detail in 4.1.10. The clause in (3.63) shows an illustrative example. It is taken from a narrative in which the speaker talks about movements of his ancestors and thus it is unlikely that *iro* marks medial distance in this instance. However, considering that when marking geographical distance *iro* typically indicates that an entity is still in sight, it can be argued that in discourse it figuratively still marks visibility (identifiability).

(3.63) *Ulun Paku iro tulak pah Tampa.*
person Paku DEF go DIR Tampa

'The Paku people went to Tampa.'

Moreover, there is evidence suggesting that demonstratives can take on a variety of additional functions both within the noun phrase and on clause-level. For instance, demonstratives and numerals are the only types of modifiers that can function to modify personal pronouns. An example is shown in (3.64) in which the pronoun *kain* '1PL.EXCL' is followed by the proximal demonstrative *-tu*. The topic is further discussed and illustrated in 4.1.2.1.1.

(3.64) *...yalah kaintu ngumo.*
yalah kain-tu N-umo
like 1PL.EXCL-DEM.PROX AV-field

'...like we do the farming.'

In discourse, demonstratives (mostly *iro*) can mark the end of a unit, most often a phrase. In this function, demonstratives often occur in their abbreviated forms *-tu* and *-ro* and can attach to members of different word classes. Finally, there are some examples in the data in which *iro* potentially functions as a third person singular pronoun for inanimate and abstract entities. However, these two functions require further analysis. An example of a structure in which iro clearly doesn't function as a modifier within the noun phrase is shown in (3.65). Further examples and discussion is found in 4.1.10.

(3.65) *Iro timul Paku.*
? origin Paku

'That's the origin of the Paku people.'

With regard to distribution, demonstratives can occur in two different slots within the noun phrase. As modifiers, they occur in the same slot as the definite article *-ne* and possessive markers. However, in their function as discourse markers they occur at the right edge of the noun phrase.

3.2.6 Prepositions

Paku has number of prepositions indicating a variety of relations between different elements within the clause. The most common prepositions mark a location or an instrument. The number of basic, or simple, prepositions is relatively small and can be seen in Table 3.16.

This section is primarily concerned with listing the different prepositions that can head a prepositional phrase in Paku and specifying those features that identify them in the language. Although some examples are presented in this section, they are only for illustrative purposes. A more thorough discussion of the internal structure of prepositional phrases and their function within both a noun phrase and clause can be found in chapter 6. There are some prepositions which are derived from content words and still co-exist with them. Examples of this kind include *pakai* which as a

preposition marks an instrument and is taken from the root for 'use', and *ulah* which can mark an oblique actor in a passive construction. The latter also functions as a subordinating conjunction meaning 'because' (see 9.2.1.3) and derives from the verbal root *ulah* 'make'.

Morpheme	**Function**	**Gloss**
gi	Locative	'at'
pah	Locative	'to'
engke/teke	Locative	'from'
pakai	Instrument	'with'
ali/anri	Instrument	'with, and'
hampe	Temporal	'until'
sukuhang	Temporal	'during, for'
pakai/umak	Oblique	'for'
ulah/daya	Oblique argument in passive construction	'by'
wangon	Oblique	'about'

TABLE 3.16: Paku prepositions

The locative prepositions *gi*, *pah*, and *engke/teke* can furthermore combine with one of several positional words to derive complex prepositions which function to indicate positions relative to another. A list of these prepositions is shown in Table 3.17. For convenience, Table 3.17 only lists those prepositions formed with *gi* which is used to indicate a static position at a location. However, all positional words listed can also combine with *pah* 'to', expressing motion towards this position, and *engke/teke* 'from', designating an origin from the position.

Preposition	**Gloss**
gi	'at'
gi bawo	'above, on top of'
gi obo	'above, on top of'
gi pida	'below, underneath'
gi suan	'between'
gi lape/hila	'beside'
gi muka	'in front of'
gi wakis/waling	'behind'
gi lape/hila kewi	'to the left'
gi lape/hila kawanan	'to the right'
gi luar	'outside'
gi huang	'inside'

TABLE 3.17: Complex locational prepositions

In a phrase, prepositions act as the head and always require a dependent noun phrase. Syntactically, prepositional phrases can function as adjuncts, as arguments in constructions in which the predicate is a verb of transfer, and as locative predicates. As adjuncts they can occur in several different positions within a clause although in a default construction they tend to be placed after the object or intransitive predicate. As an argument, as well as in certain other functions, they need to occur in post-verbal position. As the goal argument in structures expressing a transfer, the prepositional phrase can be placed both before or after the direct object (see 7.6.3).

The structures in (3.66) and (3.67) illustrate the structure of prepositional phrases in two of their most common functions within the clause. In (3.66) *pakai tungke* expresses an instrument and syntactically functions as an adjunct. In (3.67) the locative prepositional phrase *teke Banjar* functions as the predicate and immediately follows the subject *bajuku* 'my clothes' without any formal linkage.

(3.66) *Pamakal mungkong nipo pakai tungke.*
pamakal N-pungkong nipo pakai tungke
chief AV-hit snake with stick

'The village chief hit the snake with a stick.'

(3.67) *Bajuku teke Banjar.*
baju-ku teke Banjar
clothes-1SG.POSS from Banjar(masin)

'My clothes are from Banjar(masin).'

Prepositions in Paku can often be used in positions extending beyond their primary function. For example both *pah* 'to' and *engke/teke* 'from' can mark functions other than a location. *Pah* is a directional preposition and is used to indicate a variety of goal-like arguments beyond a place that is the goal of a physical movement. This includes beneficiaries, recipients, and addressees in constructions expressing a communicative act (see 6.1.2). One representative example can be seen in (3.68) in which *pah* marks the following noun phrase *ine'* 'mother' as the beneficiary of the cooking of the rice.

(3.68) *Rina monsak nahi pah ine'.*
Rina cook rice DIR mother

'Rina cooks rice for mother.'

Teke and *engke* usually express a source or an origin. However, they are also used in comparative clauses marking the beginning of the comparative phrase, i.e. the element that the subject of the clause is being compared against. Comparative clauses are discussed in more detail in 7.9.1) and (3.69) exemplifies the structure of such a construction.

(3.69) *Etengku lewi wansin engke eteng iyangku.*
eteng-ku lewi wansin engke eteng iyang-ku
dog-1SG.POSS more fast from dog friend-1SG.POSS

'My dog is faster than my friend's dog.'

Other multifunctional prepositions include *pakai*, *ali*, and *anri*. In addition to marking an instrument, *pakai* sometimes also functions to mark a beneficiary adjunct. *Ali* and *anri* not only signal that the following noun phrase is in a comitative relationship with another element in the clause but also function as coordinating conjunctions, joining constituents at both phrase and clause level (see 9.1.2). They are also used as means of forming adverbs (see 3.1.2.1.3).

3.2.7 Auxiliaries

Auxiliaries form a small class of words expressing aspect (Table 3.18) and modality (Table 3.19). They are optional elements occurring as part of the verb phrase and as such always occur immediately before the verbal head. The head needs to be finite, i.e. marked for transitivity, voice, and volition. The aspectual and modal auxiliaries presented here are part of the larger group of TAM markers. Their function within the clause along with that of adverbial temporal markers is discussed and illustrated in 5.1.3.

Auxiliary	**Gloss**
ganyah/desung	'PROG'
haut	'already'
mete'	'not yet'
wayo	'just now'
pagon/magon	'still'

TABLE 3.18: Aspectual auxiliaries

The aspectual auxiliaries listed in Table 3.18 primarily function to indicate the internal event structure of the clause in which they occur, i.e. whether the action is still ongoing or completed. A typical construction containing an aspectual auxiliary is shown in (3.70) in which the progressive marker *desung* precedes the finite verb *bagawi* 'work'. This order of constituents within the verb phrase is identical when the auxiliary marks modality.

(3.70) *Roni desung bagawi.*
Roni PROG INTR.DYN-work

'Roni is working.'

Table 3.19 shows the modal auxiliaries used in Paku. They indicate the speaker's judgement of the event expressed in the clause, i.e. how likely it is to succeed or happen, or how strongly the speaker urges it to occur.

Auxiliary	**Gloss**
purlu	'need'
tau	'can'
kai	'want, will'
hamen	'want'
sidi'	'want, like'
hokun	'want'
harus	'must'

TABLE 3.19: Modal auxiliaries

The modal auxiliary *kai* which means 'want' is also often understood as meaning that the action will be performed in the near future (3.71). It is therefore the only auxiliary that to some extent functions to encode temporal information.

(3.71) *Kai monrus.*
want bathe

'I want to bathe./I'm going to bathe (now).'

Auxiliaries are also frequently used to answer polar questions. In this function it is always the same auxiliary which was used in the question. This can be seen in (3.72) in which the modal auxiliary *tau* 'can' is first used to form a polar question and then subsequently forms the affirmative response to that question (see 8.1).

(3.72) Q:. *Tau kuman nahi?*
can eat rice

'Can you eat rice?'

A:. *Tau.*
can

'Yes.'

3.2.8 Conjunctions

Paku has coordinating (Table 3.20) as well as subordinating conjunctions (Table 3.21). This section is concerned with listing and providing some examples of conjunctions from the data to illustrate their structure within the clause. For more details on such constructions on a syntactic level see 9.1 and 9.2.

Form of coordinator	**Gloss**	**Syntactic level**
same	'together with'	phrase
ali	'with'	phrase and clause
anri	'with'	phrase and clause
kode'	'but'	phrase and clause
atawa	'or'	phrase and clause
nelang	'while' (one actor, two activities)	clause
pedesung/pedehung	'while' (two actors, two activities)	clause
belalu/balalu	'and then'	clause

TABLE 3.20: Coordinating conjunctions

As can be seen in Table 3.20 coordinating conjunctions can either conjoin elements at the phrase level, clause level, or both. *Same* 'together with' is the only conjunction that can link maximally two noun phrases. *Ali* 'with', *anri* 'with', *kode'* 'but', and *atawa* 'or' can be used at both phrase and clause level, whereas *nelang* 'while.SS', *pedehung/pedesung* 'while.DS', and *belalu/balalu* 'and then' only function to join two clause level constituents. To illustrate, in (3.73) *same* conjoins the two noun phrases *takam* '1PL.INCL' and *pastor* 'priest'. In (3.74) *balalu* links the two clauses *iyo mulunsur pah iwa* 'he glides down' and *(iyo) ali wansit nantam hila lutuk erang ku'ukui domba* '(he)

quickly strikes the back of a sheep'. Due to the fact that the subject in both clauses is identical, it is omitted in the second clause.

(3.73) *Takam same pastor pah Tarinsing.*
1PL.INCL together.with priest DIR Tarinsing

'We are going to Tarinsing with the priest.'

(3.74) *Iyo mulunsur pah iwa balalu ali wansit nantam hila lutuk erang*
iyo mV-lunsur pah iwa balalu ali wansit N-hantam hila lutuk erang
3SG INTR.STA-glide DIR down and.then with quick AV-strike part back ART.INDF
ku'ukui domba.
kV-ukui domba
kV-CLF2 sheep

'He glides down and quickly strikes the back of a sheep.'

Subordinating conjunctions are used to introduce a subordinate clause which typically functions to add adverbial information to the clause. Paku exhibits a large set of these which are presented in Table 3.21.

Form of subordinator	**Associated clause type**	**Gloss**
amun	Conditional, temporal	'if, when'
umpama'ne	Conditional (hypothetical)	'if'
ampama'ne	Conditional (hypothetical)	'if'
pakai	Purpose	'in order to'
umak	Purpose	'for, to'
malan	Purpose	'so that'
ngampan	Purpose	'in order to'
et	Reason	'because'
ulah	Reason	'because'
daya	Reason	'because'
ingkehne	Concessive	'although'
semete'	Temporal	'before'
sahaut	Temporal	'after'
awuk	Temporal	'when'
hantek	Temporal	'when'

TABLE 3.21: Subordinating conjunctions

The use of these conjunctions is exemplified in (3.75), (3.76), and (3.77). As is reflected in these examples the subordinate clause tends to occur first in the sentence. There are a number of subordinate clauses which have more limited distributions and are discussed in more detail in 9.2.

(3.75) *Amun (iko') pah pasar, woli udut pah aku.*
if (2SG) DIR market buy cigarette DIR 1SG

'If you go to the market, buy me cigarettes.'

(3.76) *Semete' kuman, kia monrus.*
before eat again monrus

'Before you eat, you need to bathe again.'

(3.77) *Umpama'ne aku tatau, aku ngarawah kahai ulun.*
umpama'ne aku tatau aku N-karawah kahai ulun
HYP 1SG rich 1SG AV-help all person

'If I were rich, I would help everyone.'

3.2.9 Interrogatives

Interrogatives are words used to form content questions. Interrogatives found in the data are shown in Table 3.22. As can be seen in the table, some of them are derived using prepositions (e.g. *gi hawe* 'where'). *Inun* 'what' and *kolowangun* 'how' are terms probably borrowed from Maanyan. However, they are often used by Paku speakers when speaking their own language, which is why they are included in Table 3.22.

Interrogative	**Gloss**
non	'what'
inun	'what'
hie'	'who'
kolowangun	'how'
nokolo	'how'
hantekui	'when'
pire	'how many/how much'
gi hawe	'where'
engke/teke hawe	'from where'
pah hawe	'to where'
iyo hawe	'which one'
inun ulah	'why
inun ngulah	'why'

TABLE 3.22: Interrogatives

As in previous sections, the examples provided here only serve to illustrate typical interrogative structures as the main discussion regarding question formation in Paku is found in chapter 8.

Interrogatives occur in clause-initial position or in situ. The examples in (3.78) and (3.79) demonstrate this distribution. Both clauses contain the interrogative *hie'* 'who', but in (3.78) the question word occurs in initial position whereas in (3.79) it occurs in situ.

(3.78) *Hie' ngaranko'?*
hie' ngaran-ko'
who name-2SG.POSS

'What is your name?'

(3.79) *Ngaran etengko' hie'?*
ngaran eteng-ko' hie'
name dog-2SG.POSS who

'What is your dog's name?'

Examples (3.78) and (3.79) also illustrate that when asking for someone's name, *hie'* 'who' rather than *non* 'what' or *inun* 'what' is used, even when referring to a pet (3.79).

3.2.10 Particles and interjections

Paku has some expressions that are hard to categorise because they do not fit neatly into one of the lexical categories. Their meaning is hard to pinpoint, and they are used in conversation to express surprise, frustration and other emotions. In some cases they signal agreement or disagreement with what the other person is saying, or they are used as a way of connecting clauses while the speaker is thinking about what to say next. Most commonly, they are occur at the beginning of an utterance. A list of those expressions from the data is shown in Table 3.23.

Particle	**Function**
aduh	expresses annoyance or distress
e	expresses surprise
oke	'okey', expresses agreement
na	marks the following statement as a conclusion
-leh	can be attached to a verb to add emphasis

TABLE 3.23: Particles and interjections

An illustrative example is shown in (3.80) which occurred in the context of a speaker talking about the realisation that the cultural practices of the Paku community are almost identical to those observed within the Lawangan ethnic group. After concluding his remarks about the similarities he saw, he begins the following clause using the particle *na*, which in discourse is always followed by a pause, and which introduces a conclusion based on what was said previously.

(3.80)

Na,	*gi*	*raha*	*kain*	*kite*	*bahawa*	*Paku*	*iro*	*perpecahan*	*engke*
na	gi	raha	kain	kV-ite	bahawa	Paku	iro	perpecahan	engke
PART	LOC	DEM.DIST	1PL.EXCL	NVOL-see	COMP	Paku	DEM.PROX	division	from

suku	*Lawangan.*
suku	Lawangan
tribe	Lawangan

'There we saw that Paku was once a part of the Lawangan.'

Chapter 4

Nominal morphology and the noun phrase

Compared to verbs, nouns in Paku are rather inconspicuous with regard to affixation and there is not much morphological modification associated exclusively with nouns which are unmarked for gender or number. Criteria for the identification of nouns and the different subtypes have already been provided in 3.1.1 and thus this chapter focuses on the internal structure of the noun phrase and possible morphological modifications of nouns.

The first part of this chapter is concerned with noun phrase structure in Paku (4.1). This section examines the different syntactic functions a noun phrase can have within the clause (4.1.1) before introducing the different types of nouns that can head a noun phrase (4.1.2). After that, all modifications which generally occur before the head noun are illustrated. This includes negation (4.1.3), and classifiers, numerals, and quantifiers which, due to their semantic and distributional similarities, are discussed together in 4.1.4. Following that is a discussion of post-head noun phrase elements. They cover nominal (4.1.5) as well as adjectival attributes (4.1.6). Relative clauses and prepositional phrases as modifiers of the noun phrase are discussed in 4.1.7 and 4.1.8 respectively. Articles as well as the notions of specificity and definiteness are introduced in 4.1.9 while modification using demonstratives is discussed in 4.1.10. Section 4.1.11 looks at possessive phrases. The final parts of this chapter discuss derivational morphology (4.2) as well as nominal reduplication and other ways of plural marking (4.3).

4.1 Structure of the noun phrase

A noun phrase has to consist of at least a noun or a pronoun. The head of an extended noun phrase, i.e. one that includes modifiers, is usually a common noun but to a more limited extent proper nouns and personal pronouns can also occur in this environment. The head can be modified both morphologically via the use of affixes or periphrastically by means of a variety of free morphemes, prepositional phrases, and relative clauses. Regardless of whether they are affixed or free, negators, cardinal numerals, quantifiers and classifiers precede the head, and all other modifiers follow it. The order of the individual constituents in a noun phrase is mostly fixed. The default order in which these constituents occur is illustrated as a template in Table 4.1.

neg.	card. num. quantifier indf. article	clf.	**head**	Noun	AdjP	ord. num.	poss. pro. def. article dem.	rel. cl. PP	dem.

TABLE 4.1: Noun phrase template

Only the head is obligatory and any nominal except possessive pronouns can occur as the head of a noun phrase. With regard to the modifiers, only possessive pronouns and the definite article are bound morphemes. Note that demonstratives have been observed in two different positions within the noun phrase which is possibly dependent on whether they function as modifiers or discourse markers (see 4.1.10).

4.1.1 Noun phrase functions

After establishing the internal structure of a noun phrase in the preceding section, this section is looks at the various functions a noun phrase can have both at the clause level and within other phrases. All of these functions are discussed in more detail below. Table 4.2 provides a brief overview of the different topics covered.

Noun phrase function	**Distribution**
Argument to a verbal, adjectival, or nominal predicate	Depending on syntactic function either pre- (subject) or post-predicate (direct object) position. A pronominal subject in undergoer voice also follows the verb
Predicate	Immediately following the subject in identificational clauses
Modifier to another nominal	Post-head
Dependant in a prepositional phrase	Post-head
Vocative	Clause-initial or -final position

TABLE 4.2: Noun phrase functions within the clause

Noun phrases are a functional unit, a constituent, and can therefore be moved as a whole. As is evident in Table 4.2 noun phrases can have a number of syntactic functions within the clause. Most commonly, noun phrases occur as arguments to a verbal, nominal, or adjectival predicate and as such they can express a variety of semantic roles. A noun phrase's exact position within the clause depends on its syntactic function and to a lesser extent its type and the voice marking on the verb (for verbal predicates). In a standard structure the subject occurs before the predicate while any objects follow the transitive predicate (see 7.2). The constructions in (4.1)-(4.3) show examples of noun phrases as arguments in a variety of environments.

(4.1) *Ansak* *iro* *belalu* *na'ulah* *pakai* *paring.*
ansak iro belalu na-ulah pakai paring
offering.plate med and.then PASS-make using bamboo

'Then the offering plate is made using bamboo.'

(4.2) *Aku* *malah.*
1SG thirsty

'I'm thirsty.'

(4.3) *Hantekhantekne* *setua* *ngapung* *ulun.*
hantek-hantek-ne setua N-apung ulun
RED-when-ART.DEF animal AV-chase person

'Sometimes animals chase people.'

Example (4.1) shows a passive, and therefore syntactically intransitive, construction, in which the verb is preceded by a noun phrase, in this case a theme. The clause in (4.2) features an adjectival predicate preceded by a pronominal experiencer. In (4.3) the transitive predicate *apung* 'chase' requires two nominal arguments. The verb is marked for actor voice so consequently the actor *setua* 'animal' occurs before the verb and the patient *ulun* 'person' follows it. Considering the lack of definiteness marking on the actor, the statement needs to be interpreted as a general statement regarding the behaviour of animals rather than referring to a specific animal (see 7.3).

Syntactically the noun phrases *ansak iro* 'the offering plate' (4.1), *aku* '1SG' (4.2), and *setua* 'animal' (4.3) function as subjects. The unmodified noun phrase *paring* 'bamboo' (4.1) is part of the larger prepositional phrase *pakai paring* 'using bamboo' which functions as an oblique within the clause. *Ulun* 'person' (4.3), also unmodified, is the direct object of the verbal predicate *ngapung* 'to chase'.

In addition to their referential function as arguments, noun phrases can also act as the predicate of identificational clauses (clauses in which a nominal predicate identifies the subject as either belonging to a category or asserts its identity, see 7.4.2). An example of this kind of clause is shown in (4.4). Here the noun *pegawai* 'public servant' has the syntactic function of predicate and occurs immediately after the subject *menaku* 'my aunt'.

(4.4) *Menaku* *pegawai.*
mena-ku pegawai
aunt-1SG.POSS public.servant

'My aunt is a public servant.'

Noun phrases can furthermore occur as modifiers within another noun phrase. In such constructions the first nominal is the head and the following one(s) act as modifiers. The nominal modifier can either function to specify the reference of the head noun (4.5) or it can be interpreted as a possessor in which case the head noun functions as the possessee (4.6) (see 4.1.5 and 4.1.11). Note that

(4.5) also features a possessive construction. The head noun *kabun* 'soil' is first modified by the noun *gatah* 'rubber' and subsequently marked with the first person singular possessor pronoun *-ku*.

(4.5) *Tana' gi kabun gatahku karing.*
tana' gi kabun gatah-ku karing
soil LOC garden rubber-1SG.POSS dry

'The soil in my rubber garden is dry.'

(4.6) *Kusing Rani bangan.*
cat Rani shy

'Rani's cat is shy.'

In subject or direct object position noun phrases are unmarked whereas indirect objects and noun phrases in oblique functions are embedded in a prepositional phrase. The sentence in (4.7) illustrates the structure of a prepositional phrase in Paku.

(4.7) *Bulu hie ulun iyo hawi gi mahara pangairan...*
then PART person REL arrive LOC estuary

'Then whoever arrives at the estuary...'

Example (4.7) is taken from a part of a dialogue in which the speaker explains to a friend the struggles of farming without support of the extended family, which contains the prepositional phrase *gi muara pangairan* 'at the estuary'. The preposition *gi*, which is used to mark a location, functions as the head of the phrase and is immediately followed by the nominal compound *muara pangairan* 'estuary' which is a dependant in the phrase. The whole prepositional phrase is embedded within a relative clause introduced by the relativiser *iyo*.

If the noun phrase consists of a personal name or term of address, it can furthermore be used as a vocative. For this, it does not require any modification. This function is slightly different from the others discussed in this section in that it is often used in isolation or at the very least uttered with a noticeable pause before continuing to speak. Usually the vocative noun phrase occurs at the beginning of the utterance (4.8). However, it can also occur in other positions, especially in questions (4.9). Such structures are observed most often in combination with a request in which the verb occurs in the imperative. Considering that the Paku typically do not use someone's first name to address them directly, the vocatives are often kinship terms or teknonyms.

(4.8) *Uma', ite!*
father see

'Dad, look!'

(4.9) *Haut kuman, ine'?*
already eat mother

'Have you eaten, Mum?'

4.1.2 Noun types

There are several different types of nouns and pronouns in Paku which in turn determine which modifications are permitted within the noun phrase they head.

The primary distinction that can be made with regard to nouns is that between common nouns and proper nouns, the latter of which can be subdivided into place names, personal names, and terms of address. Common nouns can be further divided into underlying and derived nouns. The former constitute nominal roots which without morphosyntactic context, i.e. morphological modification and distribution, cannot formally be distinguished from roots belonging to other word classes. Derived nouns on the other hand can be identified based on their affixes (see 4.2).

Another grammatically relevant division within common nouns is that of count versus mass nouns. As the name suggests they differ as to how they can be quantified. Count nouns occur with numerals and classifiers whereas mass nouns have to be quantified using a combination of numeral and measurement unit, the choice of which depends on the shape and consistency of the noun (see 4.1.4).

In addition to nouns, Paku also has two types of pronouns: personal and possessive. They are discussed in 4.1.2.1.

Tables 4.3 and 4.4 provide an overview of the different types of nominals in Paku including their various subcategories and the different modifications permissible for each of the types.

Common nouns (nominal roots and derived nouns)
Mass nouns
Count nouns
Proper Nouns
Place names
Personal names
Terms of address
Pronouns
Personal Pronouns
Possessive Pronouns

TABLE 4.3: Nominals

Head noun	**Possible modifications**	**Example**	**Section**
Common noun	Negator, numerals and quantifiers, other nouns, adjectives, relative clauses, prepositional clauses, articles, demonstratives, possessive pronouns	*Manu' odik* 'small chicken'	4.1.3, 4.1.4, 4.1.5, 4.1.6, 4.1.7, 4.1.8, 4.1.9, 4.1.10, 4.1.11
Proper noun	Personal article *hi* for personal names, kinship terms and teknonyms	*Hi Ina* 'Ina'	4.1.2, 4.1.9
Pronouns	Numerals, demonstratives	*Kain ruo* 'the two of us'	4.1.2.1

TABLE 4.4: Noun phrase modifications

Grammatically common and proper nouns behave similarly but fewer modifications are possible with proper nouns and most commonly if they head a noun phrase, proper nouns are the only constituent in that noun phrase. This is due to the fact that proper nouns typically only have one possible referent. This renders the use of modifiers, which ordinarily function to narrow down the number of potential referents in discourse, unnecessary. There are only two instances in which a proper noun forms a noun phrase with a modifier. The first one occurs when a personal name or term of address is preceded by the personal article *hi*.

(4.10) *Hi* *Elin* *mete'* *buli.*
ART.PERS Elin not.yet go.home

'Elin has not gone home yet.'

The example in (4.10) shows an instance in which the subject noun phrase consisting of a personal name is preceded by the personal article *hi*. The sentence literally translates to 'The Elin has not gone home yet' and although this sounds somewhat strange in English, in Paku the article will usually not be omitted, despite the clause being judged grammatical without it.

Apart from *hi*, no modifications are consistently accepted on personal names and terms of address. This can be seen when comparing (4.11)-(4.13) which show the same clause first in unmodified form (4.11) and then with different types of modification. The subject noun phrase is headed by a combination of kinship term *itak* 'grandmother' and personal name Hakel. Noun phrases in which the head is modified by a determiner other than aforementioned *hi*, like for instance the definite article *-ne* (4.12), or an adjective (4.13) are ungrammatical and rejected on semantic grounds. There are some speakers who would accept (4.13) with reservations saying that it sounds unidiomatic.

(4.11) *Itak* *Hakel* *ganyah* *bagawi* *gi* *umo.*
itak Hakel ganyah bV-gawi gi umo
grandmother Hakel PROG INTR.DYN-work LOC field

'Grandma Hakel is working on the field.'

(4.12) **Itak* *Hakelne* *ganyah* *bagawi* *gi* *umo.*
itak Hakel-ne ganyah bV-gawi gi umo
grandmother Hakel-ART.DEF PROG INTR.DYN-work LOC field

*The Grandma Hakel is working on the field.'

(4.13) **Itak* *Hakel* *muntuo* *ganyah* *bagawi* *gi* *umo.*
itak Hakel muntuo ganyah bV-gawi gi umo
grandmother Hakel old PROG INTR.DYN-work LOC field

'? The old Grandma Hakel is working on the field.'

The second type of modification concerns place names that can be preceded by *tumpuk* 'village' which resembles a classifier but is typically used as a kind of definite marker. One such construction is exemplified in (4.14) in which both village names, *Tampa* and *Bantai Napu* are preceded by *tumpuk*.

(4.14) *Tumpuk Tampa naan gi hila salatan tumpuk Bantai Napu.*
village Tampa EXIST LOC side south village Bantai Napu

'(The village) Tampa is located south of (the village) Bantai Napu.'

However, the use of tumpuk in this context is optional which is evident when contrasting (4.14) with (4.15) in which *tumpuk* does not occur in the same environment.

(4.15) *Kain ruo same pastor pah Tamiang etah Tampa.*
1PL.INCL two with priest DIR Tamiang through Tampa

'The two of us and the priest will go to Tamiang (Layang) via Tampa.'

The optional nature of *tumpuk* means that context and/or speaker preference govern its occurrence. It seems that a structure with *tumpuk* is favoured when speaking to someone who might not have heard of the villages previously and in cases in which the addressee is familiar with the area, a construction without *tumpuk* is used.

Example (4.15) also illustrates the use of the final type of nominal that can act as the head in a noun phrase: pronouns.

4.1.2.1 Pronouns

Paku has personal and possessive pronouns. Personal pronouns occur in singular and plural forms and there is a distinction between inclusive and exclusive in first person plural. With regard to possessive pronouns they only have designated forms in singular which are (mostly) derived from the corresponding personal pronouns and cliticised to the right edge of the noun phrase. In cases in which a pronominal possessor is plural, the structure is formed the same way as other possessive constructions, i.e. the possessor follows the possessee as a free morpheme.

With few exceptions, pronouns do not take modifiers and personal pronouns typically form a noun phrase of their own. This is due to the fact that pronouns are deictic elements used in place of a noun once a referent has been established in discourse and hence do generally not require any further modification. As such personal pronouns share the distributional pattern of nouns. The situation with regard to possessive pronouns is slightly different in that unlike personal pronouns, which act as heads in a noun phrase, possessive pronouns are dependants to a nominal head.

4.1.2.1.1 Personal pronouns Paku has a total of seven free personal pronouns which are listed in Table 4.5.

Form	Gloss
aku (*uki*)[1]	1SG
iko'	2SG
iyo	3SG
kain	1PL.EXCL
takam	1PL.INCL
ikam	2PL
reo	3PL

TABLE 4.5: Personal pronouns

Paku distinguishes between an inclusive and exclusive first person plural pronoun. *Takam* '1PL.INCL' includes the addressee while the use of the exclusive pronoun *kain* '1PL.EXCL' conveys the meaning of 'we (but not including you, the addressee)'. Paku does not distinguish grammatically between feminine and masculine third persons thus *iyo* covers both of them. The third person pronoun, both in singular and in plural, can only be used to refer to animate referents.

If speakers want to express the concept of a dual or a trial (or a group of a particular number) they use a numeral after either of the first person plural pronouns as exemplified in (4.16) and (4.17). Although technically all numerals can be used in this environment, it would be unidiomatic to use higher numerals. Instead whenever a larger number of entities is involved, the unmodified pronoun by itself or a combination with *kanahai* 'all' is used (4.18).

(4.16) *Kain* *ruo* *malan* *pah* *pasar.*
kain ruo malan pah pasar
1PL.EXCL two walk DIR market

'The two of us go to the market.'

(4.17) *Takam* *tolu* *engke* *Tampa.*
1PL.INCL three from Tampa

'The three of us are from Tampa.'

1. One speaker claimed that *uki* is also an acceptable variant of the first person singular pronoun. However, *aku* is used much more frequently.

(4.18) *Takam kanahai butuli bola.*
takam kanahai bV-tuli bola
1PL.INCL all INTR.DYN-play soccer

'We all play soccer.'

The second person singular pronoun is hardly ever used when talking to a person directly, at least in cases in which the addressee is an adult, and speakers instead favour a construction in which the addressee's name or teknonym is used which is exemplified in (4.19). Structures such as (4.19) are often used as a way of asking someone to do something as direct requests are generally avoided and considered impolite.

(4.19) *Ine' Rina tau tulak pah pasar.*
mother Rina can go DIR market

'Can you go to the market?' (lit.: 'Can Mother of Rina go to the market?')

So far in this discussion personal pronouns only occurred as subjects in actor voice constructions, a function in which they occur in pre-verbal position. If the clause is in undergoer voice, pronominal actors follow the verb (as clitics if singular), which in these constructions is morphologically unmarked (see 5.2.1.2). In this position they resemble possessive pronouns, with the understanding that, while possessive pronouns only attach to noun phrases, actor pronouns in undergoer voice constructions attach to verbs. In the data, these constructions mostly occur in short utterances with singular pronouns and in combination with intransitive verbs in which the pronoun is the only argument. Examples of such a structure are shown in (4.20) and (4.21). Unfortunately there are no instances in the data in which the undergoer in undergoer voice constructions is a personal pronoun and the actor a noun.

(4.20) *Rongoi wadaku!*
rongoi wada-ku
listen say-1SG

'I said listen!'

(4.21) *Tueku.*
tue-ku
know-1SG

'I know.'

Personal pronouns can be modified by a demonstrative. An example is shown in (4.22) in which the first person plural inclusive pronoun *takam* is followed by *-tu*, the abbreviated form of the proximal demonstrative *itu*.

(4.22) *Takamtu* *nganre.*
takam-tu N-anre
1PL.INCL-DEM.PROX AV-wait

'We, we are waiting.'

This kind of modification is possible both in actor voice, as shown in (4.22), and undergoer voice which is demonstrated in (4.23) in which the cliticised pronominal *-ko'* '2SG' is followed by *-ro* 'DEM.MED'.

(4.23) *Kala* *wadako'ro* *inre.*
kala wada-ko'-ro inre
like say-2SG-DEM.MED before

'It's like you said before.'

It is furthermore possible for the demonstrative to attach to a pronoun modified by a numeral. This can be seen in (4.24) in which the pronoun *kain* '1PL.EXCL' is first modified by the numeral *rue* 'two'[2] which is then in turn followed by the demonstrative *-tu* 'DEM.PROX'. The structure in (4.24) was given as a response to another speaker saying that she will be growing rice this year because it's too expensive to buy.

(4.24) *Kain* *ruetu.*
kain rue-tu
1PL.EXCL two-DEM.MED

'You and me both.'

The function of these demonstrative modification has not been systematically examined yet. However, it appears as if it is a discourse function similar to topic marking in which the speaker is emphasising that the statement refers to the referent of the pronoun. There is an observable tendency for first person pronouns to co-occur with the proximal demonstrative *itu* (*-tu*), and for other pronouns to take *iro* or *aro* (*-ro*) as a modifier in this context.

4.1.2.1.2 Possessive pronouns Paku only has designated possessive pronoun forms in singular which in first and second person are derived from the corresponding personal pronouns. The possessive pronouns in Paku are *-ku* for first person, *-ko'* for second person, and *-ne* for third person. They are added as an enclitic to the right edge of the possessee noun phrase.

The noun phrases in (4.25)-(4.27) illustrate the use of singular possessive pronouns.

(4.25) *lowuku*
lowu-ku
house-1SG.POSS

'my house'

2. Note that the speaker uses a Maanyan numeral.

(4.26) *lowuko'*
lowu-ko'
house-2SG.POSS

'your house'

(4.27) *lowune*
lowu-ne
house-3SG.POSS

'her house'

As was mentioned earlier, if the possessing entity is plural the structure is formed like a regular possessive construction which means that the possessor follows the possessed entity as a free personal plural pronoun. This is demonstrated in (4.28)-(4.30).

(4.28) *lowu kain*
house 1PL.EXCL.POSS

'our house (excluding the listener)'

(4.29) *lowu takam*
house 1PL.INCL.POSS

'our house (including the listener)'

(4.30) *lowu ikam*
house 2PL.POSS

'your house'

(4.31) *lowu reo*
house 3PL.POSS

'their house'

There is one instance in the data in which the possessive pronoun *-ku* functions as a nominaliser. It is shown in (4.32). In the example the first person singular possessive marker *-ku* attaches to the adjective *obo* 'tall'. Without this prior nominalisation, *obo* could not occur in a comparative structure with *same ali* 'same as' (see 7.9.1).

(4.32) *Oboku* *same* *ali* *ine'.*
obo-ku same ali ine'
tall-1SG.POSS EQUAL with mother

'My height is the same as mother's.'

Due to (4.32) being the only example of this kind in the data it is unclear how productive derivations utilising possessive pronouns are.

4.1.3 Negation

In Paku, nominal and verbal negation are identical in form, i.e. they both involve the use of the negator *bakoi* 'not' or its abbreviated form *koi*. They stand in free variation as there are no criteria which seem to trigger the use of one over the other and in all instances speakers accept both *bakoi* and *koi*. *Bakoi* occurs immediately before the noun it negates. An example of a negated noun phrase is shown in (4.33) where the noun phrase *punsi* 'banana' is preceded by *bakoi* or *koi*.

(4.33) *Ua'* *itu* *bakoi/koi* *punsi.*
fruit DEM.PROX NEG banana

'This fruit is not a banana.'

Examples of *bakoi* in a verbal context can be found in 5.1.4.

4.1.4 Quantification

Nouns are morphologically unmarked for number. Modifiers occur in the same form on nouns referring to both singular and plural entities and the number of an entity often has to be interpreted from context.

(4.34) *Anapea* *iro* *tuli* *gi* *sunge.*
child DEF play LOC river

'The child/children is/are playing by the river.'

In (4.34), *anapea* 'child' is morphologically unmarked for number and without context it is impossible to know if the scenario described is one child playing by itself or several children playing together. *Iro* in this context functions as a definite marker (see 7.3) and does not provide information regarding the number of entities either.

However, if speakers wish to explicitly express plurality they have several strategies at their disposal. The first one is reduplication of the noun in question. A second and more widely used one is using the plural word *kawan* which always precedes the noun it modifies. Both of these strategies are discussed in more detail in 4.3.

The use of numerals and quantifiers also marks plurality on nouns. Most quantifiers such as *rama* 'much, many', can typically be used on both count nouns (e.g. *rama ulun* 'many people') and

mass nouns (e.g. *rama ranu* 'much water') (see 3.2.2.3). However, when specifying an amount or counting entities, there is a grammatical distinction between those two types of nouns. When counting count nouns, they are preceded by either a numeral or, more frequently, a combination of numeral and classifier. The structure of a quantified noun phrase is shown in (4.35) in which the head noun *keu* 'Orang-utan' is preceded by the numeral *tolu* 'three' and the classifier used for animals *ukui*. The numeral system and classifiers, including the criteria governing their use, are explained further in 3.2.2 and 3.2.1.

(4.35) *tolu* *ku'ukui* *keu*
tolu kV-ukui keu
three kV-CLF2 Orang-utan

'three Orang-utans'

Unlike count nouns, mass nouns cannot be quantified using numerals alone or classifiers. In order to specify an amount of a mass noun, speakers need to use a numeral plus a metric unit of measurement such as for instance *kilo* or *liter*, which entered the language via Indonesian. An example is shown in (4.36), in which *ranu* 'water' is preceded by the numeral *suei* 'nine' and the measurement unit *liter* 'litre' (see 3.2.2.3 for additional examples).

(4.36) *suei* *liter* *ranu*
nine litre water

'nine litres of water'

In addition to units of measurement that are loans from Indonesian, it is also possible to use more traditional units such as *lawu* 'plate' or *waruh* 'spoon'. An example of *lawu* 'plate' was already presented in (3.52). The noun phrase in (4.37) shows the use of *waruh* 'spoon' as a unit of measurement.

(4.37) *erang* *waruh* *nahi*
one spoon cooked.rice

'one spoon of rice'

As can be seen when comparing (4.35) and (4.36), no prefix similar to *kV-* marking classifiers is needed on measurement units. This is due to the fact that by themselves classifiers such as *ukui* 'tail' and *ua'* 'fruit' are content words and therefore need to be marked when they occur as function words. There is no such correspondence for units of measurement. Given that classifiers are becoming obsolete in Paku and are no longer used consistently by all speakers, count nouns are the only type of noun that can be preceded directly by a numeral.

In addition to the cardinal numbers just discussed, Paku has ordinal numbers expressing the position or rank of an entity in a sequence. They are formed by adding the prefix *ka-* to a numeral. Unlike cardinal numbers which occur before the noun in the noun phrase, ordinal numbers follow it. This can be seen in (4.38) in which the noun phrase *kabun gatah* 'rubber garden' is modified by the ordinal numeral *karuo* 'second'.

(4.38) *kabun gatah karuo*
kabun gatah ka-ruo
garden rubber ORD-two

'second rubber garden'

Similar to noun phrases modified by adjectives (see 4.1.6) and demonstratives (see 4.1.10), ordinal numbers can be introduced by the relativiser *iyo*, hence the noun phrase in (4.38) could alternatively be formed as *kabun gatah iyo karuo* (although this process adds pragmatic information to the phrase, see 7.10). However, contrary to adjectival structures the ordinal numeral is always part of the noun phrase regardless of whether it occurs immediately after the noun or is expressed in a relative clause whereas adjectives can also function as predicates when they follow a noun phrase (see 7.4.1 and 7.6.1).

4.1.5 Nominal modification

Nouns can be modified by other nouns which always immediately follow the head noun within the phrase. Like some other types of modification discussed in this chapter, the primary function of nominal modification is that of limiting reference by providing additional information about the entity. This is illustrated in (4.39) and (4.40).

(4.39) *Pamakal sokonrong gi manamang lowu.*
chief stand LOC door house

'The chief is standing in the doorway.'

(4.40) *Itu wadai coklat, soba!*
DEM.PROX cake chocolate try

'This is chocolate cake, try some!'

The examples in (4.39) and (4.40) both feature noun-noun constructions. In (4.39) the modifier *lowu* 'house' further describes the head noun *manamang* 'door' and in (4.40) the modifying nominal specifies the type of *wadai* 'cake'. In (4.39) the noun phrase is embedded in a prepositional clause which functions as an oblique and follows the predicate whereas in (4.40) the noun phrase is the predicate.

When discussing nominal modifications within a noun phrase, the inevitable question is that of the internal cohesion of these constructions. Are they best analysed as phrases or are they structurally more similar to compounds? Before attempting to answer this question, it is important to first define and look at criteria for compounds which include phonological, morphological, syntactic and semantic evidence. The nature of compounding has long been the subject of debate, with some questioning whether it can be considered a distinct means of word formation (Lieber and Štekauer 2009:4). It is generally defined as forming a new complex lexeme from two or more individual lexemes (Matthews 1991:82; Lieber and Štekauer 2009:4; Bauer 2009:343). What criteria can be applied for identifying compounds? The most commonly cited phonological criterion

is that of stress. Compounds typically follow the stress pattern of individual words, not that of a sequence of words (e.g. Fabb 2001:79; Bauer 2009:345; Lieber and Štekauer 2009:11; Matthews 1991:97). Unfortunately stress in Paku is not fixed and despite usually occurring on the penultimate syllable of a root, it can move to other positions without any function associated with that move (see 2.3). As a result stress cannot reliably be used as evidence for compoundhood.

Morphologically, compounds are inflected as a whole and the individual lexemes cannot be modified further (Matthews 1991:100; Lieber and Štekauer 2009:13; Fabb 2001:82). On this point the data in Paku is more revealing. If noun plus noun sequences such as *kakao kayu* 'tree' were truly compounds, it should be expected that under reduplication, it is the entire string that undergoes this process. However, this is not the case. For example, when reduplicated *kakao kayu* 'tree' (lit. 'wood tree') only reduplicates the initial word in the sequence, hence the result of reduplicating *kakao kayu* is *kakao-kakao kayu*, not *kakao kayu-kakao kayu* (see 4.3).

Under affixation it is expected that compounds are treated as one word both morphologically and syntactically, e.g. circumfixes attach to the edges of the word as a whole and no other modifiers can be inserted between the two nouns (Lieber and Štekauer 2009:11; Bauer 2009:346; Fabb 2001:81; Matthews 1991:98ff). In Paku noun plus noun sequences are treated as head noun plus nominal modifier as was just shown using an example from reduplication. If nominally modified phrases are marked for possession, the possessive clitic attaches to the right edge of the phrase which provides some, though not definite, evidence for compoundhood. The latter criterion seems to be met in Paku given that there are no instances in which a modifier was inserted in between the two nominal elements. For example, a 'tall tree' is *kakao kayu obo*. A structure in which the adjectival modifier is inserted between the two noun would yield an ungrammatical construction, thus *kakao obo kayu* is judged as incorrect. However, this might very well just be the result of a rigid adherence to the noun phrase template in Table 4.1 and can therefore not be regarded as conclusive evidence for the status of noun plus noun sequences as compounds.

In addition to these formal criteria, there are semantic criteria that can be applied. This is particularly useful in languages like Paku in which grammatical criteria do not yield a conclusive analysis. The perhaps most commonly applied feature in this category is the semantic relationship between the individual elements within the structure, i.e. if the meaning of the structure as whole is predictable from the meaning of its parts. The distinction between constructions of this type and those for which this is not the case is referred to as the difference between endo- and exocentric compounds[3] (Scalise and Bisetto 2009:38; Bauer 2009:350; Haspelmath 2002:87ff; Matthews 1991:95). Some authors (e.g. Dryer 2007b:175; Klamer 2005) only consider exocentric compounds to be genuine compounds and describe other structures as phrases. This approach works well for Paku since the structures in question do not show much lexical integrity beyond phrase structure rules and it will be applied to all noun plus noun sequences whose meaning can be derived from the meaning of its parts. The only structures that are viewed as compounds in Paku are Indonesian loans such as for instance *kambing hitam* 'scapegoat' (lit. black goat) or *gula batu* 'sweets' (lit. sugar stone).

3. Endocentric compounds are transparent and their meaning can be inferred from the individual parts of the structure (e.g. a blackbird is a type of bird). In exocentric compounds, the head is outside of the structure and, at best, only has a figurative relationship to the morphemes in the compound (e.g. pickpocket, which is not a type of pocket). In some accounts exocentric compounds are viewed as not having a head at all (e.g. Fabb 2001:67).

4.1.6 Adjectival modification

Adjectival modifications of nouns are among the most common noun phrase modifications in the data. Adjectives typically modify nouns directly and therefore immediately follow the noun in the noun phrase. This is true for both types of adjectives introduced in 3.1.2.1.

(4.41) *kinrot* *wura*
loincloth white

'white loincloth'

(4.42) *pongokan* *malayong*
pVN-okan mV-layong
NOMZ-eat INTR.STA-hot

'hot food'

Examples (4.41) and (4.42) show two instances of adjectival modification in a noun phrase. In (4.41) the noun *kinrot* 'loincloth' is immediately followed by the adjectival root *wura* 'white'. In (4.42) the root *layong* 'hot' needs to take *mV-*. Due to the fact that *mV-* is a verbal affix, albeit one that can convey adjectival notions, this kind of modification is strictly speaking not adjectival but verbal. This type of modifying function also constitutes the only scenario in the data in which a verb occurs in non-predicative function.

As is true for nominal modification as well, whenever a noun phrase is modified by an adjective, there is potential for ambiguity as to whether the resulting construction is a phrase or a clause. This is due to the lack of a copula in Paku which means that simple clauses with an adjectival predicate take the same shape as a noun phrase modified by an adjective. Hence (4.41) and (4.42) may, without context, also be translated as 'the loincloth is white' and 'the food is hot' respectively. For this reason speakers may choose to resolve this ambiguity by embedding the adjective in a relative clause (see 4.1.7 and 7.10).

4.1.7 Relative clause modification

Nouns can be modified by relative clauses. Relative clauses in Paku are introduced using the relativiser *iyo* which is identical in form with the third person singular pronoun. Despite *iyo* being the common form, a small number of speakers produce this relativiser as *iya*.

The structure of the relative clause itself depends on the syntactic role of the head noun. Due to this and other clause-level variations within relative clauses, their formation and internal structure is discussed in more detail in 7.10 whereas this section serves as an introduction to their function within the noun phrase and their distribution relative to other modifiers.

Restrictive relative clauses always occur to the right of the noun they modify, but their placement relative to other elements within the phrase can differ. An example is shown in (4.43). Here head noun *pea* 'child' is followed by the relative clause *iyo kuman punsi itu* 'who ate these bananas'. There is potential for ambiguity in the way the proximal demonstrative *itu* is interpreted within

the noun phrase. By default most speakers will understand it to modify the noun *punsi* 'banana' within the relative clause making it a part of the relative clause. However, it is also possible for *itu* to function as an independent modifier to the head noun.

In cases in which the deictic element or adjective is placed between the head noun and the relative clause, there are two ways in which the construction can be interpreted: if no other elements follow the relative clause in the utterance, the structure is interpreted as a cleft construction as is shown in (4.44). Here the the relativiser *iyo* functions as a nominaliser of the verb phrase *kuman punsi itu* thereby making it the predicate of the clause. In yet other constructions in which the relative clause is followed by a verb phrase the relative clause is understood to be non-restrictive in nature. An example of this kind is presented in (4.45) in which the head noun *pea* 'child' is already made definite by the demonstrative *itu* and the relative clause *iyo kuman punsi itu* 'who ate these bananas' merely adds information about the already identifiable referent. Non-restrictive relative clauses such as this one also freely occur if the head is a proper noun.

(4.43) *pea iyo kuman punsi itu*
child REL eat banana DEM.PROX

'the child who ate these bananas'

(4.44) *Pea itu iyo kuman punsi itu.*
child DEM.PROX REL eat banana DEM.PROX

'It is this child who ate these bananas.'

(4.45) *Pea itu, iyo kuman punsi itu, duloi gi Bantai Napu.*
child DEM.PROX REL eat banana DEM.PROX live LOC Bantai Napu

'This child, who ate these bananas, lives in Bantai Napu.'

As a general rule, all constituents which occur as predicates within a declarative clause can also function as predicates in a relative clause, with the notable exception of nominal predicates (see 7.10). This is illustrated in (4.46)-(4.50) which show the different predicating elements within a relative clause: verbs (4.46), adjectives (4.47), ordinal numerals (4.48), prepositional phrases (4.49), and demonstratives (4.50).

(4.46) *Using iyo ngalat kenahne.*
using iyo N-alat kenah-ne
cat REL AV-steal fish-ART.DEF

'The cat that stole the fish'

(4.47) *pongokan iyo malayong*
pVN-okan iyo ma-layong
NOMZ-eat REL INTR.STA-hot

'hot food'

(4.48) *umo iyo katolu*
umo iyo ka-tolu
rice.field REL ORD-three

'third rice field'

(4.49) *buku iyo gi bawo meja*
book REL LOC above table

'book on top of the table'

(4.50) *lowu' iyo iro*
house REL DEM.MED

'that house'

Relativised modification usually occurs when a speaker wants to disambiguate in a situation where there are several choices available or more than one referent is possible. As is discussed in more detail in 7.10, constructions in which the modifier has been placed within a relative clause allow for contrastive reading whereas those in which the same modifier immediately follows the head noun do not. What this means is that for instance (4.47) implies that there is also food that is not hot whereas its equivalent without the relativiser *iyo*, *pongokan malayong* 'hot food', does not allow for such a reading.

As was mentioned in 4.1.6, relative clauses may also be used to mark the construction as a phrase in situations where it may be interpreted as a clause rather than a phrase which is particularly relevant if the modifying element is an adjective since they immediately follow the head noun when used both attributively and predicatively.

4.1.8 Prepositional phrase modification

Prepositional phrases are relevant with regard to noun phrases in two ways. For instance, a common occurrence of noun phrases is as a dependant in a prepositional phrase. There are a number of prepositions which can act as a head which are listed in Table 3.16. In such structures the head, i.e. the preposition, occurs at the left edge of the phrase with all modifying elements following it (see chapter 6). These prepositional phrases in turn can, among other things, function as modifiers within a noun phrase.

Prepositional phrase modification is somewhat similar to modification by nominals and adjectives in that prepositional phrases are free forms, as opposed to bound morphemes, that follow the noun within the phrase.

(4.51) *Reo nyanyi lagu wangon kame alam.*
3PL sing song about spirit nature

'They are singing a song about nature spirits.'

Clause (4.51) exemplifies the modifying function of prepositional phrases. In this instance, the prepositional phrase *wangon kame alam* 'about nature spirits' specifies the noun phrase *lagu* 'song', thereby narrowing the potential reference of the head.

The modifying prepositional phrase can furthermore be embedded in a relative clause. It was already mentioned in the context of adjectival modification that this strategy is sometimes chosen by speakers when the clause would otherwise be ambiguous.

(4.52) *Ine' desung nokonsak kenah gi dapur.*
ine' desung N-tokonsak kenah gi dapur
mother PROG AV-cook fish LOC kitchen

'Mum is cooking fish in the kitchen.'

(4.53) *Ine' desung nokonsak kenah iyo gi dapur.*
ine' desung N-tokonsak kenah iyo gi dapur
mother PROG AV-cook fish REL LOC kitchen

'Mum is cooking fish that is in the kitchen.'

The sentence in (4.52) shows an example of a potentially ambiguous structure in which the prepositional phrase *gi dapur* 'in the kitchen' can either be interpreted as modifying the predicate *nokonsak* 'to cook', thereby indicating where the action takes place, or as being part of the preceding noun phrase *kenah* 'fish', in which case it is the fish that was in the kitchen prior to being cooked. This ambiguity is avoided in (4.53) since the embedded prepositional phrase can only refer to the argument immediately preceding it in the clause. This leaves the default reading of (4.52) to be that as modifying the predicate and not the argument, which is reflected in the translation of the two constructions.

This modifying function of prepositional phrases within the noun phrase is only one of several functions of prepositional phrases in Paku. Other functions, syntactic and semantic, as well as a more thorough discussion on the form of prepositional phrases is found in chapter 6. A comprehensive list of prepositions, both simple and complex, along with a discussion of their identifying features is presented in 3.2.6.

4.1.9 Articles

Definite marking is not obligatory in Paku. However, as was pointed out before, in order to occur as the subject of a clause, the respective noun phrase needs to be specific, i.e. have an identifiable referent. This is often achieved grammatically via the use of definite marking (see 7.3). There are three ways in which a noun phrase can morphosyntactically be marked as definite. The first is with the use of the definite article *-ne* which can attach to all noun phrases, except proper nouns and pronouns (see 3.2.4).

(4.54) *Carane* *mi'itu.*
cara-ne mV-itu
manner-ART.DEF INTR.STA-DEM.PROX

'This is how you do it.' (lit. 'the way to do this is like this.')

Example (4.54) shows the use of the definite article *-ne* which in this case attaches to the noun *cara* 'manner'. Since it is now a definite noun phrase, *carane* 'the way' can occur in subject position. The equivalent structure *cara mi'itu*, in which the noun phrase is unmarked for definiteness, would be grammatically incorrect and is thus rejected by speakers.

The suffix *-ne* can also attach to noun phrases that include other modifiers, as shown in (4.55). Here *-ne* modifies the head noun *tas* 'bag' which is already modified by a possessor noun phrase *wawe uro* 'young woman'.

(4.55) *tas* *wawe* *urone*
tas wawe uro-ne
bag woman young-ART.DEF

'the young woman's bag'

The definite article is identical in shape with the third person singular possessive pronoun which in some contexts makes a phrase ambiguous as to whether it is marked for possession or definiteness. However, it is generally evident from the context which of the two functions is intended.

(4.56) *Peane* *malah.*
pea-ne malah
child-3SG.POSS thirsty

'Her child is thirsty.'

Example (4.56) demonstrates the potential ambiguity of *-ne* in combination with noun phrases. Without contextual knowledge *peane* can be interpreted as referring to a particular child or to a third person's (his/her) child. Given that positioning within the noun phrase is the same regardless of whether *-ne* functions as an article or as a possessive pronoun, distribution is typically not an indicator as to the function of *-ne* within any given phrase.

The second way of marking a noun phrase as definite is by using the free form *iro* which usually occurs in the same syntactic slot as *-ne*. Given that *iro* is originally a demonstrative, its function as a definite marker is discussed in 4.1.10.

Finally, the word *kawan* marks a noun phrase as a homogeneous group or collection. This has the effect of marking the head noun as not only plural but also as definite. Due to its function of indicating plurality, *kawan* is discussed in more detail in 4.3.

Paku also has a way of specifically marking a noun phrase as indefinite with the use of the numeral *erang* 'one' in combination with a classifier. This combination is viewed as an indefinite article in this analysis. In (4.57) the article precedes the head noun *lowu* 'house'.

(4.57)

Gi	*huang*	*jubut*	*iro*		*naan*	*erang*	*ku'ua'*	*lowu.*
gi	huang	jubut	iro		naan	erang	kV-ua'	lowu
LOC	inside	forest	DEM.MED		EXIST	ONE	kV-CLF2	house

'Inside that forest there is a house.'

Such indefinite articles do not occur often in the data. They are typically used to introduce a referent into discourse, a function these constructions share with existential clauses (see 7.5) in which the noun phrase is unmarked for definiteness. However, while noun phrases without definiteness marking on them are ambiguous for number, the indefinite article distinctly marks a noun phrase as singular which is reflected in the translation of (4.57). Grammatically the use of the indefinite article is always optional.

Erang is used only in combination with other nouns, e.g. *erang alik* 'a while', and with classifiers to function as an indefinite article. Therefore it can be argued that *erang* has undergone a functional shift developing into a marker of indefiniteness and no longer functions as a numeral. This is in line with the typological tendency for the numeral 'one' to develop into an indefinite article (e.g. Croft 2002:254; Givón 1981; Lyons 2004:336; Diessel 1999:138).

Finally, Paku has a personal article *hi* which can optionally be used with personal names as well as kinship terms and teknonyms. It invariably occurs before the noun and is mostly used to refer to humans but can also be used in combination with pet names. *Hi* is only used when talking about a person or pet, never when talking to them. Although the use of this personal article is optional, most speakers opt to use it when talking about other people. There is evidence suggesting that *hi* is only used when talking about people the speaker knows well. It is, for instance, not used when talking about a person of high status such as the village chief. An example illustrating the use of *hi* was already shown in (3.60). Additional ones are presented in (4.58) and (4.59). In (4.58) the personal name *Roni* is preceded by *hi* within an object noun phrase. The sentence in (4.59) shows an example of *hi* preceding the kinship term *ine'* 'mother'.

(4.58)

Aku	*kite*	*hi*	*Roni.*
aku	kV-ite	hi	Roni
1SG	KV--see	ART.PERS	Roni

'I see Roni.'

(4.59)

Hi	*ine'*	*maksa'*	*adi'ku*	*ngabarasis*	*eletne.*
hi	ine'	maksa'	adi'-ku	N-barasis	elet-ne
ART.PERS	mother	force	younger.sibling-1SG.POSS	AV-clean	room-3SG.POSS

'Mum forced my little sister to clean her room.'

4.1.10 Demonstrative modification

Demonstratives are deictic elements that mainly function to indicate the location of an entity in relation to the speaker. Due to this spatial reference they are often accompanied by pointing or nodding gestures.

Paku has three demonstratives; *itu* signals that an entity is close to the speaker, *iro* is used to identify an entity in medial distance from the speaker but usually still visible, and *aro* is used if an object is located far away and out of sight from the speaker. Some speakers use *raha* as a distal demonstrative but *aro* is more common in the data which is why it is regarded to be the default demonstrative in this function. There is no number distinction. Demonstratives always follow the head noun, and when used as modifiers occur after ordinal numerals and adjectival or nominal modifiers within the noun phrase. The distribution of *itu*, *iro*, and *aro* is illustrated in (4.60)-(4.62).

(4.60)

Iyo	*nyunyu'*	*peane*	*ngepo*	*punsi*	*itu.*
iyo	N-suyu'	pea-ne	N-epo	punsi	itu
3SG	AV-ask	child-3SG.POSS	AV-fetch	banana	DEM.PROX

'She asked her child to get these bananas.'

(4.61)

Ulun	*iro*	*bahasil*	*bulo*	*pare.*
ulun	iro	bV-hasil	bulo	pare
person	DEM.MED	INTR.DYN-aim	plant	rice

'That person succeeded in planting rice.'

(4.62)

Sakulah	*aro*	*ma'asus.*
sakulah	aro	mV-asus
school	DEM.DIST	INTR.STA-good

'The school over there is good.'

In (4.60) the proximal demonstrative *itu* follows the noun *punsi* 'banana' within an object noun phrase. In (4.61) and (4.62) the demonstratives *iro* and *aro* respectively occur within a noun phrase in subject position.

In their function to limit the potential reference of the head noun, demonstratives can be placed within a relative clause, as discussed in 4.1.7.

Demonstratives can be combined with one of the locative prepositions *gi*, *pah*, or *engke*/*teke* to form a prepositional phrase. *Gi* expresses a static position at a location, *pah* is used for a direction towards a location, while *engke* and *teke* function to indicate a source. (4.63)-(4.65) illustrate the structure and distribution of such spatial constructions using *gi* as a representative for all basic locative prepositions. The resulting prepositional phrases are *gi itu* 'here' (4.63), *gi iro* 'there' (4.64) and *gi aro* 'over there' (4.65).

(4.63) *Ranu gi itu bere'.*
water LOC DEM.PROX dirty

'The water here is dirty.'

(4.64) *Pea iyo tuli gi iro pea tataku.*
pea iyo tuli gi iro pea tata-ku
child REL play LOC DEM.MED child older.sibling-1SG.POSS

'The child who is playing over there is my big sister's child.'

(4.65) *Kakao gi aro idu' tuu.*
tree LOC DEM.DIST big INTS

'The trees over there are very big.'

As mentioned in 4.1.9, the demonstrative *iro* also functions as a definite marker within the noun phrase. The distributional features of *iro* remain unchanged when used in this way. However, it no longer possesses any spatial features. Constructions in which *iro* functions in this manner are frequent in the data since in order to occur as a subject, the referent needs to be specific and identifiable from context (see 7.3). The functional shift of *iro* to marking definiteness of a head noun reflects the finding that diachronically demonstratives are a frequent source for definite articles in languages (Dryer 2007b:155; Lyons 2004:331; Croft 2002:254; Diessel 1999:128). Due to the fact that they express the same function, demonstratives and articles (as well as possessive markers) are in complementary distribution and therefore never occur in the same noun phrase. Example (4.66) shows an example in which *iro* functions as a definite marker without adding spatial information.

(4.66) *Upo iro dapas tupine.*
upo iro dapas tupi-ne
man DEF take.off hat-3SG.POSS

'The man takes off his hat.'

Demonstratives are one of the few modifiers that have been found to occur with personal pronouns. In this function they always occur in their abbreviated forms *-tu* and *-ro*. Examples were shown in 4.1.2.1.1 but for completeness (4.22) is repeated here as (4.67). It shows the proximal

demonstrative *-tu* forming a noun phrase with the personal pronoun *takam* '1PL.INCL' which is then followed by the predicate *nganre* 'to wait'.

(4.67) *Takamtu* *nganre.*
takam-tu N-anre
1PL.INCL-DEM.PROX AV-wait

'We, we are waiting.'

The precise function of this kind of modification is subject for further analysis. However, it appears to have a highlighting function in discourse, emphasising that the statement that follows refers to whoever is the referent of the pronoun. This is reflected in the translation of (4.67).

Due to the fact that both *iro* and *aro* end in *-ro* it is not certain which one the cliticised form *-ro* is short for. However, given that a) *iro* seems to have a broader functional range than *aro*, and b) that with regard to pronoun modification the only distinction speakers make is between proximal for first person pronouns and non-proximal for other pronouns, *-ro* is considered to be short for *iro* in this analysis.

There is evidence suggesting that the demonstrative *iro* can take on additional functions both within the noun phrase and on clause-level. For instance, in discourse *iro* (and to a smaller extent the proximal demonstrative *itu*) can attach to words belonging to different word classes to signal the end of a discrete unit (usually a noun phrase). In this environment demonstratives often occur in their abbreviated forms and their distribution within the phrase in this function moves from penultimate to final slot. This can be seen in (4.68) in which *iro* follows the relative clause *iyo wiet* 'which is heavy' which in turn modifies the noun *barang* 'thing'. If *iro* in this example were functioning as a regular noun phrase modifier, it would occur between the head noun and the relative clause. In (4.69) *iro* occurs between two noun phrases. It is unlikely marking definiteness in this environment as it follows a proper noun which are typically not further modified. There is also no spatial information added to the clause. However, *iro* does seem to be highlighting the noun phrase *Paku* in the discourse, especially because the second noun phrase *budayane* 'their culture' contains a possessive pronoun that refers back to the noun phrase marked by *iro*. In (4.70) *-ro* is cliticised to the verb *nganre* 'wait'.

(4.68) *Iyo* *ku'ule* *ngoit* *barang* *iyo* *wiet* *iro* *anrape.*
iyo kV-ule N-oit barang iyo wiet iro anrape
3SG NVOL-able AV-bring thing REL heavy DEM.MED yesterday

'She managed to bring the heavy things yesterday.'

(4.69) *Paku* *iro* *budayane* *budaya* *Hindu* *Kaharingan.*
Paku iro budaya-ne budaya Hindu Kaharingan
Paku ? culture-3SG.POSS culture Hindu Kaharingan

'As for the Paku, their culture used to be Hindu Kaharingan.'

(4.70) *Balalu* *nganrero* *pire,* *erang* *wulankah?*
balalu N-anre-ro pire erang wulan-kah
and.then AV-wait-DEM.MED how.many one month-Q

'Then wait how many, one month?'

Moreover, there are some examples in the data in which *iro* potentially functions as a third person singular pronoun for inanimate and abstract entities. However, the data has not been systematically examined to test these hypotheses and a more thorough analysis might yield more conclusive results. An example is shown in (4.71). It is taken from a narrative in which Iterman talks about the origin of the Paku people. As can be seen *iro* occurs in clause-initial position and is followed by a noun *arti* 'meaning'. The position within the clause and the fact that *iro* does not convey spatial information in this instance rules out that it functions as a demonstrative. It is also unlikely to be marking definiteness as *arti* 'meaning' is followed by the definite article *-ne*.

(4.71) *Iro* *artine* *erang* *alik* *aku* *tau* *ngesah* *sejarah* ...
iro arti-ne erang alik aku tau N-kesah sejarah
? meaning-ART.DEF one while 1SG can AV-story history

'This means that at some point I can talk about the history ...'

4.1.11 Possessive phrases

Possessive constructions are more complex than other modifications of nominals discussed thus far. This is due to the fact that they can involve multiple modifications and often there is more than one possible structure to express the underlying concept (Dryer 2007b:184). In Paku, there are two ways to mark possession of a noun: nominal and singular pronominal possession. The former is formed by juxtaposing the two nominals with the possessor following the possessee. No further modification of either noun is necessary. This is illustrated in (4.72). Here the head noun and possessee *tu'ulang* 'bone' is immediately followed by the possessor *eteng* 'dog' resulting in a possessive reading of the phrase.

(4.72) *tu'ulang* *eteng*
bone dog

'the dog's bone'

Pronominal possession marking depends on the number of possessors. If the possessor is singular, the structure is formed morphologically by attaching an enclitic to the nominal possessee (see 4.1.2.1.2). This is illustrated in (4.73) in which the first person singular possessive pronoun *-ku* follows the head noun *adi'* 'younger sibling'.

(4.73) *Anrape* *adi'ku* *mintan* *pito* *ku'ukui* *kenah.*
anrape adi'-ku N-wintan pito kV-ukui kenah
yesterday younger.sibling-1SG.POSS AV-fish kV-CLF2 fish

'Yesterday my little brother caught seven fish.'

In cases in which the possessor is plural, possession is expressed the same way as nominal possessive constructions, with the personal pronoun following the possessed noun. Example (4.74) shows part of a sentence about the daily routine of the villagers. The possessee noun phrase *kabun gatah* 'rubber garden' is followed by the free pronominal *reo*, expressing a third person plural possessor.

(4.74) *...lanane bagawi gi kabun gatah reo ruo kali erang onro.*
lanane ba-gawi gi kabun reo ruo kali erang onro
normally INTR.DYN-work LOC garden rubber 3PL.POSS two times one day

'...normally work in their rubber garden twice a day.'

Possessive constructions can not only be used to signal ownership but also to express all kinds of more abstract possession, including kinship relations as shown further down in (4.79) and (4.73), names (4.75), part-whole relations (4.76) and other possible abstract relations, for instance birthdays (4.77).

(4.75) *Akutu, ngaranku Iterman.*
aku-tu ngaran-ku Iterman
1SG-DEM.PROX name-1SG.POSS Iterman

'Me, my name is Iterman'

(4.76) *Pipik lowu harus wura.*
wall house must white

'The walls of the house need to be white.'

(4.77) *Aku kutue pitanin ulang tahunko'.*
aku kV-tue pitanin ulang tahun-ko'
1SG NVOL-know tomorrow repeat year-2SG.POSS

'I know that tomorrow is your birthday.'

Paku does not grammatically distinguish between alienable and inalienable possession as can be seen when comparing possession of body parts (4.78) with other constructions in this section.

(4.78) *Matone karado.*
mato-ne karado
eye-3SG.POSS green

'Her eyes are green.'

Constructions of the part-whole variety like the one shown in (4.76) are structurally similar to nominal modifications discussed in 4.1.5 and they can often be interpreted as either a noun modified by another noun or as a possessive phrase. Other examples include such structures as *tumpuk Paku* 'Paku village' or *adat Paku* 'Paku cultural law' in which *Paku* can be either a noun functioning to limit potential referents, or the possessor, thereby creating a translation along the lines of 'village of the Paku' or 'cultural law of the Paku'.

In addition to the simple possessive modification discussed thus far, it is also possible for possessive phrases to become more complex and to include multiple possessive constructions and modifiers. In (4.79) the complex noun phrase *motor wuyung* 'black scooter' is the possessee with the possessor noun phrase *uma'ku* 'my father' (which is itself a possessive construction) following it within the phrase.

(4.79)

Motor	*wuyung*	*uma'ku*	*na'ihao*	*ulah*	*pamakal.*
motor	wuyung	uma'-ku	na-ihao	ulah	pamakal
scooter	black	father-1SG.POSS	PASS-borrow	by	chief

'My father's black scooter was borrowed by the chief.'

4.2 Nominalisation

Nominalisation is a derivational process in which a word which is underlyingly not nominal is used in a nominal syntactic frame. Often this process involves the use of nominalising affixes. In some instances it is also possible for these affixes to attach to a nominal root, but in that case, the meaning of the root is significantly altered by this process. All derived nominals behave morphosyntactically as nouns with the same morphological modifications, syntactic functions and distributional features as other nouns in Paku.

As will become clear throughout the following discussion, the precise meanings each of the affixes derives is not always clear-cut and some are more straightforward than others with regard to the type of noun they produce. In other cases, the derived function seems to depend on the type of root the affix attaches to. Often the differences are small semantic nuances. However, other derived nominals exhibit major inconsistencies in their derived meanings. For this reason, the following discussion is divided by affix rather than by function.

In some instances it can be asked whether affixes that are here described as circumfixes are really circumfixes, i.e. they have grammatical function only if used in combination, or they are rather a combination of a prefix and a suffix, both with individual functions. In some cases it seems obvious enough that the intended function is expressed only via the combination of the two, thereby marking them as a circumfix. However, often this distinction is much less obvious and they could just as well be analysed as an accumulation of the added functions of two affixes. For the purpose of this discussion, this distinction is regarded as a terminological issue only and although both options were considered, as long as they derived words with a distinct identifiable meaning, they are here referred to as circumfixes.

There is one example in the data in which a possessive pronoun functions as a nominaliser. It was shown in (4.32) but repeated below as (4.80). Here, the first person singular possessive pronoun

-ku attaches to the adjective *obo* 'tall'. This nominalisation is required for comparative structures featuring *same ali* 'same as' (see 7.9.1).

(4.80) *Oboku* *same* *ali* *ine'.*
obo-ku same ali ine'
tall-1SG.POSS EQUAL with mother

'My height is the same as mother's.'

Due to the lack of additional structures, it is unclear to what extent the affixation of possessive pronouns is a productive derivational process. It is therefore not included in the following discussion of individual derivational affixes.

4.2.1 *-an*

A common and productive way to derive a noun is by adding the resultative suffix *-an*. It can be attached to transitive verbal roots, mostly those expressing an activity, to derive a noun referring to the result or goal of the activity expressed by the root.

(4.81) *Kikitan* *mahanang.*
kikit-an ma-hanang
bite-RES INTR.STA-sick

'The bite hurts.'

(4.82) *Reo* *nunti* *awatan.*
reo N-tunti awat-an
3PL AV-ask help-RES

'They are asking for help.'[4]

Examples (4.81) and (4.82) illustrate nouns derived by *-an*, first in pre-verbal and then in post-verbal position. In the intransitive clause (4.81) it attaches to the root *kikit* 'bite', thereby deriving the corresponding result noun *kikitan* 'bite (n.)', whereas in transitive (4.82) it is used on the verbal root *awat* 'help' to derive *awatan* 'help (n.)'.

The prefix *-an* has the allophone *-'an* which occurs if the root ends in the vowel [a] such as for example in the verb *basa* 'read' which becomes *basa'an* 'reading (n.)'. Another allophone occurs with speakers who use nasal preplosion as they will usually produce this suffix as [-a^{t}n] unless the base it attaches to ends in a homorganic nasal (see 2.20).

4. 'Asking for help' can have two meanings. Apart from asking for help with a task or asking for a favour, the phrase can also be used by hosts of a ceremony (e.g. a wedding) as a polite way to ask for a monetary contribution to the festivities since they can be quite costly.

4.2.2 *kV-an*

There are several different ways in which this circumfix can be produced, both with regard to the prefix and the suffix. While the majority of speakers produce the prefix with vowel harmony, there are also those who consistently pronounce it either *ka-an* or *ka-en*. The choice of one over the other seems to be governed only by speaker preference. Based on widest distribution, the circumfix is referred to as *kV-an* in this description.

KV-an can attach to both verbal and adjectival roots. There are three functions that the nouns derived by this circumfix can have. The first one is the corresponding noun of an adjectival root. These derivations often have an intransitive verb or adjective as the root and are therefore frequently abstract. Examples of this kind include *ka'ulehan* 'strength', which is derived from *uleh* 'strong', *kasiroman* 'darkness', whose root is *sirom* 'dark', and *kasangitan* 'anger', derived from the root *sangit* 'angry'.

However, in the data the circumfix *kV-an* is most frequently used with adjectival roots to derive an adversative passive. Due to the fact that those forms have adjectival meaning and function, they are discussed together with other derived verbs and adjectives in 5.3.

4.2.3 *pVN-*

The prefix *pVN-* has several functions all of which derive a noun from either verbal or nominal roots. Table 4.6 shows examples of nominalisations using *pVN-*.

Function	**Example**	**Root**
Profession	*pangenah* 'fisherman'	*kenah* 'fish'
Experiencer	*panakut* 'coward'	*takut* 'afraid'
Performer of the activity expressed by the root	*panari* 'dancer'	*tari* 'dance'
Noun associated with root	*pongokan* 'food'	*okan* 'eat'
Instrument	*pamantat* 'instrument used for tapping rubber'	*pantat* 'tap rubber'

TABLE 4.6: Functions of *pVN-*

The prefix *pVN-* has several different free variants in the data. It is either consistently produced as *paN-* or *peN*, or alternatively is subject to vowel harmony. While the majority of instances of this derivation in the data involve verbal roots, *pVN-* can also be used to derive nouns from a nominal or adjectival root. However, this is nowhere near as productive as the same process involving verbal roots. When combining with a nominal root, the resulting nouns in the data almost invariably express a profession. An example of this kind was presented in (4.57) for the derived form *pangumo* 'farmer'. Another profession formed in this manner is *pangenah* 'fisherman' which is derived from *kenah* 'fish'. There is only one instance in the data in which *pVN-* attaches to an adjectival root namely *panakut* 'coward' which contains the root *takut* 'afraid'.

When used in combination with verbal roots, the most common derivation associated with this prefix is that of marking a person who performs the action expressed by the root. Examples of this kind are *panari* 'dancer' from *tari* 'dance', *panyanyi* from *nyanyi* 'sing', and *pangalat* 'thief' from *alat* 'steal'.

In one instance, *pVN-* is used in an animal name with the root indicating a defining feature of that animal: *penenget* 'wasp' is derived from the verbal root *tenget* 'sting'.

PVN- can furthermore be used to derive the noun associated with the verb such as for instance the nouns *pomolum* 'life', which is derived from *wolum* 'live', and *pampate* 'death', which is derived from *pate* 'dead'.[5]

With some roots *pVN-* derives an instrument which is used to perform the action expressed by the root. There are only a handful examples of this kind in the data, including *pameweh* 'thing used for hitting', which is derived from *weweh* 'hit', *pamuhut* 'cloth for wiping' which is derived from the root *puhut* 'wipe', and *panotok* 'sharp object used for cutting' whose root is *totok* 'cut'. In other instances instruments can be derived using the prefix *pa-* (see 4.2.5).

4.2.4 *pVN-an*

The circumfix *pVN-an*, sometimes produced as *pVN-en*, can be used to derive nouns from dynamic verbs and serves one of two functions. It can attach to roots expressing a sense to form the noun associated with that root. Table 4.7 shows three such derived nouns from the data. Note that no derivations were recorded for the senses of taste or touch.

pingintean	'sight'	*ite*	'see'
ponrongoian	'hearing'	*rongoi*	'hear'
pengewoan	'sense of smell'	*ewo*	'smell'

TABLE 4.7: *PVN-an* forming nouns of sense

The second function associated with *pVN-an* is that of deriving a noun which describes the process of performing the activity expressed by the root. Examples of this kind include *pangarawahan* 'help', *pengetoan* 'search', and *panutungan* 'burning (n.)'

PVN-an can sometimes combine with already derived words as in for instance *panangkasusan* 'the process of improving'. Here we have an adjectival root *asus* 'good' which first combines with the causative prefix *tVN-* which in turn combines with *pVN-an*.

4.2.5 *pV-*

As was already pointed out in 4.2.3 the prefix *pV-* can be used to derive instruments from a corresponding verbal root, a function it shares with *pVN-*. There are only two instances of this derivational process in the data both of which are shown in Table 4.8.

pasampan	'stick for poking'	*sampan*	'poke'
papapas	'broom'	*papas*	'sweep'

TABLE 4.8: Derivations using *pV-*

5. *Pate* 'dead' is occasionally used to refer to animals, although *mate* is more usual. In reference to people, only *mate* can be used.

In addition to the two examples presented in Table 4.8 there is one instance in which *pV-* is used in combination with the verbal root *duloi* 'live' to derive a new noun *puduloi*, produced as *paduloi* by some speakers, 'place to stay'.

4.2.6 *pV-an*

There are four instances in the data in which the circumfix *pV-an* is used to derive a noun from a verbal root. They are *pawuian* 'washing' derived from the root *wui* 'wash', *papaneran* 'talking/discussion' which features the root *paner* 'talk', *paluputan* 'end' which contains the root *luput* 'finish', and *poholetan* 'arrival' in which the circumfix attaches to the root *holet* 'arrive'. As can be seen in the examples provided some speakers produce this circumfix with vowel harmony whereas as other consistently produce it as *pa-an*. Based on at least the last two examples provided above, one might tentatively analyse *pV-an* nouns as expressing a resulting state of the activity expressed by root verb. However, with only four tokens available in the data it is not possible to fully understand the precise function of this circumfix. It is true that there are other derivational affixes discussed in this chapter that despite also not occurring in high numbers in the data, do have a more concrete function assigned to them. However, unlike these derivations, the function of *pV-an* is clearly more abstract and thus harder to identify compared to derivations that have a concrete referent such as instruments.

4.2.7 *-ne*

The suffix *-ne* as a derivational morpheme is rare in the data. One of the examples in which it has been documented in a nominalising function is shown in (4.83). Here, *-ne* attaches to the verbal base *jawoh* 'disappear'. In the data, *-ne* typically only occurs on nouns (albeit in varying functions) which is why in this instance, it is analysed as a derivational morpheme.

(4.83)

Pamakal	*gi*	*Kasamatan*	*Paku*	*burunding*	*sual*	*jawohne*	*basa*
pamakal	gi	Kasamatan	Paku	ba-runding	sual	jawoh-ne	basa
chief	LOC	district	Paku	INTR.DYN-discuss	problem	disappear-NOMZ	language

reo.
reo
3PL.POSS

'The chiefs of the Paku district discuss the problem of the disappearance of their language.'

4.3 Nominal reduplication and plurality

Reduplication is a productive means of word formation in most, if not all, documented Western Austronesian languages (Himmelmann 2005a). However, while there are a number of different reduplication patterns attested in Western Austronesian languages, in Paku only full reduplication seems to be productive.

Due to the observation that in the only instance of partial reduplication in the data (see 5.4) the reduplicant attaches to the left edge of the word, in all examples of reduplication the leftmost part of the word will be considered the reduplicant and glossed as such.

In Paku the only documented function of nominal reduplication is that of indicating plurality and diversity of the root noun. Since both notions are closely related semantically, i.e. plurality often implicates a certain degree of variety, it is at times difficult to tell them apart and in yet other cases the distinction might be irrelevant.

(4.84) *Lowune* *rupak* *kayu-kayu* *mangga* *itu.*
lowu-ne rupak kayu-kayu mangga itu
house-ART.DEF near RED-wood mango DEM.MED

'The house is near the mango trees.'

The sentence in (4.84) shows an example of nominal reduplication in which only the head noun *kayu* 'wood' is reduplicated within the noun phrase. The nominal modifier *mangga* 'mango' is not undergoing reduplication.

As mentioned in 3.1.1, Paku also has a plural word, *kawan*, which can be used on count nouns. It marks not only plurality but also has an added notion of a collection or a group with inner cohesion that is immediately identifiable. As such *kawan* also functions as a definite marker. In Maanyan *kawan* in combination with a noun also conveys the notion 'that entity and all things associated with it'. It is possible that this is also the case in Paku but there are not enough tokens in the data to reliably test for this. Reduplication derives a plural noun but has a more general connotation. This difference is illustrated in (4.85) and (4.86).

(4.85) *Gi* *aro* *naan* *kawan* *kelinci.*
LOC DEM.DIST EXIST PL rabbit

'Over there are a bunch of rabbits.'

(4.86) *Gi* *aro* *naan* *kelinci-kelinci.*
LOC DEM.DIST EXIST RED-rabbit

'Over there are rabbits.'

Both (4.85) and (4.86) feature the same head noun *kelinci* 'rabbit'. In (4.85) *kawan* refers to an identifiable group of rabbits whereas the reduplicated form in (4.86) refers to rabbits in general.

Another difference is that morphosyntactically reduplicated nouns can occur with reduplicated adjectives whereas constructions with *kawan* cannot. However, this is not obligatory and reduplicated nouns can also occur with just a simple adjective. This is illustrated in (4.87) and (4.88). Both noun phrases are almost identical with the only difference being that (4.87) features a reduplicated adjective whereas (4.88) does not. Both constructions are deemed grammatical by speakers.

(4.87) *kakao-kakao kayu obo-obo*
RED-tree wood RED-tall

'the tall trees'

(4.88) *kakao-kakao kayu obo*
RED-tree wood tall

'the tall trees'

Note that neither reduplicated nouns nor nouns modified by *kawan* can co-occur with numerals. This is due to the fact that, if talking about a specific number of entities, a combination of numeral plus classifier is used, making additional plural marking unnecessary.

As was briefly mentioned above, structures are often ambiguous as to whether they express a singular or plural referent. An example is presented in (4.89). It features a construction in which the subject *anapea* 'child' occurs without further modification and is hence ambiguous as to the number of entities referenced. Given the lack of overt definiteness marking the implication of this clause is that children, in general, like sweets. Such a general reading is common for these types of constructions.

(4.89) *Anapea kutuju gula batu.*
child like sweets

'Children like sweets.'

Chapter 5

Verbal morphology and the verb phrase

This chapter introduces Paku verbal morphology and the structure of the verb phrase. Although some of these morphosyntactic features have already been introduced in previous chapters, particularly in the context of criteria for word class membership in 3.1.2, their functions as well as their distributional features have not yet been discussed in any detail.

On the continuum of morphological types, Paku is mostly fusional. Affixes are at times highly multifunctional in that one morpheme can encode several meanings at once. For example, verbs in Paku are morphologically marked for transitivity, voice, and volition which are often expressed through a portmanteau morpheme merging at least two of these categories in one form. Moreover, the same form can often be used inflectionally as well as derivationally in the sense that when the morpheme is used on roots from a different word class or in cases in which affixation results in a significant change in meaning, it still inflects for the same verbal categories as when used on a verbal root. Examples are shown in (5.1) and (5.2). In (5.1) the main verb *ngengkat* 'to lift' is marked by *N-*, thereby indicating that the action was performed voluntarily and while the actor was in full control. *N-* also marks actor voice in transitive clauses. (5.2) shows a clause in which the verbal predicate takes the prefix *tV-* which is used to mark both that the clause is passive (which is also evident from the prepositional clause *ulah adi'ku* 'by my little sister' which only occurs in this syntactic environment) and that the action, in this case the taking of the speaker's book, was performed unintentionally.

(5.1)

Iyo	*bakoi*	*tau*	*ngengkat*	*dombaro.*
iyo	bakoi	tau	N-engkat	domba-ro
3SG	NEG	can	AV-lift	sheep-DEF

'He cannot lift the sheep.'

(5.2)

Bukuku	*to'oit*	*ulah*	*adi'ku.*
buku-ku	tV-oit	ulah	adi'ku
book-1SG.POSS	PASS.NVOL-take	by	younger-sibling-1SG.POSS

'My book was accidentally taken by my little sister.'

Paku also has agglutinative and isolating features. It is agglutinative because several affixes can attach linearly with individual slots within the verb template reserved for certain functions (see Table 5.1). There are also a fair number of isolating elements in the language as some grammatical categories are expressed using periphrastic constructions (see Table 5.2). To name just one example, verbs are not inflected for tense, aspect, or mood. Instead these functions are expressed using adverbials or auxiliaries. An example of a more complex verb phrase was presented in (5.1) in which the verb phrase consists of a negator, the modal auxiliary *tau* 'can', the main verb *ngengkat* 'to lift', and the object noun phrase *dambaro* 'the sheep'. More examples and a more thorough discussion of those different types of verb phrases are found in subsequent sections of this chapter.

Some verbal roots cannot be morphologically modified and others that do not allow the full range of morphological marking available for other verbal roots. In actor voice these forms occur in their root form. Examples of this kind include many basic intransitive verbs such as *reken* 'count', *tuli* 'play', and *duloi* 'live'. An example featuring *hawi* 'arrive' is shown in (5.3).

(5.3) *Iyo haut hawi.*
3SG already arrive

'She already arrived.'

This class of unmarked verbs also contains verbs of motion for which agentive marking would be expected, e.g. tulak 'go', *buli* 'go home', or the previously mentioned *hawi* 'arrive, come'. For other Austronesian languages some authors claimed that these unmarked motion verbs are verbs of directed motion as opposed to verbs of manner of motion which uniformly take voice and transitivity markers (e.g. Arka (2003) for Balinese).

In some of these cases of morphologically unmarked intransitives it is possible to add an affix. However, this happens only as a derivational process as affixation results in a significant change of meaning. Examples of this kind can be seen in (5.4) and (5.5). Example (5.4) presents a clause containing the verb *sokonrong* 'stand', which does not occur with any overt marking. As soon as *N-* is added to the root, the meaning changes to 'build'. Here it can be argued that *N-* not only marks a verb as transitive but also adds control and volition to an activity that inherently contains a low degree of these features, such as for instance 'stand'.

(5.4) *Pamakal sokonrong gi manamang.*
chief stand LOC door

'The chief is standing in the doorway.'

(5.5) *Reo nyokonrong gereja wayo.*
reo N-sokonrong gereja wayo
3PL AV-stand church new

'They are building a new church.'

The structure of this chapter is as follows; the first section (5.1) is concerned with the structure of the verb phrase. It includes an introduction to verb types (5.1.1), imperatives (5.1.2), the tense aspect and mood systems (5.1.3), and negation (5.1.4). Following that is discussion of aspects of transitivity and its manifestations within the phrase (5.2). It covers voice (5.2.1) and volitional marking (5.2.2), as well as several valency-changing operations of which Paku's two different types of causatives are perhaps most notable. 5.3 looks at how verbs in Paku can be derived from other categories while 5.4 explores verbal reduplication and plurality marking.

5.1 Structure of the verb phrase

The structure of the verb phrase in Paku is illustrated in Tables 5.1 and 5.2. Table 5.1 demonstrates the process of verb formation. The slots closest to the root on both sides are reserved for derivational morphology. Inflectional affixes that primarily mark transitivity, voice, and volition are added on the left edge of the verb.

inflectional affixes -	derivational affixes -	**root** -	derivational affixes

TABLE 5.1: Verb template

Within the verb phrase only the root is obligatory (as seen in imperative structures (5.1.2)). The slot immediately preceding the verb is occupied by an auxiliary or the prohibitive marker *ada*. The first position within the verb phrase is reserved for the negator *bakoi*. In post-verbal position the verb phrase includes non-verbal elements such as direct and indirect objects, and other oblique constituents. Those oblique constituents can be adverbials or adjunct prepositional phrases.

negator	auxiliaries prohibitive marker	**verb**	direct object	indirect object	obliques

TABLE 5.2: Verb phrase template

The discussion of the internal structure of the verb phrase follows the template in Table 5.2, starting with the head and then moving outwards. It begins with a discussion of the different verb types in Paku (5.1.1) and the morphology associated with each type. Section 5.1.2 looks at various forms the verb phrase can take in imperative constructions whereas 5.1.3 is an analysis of the tense aspect and mood systems. Finally, 5.1.4 examines verbal negation in Paku. Object noun phrases, and other constituents following the head in the verb phrase are not covered in this chapter. Direct and indirect objects are discussed in 7.1, 7.6.2, and 7.6.3. With regard to oblique elements in the verb phrase, temporal adverbials are discussed in 5.1.3.1 whereas prepositional phrases and their various functions are the topic of chapter 6.

5.1.1 Verb types

The type of verb heading the verb phrase determines the morphosyntactic make up of the clause or sentence. It organises the number of core arguments, their order (both in relation to the verb and in relation to each other), and the morphological marking on the verb itself. For the division of verbs into different classes both semantic and syntactic criteria were considered which can be

seen in Table 5.3. The criteria are only a broad indicator of a verb's type. As will be demonstrated throughout the following discussion, there are some exceptions that do not fit the semantic criteria for the morphology that they take.

Verb type	**Associated morphology**	**Semantic features**	**Syntactic features**
Stative Intransitive	*mV-*	Denote states and properties	Require one core argument
Dynamic Intransitive	*bV-*	Denote dynamic actions	Require one core argument
Transitive	*N-* (av), *na-* (uv)	Actions requiring two participants	Requires two core arguments, the order of which is determined by the semantic role of the subject
(Semantically) ditransitive	*N-*	Actions requiring three participants	Morphosyntactically identical to transitive construction, third argument embedded in a prepositional clause
Complement-taking verbs	Subtype-dependent	Subtype-dependent	Require a clause as one of the core arguments
Serial verbs	*N-*	The omitted element needs to be recoverable from context	Two finite verbs in succession, occurs when a constituent is omitted under co-referentiality principle, never obligatory

TABLE 5.3: Verb types

The remainder of this section discusses the different verb types found in Paku. The discussion of intransitive verbs (5.1.1.1) includes both stative and dynamic intransitives. Section 5.1.1.2 introduces transitive verbs while 5.1.1.3 looks at the status of three-place predicates. The last part of the discussion is concerned with complement-taking verbs (5.1.1.4). Given that serial verb constructions can only occur in the context of complementation, they are covered in the same discussion.

5.1.1.1 Intransitive verbs

Intransitive verbs can be divided roughly into two types: dynamic and stative. Dynamic roots take with the prefix *bV-* whereas stative roots typically occur with *mV-*. As the name suggests the majority of verbs in the former class express some kind of dynamic activity that does not result in a state or changes the state of an entity. Often they are ongoing activities, i.e. *butuli* 'play' and *bagawi* 'work'. This definition needs to be viewed as a tendency rather than a firm rule as there are some exceptions. For example the semantically dynamic root *lempat* 'run' actually takes the stative intransitive prefix *mV-*. However, based on the data available this is still the most obvious semantic basis for predicting which morphological group a root belongs to.

The prefix *bV-* has one allomorph, *bV'-*, which occurs if the root it attaches to begins with a vowel. The use of *bV-* is shown in (5.6). In this example the speaker talks about her and her husband not being able to work anymore due to their old age. The head of the final verb phrase *bakoi ku'ule bagawi* 'not able to work', the verb *bagawi* 'work', is marked as dynamic and intransitive by the prefix *bV-*. Incidentally, although similar in form, *beranai* 'rest, succeed' is not an affixed form but an unmodified one. The structure in (5.7) is an example of the allomorph *bV'-* which attaches to the root *ajar* 'learn'. Note that with this particular root, there are three forms in free variation: *ba'ajar* (as seen in (5.7)), *pahajar*, and *pa'ajar*[1].

(5.6)

Kainro	*haut*	*beranai,*	*bakoi*	*ku'ule*	*bagawi.*
kain-ro	haut	beranai	bakoi	kV-ule	bV-gawi
1PL.EXCL-DEF	already	succeed	NEG	NVOL-able	INTR.DYN-work

'We already succeeded (in our lives life) and cannot work anymore.'

(5.7)

Napea	*haut*	*ba'ajar*	*basa*	*Inggris*	*gi*	*sekolah.*
napea	haut	bV-ajar	basa	Inggris	gi	sekolah
child	already	INTR.DYN-study	language	England	LOC	school

'The children already study English at school.'

A second intransitive marker, *mV-*, is used on verbs mostly denoting states or properties, or verbs expressing events whose conclusion results in a state. Without context, this sometimes results in ambiguity as to whether a given verb refers to the motion entering the state or the resulting state itself. One example of such ambiguity is presented in (5.8) in which the verb *maharung* can refer to both the action of sitting down and describe the state of being seated.

(5.8)

Iyo	*maharung*	*gi*	*kursi.*
iyo	mV-harung	gi	kursi
3SG	INTR.STA-sit	LOC	chair

'She sits (down) on the chair.'

(5.9)

Ranu	*malayong.*
ranu	mV-layong
water	INTR.STA-hot

'The water is hot.'

It can be argued that *mV-* marks some sort of inchoative aspect which designates the beginning of or transition into a state, an analysis supported by ambiguous forms such as (5.8). But then there are constructions like (5.9) in which the verb *malayong* 'hot', despite being marked by *mV-*, is clearly understood to be a state or property. If speakers want to talk about the activity of 'heating'

1. Due to the fact that in the data *pah-* and *pa'-* only occur with the root *ajar* 'learn' and that the choice of one over the other is based solely on speaker preference, they are not considered allomorphs but forms in free variations.

something, the actor voice marker *N-* needs to replace *mV-*. This kind of alternation between transitive *N-* and related state *mV-* is not uncommon in the data. Another example illustrating this difference is shown in (5.10) and (5.11). In (5.10) the root *ewo* 'smell' is marked as transitive by the prefix *N-*. In this construction the actor *ine'* 'mother' occurs before and the undergoer *wunge* 'flower' after the verb. In (5.11) on the other hand, in which *ewo* takes the intransitive stative prefix *mV-*, the verb expresses a state, i.e. that the subject *ua' ruyan* 'durian' smells (bad).

(5.10) *Ine' ngewo wunge.*
ine' N-ewo wunge
mother AV-smell flower.

'Mum is smelling flowers.'

(5.11) *Ua' ruyan me'ewo.*
ua' ruyan mV-ewo
fruit durian INTR.STA-smell

'Durian smells (bad).'

In addition to dynamic and stative intransitive verbs, there are also those that do not typically occur with overt morphological marking. They too, can sometimes be modified by *mV-*. However, this will affect the semantics of the verb and must therefore be viewed as a derivational process. An example of this process is shown in (5.12) and (5.13). In (5.12) the unmodified *hinroi* 'stop' functions as the predicate of the clause and expresses a brief and fairly punctual action of stopping. This contrasts with *mihinroi* in (5.13) where *mV-* is used to clearly mark the stopping as a state hence resulting in an interpretation as stopping over a longer period of time.

(5.12) *Iyo hinroi.*
3SG stop

'She stopped briefly.'

(5.13) *Iyo mihinroi.*
iyo mV-hinroi
3SG INTR.STA-stop

'She stopped (for a longer period of time).'

A similar transition from activity to state can be observed within the group of intransitive verbs. Example (5.14) demonstrates that when the root *paner* 'talk' occurs with *bV-* it marks the action of talking. If the same root is marked with *mV-* as in (5.15), it denotes the character trait of talking a lot.

(5.14) *Amir bapaner.*
Amir bV-paner
Amir INTR.DYN-talk

'Amir is talking.'

(5.15) *Amir mapaner.*
Amir mV-paner
Amir INTR.STA-talk

'Amir is talkative.'

5.1.1.2 Transitive verbs

There are two types of transitive constructions in Paku differing only in terms of voice marking on the verb and word order. In actor voice, the verb takes the prefix *N-* whereas in undergoer voice it is marked by *na-* or *na'-* before vowels. Verbs with *N-* and *na-* are understood to be volitional with the actor exercising a high degree of control and intentionally performing the action. The two core arguments are morphologically unmarked and it is the order of the constituents relative to the verb that determines their syntactic function. Pre-verbal arguments are the subject which is either the actor in actor voice or the undergoer in undergoer voice. The second core argument, the object, which is an undergoer in actor voice and an actor in undergoer voice, immediately follows the verb. The structure of a typical transitive clause in actor voice is demonstrated in (5.16) in which the root *epo* 'fetch' is modified by *N-* with a pre-verbal actor *ine'* 'mother' and a post-verbal object *ranu* 'water'. (5.17) shows an example of a clause in undergoer voice. Here the undergoer *sapedaku* 'my bicycle' is in subject position, followed by the auxiliary *haut* 'already' and the verb *ari* 'sell' marked as being in undergoer voice by the prefix *na-*. The verb is followed in turn by an unmarked actor *uma'ku* 'my father'.

(5.16) *Ine' ngepo ranu.*
ine' N-epo ranu
mother AV-fetch water

'Mum is fetching water.'

(5.17) *Sapedaku haut na'ari uma'ku.*
sapeda-ku haut na-ari uma'-ku
bicycle-1SG.POSS already UV-sell father-1SG.POSS

'My father already sold my bicycle.'

N- and *na-* are always the first prefix on a verb (see Table 5.1), i.e. while they are often found as the only prefix and therefore closest to the root, in cases in which there are multiple prefixes marking the verb, the other prefix attaches closest to the root and *N-* or *na-* attaches to the prefix,

triggering the same morphophonological changes as they would attaching directly to a root. An example can be seen in (5.21) in which *nyonrongoi* 'listen', the predicate of the complement clause, consists of *N-*, the transitiviser *sVN-* and the root *rongoi* 'hear'. The structure in (5.18) provides another example of a transitive verb *pungkong* 'hit' in actor voice, this time the clause contains an adjunct prepositional phrase *anri tungke* 'with a stick' specifying an instrument.

(5.18) *Amir mungkong eteng anri tungke.*
Amir N-pungkong eteng anri tungke
Amir AV-hit dog with stick

'Amir hits the dog with a stick.'

5.1.1.3 Lack of ditransitive verbs

A small number of verbs in Paku require three arguments. However, in Paku a distinction needs to be made between semantically ditransitive verbs and syntactically ditransitive verbs. This is due to the fact that while there are indeed predicates that need three arguments to be "complete" (typically verbs expressing a transfer), the difference between such predicates and transitive verbs in actor voice is not encoded grammatically. This means that in both cases the verb is marked by *N-* with the actor in subject position and the object following the verb. In addition to the subject and the object, a semantically ditransitive construction requires a third argument which is expressed as a prepositional phrase headed by the preposition *pah* 'dir'. Most commonly the third argument is a beneficiary or a goal. An example of a typical construction requiring three arguments can be seen in (5.19). The semantically ditransitive root *kirim* 'send' is marked for actor voice and the third argument, i.e. the goal of the sending, is placed in a prepositional phrase marked by *pah*.

(5.19) *Balalu aku ngirim paket pah Jakarta.*
balalu aku N-kirim paket pah Jakarta
and.then 1SG AV-send package DIR Jakarta

'Then I sent the package to Jakarta.'

Structurally the resulting clause resembles the one presented in (5.18) but the prepositional phrase in constructions like (5.19) is obligatory - not syntactically but semantically. The examples presented demonstrate that while semantically some roots may require three arguments, morphosyntactically it is hard to make a convincing argument that semantically ditransitive structures are different from transitive structures in actor voice. In both cases the actor is the highlighted argument and occurs in subject position, the verbal marking is identical, and there is only one noun phrase argument following the verb. Therefore the view is held that syntactically Paku only has intransitive and transitive verbs. Verbs that semantically require three arguments will henceforth be referred to as either three-place predicates or verbs of transfer.

5.1.1.4 Complement-taking verbs

Complement-taking verbs are verbs which take a sentential argument. They can be divided into different types based on their inherent semantics and the syntactic shape of the complement clause. Based on criteria put forward by Noonan (2007) Paku has predicates of causation, propositional attitude, fear, desire, achievement, immediate perception, knowledge and acquisition of knowledge, pretence, comment, aspect, and utterance. Complement clauses can be either sentence-like, i.e. follow the structure of a declarative clause, or reduced (see below). Sentence (5.20) shows an example in which the complement clause *iyangku holet pitanin* 'my friend comes tomorrow' has the same form as a declarative clause.

(5.20)

Aku	*baharap*	*iyangku*	*holet*	*pitanin.*
aku	bV-harap	iyang-ku	holet	pitanin
1SG	INTR.DYN-hope	friend-1SG.POSS	come	tomorrow

'I hope my friend comes tomorrow.'

As with all complex constructions in the data, the subject in one of the clauses can be deleted if it is co-referential with the subject in the other clause. In such cases the complement is considered to be reduced and the resulting construction is what is known as a serial verb construction in which two finite verbs occur in sequence. Serial verb constructions can only occur with predicates of causation, fear, desire, achievement, knowledge and acquisition of knowledge, pretence, and direct speech. An example of a reduced complement is presented in (5.21). The predicate of the matrix clause *nyampaka* 'to pretend' is immediately followed by the predicate of the complement clause *nyonrongoi* 'listen'. This is due to the fact that the subject in both clauses is Roni which is subsequently omitted in the complement clause. Both verbs are finite which is evidenced by the actor voice morphology on both of them.

(5.21)

Roni	*nyampaka*	*nyonrongoi*	*kisah.*
Roni	N-sampaka	N-sVN-rongoi	kisah
Roni	AV-pretend	AV-TR-hear	story

'Roni pretends to listen to the story.'

Some predicates taking complements, such as for example predicates of immediate perception, are also able to occur with nominal arguments. Complementation and the various complement-taking predicates are discussed in more detail in 9.2.2.

5.1.2 Imperatives

Apart from those roots that never take morphological marking for the verbal categories, imperatives are the only constructions in which the bare verbal root can occur.

Semantically imperatives are constructions in which the speaker expresses the intention that the addressee perform an action. These constructions range from polite requests to directives or commands. While the form of the verb usually remains the same, other particles and syntactic structures can be used to soften the request and make it more polite. The first part of this

section discusses the grammatical structure of the default request in Paku in which the verb occurs in the imperative. Then alternative structures which often involve the use of particles will be introduced. Finally, negative imperatives will be discussed in which the speaker requests the addressee refrain from doing something. This section is primarily concerned with morphological features of these constructions. The internal structure of imperative clauses is discussed in 7.7.

In a typical imperative construction the verb in its unmodified form occurs first in the clause. In some contexts, the verb remains the only constituent in the clause which is shown in (5.22).

(5.22) *Ite!*
see

'Look!'

The verb can be followed by an adverbial as illustrated in (5.23).

(5.23) *Tulak tataha!*
go now

'Go now!'

If the verb is transitive, the object follows the imperative verb (5.24). Optional adverbial phrases may follow the object, an example of which can be seen in (5.25). Apart from illustrating adverbial phrases in imperative structures, (5.25) also shows that verbs marked as causative can also occur as imperatives (see 5.2.3.4). This demonstrates that while most imperative forms involve the bare root of a verb, derived forms without voice morphology also function as imperatives.

(5.24) *Tutup manamang!*
close door

'Close the door!'

(5.25) *Tangkasus* *lowuko'* *gi* *Tampa!*
tVN-k-asus lowu-ko' gi Tampa
CAUS2-LE-good house-2SG.POSS LOC Tampa

'Repair your house in Tampa!'

Just like in other clause types, three-place predicates morphosyntactically behave like transitive verbs in imperative constructions. This means that the verb in the imperative occurs in clause-initial position followed by two objects. In a default construction, the object immediately follows the verb and is then in turn followed by the oblique, which is shown in (5.26). Here we see the unmarked verb *onru* 'give' followed by the object *wunge* 'flowers' followed by the oblique prepositional phrase *pah ine'* 'to mother'.

(5.26) *Onru wunge pah ine'!*
give flower DIR mother

'Give mum flowers!'

There are speakers who prefer more indirect constructions when asking for something to be done. One way of achieving this is by beginning the imperative clause with the particle *ayo* which is generally understood as encouraging an action rather than demanding it. An example of a clause containing *ayo* is (5.27) in which the addressee is asked to come to the speaker. (5.27) also demonstrates that it is possible for the second person singular pronoun *iko'* to occur in imperative constructions.

(5.27) *Ayo iko' pah itu.*
PART 2SG DIR DEM.PROX

'Come here please.'

The structure in (5.27) is perceived as more polite and indirect compared to examples (5.22)-(5.26) and can be likened to a request rather than a command.

In a related construction the speaker can suggest that she and the addressee perform an action together. These so-called hortative constructions are formed by inserting the first person plural inclusive pronoun *takam* before the verb. As can be seen in (5.28), which is a modified version of (5.23), this type of structure can also be introduced by *ayo*. The structure of hortative clauses is discussed in 7.8.

(5.28) *Ayo takam tulak tataha.*
PART 1PL.INCL go now

'Let's go now.'

From the data, it is not clear if the verb in these constructions is modified or not since unfortunately all examples feature verbs that never occur with transitivity or voice morphology. Moreover, based on examples (5.27) and (5.28) it might seem as if *iko'* '2SG' and *takam* '1PL.INCL' can only occur in structures which also feature *ayo*. However, as can be seen in (5.29), which is repeated in (7.58), this is not the case.

(5.29) *Iko' onsan gi itu!*
2SG stay LOC DEM.PROX

'Stay here!'

In addition to the constructions discussed above, there is a negative imperative which is formed using the prohibitive particle *ada*. In a standard construction, this particle occurs clause-initially followed by the phrase expressing the prohibited verb phrase. Unlike in genuine assertive imperatives, the verb in prohibitive constructions can occur with morphology. This is demonstrated

in (5.30). Here the prohibitive particle *ada* is followed by the verb *maharung* 'sit' which contains the stative intransitive marker *mV-*. This prohibitive structure is then followed by the oblique locative prepositional phrase *gi itu* 'here'.

(5.30) *Ada maharung gi itu!*
ada ma-harung gi itu
PRO INTR.STA-sit LOC DEM.PROX

'Don't sit here!'

Prohibitive constructions such as the one in (5.30) share most of their morphosyntactic features with assertive imperatives, which is why their structure is discussed together with that of assertive imperatives in 7.7.

5.1.3 Tense, aspect, and mood

This section discusses the different strategies employed in Paku to express tense (5.1.3.1), aspect (5.1.3.2), and mood (5.1.3.3) (henceforth TAM). While TAM markers were already listed and their identifying features described in 3.2.3 and 3.2.7, this section focuses on their function and distribution within the clause and will include examples for all markers in the data.

The TAM categories are properties situating an event in time (tense), explaining the internal structure of the event, i.e. if it is completed or in progress (aspect), and expressing a speaker's attitude or judgement towards the event (mood). A similar definition comes from Payne (1997) who explains that TAM "anchor or ground the information expressed in a clause according to its sequential, temporal, or epistemological orientation" (p.122).

When it comes to TAM, terminology can sometimes be confusing and differ depending on the author. Furthermore, in a number of auxiliaries in Paku TAM functions are fused, e.g. the same marker can add both temporal and aspectual information to the clause and another one might fuse modal and aspectual properties in one morpheme. For example, a completed event in perfective aspect is always understood to have occurred in the past. In Paku TAM is not morphologically marked and is instead expressed through either adverbial expressions (in the case of tense) or auxiliaries (in the case of aspect and mood). However, this marking is optional, and often TAM information needs to be inferred from context.

In theory, TAM markers can co-occur, but there are some semantic limitations. For instance, only one modal and tense marker can occur in one phrase at a time which can be seen in (5.37) in which the immediate future marker *kai* occurs in the same clause as the temporal adverbial *hinang* 'soon'. The same is true for the majority of aspectual markers. However, *pagon* and *magon*, both of which translate to 'still' can co-occur with other auxiliaries marking aspect. With regard to distribution, adverbials can occur in several positions within the clause whereas auxiliaries always occur directly preceding the verb they modify. The only exception to this are again *pagon* and *magon*; when co-occurring with another auxiliary they will occur first in the verb phrase. Moreover, the verb following the auxiliary needs to be finite, i.e. inflected for transitivity, voice, and volition.

The remainder of this section will present the different strategies for tense, aspect, and mood marking in Paku. Note that the discussion of tense (5.1.3.1) covers not only tense marking but the use of all temporal expressions.

5.1.3.1 Tense and temporal expressions

Following Comrie (1985), tense can be described as the "grammaticalisation of location in time" (p.1). Grammatical tense is generally thought to be accessed from the present (Timberlake 2007:304) which in a simple clause typically corresponds to the time of speaking, also referred to as point of reference or contextual occasion (Timberlake 2007:202). This choice of the term 'grammaticalisation' in this definition is not necessarily to be understood in its diachronic context in which it specifies the development of grammatical marking from lexical items over time (Dahl and Velupillai 2013). Instead what is meant by the term here is the grammatical encoding of temporal information.

In Paku, tense is not overtly marked on the verb and is usually left unspecified. If the discourse calls for it, or for clarification, a speaker might choose to use one of the optional adverbials to provide a more detailed temporal context of the utterance. These adverbials can be free morphemes, such as *pitanin* 'tomorrow' and *hinang* 'soon' or phrases like *ruo onro pe'etah* 'two days ago'. They can reference a point in time or a period of time, be specific or non-specific, deictic or non-deictic.

Example (5.31) shows a simple intransitive clause in Paku. It is unspecified for tense so without further context it is impossible to know if the falling of the mango leaves occurred at some point in the past, or if the speaker is watching the leaves fall at the time of speaking, or if the clause refers to the falling of the leaves in the future.

(5.31) *Raun mangga iro layar.*
leaf mango DEF fall.down

'The mango leaves fall.'

There is evidence suggesting that the expression of exact points in time does not seem to be of major importance in Paku. Apart from personal observations of societal aspects, this evidence comes from the deictic expressions for 'yesterday' *anrape* and 'tomorrow' *pitanin*. In Paku and neighbouring languages these terms lack a precise temporal definition as is found for instance in English in which *tomorrow* is clearly understood to refer to the day directly following the present one. In the same way *yesterday* refers to the day immediately preceding today. Instead the Paku equivalents *anrape* and *pitanin* are much more vague in their reference and can refer to any day in the recent past or immediate future. For instance, the clause *anrape aku kuman kenah* can be interpreted as meaning either 'yesterday I ate fish' or 'I ate fish sometime within the last few days'. The interpretation of one over the other depends on the context and is usually irrelevant for the current discourse.

In order to locate an utterance in time one of several temporal expressions can be used. They can be divided into two groups. The first consists of a small number of temporal adverbials which are listed in Table 5.4.

Morpheme	Gloss
tataha	'now'
hinang	'soon'
pe'etah	'ago'
pono'	'before, long ago'
inre	'earlier'

TABLE 5.4: Temporal adverbials

The clauses in (5.32) and (5.33) illustrate the use of temporal adverbials.

(5.32) *Pono' kain duloi gi Tampa.*
before 1PL.EXCL live LOC Tampa

'We lived in Tampa before.'

(5.33) *Tataha takam pah umoku.*
tataha takam pah umo-ku
now 1PL.INCL DIR field-1SG.POSS

'Now we go to my field.'

In addition to these temporal adverbials, there are also a number of nominal expressions which add temporal information to the clause. Examples of such expressions are listed in Table 5.5. Some of these expressions are clearly borrowed as they reflect concepts that the Paku would not have had originally. This includes the names of months as well as precise numeral dates.

Type of expression	Examples
Specific days	*onro itu* 'today', *pitanin* 'tomorrow', *anrape* 'yesterday'
Days of the week	*sananyan* 'Monday', *araba* 'Wednesday', *ahat* 'Sunday'
Time of day	*pita* 'morning', *nanyap* 'afternoon', *malom* 'evening/night'
Periods of time	*jam* 'hour', *wulan* 'month', *taun* 'year'
Names of months	*januari* 'January', *agustus* 'August', *desember* 'December'
Specific point in time	*tanggal ruompuluh onom Juli* '26th of July', *jam dimo* '5 o'clock'

TABLE 5.5: Nominal temporal expressions

Examples are shown in (5.34) and (5.35). In (5.34) the speaker names a precise point in time, namely her birthday, whereas in (5.35) the point in time mentioned involved a rough time frame earlier on the same day based on the time of speaking. Example (5.35) furthermore demonstrates that nominal temporal expressions such as *pita* 'morning' can in turn be modified by other adverbials, as in this case *inre* 'earlier'.

(5.34) *Ulang tahunku tanggal ruowalas Juli.*
ulang tahun-ku tanggal ruowalas Juli
birthday-1SG.POSS date twelve July

'My birthday is 12 July.'

(5.35) *Pita inre Roni tulak pah Tamiang.*
morning earlier Roni go DIR Tamiang

'Earlier this morning Roni went to Tamiang (Layang).'

Clauses (5.32)-(5.35) also demonstrate distributional features of both nominal temporal expressions and temporal adverbials. In default constructions, adverbial information seems to be added either at the beginning or the end of a clause. However, the constituent order might differ from the default depending on type of clause (main or subordinate clause) and speech setting (what part of the utterance a speaker wants to highlight).

The two morphemes *wayo* and *kai* function to mark the action as recently completed and as occurring in the near future respectively. However, their primary function is not temporal. In the case of *wayo*, it marks perfective aspect. An example can be seen in (5.36).

(5.36) *Iyo wayo hawi.*
3SG just.now arrive

'She just arrived.'

Kai is used to mark a speaker's desire to do something, which makes it a mood marker. At the same time, the majority of constructions in which *kai* is used also express near future tense. This becomes clear in (5.37) in which the speaker is expressing the wish to go home which also conveys that they will do so in the near future. In this temporal sense, *kai* is rarely, if ever, used to talk about a long-term goal. This type of development of future markers being grammaticalised from verbs expressing a desire or wish is typologically not unusual (Payne 1997:237).

(5.37) *Iyo kai hawi hinang.*
3SG FUT arrive soon

'She will arrive soon.'

In addition to these semantic observations, there is also morphosyntactic evidence that *wayo* and *kai* do not primarily mark tense. While tense markers have been shown to be adverbials which usually occur as adjuncts, *wayo* and *kai*, like other aspect and mood markers, are auxiliaries which are part of the verb phrase.

5.1.3.2 Aspect

If tense is the grammaticalisation of location in time, aspect is possibly best defined as "grammaticalisation of expression of internal temporal constituency" (Comrie 1985:6). Out of all TAM categories, aspect is possibly the one interacting the most with lexical semantics and all scientific accounts of aspectual phenomena invariably need to make reference to semantic content. This makes it a complex concept with at times only subtle distinctions.

Aspectual distinctions in Paku are expressed using auxiliaries. A list of morphemes primarily marking aspect in the verb phrase is shown in Table 5.6.

Morpheme	Gloss
ganyah/desung	'PROG'
haut	'already'
mete'	'not yet'
wayo	'just now'
pagon, magon	'still'

TABLE 5.6: Aspectual auxiliaries

The basic aspectual distinction is between perfective and imperfective aspect expressing whether an action is completed or still in progress. In addition to this basic dichotomy, auxiliaries in Paku also signal other aspectual nuances. As auxiliaries they are part of the verb phrase and always precede the main verb in a verbal clause which was demonstrated in (5.36) and (5.37). The argument structure of the clause is not a factor governing the occurrence of auxiliaries in the verb phrase. This can be seen when comparing intransitive (5.36) in 5.1.3.1 with (5.38) which shows a clause in actor voice consisting of a pronominal subject *aku* '1SG', a complex verb phrase featuring the same auxiliary *wayo* and the complement taking verb *luput* 'finish', and a complement clause *ngalumpang kelinci* 'skinning the/a rabbit'. *Wayo*, which as a content word means 'new', marks the activity of skinning the rabbit as recently completed.

(5.38)

Aku	*wayo*	*luput*	*ngalumpang*	*kelinci.*
aku	wayo	luput	N-kalumpang	kelinci
1SG	just.now	finish	AV-skin	rabbit

'I just finished skinning the/a rabbit.'

In addition to illustrating a different type of argument structure in which aspectual auxiliaries have been found to occur, (5.38) also demonstrates the finding that *wayo* 'just now', as well as *haut* 'already', frequently co-occur with the complement taking predicate *luput* 'finish'. *Luput* along with other aspectual complement-taking predicates is discussed in 9.2.2.10.

The progressive auxiliaries *ganyah* and *desung*, which can be used interchangeably, are used for marking that an activity is in progress at the time of speaking, i.e. they fall into the imperfective category. According to some speakers *ganyah* and *desung* can only be used if the event coincides with the time of utterance and therefore cannot co-occur with temporal markers expressing a point in the past or future. The clause in (5.39) exemplifies the use of *ganyah* in an intransitive structure.

(5.39) *Iko' ganyah malan.*
2SG PROG walk

'You are walking.'

One of the auxiliaries conveying perfective aspect is *haut* 'already', an example of which can be seen in (5.40). Here *haut* occurs before the verb *bara'* 'contact' indicating that the activity was completed or that a state was reached. Furthermore, there seems to be a sense of accomplishment with the use of *haut*, i.e. the completion of the activity was somehow expected.

(5.40) *Aku haut bara' hi Amir.*
1SG already contact ART.PERS Amir

'I already contacted Amir.'

In order to signal that an action is not completed or a state is not reached yet *mete'* 'not yet' is used. An example is shown in (5.41) in which *mete'* precedes the intransitive predicate *hawi* 'arrive'.

(5.41) *Ine' mete' hawi.*
mother not.yet arrive

'Mum has not arrived yet.'

Haut and *mete'* do not only occur as part of the verb phrase to mark aspect within the clause. They are also frequently used as responses to polar questions, a function which is detailed in 8.1.

Pagon and *magon* mark that an activity is ongoing or that a state remains unaltered, thereby marking imperfective aspect. (5.42) shows an example of *pagon* from the data in which it modifies an adjectival predicate *uro* 'young'.

(5.42) *Reo pagon uro.*
3PL still young

'They are still young.'

In combination with dynamic roots, *pagon* and *magon* can signal a progressive activity. This is shown in (5.43) in which *magon* is used in a transitive construction with a predicate expressing a dynamic action. Therefore the clause as a whole needs to be interpreted as being in progress.

(5.43) *Kain magon nanam sayur gi umo.*
kain magon N-tanam sayur gi umo
1PL.EXCL still AV-plant vegetables LOC field

'We are still planting vegetables in the field.'

Some types of aspect can be expressed morphologically. For instance iterative aspect is conveyed through verbal reduplication, a function which is discussed in 5.4. Aspectual distinctions can also

be inferred from certain subordinate constructions in which the subordinators imply the internal structure of events, i.e. the order in which they occur or if they happen simultaneously. This type of clause-level aspect is addressed in 9.2. Finally, in some instances, affixation may also add aspectual information to a root. For example, if a root is marked as a state via the addition of *mV-*, it will be durative in nature.

5.1.3.3 Mood

Mood is the grammatical manifestation of the semantic notion of modality. Modality, as Palmer (2001) explains "is concerned with the status of the proposition that describes the event" (p.1). The fact that mood and modality are concerned with a speaker's subjective reality rather than the grammatical realisation of event structure sets them apart from tense and aspect.

The major modal distinction is that between realis and irrealis mood which is essentially conveying if the speaker deems an event to be true, likely or possible (realis) or not (irrealis). In Paku, this distinction is not marked morphologically. Instead, it is expressed in periphrastic constructions, either in the form of a complement clause (see 9.2.2) or, in the case of conditionals, via the choice of subordinators (see 9.2).

The only explicitly marked, yet still optional, modality in Paku simple clauses is the distinction of what Palmer (2001) calls deontic versus dynamic modality. Deontic modality refers to external conditioning factors of the event and therefore expresses a permission or necessity whereas dynamic modality is concerned with internal factors such as ability or willingness to perform an action or for an event to occur. In Paku these concepts are expressed by modal auxiliaries which, like aspectual auxiliaries, are part of the verb phrase and always precede the verb. A list of modal auxiliaries is shown in Table 5.7.

Morpheme	**Gloss**
harus	'must'
purlu	'need'
tau	'can'
kai	'want, will'
hamen	'want'
sidi'	'want, like'
hokun	'want'

TABLE 5.7: Modal auxiliaries

A necessity or obligation in Paku is expressed using *harus* 'must' which is exemplified in (5.44). Here *harus* occurs immediately before the finite verb *butali* 'use a rope'.

(5.44) *Amun iko' kai ngidar watu itu harus butali stabil.*
amun iko' kai N-idar watu itu harus bV-tali stabil
if 2SG want AV-move rock DEM.PROX must INTR.DYN-rope stable

'If you want to move this rock, you have to use a strong rope.'

In order to communicate a need, speakers use *purlu* 'need'. Example (5.45) shows a construction in which *pahajar* 'learn' is preceded by *purlu*. The proposition here is not as strong as *harus* but it is certainly understood as a strong suggestion.

(5.45) *Napea itu purlu pahajar lewi hene kia.*
napea itu purlu pah-ajar lewi hene kia
child DEM.MED need INTR.DYN-study more much again

'The child needs to study even more.'

There are two ways in which an ability can be expressed. The first is using a potentive structure. These are morphologically marked with *tV-* on the verb. However, given that the primary reading of potentive constructions in the data is that of marking non-volition, they are discussed and illustrated together with other forms of volitional marking in 5.2.2. A second, and more common, way of expressing an ability is by using the auxiliary *tau* 'can'. This is shown in (5.46) which is part of an utterance about older people's responsibility toward their children.

(5.46) *...malan reo tau ngeto pomolum iyo lewi ma'asus.*
malan reo tau N-eto pVN-wolum iyo lewi mV-asus
so.that 3PL can AV-look.for NOMZ-live REL more INTR.STA-good

'...so that they can look for a better life.'

To utter a desire or a wish *kai* 'want' is used. As was pointed out in 5.1.3.1, *kai* can also function to mark an event as occurring in the immediate future and in many instances both readings are possible. Sentence (5.47) is such a case. Here, the speaker is expressing their wish and intention to go home after they had a bath.

(5.47) *Aku kai buli, semete'ne kia monrus.*
1SG want go.home before again bathe

'I want to go home but first I need to take a bath again.'

Kai, *hamen*, *sidi'* and *hokun*, all of which express a desire, are discussed as complement-taking predicates in 9.2.2.4.

There are furthermore two adverbials in the data expressing epistemic modality, i.e. the speaker's evaluation of the proposition in the clause. They are presented in Table 5.8.

Morpheme	**Gloss**
himat	'maybe, probably, possibly'
japo'	'suddenly'

TABLE 5.8: Epistemic adverbials

As with other TAM categories, sometimes mood can be expressed lexically. One such example was shown in (5.40) in which the use of *haut*, besides indicating perfective aspect, also signals the

expectation that an event be performed. Another auxiliary with modal reading is *mete'* 'not yet'. In certain contexts, especially if used to negate a polar question (see 8.1), it signals to the addressee that although not completed yet, the event will be completed. In this context, it contrasts with the use of negator *bakoi* or *koi* 'no' which implies that the event will most likely not occur.

5.1.4 Negation

In Paku there is only one negator, *bakoi*, which is used for noun phrases as well as for verb phrases. It always directly precedes the negated phrase and is often abbreviated to *koi*. Given that auxiliaries are part of the verb phrase, they also occur following *bakoi* in the clause. Examples (5.48) and (5.49) show *bakoi* used in negating verb phrases. In (5.48) it is negating the verb *hawi* 'arrive' whereas in (5.49) *bakoi* precedes a verb phrase containing the auxiliary *tau* 'can'.

(5.48) *Iyo bakoi hawi pitanin kode' onro erainin.*
3SG NEG arrive tomorrow but day after.tomorrow

'She is not arriving tomorrow but the day after tomorrow.'

(5.49) *Itakku bakoi tau kuman.*
grandmother-1SG.POSS NEG can eat

'My grandmother cannot eat.'

Literally *bakoi* means 'no' and is used as such in polar questions and tag questions. Both of these uses are illustrated in chapter 8.

5.1.5 Reflexives

In reflexive constructions the actor and the undergoer are the same entity, i.e. the actor is performing the action upon him- or herself. The verb in such a construction needs to be underlyingly transitive Maslova (2008:227). Although in some languages reflexive constructions result in the loss of an argument in the argument structure of the predicate Heine and Miyashita (2008:173), this is not necessarily the case in Paku. Paku has no dedicated reflexive form and the notion of reflexivity can be formed in several ways.

First, there are a number of lexical reflexives in the data which are understood as inherently expressing a reflexive relationship between actor and predicate. An example of a lexical reflexive can be seen in (5.50). Here the verb *monrus* 'bathe' implies that the speaker is washing himself. In order to express that someone else was bathed by the actor, a different lexeme would have to be used.

(5.50) *Uma' monrus semete' surui.*
father bathe before sleep

'Father takes a bath before sleeping.'

Another method uses the word *tonga* 'body' plus the possessive pronoun co-referential with the subject as an anaphoric device to refer back to the subject. With this strategy, the clause remains transitive, i.e. *tonga* 'body' has the grammatical function of direct object. An example is shown in (5.51). Here *tonga* plus third person singular possessive pronoun *-ne* follow the predicate to mark the co-referentiality with the subject.

(5.51) *Roni nginte tongane gi kaca anri panai.*
Roni N-ite tonga-ne gi kaca anri panai
Roni AV-see REFL-3SG.POSS LOC mirror with care

'Roni looks at herself in the mirror carefully (lit. Roni looks at her body ...).'

In a few instances *tongane* combines with the emphatic word *re'erai* whose closest translation is 'own'. An example is shown in (5.52). Here the predicate *muar* 'annoyed' is followed by the goal of the emotion which is expressed as a reflexive by *tongane re'erai*.

(5.52) *Iyo muar pah tongane re'erai.*
iyo muar pah tonga-ne re'erai
3SG annoyed DIR REFL-3SG.POSS own

'She is annoyed at herself.'

Both the strategy of deriving a reflexive marker from a body noun, as is the case with *tonga*-constructions, and the use of intensifiers expressing the concept of 'alone' or 'own' have been identified as cross-linguistically common sources of reflexive markers (Heine and Miyashita 2008:174; König and Siemund 1999:43; Schladt 1999:103ff).

Finally, with some roots the prefix *i-* can produce a reflexive reading of the predicate. As described in 5.2.3.3, *i-* generally functions as a detransitivising prefix often marking a semantically transitive predicate in an intransitive syntactic frame. This is the only reflexive type in the data in which the valency of the verb is reduced.

(5.53) *Iyangku iwaleng.*
iyang-ku i-waleng
friend-1SG.POSS DETR-turn

'My friend turns (herself) around.'

The reflexive function of *i-* becomes particularly obvious when comparing (5.53) to (5.54) which shows the same root *waleng* 'turn' in a similar construction, however, this time it is marked for actor voice and used in a transitive construction with an overtly expressed object.

(5.54) *Iyangku maleng waturo.*
iyang-ku N-waleng watu-ro
friend-1SG.POSS AV-turn stone-DEF

'My friend turns the stone.'

5.2 Transitivity

Verbal categories in Paku are deeply intertwined, and the multifunctional nature of the affixes means that fully unpacking the grammatical information contained in these portmanteau morphemes is a complex undertaking and often not possible. Especially transitivity and voice are closely related which is demonstrated in Table 5.9. It shows all prefixes in Paku that add transitivity values to the root along with other grammatical information they encode.

Prefix	Function	Example
N-	(di-)transitive in actor voice, volitional	(5.16), (5.19)
na-	passive (when followed by ulah/daya-phrase) or transitive (if immediately followed by argument) in undergoer voice, volitional	(5.17)
bV-	intransitive, dynamic	(5.6), (5.7)
mV-	intransitive, stative	(5.8), (5.9)
kV-	non-volitional	(5.62)
tV-	passive, non-volitional, potentive	(5.67), (5.68)

TABLE 5.9: Multifunctional prefixes indicating transitivity values

As was discussed in 5.1.1 and illustrated again in Table 5.9, Paku has semantically intransitive, transitive, and ditransitive verbs with only the former two being marked morphologically.

The concept of transitivity has been defined as a "global property of an entire clause, such that an activity is 'carried over' or 'transferred' from an agent to a patient" (Hopper and Thompson 1980) and it has even been claimed that "the transitivity relationship lies at the explanatory core of most grammatical processes" (Hopper and Thompson 1982). Typological accounts of transitivity often treat transitivity as a prototype category (Næss 2007) or a continuum on which constructions are ranked according to how well they fit a set of pre-defined, often semantic, criteria. As a result constructions can be said to be more or less transitive rather than viewing transitivity as a discrete category in which structures are either transitive or not. Hopper and Thompson (1980) present a framework for understanding the notion of transitivity which they refer to as the *Transitivity Hypothesis*. They were the first to define a set of parameters which are grouped according to whether they indicate high or low transitivity - only one of which is the presence of an object, a feature which up until that point was often taken to be the decisive factor in determining transitivity. Other relevant parameters include aspect, volition (referred to as volitionality in the original paper), and agency for the actor of the clause, and affectedness and individuation for the undergoer. Hopper and Thompson (1980) also show that indicators of high transitivity tend to co-occur with other indicators of high transitivity and indicators of low transitivity tend to co-occur with other indicators of low transitivity. What this and subsequent works (e.g. Givón 2001; Kittilä 2002; Lazard 2003; Næss 2007), among other things, tell us about transitivity is that a distinction needs to be made between semantic transitivity, such as the set of properties that determine the transitivity value of a clause put forward by Hopper and Thompson, and syntactic transitivity which refers to the means by which a given language encodes this kind of information grammatically.

This intersection of semantics and syntax is precisely where transitivity overlaps with voice which, especially in symmetrical voice languages like Paku, is often the syntactic operation used to mark

grammatical relations and thereby expresses transitivity grammatically. The claim that Austronesian voice systems and grammatical relations are at least guided by the pragmatic principles of foregrounding and backgrounding is also consistent with findings of Hopper and Thompson (1980) that the foci of high and low transitivity correlate with foregrounding and backgrounding respectively.

The gradient nature of (semantic) transitivity can be seen in Paku when for example certain roots occur with either intransitive or transitive marking (or in some cases neither). This makes it a plausible assumption that all forms are in some sense derived and that transitivity is not necessarily encoded in a root. Instead those roots that rank high in transitivity only occur with transitive marking and the closer to the lower end of the transitivity hierarchy a root gets the more overlap with intransitive marking is going to occur until finally reaching those roots that only occur with intransitive marking.

Despite the fact that it is defined as a clausal phenomenon above, transitivity will be discussed as part of Paku's verbal system. This is because the majority of parameters used to judge transitivity of the clause are verbal categories and therefore marked in the verb phrase. This marking can be in the form of affixes, as is the case with for instance volition (see 5.2.2), or by using auxiliaries and adverbials (the latter of which are strictly speaking not a part of the verb phrase) like for example the tense, aspect, and mood categories (see 5.1.3).

The remainder of this section discusses various aspects of transitivity that are expressed morphologically on the verb. Some of the morphological processes discussed also have an impact on clause structure which is discussed in 7.6. A discussion of the different root types, which express semantic properties of transitivity and determine morphosyntactic features of the clause, is provided in 5.1.1 and will not be covered here. An important feature related to transitivity in Paku is voice and volition marking on the verb which are discussed in 5.2.1 and 5.2.2 respectively. Valency-changing operations which modify the argument structure of a verb (and therefore change the transitivity of the clause) are introduced in 5.3.

5.2.1 Voice

One striking feature symmetrical voice languages have in common is the way they highlight the pragmatically most prominent argument in the clause. This is done in part by means of morphological marking on the verb and in part via word order. Unlike in most asymmetrical voice languages which feature one morphologically unmarked 'default' voice (active in accusative languages and absolutive in ergative languages), symmetrical voice languages feature a complex and typologically rather unusual voice system, the analysis of which continues to be a controversial and widely debated issue (Himmelmann 2002). In this system there is no unmarked default form. Instead all voices are morphologically marked on the verb and are syntactically equivalent (Himmelmann 2005a; Riesberg 2014; Foley 2008; Haude and Zúñiga 2016).

In Paku and other symmetrical voice languages, the phenomenon of voice is best described using the terms of actor and undergoer which originated in Role and Reference Grammar (RRG, Van Valin (1999, 2004)). These so-called macroroles do not refer to grammatical units or individual semantic roles but need to be understood as referring to a collection of semantic or thematic roles which undergo the same morphosyntactic processes in a given language. The terms 'actor', 'undergoer' and 'macroroles' have originated in RRG but the idea of generalised semantic roles

or proto-roles has emerged separately in different linguistic traditions (e.g. Dik 1989; Jackendoff 1990; Dowty 1991; Van Valin 1999, 2004; Van Valin and LaPolla 1997), mostly with the aim to facilitate an explanation of argument selection in the respective theories of syntax. In RRG the actor macro role covers all roles that are agent-like and includes roles such as agent and experiencer. The undergoer macrorole typically includes a wider range of semantic roles than the actor role. It covers patients and themes but also locations and instruments (Van Valin 2004). The reason this summary of roles is particularly useful for the description of Austronesian languages is that although the exact motivations behind choosing one voice over the other have not been fully explored, their decision is at least influenced if not determined by pragmatic considerations, i.e. which constituent the focus is on. Such pragmatic contrasts in asymmetrical voice languages are often expressed via intonation. While intonation certainly plays a role in Paku's information structure, pragmatic highlighting is mostly conveyed through grammatical relations. In this context the macroroles facilitate the mapping of semantic roles onto the grammatical roles subject and object which is relevant for the analysis of argument selection in the two voices. Depending on whether the most prominent argument in the clause is the actor or the undergoer determines the voice marking on the verb as well as the constituent order.

The literature often distinguishes two major subtypes of symmetrical voice languages. The first is known as Philippine-type languages which are known for their 'focus' system usually comprising of one actor voice and multiple undergoer voices (Himmelmann 2005a; Foley 2008; Ross 2002). As the name suggests languages with these features are geographically concentrated in the Philippines but also include languages in the north of Borneo and in North Sulawesi and elsewhere. The second one is the so-called Indonesian-type language group in which we find fewer symmetrical voice alternations (Himmelmann 2005a; Foley 2008; Ross 2002). Geographically these languages are mainly found in western Indonesia but also include languages spoken on the Malay peninsula. With its two syntactically equal voices and an additional detransitivising passive voice, Paku falls under the latter category. As was already discussed in 5.1.1.2, actor voice in Paku is morphologically marked by adding *N-* to the verb and highlights the agent-like argument in the clause as most prominent. In undergoer voice, it is an argument other than the actor that is highlighted as prominent which is typically a patient or a theme. This voice is marked on the verb by the prefix *na-*. Apart from morphological marking on the verb, word order is crucial in the expression of voice in Paku. The highlighted constituent in both voices has to precede the verb or the verbal complex. This means that in actor voice, the agent-like argument precedes the verb and the patient-like argument follows it, whereas in undergoer voice, the reverse order is applied. The structure of those two transitive constructions was already illustrated in (5.16) and (5.17). Two additional examples are shown in (5.55) and (5.56) which express the same proposition first in actor voice (5.55) and then in undergoer voice (5.56).

(5.55) *Setuwa iro ngikit iyangku.*
setuwa iro N-kikit iyang-ku
animal DEM.MED AV-bite friend-1SG.POSS

'The animal bit my friend.'

(5.56) *Iyangku* *nakikit* *setuwa* *iro.*
iyang-ku na-kikit setuwa iro
friend-1SG.POSS UV-bite animal DEM.MED

'The animal bit my friend.'

As was mentioned above, in addition to symmetrical voice alternation Paku also has a marked passive voice in which the valency of the verb is reduced by one argument. In these constructions the actor is expressed as an oblique rather than as an unmarked argument (see 5.2.3.1).

The remainder of this section illustrates and exemplifies the two transitive voices in Paku. The first part of the discussion focuses on actor voice whereas the second part is concerned with the analysis of undergoer voice.

5.2.1.1 Actor voice *N-*

If the most agent-like argument in the clause is the subject the verb takes the prefix *N-* and the clause can be said to be in actor voice. Another function of *N-* is that of marking the actor as being in control of the event or performing the action with intention. In this function *N-* contrasts with *kV-* which is used to mark that something did not happen on purpose or by an actor not in control of the action (see 5.2.2).

(5.57) *Pita* *inre* *aku* *moli* *kenah* *gi* *pasar.*
pita inre aku N-woli kenah gi pasar
morning earlier 1SG AV-buy fish LOC market

'Earlier this morning I bought fish at the market.'

The structure in (5.57) shows an example of a typical actor voice construction in which the verb *woli* 'buy' is marked for actor voice and volitional action by the prefix *N-*. The actor *aku* '1SG' occurs in subject position before the verb and the undergoer *kenah* 'fish' follows it.

Three-place predicate constructions can only occur in actor voice (cf. 5.1.1.3 and 7.6.3) in which they are also marked by *N-*. This is illustrated in (5.58). The third person singular pronoun *iyo* occurs first in the clause followed by the verbal predicate in actor voice *ngonru* 'to give'. The object noun phrase *wurung okok* 'crow' follows the predicate. The third argument, in this case the recipient *peapeane* 'her children', is expressed in a prepositional phrase which can either be placed after the object as in (5.58) or immediately after the verb with the object following it (see discussion in 7.6.3).

(5.58) *Sahaut* *hila* *nanyap* *iyo* *ngonru* *wurung* *okok* *iro* *pah*
sahaut hila nanyap iyo N-onru wurung okok iro pah
after approach afternoon 3SG AV-give bird crow DEM.MED DIR
peapeane *pakai* *tuli.*
pea-pea-ne pakai tuli
child-RED-3SG.POSS for play

'After approaching the afternoon, she gave the crow to her children to play.'

5.2.1.2 Undergoer voice *na-*

As mentioned in the introduction to this section, Paku has only one undergoer voice. It is used if the most patient- or theme-like argument in the clause is highlighted as the most prominent argument in the clause. In such constructions it is the undergoer that occurs as the subject in pre-verbal position. The verb is morphologically marked by the prefix *na-*, and the actor argument functions as the direct object and follows the verb. Example (5.59) illustrates the structure of a clause in undergoer voice. The undergoer *pare* 'rice plant' occurs before the verb *tanam* 'plant' which is marked by *na-* as being in undergoer voice. The actor *pangumo* 'farmer' follows the verb as a direct object.

(5.59) *Pare* *natanam* *pangumo.*
pare na-tanam pVN-umo
rice.plant UV-plant NOMZ-field

'The farmer plants rice.'

When it comes to verbs marked by *na-* it is important to remember that this affix alone is not a sufficient diagnostic for determining whether the clause is in undergoer voice. This is due to the fact that *na-* also functions as a valency-decreasing prefix marking a passive. Moreover, in both cases the subject is an undergoer so the role of the subject also does not make for conclusive evidence for determining whether a clause is a transitive construction in undergoer voice or a passive clause. The only difference between the two is the form of the argument following the verb. In transitive constructions the second argument, the object, is a noun phrase and a syntactic requirement of the verb, i.e. a core argument. However, in cases in which the actor argument is placed within a prepositional phrase, the resulting construction can be said to be intransitive and is therefore analysed as a passive (see 5.2.3.1).

In many typologically similar languages the undergoer voice is the default voice. In Paku this is somewhat difficult to determine as the majority of examples in the data are elicited with speakers translating based on the voice used in the prompts. Speakers maintain that often undergoer voice constructions are deemed more polite as they offer a less direct way of speaking about events, intentions and activities.

Just as *N-* marks an action as volitional for constructions in actor voice, *na-* marks volition for clauses in undergoer voice. Its non-volitional counterpart is *tV-* which, in one of its functions, marks a passive verb or state (see 5.2.2).

Whenever the construction has a pronominal actor the morphosyntactic features of the clause change. While the undergoer still occurs in pre-verbal position, the verb occurs in its root form with the actor pronoun either cliticised to the verb (5.60) if singular or following the verb as a free morpheme if plural (5.61).

(5.60) *Pea* *iro* *popokku* *pita* *inre.*
pea iro popok-ku pita inre
child DEM.MED hit-1SG morning earlier

'I hit the child earlier this morning.'

(5.61) *Lowune* *tangkasus* *kain.*
lowu-ne tVN-k-asus kain
house-3SG.POSS CAUS2-LE-good 1PL.EXCL

'We repaired her house.'

This kind of structure in which the form of both the verb and one of the arguments changes only occurs in undergoer voice. A pronominal actor in actor voice is expressed as a free morpheme and the verb takes the same marking as when the argument is not pronominal.

5.2.2 Volition

Regardless of their transitivity verbs that occur with voice marking will be marked for volition, i.e. indicate if the action is performed intentionally with the agent being in full control. Volition has previously been established as one of the semantic parameters used to determine the transitivity of a clause. Volitional action is regarded as being high in transitivity whereas involuntary action is considered to convey a low degree of transitivity (Hopper and Thompson 1980). This tendency is reflected in Paku morphology as volitional action is expressed grammatically in one of several portmanteau morphemes also used to mark a verbal predicate as transitive or intransitive: *N-* in actor voice, *na-* in undergoer voice and passives, as well as *bV-* and *mV-* for intransitive verbs. Involuntary action on the other hand conveys a low degree of agency of the actor and is marked by the prefix *kV-* which can occur on both transitive and intransitive verbs and *tV-* which occurs in intransitive constructions. *KV-* most frequently occurs with perception and cognitive verbs so that the actor is often an experiencer (see 9.2.2.6). An example can be seen in (5.62) in which the verbal root *rongoi* 'hear' is marked as non-volitional by *kV-* with an experiencer actor.

(5.62) *Amir* *korongoi* *lengan* *teke* *jubut.*
Amir kV-rongoi lengan teke jubut
Amir NVOL-hear sound from forest

'Amir hears a sound coming from the forest.'

Example (5.62) also demonstrates that *kV-* can function to add an element of spontaneity to an event and mark that something occurred without it being expected or anticipated. This contrasts with events such as the one shown in (5.63) in which the same root *rongoi* 'hear' is marked as volitional by the prefix *N-* which in turn signals that the hearing was done intentionally. In the instance of this particular root, English also happens to make this distinction, albeit lexically: *hear* (non-volitional) vs. *listen* (volitional).

(5.63) *Amir* *nyonrongoi* *kakahne* *basarita* *ali* *pomolumne.*
Amir N-sVN-rongoi kakah-ne bV-sarita ali pVN-wolum-ne
Amir AV-TR-story grandfather-3SG.POSS INTR.DYN-tell about NOMZ-live-3SG.POSS

'Amir listens to his grandfather talk about his life.'

Apart from actor voice marker *N-* and the root *rongoi* 'hear', the verb is also marked by the transitivising prefix *sVN-* (see 5.2.3.5). This verb form is also used in constructions in which 'listen' is used to refer to taking someone else's advice.

The analysis of *kV-* as marking a non-volitional act is furthermore supported by the fact that the addition of volitional adverbial phrases results in ungrammaticality as is demonstrated in (5.64).

(5.64) **Amir korongoi lengan setuwa ali sengaja.*
Amir kV-rongoi lengan setuwa ali sengaja
Amir NVOL-hear sound animal with purpose

'Amir suddenly listens to animal sounds.'

Verbs of perception and cognition are among those roots that can take both volitional and non-volitional marking. An example of the contrast between *N-* and *kV-* in this context is illustrated in (5.65) and (5.66).

(5.65) *Aku ngingkam pandapat iro koi uah.*
aku N-ingkam pVN-dapat iro koi uah
1SG AV-feel NOMZ-get DEM.MED NEG accurate

'I feel this opinion is not accurate.'

(5.66) *Aku ki'ingkam morouh gi Indonesia.*
aku kV-ingkam mV-rouh gi Indonesia
1SG NVOL-feel INTR.STA-comfortable LOC Indonesia

'I feel comfortable in Indonesia.'

In (5.65) the verbal root *ingkam* 'feel' is marked for actor voice and a certain measure of control whereas in (5.66), *kV-* marks *ingkam* as non-volitional. The decisive difference between the two predicates is that in (5.65) it is marked as a deliberate act of feeling such as for example in a situation in which the speaker has thought about and processed the topic under discussion and came to the conclusion that they disagree. In such contexts an alternative, more idiomatic, translation 'I think you are wrong' may also apply. In (5.66) on the other hand, the use of *kV-* signals that the feeling of comfort is precisely that - an emotion in which an actor by definition has a low degree of control.

There are furthermore non-volitional constructions in which the predicate is marked by *tV-* or its allomorph before vowels *tV'-*. The prefix *tV-* contrasts with *na-* in undergoer voice and passives in much the same way that *kV-* contrasts with *N-*, *bV-*, and *mV-* in actor voice. However, as will be shown below, *tV-* has a number of additional functions which *kV-* does not assume. Moreover, its distribution differs from that of *kV-*. In the data, constructions featuring *tV-* occur much less frequently and during elicitation it emerged that this affix is less productive than its actor voice counterpart. The prefix *tV-* can occur with a variety of roots including underlyingly transitive predicates. However, clauses containing a predicate prefixed with *tV-* are always intransitive and understood to be passive. Furthermore, the action is understood to be completed, thereby adding

perfective aspect to the construction. An example is shown in (5.67) in which the undergoer noun phrase *bukuku* 'my book' precedes the verb *to'oit* 'accidentally take'. The clause is followed by an adjunct prepositional phrase supporting the claim that the structure in (5.67) is indeed a passive and not a transitive undergoer voice construction.

(5.67) *Bukuku* *to'oit* *ulah* *adi'ku.*
buku-ku tV-oit ulah adi'-ku
book-1SG.POSS PASS.NVOL-take by younger.sibling-1SG.POSS

'My book was accidentally taken by my little sister.'

The prefix *tV-* also differs from *kV-* in that it is used in constructions that express that there exists the possibility for the event expressed by the root to occur. This function is illustrated in (5.68). The negated verb *tabasa* 'readable' in the subordinate clause is marked for potential and is referring back to the theme of the main clause *tulisan* 'writing'.

(5.68) *Tulisan* *gi* *pipik* *kajut* *odik* *hampe* *koi* *tabasa.*
tulis-an gi pipik kajut odik hampe koi tV-basa
write-RES LOC wall too small so.that NEG POT-read

'The writing on the wall is so small that it is not readable.'

Another related function of *tV-* is that of marking a potentive structure, i.e. expressing the ability of the action to be performed. In (5.69) the negated verb *tajawab* 'able to answer' is marked for abilitative function. Parallel to the function in (5.68), the verb is referring back to the subject noun phrase *tuntianku* 'my question'.

(5.69) *Tuntianku* *koi* *tajawab* *ulahne.*
tunti-an-ku koi tV-jawab ulah-ne
ask-RES-1SG.POSS NEG POT-answer by-3SG

'My question could not be answered by her.'

Although cross-linguistically unusual, using the same form to express involuntary action and ability is common and widespread in Western Austronesian languages (Himmelmann 2006:505). For Tagalog Himmelmann (2006) notes that those two functions almost completely overlap in that constructions that allow for a non-volitional reading will usually also allow for a reading of potential (and vice versa). This level of overlap cannot be observed for Paku, particularly because predicates such as immediate perception and cognition predicates, for which a certain level of semantic convergence between non-volitional action and ability may be expected (cf. 'not see' and 'not be able to see'), are marked as non-volitional by *kV-* and not by *tV-*. As was discussed before, usually *kV-* has no function beyond marking an action as non-volitional. However, there is one notable exception in which *kV-* does allow for an abilitative reading, namely *koi ke'ewo* 'not possessing a sense of smell'. This phrase occurred in the context of listing disabilities such as being blind, deaf, or mute. With regard to the functional range of *tV-* it is possible to semantically combine the functions of marking potential (5.68) and ability (5.69). Together with the non-volitional

reading illustrated in (5.67) the functional load of *tV-* can then be categorised as what Himmelmann (2004, 2006) after Rubino (1997) calls a potentive marker. Riesberg (2014:80) notes that due to their inherent lack of control, these potentives can often be translated as 'managed to (do) x'.

As can be seen in (5.68) and (5.69) as well as in the only *kV-* marked potentive structure in the data (*koi ke'ewo* 'not possessing a sense of smell'), these potentives often occur in a negative context, i.e. expressing an inability to do something or a lack of potential and ability. However, assertive clauses are equally accepted which is why the primary function of potentative structures should not be interpreted in the negative.

Finally *tV-* can be used to express a passive state, i.e. a state that is grammatically read as passive. One such construction is demonstrated in (5.70). The root *buka* on its own can refer to either the state of being open or the action of opening something, a door in this example. The prefix *tV-* marks the root as stative, thereby eliminating any ambiguity.

(5.70) *Manamangne* *tubuka.*
manamang-ne tV-buka
door-ART.DEF PASS.STA-open

'The door is opened.'

5.2.3 Valency changing operations

This section focuses on modifications to a verb's argument structure. The notion of valency is used as a reference to the number of core arguments required by the verb, i.e. what type of clauses it can occur in (see 7.6). Monovalent verbs have one core argument and usually occur in intransitive clauses, bivalent verbs have two core arguments and therefore typically occur in transitive clauses, and trivalent verbs require three arguments and thus occur in ditransitive clauses (which syntactically speaking Paku does not have). The term valency changing operation implies not only that verbs must have one of the aforementioned valencies but also that these underlying requirements can be morphosyntactically altered. The first part of this discussion addresses valency decreasing operations in which the number of core arguments is reduced by one. In Paku they include passive constructions (5.2.3.1), reciprocals (5.2.3.2), and verbs modified by the prefix *i-* (5.2.3.3)). The second part looks at valency increasing processes in which a core argument is added to a verb's argument structure. The operations are causatives (5.2.3.4) and the affixation of the transitivising prefix *sVN-* (5.2.3.5).

It is quite common in Paku to not overtly express the subject of the clause which is often obvious from the context. Such colloquial constructions are not considered in this section as they do not represent a grammatical but rather a pragmatic process.

5.2.3.1 Passive

As was discussed previously, Paku is a symmetrical voice language (see 5.2.1). However, this does not mean that there is no 'genuine' passive operation in Paku. What is meant by the term 'genuine' here is that the construction in question meets morphosyntactic criteria for passives, such as for instance those put forward by Dixon (1994:146). Dixon claims that a proto-typical

passive construction is (a) overtly marked on the verb, (b) applies to an underlying transitive clause and derives an intransitive one, (c) the patient of the clause is syntactically promoted to the syntactically most prominent argument, and (d) the agent is demoted to an oblique which may or may not be omitted. Other descriptions add that in its basic form, a passive does not express the actor noun phrase (Keenan and Dryer 2007).

The clause in (5.71) is an example of a structure which meets the criteria for passivehood and therefore will be called a passive in this analysis. The morphological criterion in (a) is met since the verbal prefix *na-* marks the construction as passive. It furthermore derives an intransitive clause from an underlyingly transitive one which fulfils the second criterion (b). The patient *iyangku* 'my friend' is promoted to the subject of the clause and the agent *setuwa iro* 'that animal' is now oblique and can optionally be expressed using the preposition *daya* (or *ulah*), two observations which satisfy both criteria (c) and (d). The corresponding transitive clause of (5.71) in undergoer voice is presented in (5.56) which is repeated below as (5.72). Comparing the two structures might help highlight the differences between these two types of constructions and support the claim that structures such as (5.71) are in fact passives.

(5.71) *Iyangku* *nakikit* *daya* *setuwa* *iro.*
iyang-ku na-kikit daya setuwa iro
friend-1SG.POSS PASS-bite by animal DEM.MED

'My friend was bitten by the animal.'

(5.72) *Iyangku* *nakikit* *setuwa* *iro.*
iyang-ku na-kikit setuwa iro
friend-1SG.POSS UV-bite animal DEM.MED

'The animal bit my friend.'

It is true that in both transitive clauses in undergoer voice and passives the verb is marked by the same prefix *na-* making it impossible to distinguish the two types of constructions based on verbal morphology alone. Example (5.72) follows the clause structure as established for undergoer voice constructions: an argument in undergoer role as the pre-verbal argument, followed by a verb marked with *na-*, followed by an actor as the direct object. Both arguments are morphologically unmarked noun phrases. The requirement that the constituent immediately following the predicate is a direct object, i.e. a noun phrase, is the crucial difference between undergoer voice constructions and passives as in passive structures the element following the predicate is an oblique prepositional phrase. Moreover, unlike the object in an undergoer voice construction, the prepositional phrase expressing the actor in a passive construction can be omitted. This is demonstrated in (5.73) which shows the same structure a (5.71) minus the prepositional phrase expressing the actor.

(5.73) *Iyangku* *nakikit.*
iyang-ku na-kikit
friend-1SG.POSS PASS-bite

'My friend was bitten.'

While initially it might seem odd that a symmetrical voice language has a passive, this confusion stems from terminology since the passive as discussed in this section should be viewed as distinct from the symmetrical voice alternations as discussed in 5.2.1. In general, symmetrical languages which also have passives are not unheard of (Himmelmann 2005a:167; Arka 2003).

5.2.3.2 Reciprocals

Conceptually reciprocals are very similar to reflexives. However, while in reflexives the agent and patient of the action are the same entity, in reciprocal constructions they are two separate entities acting on each other or, in the case of verbs of emotion, share a mutual sentiment. While in most other grammatical structures the semantic and syntactic relationship between the participants is fairly straightforward, it is much less clear in regard to reciprocal constructions due to the fact that both arguments of the verb are equally an actor and an undergoer. For this reason, verbs marked for reciprocity are occasionally also referred to as symmetrical (Nedjalkov 2007b:6; König and Kokutani 2006:272) or mutual predicates (Haspelmath 2007b:2087; Evans 2008:35).

Reciprocal constructions in Paku can be formed morphologically using one of two prefixes, both of which are directly attached to the verbal root. The first and most common is *mangka-*. With regard to clause structure, both arguments precede the verb. An example is shown in (5.74). Here the two noun phrases *Amir* and *Mari*, which are conjoined by the comitative conjunction *ali* 'with', are followed by the verb *mangkasidi'* 'like each other' which is marked for reciprocity. As is evident in (5.75) and (5.76), the third person plural pronoun *reo* can also occur as representing actor and undergoer simultaneously. Example (5.75) furthermore illustrates the reciprocal function of the prefix *pVN-*. However, this is only one of the functions attributed to *pVN-* which are further discussed in 4.2.3.

(5.74) *Amir ali Mari mangkasidi'.*
Amir ali Mari mangka-sidi'
Amir with Mari REC-like

'Amir and Mari like (love) each other.'

(5.75) *Reo pomungkong.*
reo pVN-pungkong
3PL REC-hit

'They hit each other.'

In addition to these two construction types, there is a third one in which *pVN-* is preceded by the detransitivising prefix *i-* which is shown in (5.76).

(5.76) *Reo ipanyalak.*
reo i-pVN-jalak
3PL DETR-REC-spear

'They speared each other.'

However, this kind of reciprocity marking is rare in the data and the same function can be expressed as *mangkajalak*, a form using the regular reciprocity marker *mangka-*. The prefix *i-* can also occur in some types of reflexive marking (see 5.1.5). However, given the similarities between reciprocal and reflexive constructions both notionally and syntactically (Nedjalkov 2007a:150; König and Gast 2008:19; Heine and Miyashita 2008), this cannot be surprising.

When combined with some kinship terms, *i-* can derive an intransitive verb expressing a reciprocal relationship. An example is shown in (5.77) in which *pulot senai* 'sibling' is preceded by *i-*. This construction is understood to be reciprocal saying that the speaker and listener(s) are brothers and sisters which is an inherently reciprocal relationship.

(5.77) *Takam* *ipulot* *senai.*
takam i-pulot senai
1PL.INCL DETR-sibling

'We're (all) brothers and sisters.'

Underived reciprocals, also known as lexical reciprocals, are verbs in which a reciprocal action is inherent and they are therefore not overtly marked for reciprocity. Instead they take regular voice marking. This is demonstrated in (5.78) in which the verb *siuk* 'kiss' is inherently understood as involving two entities acting on each other and therefore preceded by the actor voice marker *N-*. Morphosyntactically, structures like (5.78) straddle the line between intransitive and transitive construction. On the one hand the verb is morphologically marked as transitive which reflects that semantically the clause involves two participants. However, on the other hand the clause lacks an object noun phrase which is characteristic of intransitive constructions.

(5.78) *Reo* *nyiuk.*
reo N-siuk
3PL AV-kiss

'They kissed (each other).'

5.2.3.3 The detransitivising prefix *i-*

The precise function of the prefix *i-* is hard to determine. There are two reasons for this; a) its low occurrence in the data combined with b) the wide range of contexts it can be used in. As was demonstrated in 5.1.5 and 5.2.3.2, *i-* can for example function to signal reflexive and reciprocal relationships.

All constructions in which the verb is marked by *i-* derive an intransitive clause from semantically transitive verbs. Most commonly such constructions occur if the verb expresses an activity with a generic object. The object in such cases is understood from context and *i-* functions to mark that despite featuring a semantically bivalent predicate, the clause does not require more than one argument. Example (5.79) illustrates this function. The verbal root *pupuk* 'wash' usually requires an object, a thing that is being washed. However, in this instance the speaker only expresses that the subject of the clause, *ine'* 'mother' is doing the washing as a generic activity which is why the

root is marked with *i-*. In a transitive clause the verb would be marked by either *N-* in actor voice ((5.80)) or *na-* in undergoer voice.

(5.79) *Itak* *ipupuk.*
itak i-pupuk
grandmother DETR-wash

'Grandma is doing the washing.'

(5.80) *Itak* *mupuk* *baju* *opone.*
itak N-pupuk baju opo-ne
grandmother AV-wash clothes grandchild-3SG.POSS

'Grandma is washing her grandchildren's clothes.'

Constructions like the one in (5.79) are often used when the object is either unknown or irrelevant and the subject in these construction needs to be an actor.

The prefix *i-* can also occur on verbs of communication when the following argument (often sentential, see 9.2.2) is omitted. An example is shown in (5.81) which is syntactically intransitive despite expressing a communicative event which usually requires one or more post-verbal arguments. Other examples include *ipata* 'explain', *ipaner* 'talk', and *itunti* 'ask'.

(5.81) *Roni* *iwada.*
Roni i-wada
Roni DETR-say

'Roni speaks.'

In addition, *i-* can function as a derivational morpheme when attached to kinship terms expressing a symmetrical relationship. An example was shown in (5.77).

With regard to the ordering of morphemes, *i-* does not always attach directly to the root which was shown in (5.76) where another prefix *pVN-* was attached closest to the root and then *i-* was added to the left of *pVN-*

Based on the evidence presented in this discussion the prefix *i-* is best analysed as a general detransitivising affix as in all attested functions it decreases the number of core arguments in the clause.

5.2.3.4 Causatives

A causative is a construction which consists of causer, a causee, and a caused event. According to Dixon and Aikhenvald (2000:13) a prototypical causative needs to have four characteristics: it must (a) derive a transitive clause from an underlying intransitive construction, (b) the single core argument of the underlying intransitive needs to move to the object position of the causative

construction, the new construction needs to (c) introduce a new argument into subject position which is an actor[2], and (d) there needs to be some formal marking indicating a causative.

Paku has three ways to form causative constructions matching the above criteria, two of them formed morphologically and one of them periphrastically. The difference between those two types lies not only in the strategy employed in forming them but also to some degree in their semantics. The first two methods employ one of two causative prefixes, *ampi-* and *tVN-*. In previous descriptions of both Paku and its relative Maanyan these have been analysed as morphologically conditioned allomorphs (Iper et al. 2002; Gudai 1985), but given the significant semantic differences and the fact that a large number of roots can occur with both prefixes, they will be treated here as two separate affixes with distinct functions.

A third method of expressing causation is by means of a periphrastic construction. There are several different causative predicates that can be used in such a construction. They differ primarily in the illocutionary force they express. They are the only causatives in which the event can contain a dynamic root. Sentence (5.82) shows an example of a periphrastically formed causative. Regardless of the predicate used, these types of clauses always follow the same structure: the causer, *ine'* 'mother', functions as the subject of the clause. This is followed by the causative predicate in actor voice *ngulah* 'make', the causee, *uma'ku* 'my father', in object position and the sentential complement expressing the event the causee was made to do, in this case *nyapu gi muka lowu* 'sweep in front of the house'. In the data the predicate of the complement clause in these constructions always occurs with actor voice morphology.

(5.82)

Ine'	*ngulah*	*uma'ku*	*nyapu*	*gi*	*muka*	*lowu.*
ine'	N-ulah	ua'-ku	N-sapu	gi	muka	lowu
mother	AV-make	father-1SG.POSS	AV-broom	LOC	front	house

'Mum makes my father sweep in front of the house.'

Considering that periphrastic constructions require no morphological marker and also show a different syntactic structure compared to other causatives, this strategy will not be topic of discussion in this section. They are instead discussed with other complement-taking predicates in 9.2.2.

The remainder of this section discusses the two causative prefixes *ampi-* and *tVN-*. The prefix *ampi-*, forms a 'standard' causative describing that X, the causer, makes Y, the causee, become Z, the property or quality. The prefix *tVN-* on the other hand marks a causative which means that the base is already Z and makes it become *even more* like Z. These structures only allow roots that are adjectives or stative verbs.

In order to distinguish the two types of morphologically marked causatives in following discussion, they will be referred to as *ampi*-causative and *tVN*-causative. In the glosses, *ampi*-causatives will be marked as 'causative 1' and *tVN*-causatives as 'causative 2'.

5.2.3.4.1 Causative 1: *ampi-* In order to form the standard morphological causative in Paku, the prefix *ampi-* is attached to a verbal or adjectival root. When used in a construction other than the imperative, verbs using *ampi-* will in turn be inflected with the actor voice marker *N-* which,

2. In Dixon and Aikhenvald (2000) this is actually referred to as A.

as discussed in previous sections, implies the volitional and controlled execution of the action. Non-volitional marking is not possible in a causative construction since this tends to semantically contradict the nature of a causative. Structurally the causative prefix attaches directly to the root and the voice markers attach to the prefix. This also means that *N-* in this instance always precedes a vowel and is therefore always realised as [ŋ]. An example of an *ampi-* causative construction with actor voice marking is shown in (5.83). Here the subject expresses the causer, in this case *aku* '1SG', which is followed by the adjectival root *karado* 'green' marked by both *N-* and *ampi-*, and the object *lowu* 'house' expressing affected party of the event.

(5.83) *Aku ngampikarado lowu.*
aku N-ampi-karado lowu
1SG AV-CAUS1-green house

'I paint the house green.' (lit. 'I cause the house to be green.')

The clause in (5.84) shows an imperative causative in which the speaker instructs the addressee to bring someone, an unnamed third person, to the speaker. The verb in such constructions is unmarked for voice and occurs clause-initially with the theme and a prepositional phrase following it.

(5.84) *Ampihawi iyo pah itu!*
ampi-hawi iyo pah itu
CAUS1-arrive 3SG DIR DEM.PROX

'Bring her here.' (lit. 'Make her come here.')

Analysing the examples presented in this section it is obvious that constructions featuring the *ampi-* causative prefix fulfil all criteria for causative constructions outlined earlier as a) *ampi-* attaches to verbal roots or adjectives and derives a transitive structure, and b) the actor argument in the underlying intransitive clause moves to object position in the causative structure. This can be seen when for example comparing the structure in (5.84) to the corresponding declarative clause *iyo hawi gi itu* 'she arrived here'.[3] Given that (5.84) is an imperative construction, which by default has an inferred addressee and therefore no overtly expressed subject (see 5.1.2), it does not make for a good example to use for the third criterion of an added actor argument. However, examining (5.83), whose underlying intransitive clause is *lowu(ne) karado* 'the house is green', it can be seen that the additional argument in the derived clause is indeed an actor. Finally *ampi-* overtly marks the clause as expressing a causative.

5.2.3.4.2 Causative 2: *tVN-* The second type of causative is formed using the prefix *tVN-*. Unlike causatives formed with *ampi-*, which is a somewhat 'generic' causative, *tVN*-causatives expresses that the property Z expressed by the root, is already present and that something or someone, Y, is caused by the causer X to be even more like the quality expressed by the root. For that reason, *tVN-* can only be attached to (some) stative intransitive and adjectival roots. An example in the imperative is presented in (5.85). In this example the adjective *karing* 'dry' marked with

3. The prepositional phrase in the underlying structure would need to express a stative location and therefore deviates slightly from the directional prepositional phrase in the causative construction.

tVN- occurs in clause-initial position followed by the object noun phrase *galas iro* 'that glass'. The use of *tVN-* instead of *ampi-* indicates that the glass had either already been dried or at least was not completely wet anymore and that the speaker wants the addressee to dry it properly.

(5.85) *Tangkaring galas iro!*
tVN-karing galas iro
CAUS2-dry glass MED

'Dry that glass (some more)!'

Morphosyntactically, *tVN-* behaves the same way as *ampi-*, i.e. unless used in an imperative construction as in (5.85), it needs to be marked for actor voice by adding *N-*. As in *ampi-* constructions, *tVN-* occurs closest to the root and is preceded by the actor voice marker, which, given that *N-* in this context always precedes an alveolar segment, is always realised as [n]. Example (5.86) illustrates the structure of the *tVN-* causative which is syntactically identical with that of a causative clause formed with *ampi-*. The causer, *uma'* 'father', occurs first in the clause, followed by the adjectival predicate *idu'* 'big' marked with both *tVN-* and *N-*, and the object *lowu* 'house'.

(5.86) *Uma' nangidu' lowune.*
uma' N-tVN-idu' lowu-ne
father AV-CAUS2-big house-3SG.POSS

'Dad makes the house bigger.'

As mentioned previously, a large number of roots that can occur with *ampi-* can also occur with *tVN-*. This is exemplified in (5.87), a clause similar to that in (5.86) with the only difference being the causative affix used.

(5.87) *Uma' ngampi'idu' lowune.*
uma' N-ampi-idu' lowu-ne
father AV-CAUS1-big house-3SG.POSS

'Dad makes the house big.'

Both examples feature the root *idu'* 'big'. The difference in reading between the two is that in (5.87) in which the root takes *tVN-* it is understood that the house was already large to begin with and is now made even larger while in (5.87), in which *idu'* is preceded by *ampi-*, there is no such underlying judgement and the clause is interpreted as meaning that the house is simply made bigger than it currently is. This is reflected in the translation.

In terms of the criteria for judging the status of a causative structure, the same line of argumentation can be followed as with *ampi-* in 5.2.3.4.1. *TVN-* is more restricted as to the type of root it can attach to than *ampi-*. While *ampi-* can attach to most verbal roots and adjectives, *tVN-* can only attach to adjectives and those stative intransitive roots which express an attribute or property. The resulting causative clause is transitive and hence the first criterion is met. The single core argument of the underlying intransitive clause moves to object position which can be seen when comparing the position of the object noun phrase *lowune* 'the house' in the causative clause in

(5.86) to the position of the same constituent in its intransitive counterpart *lowune idu'* 'the house is big'. Just as in *ampi-* causatives the added argument is an actor occurring in subject function, and the criterion of formal marking is satisfied by the addition of *tVN-* to the root.

5.2.3.5 The transitivising prefix *sVN-*

The prefix *sVN-* functions as a simple transitivising morpheme. *SVN-* has been described as a morphologically conditioned allomorph of the causative morpheme for Maanyan (Gudai 1985). To some extent this analysis is correct for Paku as well in that for some instances the function can be described as being a causative. An example for this is the verb *nyamalah* 'enslave' which is made up of the morphemes *N-* plus *sVN-* plus *walah* 'slave'. A literal reading of this combination of morphemes would be 'to cause someone to become a slave' so in this instance an analysis of *sVN-* as a causative morpheme would be accurate. However, as the following discussion will demonstrate, overall this prefix is more complex than that and describing it as a simple causative affix would not be sufficient.

Another example of a predicate marked by *sVN-* can be seen in (5.88) the predicate *kahong* 'meet' is preceded by *sVN-* and subsequently followed by a direct object noun phrase. The root *kahong* 'meet' is mostly used in intransitive constructions, but it can also occur in a transitive clause. The difference between *kahong* and *sangkahong* in a transitive clause is a semantic one; *kahong* implies that the meeting was unintended and people met by chance. *Sangkahong* on the other hand refers to a planned meeting between the two participants so it can be argued that *sVN-* not only derives a transitive verb but also that it adds volition to the resulting construction.

(5.88)	*Uma'ku*	*sangkahong*	*pamakal*	*gi*	*Tampa.*
	uma'-ku	sVN-kahong	pamakal	gi	Tampa
	father-1SG.POSS	TR-meet	chief	LOC	Tampa

'My father meets the chief in Tampa.'

A more straightforward example of the derivational function of *sVN-* is presented in (5.89). In this transitive clause, the adjectival predicate *emah* 'surprised' is marked first by the actor voice marker *N-* and then by *sVN-* and the linking element *k* that does not itself express a function.

(5.89)	*Aku*	*nyengkemah*	*iyangku*	*anri*	*wadai.*
	aku	N-sVN-k-emah	iyang-ku	anri	wadai
	1SG	AV-TR-LE-surprised	friend-1SG.POSS	with	cake

'I surprised my friend with a cake.'

It is not clear at this point why in (5.89) the predicate takes actor voice whereas in a similar syntactic frame in (5.88) it does not. There are also some speakers who prefer actor voice marking even in (5.88), producing the same clause as *uma'ku nyangkahong pamakal gi Tampa*.

Example (5.89) also demonstrates the order of affixation for this prefix. When occurring with other prefixes, *sVN-* always occurs closest to the root and voice affixes are added to the left of it.

Considering the combined evidence presented above, the only function that all of the constructions in the above discussion have in common is that they add a core argument to the argument structure and hence derive a transitive verb from an intransitive one. In that sense *sVN-* can be viewed as the counterpart of *i-* which has the reverse function (see 5.2.3.3).

5.3 Derivational morphology

In addition to the functions outlined so far in this chapter, most affixes discussed are furthermore highly productive derivational morphemes. As mentioned in 3.1.2, due to the difficulty encountered in determining word class membership, most verb forms can be considered to be in a sense derived from a pre-categorical root. This analysis is supported by the observation that even when roots are deemed to be members of the same lexical category, changing the affix can significantly alter the meaning of a word, making the process a derivational one.

One type of word formation which will not be part of this discussion is that of compounding. There are only few tokens of (exo-centric) compounds in the data and the process was discussed in 4.1.5 where evidence was presented suggesting that compounding is most likely not a productive means of word formation in Paku.

In addition to the productive derivational morphemes discussed in this section, there is furthermore the prefix *nV-* in the data which is used to derive *nawawen* 'to get married' from *wawen* 'wife' and *nohong* 'get married' from *hong* 'husband'. Both are syntactically intransitive and don't occur with additional affixation. The former is used when the subject is the groom whereas the latter refers to a woman getting married. In that sense an equally acceptable translation would be 'to take a wife/husband'.

5.3.1 *N-*

N- is the most commonly used derivational affix in the data and can attach to nouns to form a variety of different functions. In one type of derivation *N-* is attached to instruments. The derived verb means 'to use (instrument)'. However, most recorded instances of this kind in the data are relatively recent borrowings from Indonesian. An example of such a construction is shown in (5.90) in which the verb 'sweep' is formed using the instrument noun phrase *sapu* 'broom' as a root and attaching *N-* to it.

(5.90)

Tataku	*nyapu.*
tata-ku	N-sapu
older.sibling-1SG.POSS	VERB-broom

'My older sibling is sweeping.'

Another similar function is that of attaching *N-* to drinks in order to express the consumption of the drink. This function has not been observed frequently and mostly occurred with *kupi* 'coffee' as is shown in (5.91).

(5.91) *Guru* *ngupi.*
guru N-kupi
teacher VERB-coffee

'The teacher is drinking coffee.'

If attached to *umo* 'field', the resulting verb expresses the meaning of 'working in the field' (5.92). (5.92) is the only construction in the data in which *N-* derives the meaning of 'work in (root)'.

(5.92) *Ulun* *tumpuk* *ngumo* *tiap* *onro.*
ulun tumpuk N-umo tiap onro
person village VERB-field every day

'The villagers work on the field every day.'

As can be seen in (5.90)-(5.92), despite typically marking a transitive clause in actor voice, derivations involving *N-* are intransitive. Based on this observation, derivational *N-* needs to be viewed as distinct from inflectional *N-*. For this reason the gloss for *N-* in the above examples is not AV as in transitive constructions but VERB.

It can be argued that this kind of structure is a manifestation of the distinction between syntactic and semantic transitivity (see 5.1.1.3, 5.2, and 7.6.3). Syntactically the constructions discussed thus far in this section are clearly intransitive as they only contain one argument. However, semantically these verbs require an object and it is possible to argue that this object is in some way understood. For instance, if someone is sweeping, there must be an entity that is being swept and this entity is usually the floor.

When used with adjectival roots, *N-* derives the meaning of 'become like'. In the data, this function only occurred with non-emotional adjectives. An example is presented in (5.93). Here the adjectival root *hipit* 'narrow' of the predicate is preceded by *N-*. If the clause were *lalanne hipit*, which is a perfectly well-formed clause in Paku, the reading of the predicate would be static, i.e. the shape of the road would be consistently narrow. However, the form as shown in (5.93) is always interpreted as expressing a transition to the state expressed by the root. In that sense these derivations can be analysed as inchoative constructions. Another example is *namam* 'intensify', whose root is *tamam* 'intense'.

(5.93) *Lalanne* *nipit.*
lalan-ne N-hipit
road-ART.DEF VERB-narrow

'The road is narrowing.'

N- can also function derivationally without changing the word class of a root. For example, when *N-* is used in combination with the root *kikihi* 'laugh' it derives *ngikihi* 'laugh at, ridicule'. Given the significant change in meaning, the affixation of *N-* in this instance is considered a derivational process rather than an inflectional one.

5.3.2 *bV-*

Like *N-*, the prefix *bV-* can be used to derive a variety of functions. However, it is much less productive and in some instances it is hard to tell to what extent speakers are using it in calque translations and are transferring the full range of functions of the Indonesian cognate *ber-* onto *bV-*.

The prefix *bV-* can attach to nominal roots deriving functions that are semantically related in the way that they all in some sense refer to the application or use of the nominal root. One of those derivations is that of wearing or possessing the root. The root in this kind of construction is most commonly an item of clothing or accessory which is then qualified by an adjective or a noun, e.g. a speaker might use such a construction to describe a person wearing a black hat or, as in example (5.94), sandals.

(5.94) *Ulun iyo basapatu sandal.*
ulun iyo bV-sapatu sandal
person REL DYN.INTR-shoe sandal

'The person who is wearing sandals.'

A related notion is that of inalienable possession which is the possibly most common derivational function for *bV-* in Paku. In the vast majority of instances in the data these constructions are used to express possession of body parts. In (5.95) and (5.96) *bV-* attaches to a body part to mark possession and to then add descriptive modification in the form of a colour term.

(5.95) *Wawe iro buwulu wuyung.*
wawe iro bV-wulu wuyung
female PROX INTR.DYN-hair black

'That woman has black hair.'

(5.96) *Upo itu bamato karado.*
upo itu bV-mato karado
male PROX INTR.DYN-eye green

'This man has green eyes.'

The prefix *bV-* can furthermore be used to derive a verb from a noun meaning to drive or operate the object expressed by the noun. This root is usually a vehicle or a machine. Examples of such structures include *bumotor* 'ride a motorbike', *basapeda* 'ride a bicycle', and *bujukung* 'go by boat'. Given that the introduction of such motorised entities was a relatively recent event, it is likely that this function was introduced via the Indonesian equivalent *ber-*.

5.3.3 *mV-*

There are only a small number of instances in the data in which *mV-* was used as a derivational morpheme. Unlike *bV-*, *mV-* is not used in derivations that involve a change of word class membership but rather it derives properties from dynamic roots. An example of this kind is *mapaner* 'talkative' which consists of *mV-* and *paner* 'talk'. *Paner* 'talk' usually occurs with the dynamic intransitive marker *bV-* which is shown in (5.97). When occurring with *mV-*, it is understood to express the state associated with the root, in this case meaning something akin to 'talkative', which is demonstrated in (5.98).

(5.97) *Pamakal ganyah bapaner anri wawenne.*
pamakal ganyah ba-paner anri wawen-ne
chief PROG INTR.DYN-talk with wife-3SG.POSS

'The chief is talking to his wife.'

(5.98) *Kakah mapaner.*
kakah ma-paner
grandfather INTR.STA-talk

'Grandpa is talkative.'

5.3.4 *i-*

There are two types of verbs that can be derived using the prefix *i-*. As with all other functions of *i-* described thus far, the resulting clause is an intransitive one. Firstly, *i-* can be attached to the names of rituals or ceremonies to express the performing of the respective ritual or ceremony. Examples of this are the forms *ijambe* and *imiyah*, both of which refer to the performance of one part of the death ceremony.

The second derivational function of *i-* is that of deriving a reciprocal verb when combined with certain kinship terms. This functions was already mentioned in 5.2.3.3 and an example is presented in (5.77). Note that this type of derivation can only be used with symmetrical kinship terms that express a reciprocal relationship such as *ipulot senai* 'to be siblings' and *isihinra* 'to be first cousins'.

5.3.5 *kV-an*

The circumfix *kV-an* can function to derive both nouns (see 4.2.2) and verbs. In the data the circumfix *kV-an* is most frequently used to derive a structure in which the event expressed by the root is considered unpleasant or undesirable. The resulting form is typically referred to as an adversative passive. In this function the root is often adjectival. With regard to distribution these derived structures always occur in predicate position. An example is shown in (5.99). Here the form *kiwisa'an* 'gotten wet', which is derived from the adjectival root *wisa'* 'wet', immediately follows the subject in an intransitive syntactic frame.

(5.99) *Aku kiwisa'an.*
aku kV-wisa'-an
1SG ADVS-wet-ADVS

'I got wet.'

Other examples of this derivation that are used in the same syntactic environment are *ku'uyuhan* 'suffer exhaustion' derived from *uyuh* 'exhausted', *kajawohan* 'suffer from the disappearance of' whose root is *jawoh* 'disappear', and *ka'awisan* 'run out' which contains the root '*awis*' 'be out'.

It is also possible for verbs derived by *kV-an* to be further modified as is shown in (5.100). Example (5.100) shows the same clause as (5.99) with an additional nominal modifier *laba'* 'clothes'.

(5.100) *Aku kiwisa'an laba'.*
aku kV-wisa'-an laba'
1SG ADVS-wet-ADVS clothes

'My clothes got wet.'

There are also some cases in which a *kV-an* verb seemingly functions as a modifier. This can be seen in the existential construction presented in (5.101), in which the existential marker *naan* is followed by first the noun *ulun* 'person' and then the derived *kapatean*. By itself *kapatean* can either be translated as 'death' or 'suffer a loss' so its meaning is very much dependent on context.

(5.101) *Gi Tampa naan ulun kapatean.*
gi Tampa naan ulun kV-pate-an
LOC Tampa EXIST person ADVS-dead-ADVS

'In Tampa there are people who are grieving (lit. 'who have suffered a loss').'

Often the derived structure is the only element in the clause, an example of which is shown in (5.102). The clause consists of only the noun *kalayongan* which, if uttered in isolation, is always interpreted as an adversative passive meaning 'to suffer from the heat'.

(5.102) *Kalayongan.*
kV-layong-an
ADVS-hot-ADVS

'I'm hot.'

A third derivation occurring in the data is that of expressing excess of the root. The clause in (5.103) provides an example of a construction in which the *kV-an* verb occurs in this function.

(5.103) *Sarumpah iro ko'odikan.*
sarumpah iro kV-odik-an
sandal DEM.MED ADVS-small-ADVS

'These sandals are too small.'

Alternatively the notion of excess can be expressed using the free morpheme *kajut* 'too' which occurs before the intransitive verb or adjective. Hence (5.103) can also be expressed as shown in (5.104).

(5.104) *Sarumpah iro kajut odik.*
sandal DEM.MED too small

'These sandals are too small.'

While accepting the grammaticality of both (5.103) and (5.104), most speakers express a preference for constructions featuring *kajut*.

5.4 Verbal Reduplication

The process of reduplication, which refers to the full or partial copying of a word, was already introduced in the context of nouns (4.3). It is also possible for verbal and adjectival roots to be reduplicated, although this is nowhere near as productive a means of word formation and modification as for nouns.

Structurally verbal reduplication is similar to nominal reduplication in that it most often involves full reduplication, i.e. the entire root or word is copied. There is one instance of a partially reduplicated root in the data which is shown in (5.105). Here the adverbial *mayu'* 'enough' is partially reduplicated and the reduplicant added to the left of the word. This process functions to add emphasis to the adverbial. The sentence was uttered in a context in which the speaker was talking about farming and the difficulties thereof.

(5.105) *Haut koi ku'ule ngumo, wadaku pada mamayu'.*
haut koi kV-ule N-umo wada-ku pada ma-mayu'
already NEG NVOL-can AV-rice.field say-1SG also RED-enough

'I cannot work in the field any longer, I already said "enough".'

In terms of interaction or co-occurrence with other affixes, the data is contradictory in that there is a morphological distinction between adjectives and states marked with *mV-*, and verbs marked by *N-*. Both cases involve full reduplication. However, if the verb is marked by *N-*, the prefix is included in the reduplication whereas if the verb is marked by *mV-*, only the root is reduplicated. An example of full reduplication including the prefix is shown in (5.106).

(5.106) *Iyo ngariak-ngariak laku karawah.*
iyo N-kariak-N-kariak laku karawah
3SG RED-RED-AV-scream ask help

'She was screaming for help.'

Note that there are no instances in the data in which a reduplicated word is marked with the dynamic intransitive marker *bV-*.

The reduplication of stative verbs and state-like adjectives (i.e. those that are marked with with *mV-*) only occurs twice in the data. The clauses in (5.107) and (5.108) show these two examples, both expressing different functions. In (5.107) the root *harung* 'sit' is reduplicated to indicate an ongoing and casual activity. According to speakers, the understanding of this clause is that there is no goal or purpose in the action. (5.108), in which the speaker expresses her admiration for a picture, shows how a reduplicated root expressing a property can be reduplicated to add intensity, i.e. she finds the picture not only good but *really* good.

(5.107) *Itakku* *maharung-harung* *gi* *huang* *dapurne.*
itak-ku mV-harung-harung gi huang dapur-ne
grandmother-1SG.POSS INTR.STA-RED-SIT LOC inside kitchen-ART.DEF

'Grandma is sitting around in the kitchen.'

(5.108) *Gamarko'* *ma'asus-asus.*
gamar-ko' mV-asus-asus
picture-2SG.POSS INTR.STA-RED-GOOD

'Your picture is really good.'

The function of a reduplicated word depends on the type of verb. With processes or activities it often expresses iterative aspect (repeated or prolonged action). This is demonstrated in (5.109) in which the reduplicated *malis* 'stroke' is used to express that the action is not just performed once but repeatedly or over a longer period of time.

(5.109) *Ine'* *malis-malis* *wulu* *peane.*
ine' N-palis-N-palis wulu pea-ne
mother RED-RED-AV-stroke hair child-3SG.POSS

'The mother keeps stroking her child's hair.'

The function of reduplicated adjectives differs depending on their position within the clause. If they modify and occur after a noun, the reduplication of the adjective can function as an intensifier, as was shown in (5.108). Reduplication of adjectives also readily occurs in the context of colour terms in which it signals that the colour in question is a particularly intense shade of that colour, e.g. *mea-mea* 'red' would indicate a deep shade of red. Increased intensity can also be conveyed with a reduplicated more dynamic verb root. For instance in (5.110) the reduplicated *laku* 'ask' implies an intensified act of asking which is reflected in the translation as 'beg'. It is also possible to interpret this clause as expressing a habitual activity, i.e. that they ask others for money regularly.

(5.110) *Reo* *laku-laku* *duit.*
3PL RED-ask money

'They beg for money.'

If the reduplicated adjective occurs after a verb it functions as a manner adverb (see also 3.1.2.1.3). An example is shown in (5.111). Here the reduplicated adjective *royo* 'strong' modifies the verb *ngariak* 'scream'.

(5.111)

Pea	*iro*	*ngariak*	*royo-royo.*
pea	iro	N-kariak	royo-royo
child	DEF	AV-scream	RED-strong

'The child is screaming loudly.'

Chapter 6

Prepositional phrases

A prepositional phrase is a constituent which in its basic form consists of a preposition as the head followed by a dependent noun phrase. This structure never changes, regardless of the individual elements within the phrase or the function of the phrase within the clause. There are no semantic limitations on which type of noun phrase can occur as a dependant within a prepositional phrase.

Within the clause prepositional phrases can function as both arguments and adjuncts. Due to the lack of a formal copula, it is also possible for prepositional phrases to function as predicates in which case they immediately follow the subject of the clause. This is mostly the case with locative predicates. An example illustrating both the structure of prepositional phrases and their function as locative predicates is shown in (6.1). Here the prepositional phrase *gi pasar* 'at the market', which is made up the locative preposition *gi* and the simple noun phrase *pasar* 'market', functions as the predicate indicating the location of the subject *ine'* 'mother'.

(6.1) *Ine'* *gi* *pasar.*
mother LOC market

'Mum is at the market.'

This chapter focuses on the internal structure of prepositional phrases along with their major functions within the clause. A full list of prepositions from the data and their identifying features are presented in 3.2.6. Prepositional phrases can moreover serve as modifiers to a noun within the noun phrase, a function in which the prepositional phrase helps identify a referent in discourse. This is discussed in 4.1.8.

Semantically prepositions can mark a number of roles, mostly those that do not fall under one of the macroroles actor and undergoer. This includes, but is not limited to, locatives, instruments, and beneficiaries. Given the multifunctionality of most affixes discussed thus far, it is perhaps not surprising that there are also a number of prepositions in Paku which express more than one function. An example of this is the preposition *pah* which can be used to mark a beneficiary or goal as well as function to mark a locative. Furthermore, some prepositions have been derived from content words and still co-exist with them in the language. This type of relationship between words will be pointed out in the relevant sections of this chapter.

Structurally there are two different types of prepositions that can head a prepositional phrase; simple and complex prepositions. Simple prepositions consist of only one word whereas complex prepositions are composed of at least two individual words. Complex prepositions almost invariably express a locative.

When functioning as an indirect object prepositional phrases can only occur in post-verbal position. As adjuncts their distribution is less limited and they can occur freely in both clause-initial, -medial, and -final position. However, in a standard construction, the prepositional phrase is usually placed in a position following the verb and any arguments, and a prepositional phrase in clause-initial position is often pragmatically highlighted in some way. An example of a fronted prepositional phrase is shown in (6.2) in which there is a presupposition that Roni being at the market is a previously established information and that the remainder of the clause, namely that she met her aunt, is new, and potentially surprising, information.

(6.2) *Gi pasar Roni kahong menane.*
gi pasar Roni kahong mena-ne
LOC market Roni meet aunt-3SG.POSS

'At the market Roni met her aunt.'

There are some exceptions to this distributional freedom and depending on the semantic role expressed by the prepositional phrase, they can only occur in a position following the verb. In cases in which such restrictions apply, they are pointed out in the respective sections. If no specific mention is made, the default assumption is that the prepositional phrase is not limited in its distribution.

The majority of prepositional phrases feature one of the locative prepositions which is why this discussion begins by examining the various prepositions, both simple and complex, expressing a location of some sort 6.1. Following that is a discussion of prepositional phrases signalling the use of an instrument 6.2. The remaining prepositions are discussed in 6.3.

6.1 Locatives

Locative prepositions are defined as those expressing a location (*gi*), a direction (*pah*), or an origin (*teke/engke*). Within the prepositional phrase, the dependent noun phrase is always a place. In addition to those basic locative prepositions, there are also relational locative prepositions which identify the location of an entity relative to another. Relational locative prepositions are often formed using one of the basic locative prepositions and combining them with a positional word (see 6.1.4). All basic locative prepositions can combine with demonstrative pronouns to form a deictic location expressing distance relative to the speaker. The possible combinations for this process are *gi itu* 'here', *gi iro* 'there', and *gi aro* 'over there'; *pah itu* 'hither', *pah iro* 'thither', and *pah aro* 'thither (further away)'; *teke/engke itu* 'from here', *teke/engke iro* 'from there', and finally *teke/engke aro* 'from over there'. For a more detailed discussion of demonstratives see 4.1.10.

6.1.1 *Gi* 'at'

The preposition *gi*, which has the free variant *ji*, expresses a static position at a place designated by the dependent noun phrase. In (6.3) the preposition *gi* is followed by the noun phrase *sawahtu* 'the rice field', marking it to be the location at which a previously discussed event is not yet taking place. The example is taken from a dialogue in which two speakers discuss the rice harvest which is why word order deviates from the default.

(6.3) *Amun gi sawahtu, mete'.*
amun gi sawah-tu mete'
if LOC wet.rice.field-EMP not.yet

'Not yet on the wet rice field.'

Syntactically, *gi* mostly functions to mark an adjunct in an intransitive or transitive construction. An example of an intransitive structure with an added locative prepositional phrase is shown in (6.4). Here the clause *Amir katamah* 'Amir swims' is followed by the prepositional phrase *gi sunge* 'in the river'. The clause in (6.5) shows an example of a transitive construction *Roni ngari sayur* 'Roni sells vegetables' which is followed by an oblique locative prepositional clause *gi Amuntai* 'in Amuntai'. In both cases the clause is grammatical without the addition of the prepositional phrase and the speaker merely chooses to add this locational information.

(6.4) *Amir katamah gi sunge.*
Amir swim LOC river

'Amir swims in the river.'

(6.5) *Roni ngari sayur gi Amuntai.*
Roni N-ari sayur gi Amuntai
Roni AV-sell vegetable LOC Amuntai

'Roni sells vegetables in Amuntai.'

With some predicates the use of a locative prepositional phrase is obligatory. An example of this kind can be seen in (6.6). The verbal predicate *duloi* 'live' requires a locational complement in order for the clause to be grammatical.

(6.6) *Aku duloi gi Bantai Napu.*
1SG live LOC Bantai Napu

'I live in Tarinsing.'

6.1.2 *Pah* 'to'

There are several functions associated with the preposition *pah*. It primarily marks the following noun phrase to be the goal or destination associated with a verb of motion. An example of this kind can be seen in (6.7) in which the dependent noun phrase *lowu' pamakal* 'village chief's house' is the destination of the verb *tulak* 'go'.

(6.7) *Roni tulak pah lowu' pamakal.*
Roni go DIR house village.chief

'Roni is going to the village chief's house.'

In addition, *pah* can mark a beneficiary. An example is shown in (6.8). *Woli* 'buy' is a transitive verb only requiring the subject *iyo* '3SG' and the theme *ua'* 'fruit' as its arguments. The prepositional phrase *pah peane* 'for her child' is optional and only provides additional information. With regard to distribution, the prepositional phrase can occur either before or after the object *ua'* 'fruit'.

(6.8) *Iyo moli ua' pah peane.*
iyo N-woli ua' pah pea-ne
3SG AV-buy fruit BEN child-3SG.POSS

'She buys fruit for her child.'

In constructions in which the predicate is a verb of transfer the goal or recipient is expressed in a prepositional phrase headed by *pah*. For a more thorough discussion of three-place predicates see 7.6.3. An illustrative example is shown in (6.9) in which *pah* marks the recipient *hongku* 'my husband' in a construction with the three-place predicate *kirim* 'send'.

(6.9) *Aku ngirim surat pah hongku gi Jakarta.*
aku N-kirim surat pah hong-ku gi Jakarta
1SG AV-send letter DIR husband-1SG.POSS LOC Jakarta

'I send a letter to my husband in Jakarta.'

Pah can also designate the addressee in constructions in which the predicate expresses a communicative event, an example of which can be seen in (6.10). Here the prepositional phrase *pah kain* 'to us' is marking whom the subject *uma'* 'father' is speaking to.

(6.10) *Uma' basarita pangalamanne pah kain.*
uma' bV-sarita pangalaman-ne pah kain
father INTR.DYN-story experience-3SG.POSS DIR 1PL.EXCL

'Dad is telling us about his experience.'

In the data there are furthermore a small number of constructions in which *pah* marks other roles than the ones described thus far. In (6.11) *pah* marks an experiencer in a construction in which the prepositional phrase is fronted.

(6.11) *Pah aku iro aneh tuu.*
pah aku iro aneh tuu
DIR 1SG DEM.MED strange INTS

'To me this is strange.'

Analysing (6.7)-(6.11) it can be argued that *pah* always denotes a goal-like argument. Here the term 'goal' is not to be understood as necessarily referring to the traditional semantic role 'goal', but as a collective term much like actor and undergoer. In that sense the goal-like argument can be all roles that in a concrete or abstract way denote a goal or a destination. For instance, a

beneficiary and a recipient can be understood to be the goal of an action or a transfer respectively, the addressee in a construction featuring a verb of communication is the goal of a verbal transfer, and experiencers can be interpreted as being goals of an emotion.

6.1.3 *Teke* and *engke* 'from'

Teke and *engke*, which are used interchangeably, are typically used to mark a source or origin. Examples featuring the two prepositions can be seen in (6.12) and (6.13). In (6.12) the prepositional phrase *teke iyo* 'from her' functions as an adjunct marking the source of the direct object *surat* 'letter'. Clause (6.13) shows an example in which *engke* marks the origin of a person. Here the subject *uma'ku* 'my father' is immediately followed by a predicate prepositional phrase *engke Tamiang* 'from Tamiang'.

(6.12) *Aku sanang hantek nirime surat teke iyo.*
1SG happy when receive letter from 3SG

'I'm happy when I receive a letter from her.'

(6.13) *Uma'ku engke Tamiang.*
uma'-ku engke Tamiang
father-3SG.POSS from Tamiang

'My father is from Tamiang (Layang).'

Teke and *engke* can also be used to indicate the material source for something, i.e. what something is made of. This is exemplified in the passive structure in (6.14) in which the prepositional phrase *teke kayu* 'from wood' marks the source material with which the *sampatung* 'statue' is built.

(6.14) *Sampatung itu na'ulah engke kayu.*
sampatung itu na-ulah engke kayu
statue DEM.PROX PASS-make from wood

'This statue is made from wood.'

Another function of *teke* and *engke* is that of marking the starting point in expressions of periods of time. This can be seen in (6.15) in which *engke* marks the point in time when the speaker starts work.

(6.15) *Kain bagawi gi umo engke jam onom hampe jam sawalas tiap onro.*
kain bV-gawi gi umo engke jam onom hampe jam sawalas tiap onro
1PL.EXCL INTR.DYN-work LOC field from hour six until hour eleven every day

'We work on the field from six until eleven o'clock every day.'

Finally, *teke* and *engke* are used to mark a comparative clause. To illustrate, an example of a simple comparative clause is shown in (6.16). The comparative clause, which takes the shape of a prepositional phrase introduced by *engke*, follows the predicate which expresses the quality, in this case *wansin* 'fast', against which two entities are being compared.

(6.16) *Eteng Roni lewi wansin engke eteng Amir.*
dog Roni more fast from dog Amir

'Roni's dog is faster than Amir's dog.'

Comparative structures are discussed in more detail in 7.9.1.

6.1.4 Relational locatives

Paku also has a number of prepositions indicating either the location of an entity relative to another one (formed using *gi*), movement towards this location (formed with *pah*), or movement away from it (formed by using either *teke* or *engke*). In addition to the basic locative prepositions *gi*, *pah*, or *teke/engke*, this kind of prepositional phrase also requires a position word indicating the relationship between the subject and the dependent noun phrase. Table 6.1 lists all relational locative prepositions from the data. For clarity the table includes only complex prepositions formed with *gi* and a constant dependent noun phrase *lowu* 'house'.

gi lape/hila lowu	next to the house
gi lape/hila kewi/kawanan lowu	to the left/right of the house
gi muka lowu	in front of the house
gi wakis lowu/gi waling	behind the house
gi pida lowu	underneath the house
gi bawo lowu	at the top of the house
gi obo lowu	on top of the house
gi huang lowu	inside of the house
gi luar lowu	outside of the house
gi suan lowu	in the centre of the house
gi antara/ekang lowu	between the houses

TABLE 6.1: Complex relational locative prepositions

There are four relational prepositions in the data which do not combine with *gi*, *pah*, or *teke/engke*. They are *ipai* 'opposite', *rupak* 'close', *orok* 'far', and *etah* 'through'. For completeness they are listed in 6.2.

ipai lowu	opposite the house
rupak lowu	close to the house
orok lowu	far from the house
etah lowu	through the house

TABLE 6.2: Simple relational locative prepositions

The structure and distributional features of prepositional phrases headed by any of the prepositions listed in Table 6.1 and Table 6.2 are identical to those locatives discussed in the preceding sections.

6.2 Instrumentals

The three prepositions *ali*, *anri*, and *pakai* can signal a variety of relations between the noun phrase and the main clause. All three of them roughly translate to 'with' and can be used to mark an instrument within the clause. The most common preposition to indicate that the noun phrase is an instrument is *pakai*, which seems to be derived from the verbal root of the same form meaning 'use'. An example of a construction using *pakai* as a preposition is shown in (6.17). Here the prepositional phrase *pakai longon* 'using her hand' immediately follows the predicate *kuman* 'eat'.

(6.17) *Ulun iro kuman pakai longon.*
person DEM.MED eat with hand

'That person eats with her hands.'

There are a few instances in the data in which *pakai* is used as a preposition to mark the following noun phrase as expressing a beneficiary, a function usually marked by *umak* and *pah* respectively (see 6.3.3 and 6.1.2). Examples from the data are shown in (6.18) and (6.19). In (6.18) the speaker is expressing the purpose of my visit in a prepositional phrase consisting of the preposition *pakai* and the loan word *penelitian* 'research'. In (6.19) the speaker explains that he buys clothes for his mother and again the prepositional phrase is headed by *pakai*. Taking into consideration that the form *pakai* also exists as a content word meaning 'use', it is also possible for (6.19) to be analysed as meaning something akin to 'to be used by mother'.

(6.18) *Iyo gi itu pakai penelitian.*
3SG LOC DEM.PROX for research

'She is here for research.'

(6.19) *Aku moli baju pakai ine'.*
aku N-woli baju pakai ine'
1SG AV-buy clothes for mother

'I buy clothes for mum.'

The main function associated with *ali* and *anri* is that of a coordinating conjunction (see 9.1.2). However, as mentioned above, they can also head a prepositional phrase indicating an instrument. An example of *anri* in this function was already shown in (5.18) which for clarity is repeated here as (6.20). In (6.21) *ali* functions to mark the noun phrase *kiwigasen elatne* 'strength of his wings' as an instrument.

(6.20) *Amir mungkong eteng anri tungke.*
Amir N-pungkong eteng anri tungke
Amir AV-hit dog with stick

'Amir hits the dog with a stick.'

(6.21) *...ali kiwigasen elatne, nyaput erai ku'ukui pea domba.*
ali kV-wigas-en elat-ne, N-saput erai kV-ukui pea domba
with NOMZ-strong-NOMZ wing-3SG.POSS AV-grab one kV-CLF2 child sheep

'...with the strength of his wings, grabbed a lamb.'

6.3 Other prepositions

In addition to the prepositions discussed thus far in this chapter, there are also those that are not grouped together as neatly according to their primary function as locatives and instruments. They express a variety of functions ranging from point in time (6.3.1) or a period of time (6.3.2), to marking a purpose (6.3.3), an oblique agent (6.3.4), or a topic (6.3.5).

6.3.1 *Hampe* 'until'

Hampe 'until' is used to designate an endpoint which can be both a location (6.22) or a point in time (6.23). The prepositional phrase *hampe Kalamus* 'until Kalamus' in (6.22) designates the physical endpoint of the activity of walking. In this function *hampe* is similar to the preposition *pah* which can also mark the destination of a verb of motion (see 6.1.2). However, there is a slight semantic difference between the two in that the emphasis on the location being the final destination is stronger with *hampe* than it is with *pah*. In that sense the prepositional phrase *hampe Kalamus* can also be translated as 'as far as Kalamus'.

(6.22) *Roni malan hampe Kalamus.*
Roni walk until Kalamus

'Roni walked until Kalamus.'

(6.23) *Amir bagawi gi fabrik hampe jam opat.*
Amir bV-gawi gi fabrik hampe jam opat
Amir INTR.DYN-work LOC factory until hour four

'Amir works at the factory until four o'clock.'

6.3.2 *Sukuhang* 'during'

The preposition *sukuhang* 'during, for' functions to indicate the following noun phrase as a period of time. An example of *sukuhang* can be seen in (6.24).

(6.24) *Haut urang duloi gi Tampa, sukuhang ruompuluh taun.*
already long.time live LOC Tampa, for twenty year

'I've lived in Tampa for a long time, for twenty years.'

In addition to function as a preposition, *sukuhang* can also be used as a coordinating conjunction in which case it is followed by an entire clause (see 9.1).

6.3.3 *Umak* and *pakai* 'for'

The prepositions *umak* and *pakai* mark the following noun phrase as expressing a beneficiary which is demonstrated in both the noun phrase shown in (6.25), in which the prepositional phrase *pakai ulun muntuo* 'for old people' specifies the intended recipient of the head noun *obat* 'medicine', and the clause in (6.26), in which *umak uma'ne* 'for her father' marks the beneficiary of the coffee-making. As was discussed in 6.2, in this function *umak* is more prevalent in the data.

(6.25) *obat pakai ulun muntuo*
medicine for people old

'medicine for old people'

(6.26) *Roni ngulah kupi umak uma'ne.*
Roni N-ulah kupi umak uma'-ne
Roni AV-make coffee for father-3SG.POSS

'Roni makes coffee for her father.'

Moreover, both *umak* and *pakai* can function as subordinating conjunctions introducing a purpose clause (see 9.2.1.2).

6.3.4 *Ulah* and *daya* 'by'

The prepositions *ulah* and *daya* can be used interchangeably to indicate an oblique actor in a passive construction. The use of this kind of prepositional phrase is always optional and it can only occur in a position following the predicate in the clause, which as one criterion for passivehood needs to be marked by *na-* (see 5.2.3.1). In clauses in which the predicate is marked by *na-* and in which an actor is expressed as a nominal argument rather than in a *ulah/daya* prepositional phrase, the clause is considered transitive and in undergoer voice (see 5.2.1.2).

The clauses in (6.27) and (6.28) show two examples of passive structures featuring prepositional clauses introduced by *ulah* and *daya*. In (6.27) the prepositional phrase *ulah ine'* 'by mother' follows the verb *na'ari* 'sold' whereas in (6.28) *daya adi'ku* 'by my little sister' follows the verb *na'okan* 'eaten'. In both cases the verb is marked as passive by *na-* and the actor of the clause is expressed in the prepositional phrase.

(6.27) *Lowu' kain na'ari ulah ine'.*
lowu' kain na-ari ulah ine'
house 1PL.EXCL.POSS PASS-sell by mother

'Our house was sold by mum.'

(6.28) *Wadai iro naokan daya adi'ku.*
wadai iro na-okan daya adi'-ku
cake DEF PASS-eat by younger.sibling-1SG.POSS

The cake was eaten by my little sister.'

Both forms can function as subordinating conjunctions marking a reason clause (see 9.2.1.3). Moreover, *ulah* is also found as a content word in Paku meaning 'make'.

Examples (6.27) and (6.28) only serve to illustrate the structure of prepositional phrases headed by *ulah* and *daya*. The function of passive constructions is discussed in 5.2.3.1.

6.3.5 *Wangon* and *ali* 'about'

In order to express the notion of 'about', the preposition *wangon* is used. An example of *wangon* was already presented in (4.51) and another one can be seen in (6.29) in which the prepositional phrase *wangon adat Dayak* 'about Dayak culture' functions to modify the head noun *buku* 'book'. In the data prepositional phrases headed by *wangon* only occur as modifiers within a noun phrase.

(6.29) *Gi bawo meja naan buku wangon adat Dayak.*
LOC above table EXIST book about culture Dayak

'On the table there is a book about Dayak culture.'

Wangon also exists as a noun and means 'situation' or 'manner'.

There are constructions in the data in which the speaker uses *ali*, which typically functions as a coordinating conjunction meaning 'and' (see 9.1.2), to mean 'about'. One such instance is presented in (6.30). Here it occurs in the context of a polar question in which the prepositional phrase headed by *ali* functions as an adjunct.

(6.30)

Non	*iko'*	*kutue'*	*ali*	*wolum*	*pangumo?*
Non	iko'	kV-tue'	ali	wolum	pVN-umo
Q	2SG	NVOL-know	about	life	NOMZ-field

'Do you know about the life of a farmer?'

Chapter 7

Clause types

This chapter introduces the major clause types in Paku. Examples of the different clause types already occurred in previous chapters, but their syntactic properties were not yet systematically examined.

In order to facilitate the discussion in this and other chapters on syntactic phenomena, the first section of this chapter provides an introduction to grammatical relations in Paku (7.1) and outlines the terminology used. It also includes a discussion of the at times problematic notion of subjecthood. Once these concepts are established, 7.2 discusses basic word order and tests universal implications that typically come with such an assessment. Notions of definiteness and specificity, which in Paku carry particular importance with regard to argument selection, are covered in 7.3. The first clause types to be discussed in detail are those with a non-verbal predicate (7.4), followed by existential clauses (7.5) and the different types of verbal clauses (7.6). After that, imperative (7.7) and hortative (7.8) clauses are introduced, both of which display a different internal structure from non-verbal as well as verbal clauses. Following that is a discussion of comparative and superlative clauses in 7.9, and finally relative clauses are discussed in 7.10.

7.1 Grammatical relations

Before describing the different features and characteristics of clauses in Paku, it is important to first define some basic concepts underlying the organisation of the clause which will be applied throughout this thesis. This is particularly relevant when describing word order (7.2) where the parameters typically used are S, V, and O. S refers to subject, V stands for verb or verb phrase, and O is the object. As LaPolla and Poa (2006) point out, these concepts are based on the assumption of comparability and that all languages have those categories, i.e. that they are universal. However, this assumption is problematic and various attempts were made to develop a system that better accounts for the diversity and complexity found in syntactic structures (e.g. Dixon 2009; Van Valin and LaPolla 1997; Van Valin 2005).

Grammatical relations in Austronesian languages, especially in those with a symmetrical voice system, have been the topic of much debate in the literature (e.g. Kaufman 2009b; Kroeger 1993a; Riesberg 2014; Musgrave 2008b; Himmelmann 2005a). The discussion typically revolves around the question of whether or not there is an identifiable category of 'subject', a term used to refer to a nominal argument that meets a certain set of predefined criteria. These include, among others, noun phrase coding (subjects are usually morphologically unmarked), semantic roles (e.g. the subject is usually an actor), and behavioural properties (e.g. the subject can be relativised and

triggers verb agreement). The approach of viewing subjects as a list of discrete properties has frequently been viewed as vague and problematic (e.g. Schachter 1977; Kroeger 1993b,a; LaPolla 1993, 2002; Dixon 2009) because it does not necessarily reflect the morphosyntactic reality in a given language.

Starting with Keenan (1976) and Schachter (1976) scholars have pointed out that the properties used to define subjects in different languages are not universally valid. Instead the notion of 'subject' needs to be viewed as a "cluster concept" or "multifactor concept" (Keenan 1976:312). As Schachter (1976:513) points out for Philippine languages, functions typically associated with subjects in most languages are split between the topic and the actor (i.e. both core arguments in a transitive clause). Subsequent research in other symmetrical voice languages confirmed that diagnostic criteria used to identify a subject cannot without difficulty be mapped onto a single argument in the clause (e.g. Van Valin and LaPolla 1997; Himmelmann 2005a; Riesberg 2014; Donohue 1999).

Keenan (1976) put forward around thirty criteria that can be used for identifying the subject relation. The criteria typically deemed to be relevant in the discussion of grammatical relations in Western Austronesian are presented in Table 7.1, which is replicated from Himmelmann (2005a:152). Following Schachter (1976) and Foley and Van Valin (1984), he divides the properties into reference-related and role-related properties. This reflects Schachter's 1976 finding that some subject properties apply to pragmatic topics (reference-related) and others to thematic actors (role-related).

Reference-related properties	**Role-related properties**
Coordinate conjunction reduction	Control of reflexives
Raising	Controllee in control constructions
Relativisation	Addressee of imperatives
Agreement	
Quantifier floating	

TABLE 7.1: Subject diagnostic commonly used for Western Austronesian languages (Himmelmann 2005a:152)

The desire to avoid any underlying assumptions about a constituent's broader syntactic properties has caused some authors to abandon traditional terminology altogether and develop new terms to refer to grammatical relations. Two frequently used terms in more recent literature are (syntactic) 'pivot' or 'privileged syntactic argument' (PSA). The term 'pivot' was initially used to describe the controllee in control constructions (Himmelmann 2005a:156) (a function in which it is still used in RRG) but is now generally used to describe an argument that compared to other arguments in the clause is in some sense privileged with regard to a specified set of morphosyntactic properties (Dixon 1979, 1994). In contrast the PSA, a relation which originated in RRG (e.g. Van Valin 1993; Van Valin and LaPolla 1997), is not only language- but also construction-specific. What this means is that instead of having a predefined set of criteria which a constituent needs to meet in order to qualify as 'subject', each grammatical construction in a given language is analysed individually, and the argument in that construction that meets prominence criteria is the PSA of that construction in this language. As such it is not a mere replacement of the term 'subject' but a property of grammar as a whole.

In Paku the biggest issue with regard to the definition of subjecthood is that due to the nature of the corpus many of the syntactic properties presented as diagnostics in Table 7.1 cannot be reliably tested. This is particularly true for more complex grammatical structures as for example there are no instances of argument raising in the data. Moreover, deletion of arguments in biclausal constructions is always discourse-based, i.e. a result of arguments being recoverable from context. Therefore this optional type of deletion is distinct from the kinds of equi-deletion usually used as diagnostics for subjecthood which create similar structures but are obligatory in the grammar of these languages (see also 9.2.2). Another property which is hard to evaluate in Paku is reflexive binding. As was discussed in 5.1.5 there are multiple ways in which reflexives are formed and the structures show little internal cohesion in that some are periphrastic and do not change the valency of the verb whereas other strategies employ morphological marking and function as a valency-decreasing operation. Moreover, all reflexive constructions in the data feature a single third person subject so that it cannot be tested which argument functions as the binder in a multi-argument construction. Agreement and quantifier floating do not apply in Paku.

For this reason and in the absence of relevant evidence to the contrary, the traditional terminology is considered appropriate in this analysis and the syntactically most prominent grammatical relation will be referred to as the subject. Despite the difficulties in testing some of the typical characteristics of subjects, there are a number of properties that can be defined for the subject in Paku.

In Paku the most reliable prominence criterion is distribution, i.e. an argument's position within the clause relative to the verb. In a pragmatically neutral clause the unmarked pre-verbal argument is the syntactically most prominent one. Paku has two transitive voices: actor voice and undergoer voice. As has been established for Tagalog (e.g. Kroeger 1993a; Riesberg 2014; Himmelmann 2005b), Indonesian (e.g. Arka 2008; Riesberg 2014; Musgrave 2008a), and other Austronesian languages (e.g. Davies 2010; Foley 2008, and various contributions in Adelaar and Himmelmann (2005)), voice operations are not demoting an argument but are equally transitive. This was discussed in detail in 5.2.1 and several examples of the two voices in Paku were shown throughout this thesis. The clauses in (7.1) and (7.2) show two additional examples. The structure in (7.1) illustrates a transitive clause in actor voice in which the actor, *Amir*, is the subject occurring in pre-verbal position. In (7.2) the verb is marked for undergoer voice in which case the undergoer, *Jayum*, is selected as subject and occurs before the verb. The fact that both clauses are equal in transitivity (as defined by Hopper and Thompson (1980)) and neither can be viewed as the default is reflected in the identical translation.

(7.1) *Amir mungkong Jayum.*
Amir N-pungkong Jayum
Amir AV-hit Jayum

'Amir hits Jayum.'

(7.2) *Jayum napungkong Amir.*
Jayum na-pungkong Amir
Jayum UV-hit Amir

'Amir hits Jayum.'

Under the co-referentiality principle, which is introduced in chapter 9, in complex sentences the subject of one of the clauses can be omitted if it has the same referent as the subject of the other clause. This applies to both coordinated sentences and sentences in which one clause is embedded in the other. Only the subject noun phrase can be deleted in this environment. Several examples of this deletion process, which sometimes results in serial verb constructions, are shown in chapter 9. An illustrative example is shown in (7.3) in which *iko'* '2SG', which functions as the subject in both clauses, is only overtly expressed in the first one.

(7.3) *Amun iko' ku'uyuhan, tau onsan gi itu.*
amun iko' kV-uyuh-an tau onsan gi itu
if 2SG ADVS-exhausted-ADVS can stay LOC PROX

'If you're exhausted, you can stay here.'

As discussed in 7.10 relative clauses can modify both subject and object noun phrases. However, if the subject of the relative clause is co-referential with its head, it is omitted and the relative clause begins with a gap. Although it is possible to relativise possessors, only the relativisation of subjects results in a gap within the relative clause so that it is possible to say that whenever an argument is omitted in the relative clause, its head is the subject. Example (7.4) demonstrates the typical structure of a relative clause in which the omitted argument corresponds to the head. The relative clause *iyo na'ulah menaku* 'which my aunt made' has no overtly expressed subject which means that it is co-referential with the head *wadai* 'cake' which in this instance also happens to be the subject of the main clause.

(7.4) *Wadai iyo na'ulah menaku morouh.*
wadai iyo na-ulah mena-ku mV-rouh
cake REL UV-make aunt-1SG.POSS INTR.STA-delicious

'The cake which my aunt made is delicious.'

The subject is the addressee in imperative constructions. In Paku it can understood from context and is therefore often omitted. However, it is also possible for the subject to be overtly mentioned in the form of a second person pronoun. Imperatives are discussed in more detail in 7.7. An example of an imperative clause in which the subject is omitted is shown in (7.5), which only consists of the predicate *kuman* 'eat'.

(7.5) *Kuman!*
Eat

'Eat!'

The other major grammatical relation is that of 'object' which has also not been completely uncontroversial (Musgrave 2008b,a). However, alternatives offered by other theoretical approaches are often not fully satisfactory. Furthermore, the approaches that are offered often make certain analyses, like for instance the analysis of ditransitive constructions, unnecessarily complicated. In Paku the object relation is unproblematic and can be defined as the unmarked noun phrase that

follows the predicate in a transitive clause. In actor voice, the object is an undergoer whereas in undergoer voice it is an actor. To illustrate objecthood in a standard transitive clause one can look back at (7.1) and (7.2). In the actor voice construction in (7.1) the argument *Jayum* is the object as it occurs after the verb *mungkong* 'hit'. In (7.2), in which the verb *napungkong* 'hit' is marked for undergoer voice, it is the actor *Amir* which is in object- and therefore post-verbal position.

7.2 Basic word order

In the previous section brief reference was made to word order, or more accurately the order of constituents within a clause, and it was pointed out that the description of word order in languages often utilises the parameters S, V, and O. S is used for subject, V stands for the predicate which is often, but not necessarily, a verb phrase (see 7.4). O refers to the direct object of a transitive construction. Verbs of transfer semantically require an additional argument which grammatically functions as an oblique which will be abbreviated Obl.

Determining basic word order in symmetrical voice languages can be a difficult undertaking because it is hard to tell if the basic or seemingly default order reflects syntactic or pragmatic preference (Himmelmann 2005a:141). In Paku the pragmatically unmarked default word order is SVO. With this word order Paku fits in well with the majority of Western Austronesian languages (Davies 2010; Donohue 2007:149). Canonical word order for a transitive clause in actor voice in Paku is illustrated in (7.6) where the S *ine'* 'mother' occurs before the verb (V) *ngari* 'to sell' which in then immediately followed by the O noun phrase *dimo ku'ukui kenah* 'five pieces of fish'. The prepositional phrase *gi pasar* 'at the market' following the O as well as the clause-initial temporal adverbial phrase *pita inre* 'earlier this morning' are optional constituents in this context.

(7.6)

Pita	*inre*	*ine'*	*ngari*	*dimo*	*ku'ukui*	*kenah*	*gi*	*pasar.*
pita	inre	ine'	N-ari	dimo	kV-ukui	kenah	gi	pasar
morning	earlier	mother	AV-sell	five	kV-CLF2	fish	LOC	market

'Earlier this morning mum sold five pieces of fish at the market.'

The claim that Paku's default word order is SVO does not mean that word order is fixed. For instance, in pronominal undergoer voice constructions (see 5.2.1.2 and 7.1) the structure of the clause deviates from the default. Instead of following SVO word order, the clause can start with the (unmodified) predicate which is followed by the subject in cliticised form. Due to the lack of morphological marking for grammatical roles, the subject has to occur before the object in multi-argument constructions, regardless of whether the subject is bound or free. An example of a clause with VSO word order is shown in (7.7).

(7.7)

Tantauku	*iko'*	*gi*	*sekolah*	*gi*	*raha.*
tantau-ku	iko'	gi	sekolah	gi	raha
see-1SG	2SG	LOC	school	LOC	DEM.DIST

'I see you at the school over there.'

Based on the default word order in a language predictions can be made about other structural features within that language. These correlations are based on statistical universals, i.e. observed cross-linguistic tendencies.[1] The first to suggest such universals was Greenberg (1963) over half a century ago. Using a corpus of thirty languages he posited a number of correlations between a language's preferred word order and the way it encodes grammatical information as well as the order of other elements within the clause. His work was subsequently elaborated on by other researchers (e.g. Hawkins 1983; Seiler 1983; Dryer 1992, 2007c). One of the most prominent publications to be based on Greenbergian word order universals is Nichols' (1986) observation that languages belong to one of two types: head-marking or dependent-marking languages. Paku is a dependent-marking language and fits several of the implicational universals observed for this language type. For example, it uses prepositions as opposed to postpositions, and mostly utilises prefixes to express grammatical information.

Also consistent with word order correlations suggested in Greenberg's and Nichols' works is the fact that Paku is mostly head-initial as for instance adjectives always follow the noun they modify and manner adverbs invariably follow the head adjective. These features were already discussed and illustrated in previous chapters. The structures in (7.8) and (7.9) show two more examples of these structures. In (7.8) the noun phrase *wurung* 'bird' is followed by its modifier *mea* 'red'. In (7.9) the verb *malan* 'walk' is followed by the manner adverbial phrase *anri wansin* 'quickly'.

(7.8) *wurung mea*
bird red

'red bird'

(7.9) *Itak malan anri wansin.*
grandmother walk with fast

'Grandma walks quickly.'

Based on this morphosyntactic behaviour another expectation is that in a comparative clause the order of elements is adjective-marker-standard of comparison. An instance of such a construction is provided in (7.10) which shows a comparison between three entities. *Moko* is the entity that is being compared (in terms of their cleverness in this instance) whereas *Didit* and *Anggun* serve as the standard of comparison.

(7.10) *Moko kurang pintar engke Didit ali Anggun.*
Moko less clever from Didit and Anggun

'Moko is less clever than Didit and Anggun.'

Paku auxiliaries precede the verb in the verb phrase. The data includes different types of auxiliaries such as modals and a variety of adverbials including temporal, epistemic, and frequency

1. For a discussion on the value of statistical universals vis-a-vis absolute universals, especially in the context of word order, see Dryer (1998).

markers among others (see 3.2.3 for examples of each of these). Example (7.11) shows the auxiliary *tau* 'can' occurring before the main verb *perei* 'rest' with the prepositional phrase *gi hawe-hawe* 'wherever' following the verb phrase.

(7.11) *Aku tau perei gi hawe-hawe.*
1SG can rest LOC RED-which/where

'I can rest anywhere.'

Based on word order implications it is to be expected that if a language has a plural word, it occurs before the noun it modifies. In Paku this implication holds as the plural word *kawan* always precedes the noun (see 4.3). An example, taken from a dialogue, is shown in (7.12), which is repeated from (3.15). Here, the speaker is marking the noun phrase *wawe* 'woman' as plural by adding *kawan*.

(7.12) *Kawan wawe nari rupak sunge.*
kawan wawe N-tari rupak sunge
some woman AV-dance near river

'Some women are dancing near the river.'

Furthermore, it is to be expected that articles also occur before the noun. However, in this instance it is necessary to make a distinction between the indefinite and definite articles. While the former does indeed precede the noun, the latter follows the whole noun phrase as an enclitic. The form of articles was discussed in 3.2.4 whereas their function are covered in 4.1.9 and 7.3. For illustrative purposes, two more examples featuring articles are shown in (7.13) and (7.14). Example (7.13) shows the head noun *lowu* 'door' which is made definite by the suffixed definite article *-ne*. The structure in (7.14) is an example of a noun phrase preceded by the indefinite article.

(7.13) *Lowune runtuh.*
lowu-ne runtuh
house-ART.DEF collapse

'The house collapsed.'

(7.14) *Etengku ngarawo erang ku'ukui parang.*
eteng-ku N-karawo erang kV-ukui parang
dog-1SG.POSS AV-growl ONE kV-CLF2 deer

'My dog growled at a deer.'

Another implication that is true is that relative clauses and possessors follow the noun they modify to form an extended noun phrase (see 4.1.7 and 4.1.11 respectively). Clauses (7.15) and (7.16) show two more examples of relative clause modification and possession. In (7.15) the subject

head noun *kakao gatah* 'rubber tree' is modified by the relative clause *totokku anrape* 'I cut yesterday' which in this case is not introduced by the relativiser *iyo* but simply follows the head. Example (7.16) contains multiple possessive structures. *Menaku* 'my aunt' and *ine'ku* 'my mother' both include the possessive pronoun *-ku* '1SG.POSS'. The noun phrase *adi' ine'ku* 'my mother's little sister' is also a possessive construction which is formed by juxtaposition of the possessee *adi'* 'younger sibling' and nominal possessor *ine'ku* 'my mother'.

(7.15) *Kakao gatah totokku anrape tumu'.*
kakao gatah totok-ku anrape tumu'
tree rubber cut-1SG yesterday grow

'The rubber tree I cut yesterday is growing.'

(7.16) *Jaman iro menaku, adi' ine'ku, nohong ulun*
jaman iro mena-ku adi' ine'-ku nV-hong ulun
time DEM.MED aunt-1SG.POSS younger.sibling mother-1SG.POSS TR-husband CLF1
Jepang.
Jepang
Japan

'At that time my aunt, my mother's little sister, got married to a Japanese.'

Question words (7.17), complementisers (7.18), and adverbial subordinators (7.19) precede the subject. The formation of questions as well as complement clauses and other complex sentences are explored in more depth in chapters 8 and 9 respectively so that examples (7.17)-(7.19) again only serve to illustrate the general structure of such constructions. With regard to questions, note that placing the question word before the subject is only one way of forming a question in Paku and that other constructions are possible.

(7.17) *Non iro?*
what DEM.MED

'What is that?'

(7.18) *Adi'ku wada bahawa iyo morongin.*
adi'-ku wada bahawa iyo mV-rongin
younger.sibling-1SG.POSS say COMP 3SG INTR.STA-fever

'My little brother says that he has a fever.'

(7.19) *Semete kuman, kia monrus.*
before eat again bathe

'Before eating, you need to take a bath again.'

Finally, prepositional phrases in Paku mostly follow the verb. An example is shown in (7.20). Here the negated verb phrase *koi hokun* 'don't want to' is followed by the complement prepositional phrase *pah pasar* 'to the market'.

(7.20) *Aku koi hokun pah pasar.*
1SG NEG want DIR market

'I don't want to go to the market.'

7.3 Specificity requirement

One syntactic feature of Paku that has been referenced a number of times throughout this thesis is that in order to be able to be selected as subject of a clause the noun phrase must be specific, i.e. have a clearly identifiable referent in discourse (a notable exception to this rule are existential clauses, see 7.5). As Davies (2010:177) explains, this requirement is at least partially responsible for sparking the debate over whether using syntactic notions such as 'subject' or 'PSA' should be used for the description of languages like Paku and Madurese or whether pragmatic terminology like 'topic' is more appropriate. However, given that this potential interface of syntax and information structure is not directly relevant in this chapter, it will not be discussed further. Despite so far not having been mentioned explicitly for each of them, the specificity requirement can be observed in many examples used throughout this thesis. Whenever the subject of an activity is not specific the construction is rejected as can be seen in (7.21) which features an indefinite headless subject. Compare this to the structure in (7.22) in which the pronoun *iyo* 3SG makes anaphoric reference to an already established, and therefore specific, referent. This shows that the subject does not necessarily have to be grammatically marked and instead it is sufficient that the referent is identifiable from context, including previous discourse.

(7.21) **Erang ku'ulun ngabarasis kamar itu.*
erang ku-ulun N-barasis kamar itu
ONE kV-CLF1 AV-clean room DEM.PROX

'Someone cleaned this room.'

(7.22) *Iyo ngabarasis kamar itu.*
iyo N-barasis kamar itu
3SG AV-clean room DEM.PROX

'She cleaned this room.'

Some elements are inherently specific so that they can always be selected as subject without any morphological modification. Examples of this kind are pronouns and proper nouns. Pronouns are deictic expressions and refer to a previously mentioned entity that has been established in discourse. The same is true for address terms. Proper nouns, including teknonyms, refer to one specific place or person so that they are also clearly identifiable and can act as subject of the clause

without further modification. Despite already being specific, personal names and teknonyms can be preceded by the personal article *hi* which was introduced in 4.1.9. The structure in (7.23) shows an example of the personal article in which *hi* precedes the personal name *Daniela*. Example (7.23) also illustrates how in some instances, multiple ways of marking the referent as specific are used in the same phrase. Not only is the referent a personal name and therefore already eligible for subjecthood, it is also marked by the definite marker *-ro* and preceded by the personal article *hi*.

(7.23) *Hi* *Danielaro* *obo.*
hi Daniela-ro obo
ART.PERS Daniela-DEF tall

'Daniela is tall.'

Specificity is not a grammatical category. Instead there are several ways in which common nouns can be morphologically marked as specific. Some of these strategies were already discussed on a structural level in chapter 4. One way in which specificity is expressed grammatically is overt definiteness marking on the noun phrase. The most common way to do this is by using the definite article *-ne*. An example was shown in (7.13). The construction in (7.24), which shows the same clause without definite marking on the noun phrase, is judged ungrammatical.

(7.24) **Manamang* *tubuka.*
manamang tV-buka
door UV.NVOL-open

'Door is open.'

Another way of marking a noun phrase as definite is by using demonstratives which, like *-ne*, follow the head noun. Demonstratives are deictics and in the data can only be used anaphorically, i.e. they need to refer to a referent that has previously been established in discourse. Demonstratives in their function as modifiers within the noun phrase were already discussed in 4.1.10. An illustrative example featuring the proximal demonstrative *itu* is shown in (7.25).

(7.25) *Paket* *itu* *nakirim* *engke* *Jakarta.*
paket itu na-kirim engke Jakarta
package DEM.PROX PASS-send from Jakarta

'This package was sent from Jakarta.'

The demonstrative *iro* has undergone a functional shift and can now also be used to solely mark definiteness without adding any spatial information to the noun phrase. In that sense it can no longer be considered a deictic element and therefore the referent does not need to already be established. If used to mark definiteness of a noun phrase, *iro* is less limited in its distribution compared to the demonstrative and can attach to any noun phrase, including proper nouns (see (7.23)). Due to the limited amount of natural data, it is difficult to reliably analyse demonstratives for their full functional range. Some evidence for potential additional functions, both both grammatical and discourse-based, was presented in 4.1.10.

Possessive pronouns can also function to mark the noun phrase as definite as they are used to identify the noun phrase in relation to another entity. A typical example of a possessive construction was presented in (7.16). Another example can be seen in (7.26) which demonstrates two strategies of possessive marking on the subject. First the head noun *uma'* 'father' is followed by the nominal possessor *iyang* 'friend'. The possessive marker *-ku* attaches to the complex noun phrase. Possessive clitics share the same slot in the noun phrase as the definite article and demonstratives (see Table 4.1) so the argument can be made that this slot is reserved for definiteness marking. For a discussion of possessive marking using pronouns see 4.1.2.1.2.

(7.26)

Uma'	*iyangku*	*moli*	*wawenne*	*mobil*	*wayo.*
uma'	iyang-ku	N-woli	wawen-ne	mobil	wayo
father	friend-1SG.POSS	AV-buy	wife-3SG.POSS	car	new

'My friend's father bought his wife a new car.'

The same argument is true for noun phrases that are modified by relative clauses. They function to specify the referent in contexts in which there might otherwise be ambiguity (see 4.1.7) and therefore by extension modify the head noun in the way that it can be selected as subject without any additional modification. An example was shown in (7.15) in which the subject *kakao gatah* 'rubber tree' is only modified by the relative clause *totokku anrape* 'I cut yesterday'.

Finally, the plural word *kawan* has the added notion of marking a group as having inner cohesion or as a collection. As such it contrasts with reduplicated nominals which also indicate plurality but refer to the entity in general. Due to the fact that *kawan* refers to a smaller and identifiable group, it has the effect of marking the referent as specific which makes a noun phrase featuring *kawan* eligible for subject selection.

As can be seen in examples throughout this thesis, there are some instances in which subjects are not marked as definite and also otherwise do not fit any of the specificity requirements outlined in this section. There are a number of reasons why this might be the case. For instance, it is often the case that a speaker was pointing or otherwise gesturing for a specific item so that in context the subject has an identifiable referent. Moreover, existential constructions, which are discussed in 7.5, can function to introduce a new referent into the discourse which the speaker can subsequently refer back to by means of deictic elements. Thus, the subject in such existential construction does not need to be definite. Finally, there might only be one possible referent in the given situation. For instance the subject in (7.29) and (7.30) *surat kabar* 'newspaper' is seemingly unspecific. However, in the village there is only ever one possible referent for *surat kabar* 'newspaper' because there is only one local newspaper in the area.

7.4 Non-verbal clauses

According to Dryer (2007a:224) there are three types of clauses that do not feature a verbal predicate, all three of which occur in Paku. The first type are clauses with an adjectival predicate, the second one are nominal predicates and the third one are locative predicates. Paku does not have a copula so that a structural feature all non-verbal clauses have in common is that the predicate directly follows the subject.

7.4.1 Adjectival predicates

Due to the lack of a copula a clause with an adjectival predicate typically follows the structure NP AdjP. With regard to adjectival predicates it is important to recall that there are two types of what might be translated as an adjective into English. The first type take verbal inflection and are therefore by definition not a non-verbal predicate but a type of intransitive clause (7.6.1). The second type are genuine adjectives which do fall within the category of non-verbal predicates and occur without any morphology. Example (7.27) shows a simple clause with an adjectival predicate in which the subject *kusingne* 'the cat' is immediately followed by the predicate *wuyung* 'black'.

(7.27) *Kusingne* *wuyung.*
kusing-ne wuyung
cat-ART.DEF black

'The cat is black.'

For a discussion of verbal versus genuine adjectives in Paku see 3.1.2.1.

7.4.2 Nominal predicates

Dryer (2007a:233) explains that there are two types of nominal predicates that need to be distinguished; those that are referential and those that are non-referential. The former point to a specific entity whereas the latter do not and are generally used to denote a more generic kind of the noun. He points out that in the literature both types are often referred to as 'equational' clauses, but that the term should only be applied to referential nominal predicates since a requirement of true equational clauses is that the subject and predicate are fully reversible. Given that in Paku the subject needs to be specific (which is often achieved through definite marking), there are hardly any genuine equational clauses in the language and therefore clauses with a nominal predicate will be referred to as identificational clauses. Identificational clauses in Paku typically follow an NP NP structure. An example is shown in (7.28). Here, the nominal predicate *guru* 'teacher' follows the subject *kuruone* 'the two of them'.

(7.28) *Kuruone* *guru.*
kV-ruo-ne guru
kV-two-ART.DEF teacher

'The two of them are teachers.'

Unlike noun phrases in subject position, which have to be specific in order to occur in this function, there are no limitations in the data regarding noun phrases in predicate position. For instance, they can be simple noun phrases, consisting of only one element, or complex, abstract or concrete, specific or non-specific.

7.4.3 Locative predicates

As the name suggests, locative predicates denote the location of the subject through the use of a prepositional phrase. The head of this prepositional phrase needs to be one of the locative prepositions discussed in 6.1. The structure of such constructions is NP PP which is illustrated in (7.29). The subject noun phrase *surat kabar* 'newspaper' is directly followed by the predicate prepositional phrase *gi bawo meja* 'on the table'.

(7.29) *Surat kabar gi bawo meja.*
letter news LOC above table

'The newspaper is on the table.'

It is furthermore possible to insert the existential marker *naan* between subject and prepositional phrase. Example (7.30) shows that the utterance in (7.29) retains its grammaticality if *naan* 'EXIST' is inserted. However, in such constructions the locative prepositional phrase is no longer the predicate (the existential marker *naan* is) so they are strictly speaking not within the scope of this discussion. Existential clauses are illustrated in 7.5.

(7.30) *Surat kabar naan gi bawo meja.*
letter news EXIST LOC above table

'The newspaper is on the table.'

The structures in (7.29) and (7.30) are furthermore examples of noun phrases occurring in subject position without being marked as definite. As was explained in 7.3, this is due to the fact that in these particular situations the referent is understood to be specific because of its unique status in the community. As is shown in 7.5 constructions with *naan* can have an indefinite subject due to their function of introducing a new participant into the discourse.

Often verbs of motion can be omitted in which case the resulting clause also has a locative predicate. In (7.31) the verb *tulak* 'go' is omitted from the clause resulting in the prepositional phrase *pah umo* 'to the field' becoming the predicate.

(7.31) *Reo botolu pah umo.*
reo bV-three pah umo
3PL INTR.DYN-three DIR field

'The three of them go to the field.'

7.5 Existential clauses

Existential clauses assert the existence of an entity. In order to form such a construction, an existential marker needs to be used which syntactically functions as the predicate of the clause. In Paku there is a positive existential marker *naan* as well as a negative existential marker *uweng*

the latter of which invariably co-occurs with the negator *bakoi* or its abbreviated version *koi*. Both existential markers can have a number of slightly different functions all of which are discussed in more detail below. In a standard existential construction the order is *naan* followed by the noun phrase whose existence is being asserted. This structure is illustrated in (7.32) in which *naan* is immediately followed by the complex noun phrase *ruo upo* 'two men'. The clause-initial prepositional phrase *gi lowu itu* 'in this house' precedes *naan*.

(7.32) *Gi lowu itu naan ruo upo.*
LOC house DEM.PROX EXIST two male

'In this house there are two men.'

In addition to the *naan* plus noun phrase structure shown in (7.32), it is also possible for the noun phrase to occur first and for the locative prepositional phrase to follow *naan*. Thus (7.33) is an accepted alternative of the construction in (7.32). However, the subject *ruo upo* 'two men' is marked as definite by *iro*.

(7.33) *Ruo upo iro naan gi lowu itu.*
two male DEF EXIST LOC house DEM.PROX

'The two men are in the house.'

Using the example of Maanyan, Dryer (2007a:241) argues that in an environment such as the one in (7.33) existential markers like *naan* (*na'an* in Maanyan) function as locative copulas in that they connect the subject of the clause with a locative predicate. In this sense, existential clauses are structurally similar to clauses with locative predicates (see 7.4.3). It is equally plausible to describe such constructions as asserting the existence of an entity at a particular location. In this view, the function of *naan* as a locative copula function would be analysed as a sub-type of existential constructions. However, regardless of how one chooses to analyse the structure in (7.33), as Dryer (2007a:241) points out, languages that use the same word for existential and locative copula functions are not typologically uncommon.

Existential clauses often function to introduce a new participant into the discourse which the speaker can then refer back to by means discussed in (7.3). Comparing the data against observations in other languages, it can be seen that in this function it is not unusual to have an indefinite noun phrase as the subject, e.g. in English, existential constructions like 'There is a god' also require an indefinite theme. The distinction between using and not using *naan* is largely governed by identifiability which provides further evidence that it is in fact specificity rather grammatical definiteness that is a requirement for subject selection.

What sets the marker *naan* apart morphologically from the majority of other verbal roots is that it cannot occur with any affixation. Furthermore, *naan* has various functions rather than one set meaning so that it closer resembles a grammatical marker than a verb.

Existential clauses differ structurally from constructions with verbal or non-verbal predicates in that *naan* can occur in constructions with different argument structure. In some cases verbal predicates are also able to occur in different syntactic environments but they will usually require some form of morphological modification to do so. Moreover, constituent order in *naan*-constructions

is typically not as rigid as in verbal clauses in which constituent order plays an important role to facilitate the understanding of who is doing what to whom (cf. (7.32) and (7.33)). For instance, based on data from Maanyan (Dryer 2007a; Gudai 1985), it should be possible for *naan* to occur first in the clause without being understood as a question. If this is true, the clause structure deviates significantly from that of other clause types in the data. *Naan* also occurs in different clause types than non-verbal predicates. As discussed in 7.4, the latter follow the structures NP AdjP (7.4.1), NP NP (7.4.2), and NP PP 7.4.3. This linking of constituents without a formal linking element is a criterion for non-verbal predication and therefore existential clauses do not qualify as such. Considering the above evidence, it becomes clear that existential clauses need to be treated as distinct from verbal and non-verbal clauses.

Moreover, *naan* is frequently used to express that something is available. Example (7.34) shows *naan* being used in a context in which somebody explains that cigarettes can be bought at the (local) store. In such constructions, the entity that is described as available is typically generic and occurs in clause-initial position.

(7.34) *Udut naan gi toko.*
cigarette EXIST LOC store

'They have cigarettes at the store.'

As in (7.32) and (7.33), it is in principle possible to reverse the constituent order of (7.34) so that we get *gi toko naan udut* with the locative in clause-initial position. The difference between the two structures is again pragmatic, i.e. the example in (7.34) is a possible answer to the question "Where can I buy cigarettes" whereas *gi toko naan udut* tells the addressee what can be bought at the store (amongst other things, presumably). The structure in (7.35) shows another example clause in which the locative prepositional phrase is in clause-initial position followed by *naan* which is in turn followed by the noun *kupi* 'coffee' whose existence at the location is being asserted.

(7.35) *Gi panawae takam naan kupi.*
LOC front 1PL.INCL EXIST coffee

'In front of us there is coffee.'

Unlike constructions in which *naan* links the subject to a locative prepositional phrase (7.33), *naan* in other contexts, e.g. (7.32) and (7.35), is compulsory and its omission would yield an ungrammatical construction.

Naan can furthermore be used at the beginning of a clause to form a question (7.36). The example shows the theme *udut* 'cigarette' and *naan* in reversed order followed by the prepositional phrase *gi toko* 'at the store'.

(7.36) *Naan udut gi toko?*
EXIST cigarette LOC store

'Are there cigarettes at the store?'

As briefly mentioned above, in the data there are only examples of existential clauses in which *naan* occurs clause-medially (the only exception are questions). However based on comparative data from Maanyan, it should be possible for *naan* to occur word-finally (in structures of NP *naan*) as the single constituent as an answer to a question beginning with *naan* (e.g. (7.36)). As mentioned above, it is also likely that *naan* can occur clause-initially without the clause being understood as a question although this has not been confirmed in the data.

In contrast, if speakers want to deny the existence of an entity or express that something is not available, the negative existential marker *uweng* in combination with the negators *bakoi* or *koi* must be used. The distributional features of *koi uweng* are slightly different from those of its assertive counterpart *naan*. For example, *koi uweng* most commonly occurs clause-finally, following the entities whose existence the speaker denies. This structure is demonstrated in (7.37) in which the speaker lists a number of items whose existence she then denies by adding *koi uweng*.

(7.37) *Kawan kain, kawan inun koi uweng.*
PL cloth PL what NEG EXIST

'Clothes or anything else we did not have.'

As can be seen in (7.38), locatives and other adverbial information can follow *koi uweng* within the clause.

(7.38) *Ulunne koi uweng gi itu.*
ulun-ne koi uweng gi itu
person-ART.DEF NEG EXIST LOC DEM.PROX

'The person is not here.'

Bakoi uweng can also occur clause-initially. This is often the case when the speaker is stressing that something does not exist or is not available (at a particular location). Examples of such a construction are shown in (7.39) and (7.40) in which the full negative existential marker *bakoi uweng* is followed by a theme. In (7.39) the speaker is talking about an annual cleansing ritual held in the village and emphasising that only women can be shamans. In (7.40) the theme *ulun* 'person' is furthermore followed by a locative prepositional phrase *gi lowu* 'in the house'. Unlike structurally similar constructions with *naan*, (7.39) and (7.40) are not understood as questions but as statements.

(7.39) *Bakoi uweng si belian bawo.*
NEG EXIST ART.PERS shaman male

'There are no male shamans.'

(7.40) *Bakoi uweng ulun gi lowu.*
NEG EXIST person LOC house

'There is no one in the house.'

There are also constructions in the data in which both *koi uweng* and *naan* are used to indicate possession which is demonstrated in (7.41) and (7.42). In both cases *koi uweng* and *naan* function as simple verbal predicates occurring between subject and object noun phrase.

(7.41) *Kain koi uweng wiyah.*
1PL.EXCL NEG EXIST uncooked.rice

'We have no rice.'

(7.42) *Non uma' naan waktu?*
Q father EXIST time

'Do you have time?'

7.6 Verbal clauses

Generally speaking, verbal clauses are those clauses that feature a verb as the predicate. Depending on the type of verb, these predicates have different syntactic properties. They form the majority of structures in the data. As was pointed out several times throughout this thesis, predicates expressing adjectival concepts are divided into two classes: those that take *mV-* and those that surface in their root form. The former are more similar in structure to stative intransitive verbs and are therefore discussed with other intransitive structures in 7.6.1. The latter form their own word class in Paku and are thus treated together with other non-verbal predicates in 7.4. This section mostly focuses on syntactic aspects of verbal clauses as verbal morphology was discussed in detail in chapter 5.

There are a few morphosyntactic features verbal clauses have in common regardless of the number of core arguments required (their transitivity). One such feature is that in theory all of them can be marked for volition. Volition refers to the notion of whether an action is performed on purpose with an actor in full control or if it occurred accidentally (see 5.2.2 for full discussion). In the case of the former the predicate is marked with either *bV-* or *mV-* for intransitive clauses, or *N-* or *na-* for transitive clauses. In cases of non-volitional action, both intransitive and transitive predicates are marked with *kV-* and some with *tV-*. Word order remains unchanged. Verbs of transfer invariably occur in actor voice with a volitional actor. All three types of verbal clauses can optionally be extended with an adjunct prepositional phrase which will be illustrated in the discussion of the respective clause type.

7.6.1 Intransitive clauses

Intransitive clauses only feature one core argument and they typically occur in the order SV, i.e. the subject occurs first with the predicate following the subject. In Paku there are two forms an intransitive clause can take. It can either feature a free morpheme as argument in which case it invariably occurs before the verb. This is by far the most common type of intransitive clause in the data. (7.43) shows such a construction in Paku. It features the verbal root *lempat* 'run' marked by the stative intransitive marker *mV-*.

(7.43) *Tataku* *malempat.*
tata-ku ma-lempat
older.sibling-1SG.POSS INTR.STA-run

'My older sister is running.'

This kind of structure also occurs with predicates that are morphologically marked as stative intransitives and carry adjectival function. This function is illustrated in (7.44) in which the subject *kupine* 'the coffee' is followed by an adjectival predicate *malayong* 'hot'.

(7.44) *Kupine* *malayong.*
kupi-ne ma-layong
coffee-ART.DEF INTR.STA-hot

'The coffee is hot.'

As was discussed in 3.1.2, there are two types of intransitive verbs, stative and dynamic. Stative intransitive clauses mark the predicate as a state or a property. They take the prefix *mV-* and examples include (7.43) and (7.32). Dynamic intransitive verbs on the other hand are preceded by the prefix *bV-*. Example (7.45) shows the dynamic root *gawi* 'work' preceded by *bV-*. Other functions of *bV-* are discussed in 5.1.1.1.

(7.45) *Budi bagawi* *jari tukang mebel.*
Budi ba-gawi jari tukang mebel
Budi INTR.DYN-work as worker furniture

'Budi works as a joiner.'

There are furthermore a number of intransitive predicates which occur without any morphological marking. In (7.46) for example, the intransitive predicate *latu'* 'fall' occurs in its root form. It is followed by an adjunct prepositional phrase *engke sepeda motor* 'off the motorbike'.

(7.46) *Iyo latu' engke sepeda motor.*
3SG fall from motorbike

'She fell off the motorbike.'

This lack of overt morphology on basic intransitive verbs is not uncommon in the data and has been discussed in 5.1.1.1.

7.6.2 Transitive clauses

Transitive verbs require two core arguments, usually one actor and one undergoer. Due to the fact that Paku is a symmetrical voice language, there are two equally transitive clause types and they only differ in terms of which participant acts as the most prominent argument of the clause, i.e. the

subject. As the names already suggest, in actor voice it is the actor which is the syntactically most prominent argument and in undergoer voice that syntactic role is occupied by the undergoer. The voice a construction is in determines both word order and marking on the verb. In actor voice transitive predicates are marked by *N-*, as illustrated in (7.47). In this clause the verbal root *buka* 'open' is preceded by *N-* resulting in the form *muka* which is marked for actor voice. The actor *aku* '1SG' is in pre-verbal position and the undergoer, *manamang* 'door', is morphologically unmarked and follows the verb.

(7.47) *Aku muka manamang.*
aku N-buka manamang
1SG AV-open door

'I open the door.'

The prefix *na-* marks the predicate as being in undergoer voice. This can be seen in (7.48) in which the verb *okan* 'eat' is marked for undergoer voice and the undergoer kenah 'fish' occurs in subject position. The actor *eteng* 'dog' is the syntactic object and follows the verb as an unmarked noun phrase. The English translation as an active clause in both cases reflects the fact that neither actor voice nor undergoer voice constructions can be analysed as the default voice in Paku.

(7.48) *Kenah naokan eteng.*
kenah na-okan eteng
fish UV-eat dog

'The dog ate the fish.'

Clause structure changes if the actor in undergoer voice is a singular pronoun. In these instances, the actor is cliticised to the verb which is always morphologically unmarked. The same structure occurs with some intransitive clauses in which the actor (the subject in these cases) is a pronoun. These constructions are discussed and illustrated in 4.1.2.1 and 5.2.1.2. Moreover, voice marking on the verb differs in both actor and undergoer voice in cases in which the actor is marked as being non-volitional or not in full control (e.g. acts of perception, see 9.2.2.6). The verbal morphology involved in voice marking is discussed in more detail in 5.1.1.2 and 5.2.1.

Transitive clauses can be extended by an optional prepositional phrase. This is demonstrated in (7.49) in which adjunct prepositional phrase *gi jubut* 'in the forest' expresses the location of the hunting.

(7.49) *Reo nganup wawui gi jubut.*
reo N-anup wawui gi jubut
3PL AV-hunt boar LOC forest

'They are hunting boar in the forest.'

Based on the corpus, it is hard to tell which voice is preferred by speakers in natural discourse. When asked which one they prefer they would usually insist that both are equally acceptable and that the choice of one over the other depends on the context. Some speakers also argued that

constructions in undergoer voice seem more polite. In the data the majority of constructions occur in actor voice and as is argued in 7.6.3, tree-place predicates invariably occur with actor voice marking. However, the fact that many transitive and most three-place predicate constructions in the data were recorded during elicitation sessions in which actor voice was used in the prompts, might have created a bias in the corpus so that prevalence in the data alone does not constitute sufficient evidence to make reliable claims about speaker preference. There is also a tendency for some predicates to occur overwhelmingly in undergoer voice. For instance, in free speech, utterance predicates or some predicates of cognition typically occur with a cliticised pronominal actor (see 9.2.2.11 and 9.2.2.7).

7.6.3 Verbs of transfer

As was discussed in 5.1.1 there are a few verbs in Paku which semantically require three arguments. They are verbs of transfer. The transfer can be both direct, as in 'give' and 'sell', or cognitive as in 'teach' or 'show' Haspelmath (2015:20). Apart from the subject, such three-place predicates need two additional arguments, an object and an oblique. Those structures typically consist of an actor subject, a theme as the object and a locative or benefactive as the third argument. Despite semantically clearly being ditransitive, morphosyntactically they behave like transitive constructions with the only difference being that the prepositional phrase expressing the locative or benefactive argument is a semantic requirement of the verb and therefore obligatory. In the data, verbs of transfer are invariably marked as being in actor voice with a volitional actor.

The default word order for clauses with three-place predicates is S-V-O-Obl which is shown in the complement clause in (7.50). The subject *aku* '1SG' occurs before the verb marked for actor voice, which is immediately followed by the object noun phrase *buku iro* 'the book'. The third argument *Amir* is introduced by the preposition *pah* which marks it as the beneficiary.

(7.50) *Aku bakoi hokun iko' ngonru buku iro pah Amir.*
aku bakoi hokun iko' N-onru buku iro pah Amir
1SG NEG like 2SG AV-give book DEF BEN Amir

'I do not like that you gave the book to Amir'

However, the order of oblique and object may easily be reversed as can be seen in (7.51) where the oblique *pah opone* 'his grandchildren' occurs as the first constituent after the predicate in actor voice *ngonru* 'give' followed by the object *duit* 'money'.

(7.51) *Kakah ngonru pah opone duit.*
kakah N-onru pah opo-ne duit
grandfather AV-give BEN grandchild-3SG.POSS money

'Grandfather gives his grandchildren money.'

In addition to structures that semantically require three arguments, there are also those which are structurally identical (and whose two post-verbal arguments are equally reversible) but in

which the third argument is not obligatory (neither syntactically nor semantically). A common example in the data are benefactive constructions, i.e. those constructions in which an event is performed for the benefit of someone else. Examples are shown in (7.52) and (7.53). In (7.52) the morphologically unmarked object *wunge* 'flower' occurs immediately after the predicate which is then in turn followed by the recipient argument *ine'* 'mother' which is preceded by the preposition *pah* 'BEN'. Example (7.53) illustrates that even when changing the order of post-verbal arguments, the clause remains grammatical. According to speaker Iterman, as long as both arguments occur after the verb, their order among themselves does not matter. However, he says that in his opinion (7.52) sounds slightly better than (7.53).

(7.52) *Aku moli wunge pah ine'.*
aku N-woli wunge pah ine'
1SG AV-buy flower BEN mother

'I bought flowers for mum.'

(7.53) *Aku moli pah ine' wunge.*
aku N-woli pah ine' wunge
1SG AV-buy BEN mother flower

'I bought mum flowers'

7.7 Imperative clauses

Imperative clauses are clauses in which either the predicate occurs in the imperative (see 5.1.2) or the prohibitive marker *ada* is used. Imperatives express a direction, instruction or order given by the speaker to the addressee demanding that an action be performed. As was discussed in 5.1.2, verbs in the imperative occur in their root form without any morphological modification. In a typical imperative clause the subject is not expressed and the verb occurs in clause-initial position. This means that genuine imperative constructions consist of only a verb phrase. Despite the majority of imperative constructions in the data being relatively uniform with regard to their clause structure, there is some variability documented which is discussed in the remainder of this section.

In their simplest form imperative clauses consist of only a verb root (7.54).

(7.54) *Ite!*
see

'Look!'

Often the verb is followed by a prepositional (7.55), adverbial (7.56), or noun phrase (7.57).

(7.55) *Tulak engke lowu!*
go from house

'Leave the house!'

(7.56) *Hinroi erang alik!*
stop one moment

'Wait a moment!'

(7.57) *Tulutuk meja iro!*
turn.back table DEM.MED

'Turn your back to the table!'

Although imperative clauses usually do not have an overt subject, they can feature a second person pronoun, either as the free morpheme *iko'* (7.58) or its bound variant *-ko'* (7.59)[2]. In cases of the former, *iko'* occurs first in the clause, whereas the latter attaches to the right edge of the predicate. Given that these constructions structurally resemble declarative clauses, the difference between (7.58) and (7.59) is probably one of voice (see 7.1).

(7.58) *Iko' onsan gi itu!*
2SG stay LOC DEM.PROX

'Stay here!'

(7.59) *Bukako' manamang!*
Buka-ko' manamang
open-2SG door

'Open the door!'

If the speaker wishes to add emphasis to the imperative, they can use the enclitic *-leh* which attaches to the right edge of the predicate. An example is presented in (7.60) in which *-leh* is attached to the verbal root *okan* 'eat'.

(7.60) *Okanleh samampuko'!*
okan-leh sa-mampu-ko'
eat-EMP as-capable-2SG

'Eat as much as you like!'

2. Only instances of second person singular imperatives were recorded in the data. However, there is no evidence in other areas of Paku grammar suggesting that the use of the third person plural pronoun *reo* would be prohibited in this context.

In addition to structures which instruct the addressee to do something, there are also prohibitive constructions which tell the addressee to refrain from doing something. In Paku they are formed by using the negative imperative marker *ada*. There are quite a few similarities between such prohibitive constructions and assertive imperative clauses just discussed at the beginning of this section. Just like the imperative verb in assertive imperative clauses, the negative imperative marker in a standard construction *ada* also occurs in clause-initial position. This default structure is illustrated in (7.61) in which *ada* is followed by *masuk* 'enter'.

(7.61) *Ada masuk!*
PROH enter

'Don't enter!'

Examples (7.62) and (7.63) show that objects and prepositional phrases usually follow the predicate. The structure in (7.62) furthermore illustrates that in prohibitive imperatives it is also the case that the verb can occur without modifications to the root as the verbal root *tutup* 'close' takes either *N-* or *na-* when used in a declarative clause. However, this is not invariably the case, which becomes evident when comparing (7.62) to (7.64). In the latter, the finite verb *ngudut* 'smoke' occurs with actor voice morphology. This difference in finiteness might be due to the fact that (7.64) features an overtly expressed second person pronoun which causes the clause to structurally behave more like a declarative clause.

(7.62) *Ada tutup manamang!*
PROH close door

'Don't close the door!'

(7.63) *Ada katamah gi sunge!*
PROH swim LOC river

'Don't swim in the river!'

(7.64) *Iko' ada ngudut gi itu!*
iko' ada N-udut gi itu
2SG PROH AV-cigarette LOC DEM.PROX

'Don't smoke in here!'

As observed in (7.64) it is possible for a second person pronoun to be used in a prohibitive clause. If it is, it occurs in clause-initial position which is demonstrated again in (7.65).

(7.65) *Iko' ada surui!*
2SG PROH sleep

'Don't sleep!'

So far all illustrations of prohibitive structures were in actor voice or unmarked with regard to voice. However, there are also a number of recorded negative imperatives with undergoer voice morphology on the predicate. (7.66) shows a prohibitive construction with a fronted object *jendela iro* 'that window' which is followed by *ada* and the verb *ugah* 'open' marked by *na-* as being in undergoer voice.

(7.66) *Jendela iro, ada na'ugah!*
jendela iro ada na-ugah
window DEM.PROX PROH UV-open

'That window, don't open it!'

In addition to structures like (7.66) in which a clause in undergoer voice features a fronted undergoer there are also those instances in which no object is overtly expressed. An example is shown in (7.67). Here the speaker is telling the addressee to stop dragging and instead lift an unknown entity. In both instances, the verb is marked for undergoer voice.

(7.67) *Na'engkat, ada napair!*
na-engkat ada na-pair
UV-lift PROH UV-drag

'Lift (it), don't drag (it)!'

7.8 Hortative clauses

Hortative constructions are usually suggestions or encouragements for a joint activity between the speaker and the addressee(s) and are possibly best described as the equivalent to English 'let's' or 'come on'. Hortative clauses are semantically somewhat similar to imperative clauses in the sense that the speaker wants the listener(s) to do something: only in this instance the activity also includes the speaker. In fact, on many occasions during elicitation sessions when speakers were prompted using an imperative clause, they responded using structures better described as hortative clauses. Structurally hortative clauses are simple declarative clauses as discussed in 7.6 preceded by a hortative particle. In the data there are two particles that are used in this context. The most frequently used constructions are formed using *ayo*, sometimes produced as *hayo*. *Ayo* always occurs clause-initially as is shown in (7.68) in which it is immediately followed by the predicate *kuman* 'eat'.

(7.68) *Ayo, kuman!*
HORT eat

'Let's eat.'

Ayo can furthermore be combined with the first person plural inclusive pronoun *takam* which occurs between *ayo* and the predicate which is demonstrated in (7.69).

(7.69) *Ayo takam tulak tataha!*
HORT 1PL.INCL leave now

'Let's leave now!'

Despite not being obvious in (7.68) or (7.69), the predicate in a hortative clause typically retains its voice morphology. However, no examples in the data are in undergoer voice. The structure in (7.70) shows an example of a hortative clause in which the predicate is marked for actor voice.

(7.70) *Ayo takam manyanyi!*
HORT 1PL.INCL AV-sing

'Let's sing.'

One instance was recorded in which *ayo* was used in a clause without an overtly expressed predicate (7.71). However, this example is one of the instances in which an imperative was translated using *ayo*. As is reflected in the translation, this clause is understood as an imperative rather than a hortative construction.

(7.71) *Ayo iko' pah itu!*
HORT 2SG DIR DEM.PROX

'Come here!'

Ayo can also be combined with a predicate in the imperative. This is illustrated in (7.72) in which the causative predicate *tangawis* 'finish' is unmarked for voice.

(7.72) *Ayo, tangawis wadai iro!*
HORT CAUS2-finished cake DEF

'Come on, finish the cake!'

Examples (7.68)-(7.72) also demonstrate the different constituents that can co-occur in a hortative clause, i.e. they minimally consist of *ayo* plus the predicate but the predicate can also be followed by adverbials, prepositional phrases or objects.

Another morpheme speakers may use to form a hortative construction is *ingke*. The structure of the clause is identical to the one discussed for *ayo*, i.e. *ingke* always occurs in clause-initial position followed by the predicate, objects and optional elements. One such clause is illustrated in (7.73) in which *ingke* is followed by the intransitive clause *takam buli* 'we go home'.

(7.73) *Ingke takam buli.*
let 1PL.INCL go.home

'Let's go home.'

What sets *ingke* apart from *ayo* is that an *ingke*-clause needs to have an overtly expressed subject, often a pronoun. While this is often *takam* '1PL.INCL' (as in (7.73)) resulting in a hortative interpretation of the clause, *ingke*, when combined with another subject, is a demand to let someone else do something. The clause in (7.74) shows an example of such a structure. Here *ingke* is followed by the third person singular pronoun *iyo* which is then followed by *surui* 'sleep'.

(7.74) *Ingke iyo surui.*
let 3SG sleep

'Let her sleep.'

Given the evidence just presented, *ingke* is strictly speaking not a hortative particle but a verb which translates to 'let'. Only when used in combination with *takam* '1PL.INCL' does the clause allow for a hortative reading. *Ayo*-clauses on the other hand are always understood to include the speaker as well as the addressee(s), even if there is no overtly expressed subject in the clause. Furthermore, it is possible to analyse *ingke* as a complement-taking predicate in that *ingke* needs to be followed by a whole clause.

7.9 Comparative and superlative clauses

Being comparable and being able to form superlatives were already established as identifying features of adjectives and in that context comparative and superlative clauses were briefly discussed in 3.1.2.1. In the following two sections both of these features will be illustrated further, this time highlighting their structure and distribution within the clause.

7.9.1 Comparative clauses

In a comparative clause two or more entity noun phrases are compared in regard to a quality expressed by an adjective. Both word classes denoting adjectival concepts, i.e. genuine adjectives occurring as bare roots and stative verbs (see 3.1.2.1), can occur in such constructions. There are multiple ways in which a comparison can be phrased. Firstly, it depends on the perspective of comparison, i.e. whether the subject of the construction has a higher degree of the quality or a lower one. In the first scenario, *lewi engke* or *lewi teke*, both of which translate to 'more than', are used with the adjective inserted between the two words. In terms of structure, *lewi* occurs after the subject, which is in clause-initial position. This is then followed by the adjective, *engke* or *teke*, and the standard of comparison, i.e. the entity the subject is compared to. This structure is illustrated in Table 7.2.

subject	*lewi* 'more'	adjective stative verb	*engke* *teke* 'from'	standard of comparison

TABLE 7.2: Comparative clause structure I: 'more than'

An example of a comparative structure containing *lewi engke* 'more than' is shown in (7.75). The subject *Tony* is the entity that is being compared and occurs clause-initially. It is followed by *lewi*

'more' and the quality in question *munuwu* 'handsome', which is then followed by *engke* 'from' which in turn marks the standard of comparison, *David*.

(7.75) *Tony lewi munuwu engke David.*
Tony lewi mV-nuwu engke David
Tony more INTR.STA-handsome from David

'Tony is more handsome than David.'

The second scenario is that of saying that the subject somehow has less of the attribute than the standard of comparison. In Paku this is achieved by using *kurang engke* 'less than'.[3] This structure is illustrated in Table 7.3.

subject	*kurang* 'less'	adjective stative verb	*engke* (*teke*) 'from'	standard of comparison

TABLE 7.3: Comparative clause structure II: 'less than'

An example demonstrating the use of *kurang engke* 'less than' is presented in (7.76) in which the subject *Moko* is claimed to be *kurang pintar* 'less smart' than the standard of comparison *Didit ali Anggun* 'Didit and Anggun'. Clause structure remains unchanged compared to (7.75).

(7.76) *Moko kurang pintar engke Didit ali Anggun.*
Moko less clever from Didit with Anggun

'Moko is less clever than Didit and Anggun.'

For reasons of politeness some Paku speakers are hesitant to make outright negative statements. Thus, in order to avoid saying that something is worse in comparison, an alternative structure can be used in which the speaker says that something or someone is not quite as good or has not quite reached the same degree of the quality than something or someone else. An example of this kind is presented in (7.77). Here the speaker chooses to use *bakoi hampe* 'not quite' before the predicate *me'ewo* 'smell nice' to indicate that the subject flower smells less nice than the one in standard of comparison position.

(7.77) *Wunge itu bakoi hampe me'ewo engke iyo itu.*
wunge itu bakoi hampe mV-ewo engke iyo itu
flower DEM.PROX NEG until INTR.STA-smell.nice from REL DEM.PROX

'This flower does not smell quite as nice as this one.'

In addition to saying that entities are more or less like something, it is also possible to say that they are equal in regard to a quality. There are two documented ways of achieving this. The first is by using the word *kala* which occurs between the subject and the standard of comparison. This structure is exemplified in (7.78).

3. Despite not having been recorded, it can be reasonably assumed that *kurang teke* can also be used to form such constructions.

(7.78) *Pamakal iro kala tuo kakahku.*
pamakal iro kala tuo kakah-ku
chief DEF EQUAL old grandfather-1SG.POSS

'The chief is as old as my grandfather'

Another way of expressing the same concept is by using the word *same* and simultaneously nominalising the adjective. There is some variety as to the distribution of the constituents. In (7.79) two entities are being compared and occur in clause-initial position followed by *same* and the attribute *obo* 'tall'. However, note that the attribute is nominalised by the suffix *-ne* (see 4.2.7), creating a nominal reading of 'same height' rather than an adjectival one 'equally tall'. Looking now at (7.80) and (7.81) they show similar patterns of nominalisation. In (7.80) the two entities under comparison are combined into *ruo kayu iro* 'those two trees' before being followed by *same obone* 'same height'. In (7.81) it is the first person singular possessive clitic *-ku* which functions to nominalise *obo* 'tall'. Due to being the only example of this kind in the data, (7.81) is a repetition of (4.32). This time the resulting noun phrase occurs clause-initially with the standard of comparison *ine'* 'mother' following it. In this instance the standard of comparison is furthermore preceded by *ali* 'with' marking it as such. All the evidence from (7.79)-(7.81) combined makes it appear like the comparative particle *same* can only occur in a frame in which the attribute is nominal. Moreover, due to also functioning as a coordinating conjunction at the phrase level (see 9.1.5), *same* in the context of comparison is glossed as EQUAL.

(7.79) *Kayu rambutan ali kayu mangga same obone.*
kayu rambutan ali kayu mangga same obo-ne
wood rambutan with wood mango EQUAL tall-NOMZ

'Rambutan trees and mango trees are the same height.'

(7.80) *Ruo kayu iro same obone.*
ruo kayu iro same obo-ne
two wood DEM.MED EQUAL tall-NOMZ

'Those two tree are the same height.'

(7.81) *Oboku same ali ine'.*
obo-ku same ali ine'
tall-1SG.POSS EQUAL with mother

'My height is the same as mum's.'

7.9.2 Superlative clauses

Superlative clauses function to express the highest possible degree of an attribute or quality. In Paku superlatives are formed by adding the prefix *panga-* to an adjectival root. A standard superlative construction can be seen in (7.82). Here the subject *Anggun* is followed by the predicate *pangapintar* 'the smartest' in which the prefix *panga-* marks it as a superlative.

(7.82) *Anggun pangapintar.*
Anggun panga-pintar
Anggun SUP-smart

'Anggun is the smartest.'

In the previous example it was simply asserted that something or someone is the best. It is furthermore possible to say that out of a given group or a given number of entities, something or someone is the best with regard to a given quality. This is illustrated in (7.83) in which the first constituent in the clause is a group of three people. This is then followed by the assertion that one entity within that group, in this case *Anggun*, is *pangapintar* 'the smartest'.

(7.83) *Didit, Moko, (ali) Anggun, Anggun pangapintar.*
Didit Moko (ali) Anggun Anggun panga-pintar
Didit Moko (with) Anggun Anggun SUP-smart

'Out of Didit, Moko and Anggun, Anggun is the smartest.'

7.10 Relative clauses

With regard to structure and function a relative clause can be defined as "a subordinate clause which delimits the reference of an NP by specifying the role of the referent of that NP in the situation described by the RC" (Andrews 2007:206). In Paku, there are two types of relative clauses: restrictive and non-restrictive. The latter are not regarded as genuine relative clauses by Andrews as they do not function to limit the reference of a noun phrase and therefore do not meet the definition he put forward (2007:207). Their function as modifiers within the noun phrase was already introduced in 4.1.7 so that this section focuses on the internal structure of relative clauses. According to Payne (1997:325-326) a relative clause is made up of four parts: the *head* (the head of the noun phrase modified), the *restricting clause* (the relative clause), the *relativised noun phrase* (the relativised constituent within the relative clause which is typically co-referential with the head), and the *relativiser* (the element used to mark a relative clause). Beyond this basic structure, there are three ways in which relative clauses in Paku can be formed. Two of these involve the relativiser *iyo* whereas in one instance the relativiser is absent or omitted. Apart from the presence or absence of the relativiser *iyo*, the difference between the structures involves the syntactic role of the relativised noun phrase and the way it is expressed within the relative clause.

For the formation of relative clauses Paku behaves like a typical symmetrical voice language in that the relativised noun phrase can only be the subject of the relative clause or a possessor (Himmelmann 2005a:161). The syntactic role of the relativised noun phrase within the main clause is irrelevant.

The most common way to form a relative clause in Paku involves the relativisation of what would be the subject of the relative clause. In this scenario the clause itself begins with a gap corresponding to the relativised head which is co-referential with the head of the noun phrase. The predicate within the restricting clause can be almost all syntactic elements that can function as predicates in other environments.

(7.84) *Upo iyo ngoit tali iro uma'ku.*
upo iyo N-oit tali iro uma'-ku
man REL AV-bring rope DEM.MED father-1SG.POSS

'The man who brought that rope is my father.'

The structure in (7.84) shows a typical relative clause in Paku. *Upo* 'man' is the head of the noun phrase modified by the relative clause *iyo ngoit tali iro* 'who brought that rope'. The relative clause lacks an overtly expressed subject which is omitted due to the fact that it is identical to the head noun. The main clause is an identificational clause in which *upo iyo ngoit tali iro* 'the man who brought that rope' functions as the subject and the second noun phrase *uma'ku* 'my father' is the predicate. In addition to verbs, it is also possible for the predicating element within the relative clause to consist of a demonstrative (7.85), an adjective (7.86), or an ordinal numeral (7.87).

(7.85) *ua' iyo itu*
fruit REL DEM.PROX

'this fruit'

(7.86) *teh iyo mirisak*
teh iyo mV-risak
tea REL INTR.STA-cold

'cold tea'

(7.87) *pea iyo karuo*
pea iyo ka-ruo
child REL ORD-two

'second child'

It is furthermore possible for the relative clause to contain a prepositional phrase. This is the case for locations (7.88), directions (7.90), and sources (7.89).

(7.88) *Mama'ku iyo gi Palangkaraya mate.*
mama'-ku iyo gi Palangkaraya N-pate
uncle-1SG.POSS REL LOC Palangkaraya AV-dead

'My uncle in Palangkaraya died.'

(7.89) *Ua' iyo engke tumpuk itu morouh tuu.*
fruit REL from village DEM.PROX delicious INTS

'The fruit from this village is very delicious.'

(7.90) *Lalan iyo pah Tarinsing bakoi ma'asus.*
lalan iyo pah Tarinsing bakoi mV-asus
street REL DIR Tarinsing NEG INTR.STA-good

'The road to Tarinsing is not good.'

With the exception of (7.84), which features a verbal predicate, the examples presented thus far in this discussion can be problematic because they all have equivalents in which the modifier is not placed within a relative clause as is demonstrated in (7.91)-(7.96).

(7.91) *ua' itu*
fruit DEM.PROX

'this fruit'

(7.92) *teh mirisak*
teh mV-risak
tea INTR.STA-cold

'cold tea'

(7.93) *pea karuo*
pea ka-ruo
child ORD-two

'second child'

(7.94) *Mama'ku gi Palangkaraya mate.*
mama'-ku gi Palangkaraya N-pate
uncle-1SG.POSS LOC Palangkaraya AV-dead

'My uncle in Palangkaraya died.'

(7.95) *Ua' engke tumpuk itu morouhtuu.*
fruit from village DEM.PROX delicious

'The fruit from this village is very delicious.'

(7.96) *Lalan pah Tarinsing bakoi ma'asus.*
lalan pah Tarinsing bakoi mV-asus
street DIR Tarinsing NEG INTR.STA-good

'The road to Tarinsing is not good.'

Despite the English translation being identical there are some slight differences between the constructions in (7.85)-(7.90), in which the modifier is placed within a relative clause, and their counterparts in (7.91)-(7.96). In both cases the modifier is restrictive and added in situations in which the speaker assumes the referent to be insufficiently described to be clearly identifiable to the addressee. However, embedding the modifier within a relative clause allows for a contrastive reading. For instance, the interpretation of (7.85) is that there are other fruits in the near vicinity or that the speaker needs to make a choice. The latter kind of structure often occurs as the response to a question formed with *iyo hawe* 'which one' in which the question word itself contains a relative construction (see 8.4.6.4). Example (7.86) implies that there is also tea available that is not cold, and naturally the use of a numeral indicates the presence of other entities of the same variety. However, in (7.87) the speaker is emphasising that it is the second child, rather than the first, third, etc. that is doing something. The same analysis can be applied to the prepositional phrases in (7.88)-(7.90). In (7.88) it is understood that the speaker has another uncle except the one in Palangkaraya, in (7.89) that there is fruit from other places nearby as possible referents, and (7.90) implies that there are other roads except the one to Tarinsing. The counterparts without the relativiser (7.91)-(7.96) do not allow for such contrastive readings and the modifiers are merely descriptive.

The predicating elements that can occur within the relative clause are the same as those that are observed for declarative clauses. However, there is one exception to this rule, namely that nouns cannot function as predicating elements in this environment despite freely occurring as such in other syntactic frames.

In all examples presented thus far in this section the relative clause is restrictive and functions to narrow the possible reference of the head. However, in instances in which the referent is already sufficiently well described to be identifiable to the addressee, the relative clause is non-restrictive and merely functions to add information about the referent. This is for example the case when the head is a proper noun or marked as definite by for instance possessive pronouns, the definite article *-ne*, or the definite marker *iro* (see 7.3).

(7.97) *Itakku, iyo umurne pitompuluhdimo taun, tataha gi kabun.*
itak-ku iyo umur-ne pitompuluhdimo taun tataha gi kabun
grandmother-1SG.POSS REL age-3SG.POSS seventyfive year now LOC garden

'My grandmother, who is seventyfive years old, is in the garden right now.'

The structure in (7.97) shows an example of a non-restrictive relative clause. The head noun *itak* 'grandmother' already has a specific referent by virtue of being marked as a possessee by the first person singular possessive pronoun *-ku*. Therefore, the relative clause only adds information not crucial to the identification of the referent and hence it is non-restrictive. Orthographically this is represented by placing the relative clause in between two commas.

Due to the fact that the relativised element functions as subject within the relative clause, voice marking on the verb agrees with the semantic role of the head. If the relativised head is an actor the verb will in actor voice, if it is an undergoer the verb is in undergoer voice. An example in which the verb in the relative clause is marked for actor voice was shown in (7.84). The clause in (7.98) presents an example in which the verb *na'oit* 'bring' is marked for undergoer voice and thus signals that the head is in undergoer role.

(7.98) *Tali iyo na'oit uma'ku stabil.*
tali iyo na-oit uma'-ku stabil
rope REL UV-bring father-1SG.POSS stable
'The rope which my father brought is stable.'

Relative clauses generally follow the structure of a declarative clause. However, there are some instances in which the structure of a relative clause deviates from the default form. One of these instances is when the relative clause contains an auxiliary, adverbial and/or the negator *bakoi*. In such cases auxiliaries and negators precede the subject in the relative clause which is illustrated in (7.99) and (7.100).

(7.99) *Amir makai kayu iyo inre totokne.*
Amir N-pakai kayu iyo inre totok-ne
Amir AV-use wood REL earlier cut-3SG
'Amir used wood that he cut earlier.'

(7.100) *Pita inre naan ulun ngirim barang iyo bakoi suah aku kite.*
pita inre naan ulun N-kirim barang iyo bakoi suah aku kV-ite
morning earlier EXIST person AV-send thing REL NEG ever 1SG NVOL-see
'Earlier this morning there was a person who left something that I had not seen before.'

In (7.99) the relative clause in undergoer voice *iyo inre totokne* 'that he cut earlier' contains the adverb *inre* 'earlier' which occurs before the verb in root form *totok* 'cut' and a cliticised pronoun *-ne* '3SG.POSS'. Example (7.100) features both *bakoi* 'NEG' and the adverb *suah* 'ever' which, just like in (7.99), precede the subject, *aku* '1SG' in the relative clause. This differs from the default form in that auxiliaries and the negator *bakoi* typically occur between the subject and the verb.

The structures discussed thus far in this section all feature the relativiser *iyo*. However, there is one instance in the data in which *iyo* does not occur. It was already presented in (7.15) and is repeated in (7.101) for convenience. The subject noun phrase *kakao gatah* 'rubber tree' is modified

Subject > Direct object > Indirect object > Oblique > Possessor

TABLE 7.4: Noun phrase accessibility hierarchy (Keenan and Comrie 1977)

by the relative clause *totokku anrape* 'I cut yesterday'. Unlike in previous examples, there is no overt relativising element placed between them.

(7.101) *Kakao gatah totokku anrape tumu'.*
kakao gatah totok-ku anrape tumu'
tree rubber cut-1SG yesterday grow

'The rubber tree I cut yesterday is growing.'

The second strategy for forming relative clauses in Paku is used when the head of the relative clause is not its subject. Unlike in the first strategy in which the head is omitted in the relative clause, the second strategy involves the subject of the relative clause being overtly expressed as well as a pronominal mention of the head noun. This is illustrated in (7.102). The relative clause *iyo warnane mea* 'whose colour is red' contains the overtly expressed subject *warna* 'colour' which is followed by the pronominal affix *-ne* which represents the pronominal trace of the relativised noun phrase *mobil* 'car'. Note that this kind of construction is an exception from the constraint that third person pronouns can only refer to animate entities.

(7.102) *Mobil iyo warnane mea nawoli Ali.*
mobil iyo warna-ne mea na-woli Ali
car REL colour-3SG.POSS red UV-buy Ali

'Ali bought the car whose colour is red.'

In the data, the only constructions of this kind are ones in which the subject is a possessor. Based on comparative data from related languages, it is likely that there are more allowed constructions in which syntactic elements other than the possessor can be the head of a relative clause. This assumption is furthermore supported by the noun phrase accessibility hierarchy devised by Keenan and Comrie (1977) which is shown in Table 7.4. This hierarchy lists syntactic elements according to how likely they are to function as the head of a relative clause. What this means is that for any given position on the hierarchy that is relativisable with any given strategy, all positions to the left of the hierarchy will also be relativisable by the same means.

Given the rightmost position of the possessor argument on the noun phrase accessibility hierarchy, it should be the case that direct objects, indirect objects, and oblique arguments should also be relativisable using the strategy illustrated in (7.102). However, as Himmelmann (2005a:162) notes, it is not uncommon for symmetrical voice languages to allow the relativisation of non-core arguments, particularly possessors, in addition to the subject. As demonstrated in the discussion above, this is the case in Paku where only subjects and possessors have been found to occur as the head of a relative clause.

Chapter 8

Questions

This chapter investigates the different types of questions found in Paku. This includes analyses of polar questions 8.1, alternative questions 8.2, tag questions 8.3, and a variety of content questions introduced by interrogatives, each of which is discussed separately in 8.4.

While intonation is a particularly prominent feature of polar questions, it is in fact of importance in all types of questions discussed in this chapter since the contour always tends to be rising toward the end of the utterance. However, all analyses of phonetic patterns of questions are impressionistic and a more in-depth and technologically supported analysis of the structures might reveal a more detailed picture of intonation patterns in questions.

8.1 Polar questions

Polar questions are questions whose expected answers are located at two ends of a spectrum. Cross-linguistically the most common polar question type is yes/no-questions for which the expected answer is either 'yes' or 'no'. In fact, it is common practice in the literature to use the term polar question interchangeably with yes/no questions. However, given that in Paku the equivalents of yes/no questions are actually formed using an aspectual auxiliary with the expected answers also consisting of auxiliaries, it is important to make a firm distinction in this description. While Paku does have the words *iya/ya* 'yes' and *bakoi* 'no'[1], it is uncommon for speakers to use these in response to a polar question. Instead they will use either *haut* 'already' or *mete'* 'not yet'. By using *mete'* 'not yet' rather than *bakoi* 'no', they indicate to the asker that the action will be performed at some point in the (near) future. An example in which the difference between *mete'* 'not yet' and *bakoi* 'no' is particularly pronounced is when asked about one's family situation. In response to the question "are you married yet?" an unmarried individual would usually say *mete'* 'not yet' indicating that they will do so at some point. In this context the answer *bakoi* 'no' would imply that the addressee has no intention of ever doing so. This is often paired with an underlying assumption that they are somehow unable to, e.g. they have taken a religious vow not to get married.

Grammatically, there are two ways in which polar questions can be formed. The first and primary one is via intonation. In such questions, the clause structure remains the same as in a declarative clause (see 7.2) but the intonation contour rises towards the end of the utterance which marks it as a question. A typical example of a declarative functioning as a question is shown in (8.1). With

1. In this instance *bakoi* functions as a content word and cannot be abbreviated to *koi* (see 5.1.4 and 4.1.3).

the rising intonation contour at the terminus of the utterance *haut monrus* 'already bathed' clearly functions as a question.

(8.1) Q:. *Haut monrus?*
already bathe

'Have you already taken a bath?'

A:. *Mete'.*
not.yet

'Not yet.'

A second way of forming polar questions is by using either *non* or *inun*. When used in content questions they both translate as 'what' but in this context they function as a general question marker. As discussed in 8.4.1, *non* and *inun* when used as the question word meaning 'what' most commonly occur at the beginning of a question but can also occur in situ. However, when functioning as a question marker in polar questions *non* and *inun* can only occur in initial position. An example of *inun* in this function is presented in (8.2) where it precedes the subject *iyo* '3SG' thereby marking the structure as a polar question.

(8.2) *Inun iyo haut kuman?*
Q 3SG already eat

'Has she already eaten?'

It is furthermore possible for the question marker *inun* to occur with the question particle *-kah*. *-Kah* is always optional and the question is considered grammatical by speakers without it. An example of a polar question containing *kah-* can be seen in (8.3).

(8.3) *Inunkah iko' kite peaku?*
inun-kah iko' kite pea-ku
Q-Q 2SG see child-1SG.POSS

'Have you seen my child?'

There is one instance in the data in which *-kah* attaches to the modal auxiliary *hokun* 'want' (8.4).

(8.4) *Hokunkah iko' buli?*
hokun-kah iko' buli
want-Q 2SG go.home

'Do you want to go home?'

In another instance *-kah* attaches to a noun at the end of a polar question. This can be seen in (8.5) which is a repetition of (4.70).

(8.5) *Balalu nganrero pire, erang wulankah?*
balalu N-anre-ro pire erang wulan-kah
and.then AV-wait-DEM.MED how.many one month-Q

'Then wait how many, one month?'

8.2 Alternative questions

Alternative questions are formed by offering the addressee two or more options to choose from, one of which will form the answer to the question. This question type is structurally similar to other question types discussed in this chapter. However, at the end of the clause the addressee's answer is limited to the range offered by the speaker. This is illustrated in (8.6). The interrogative clause *hie' lewi susah* 'who is poorer' is followed by the two choices offered *Rusia atawa Madagaskar* 'Russia or Madagascar'. In such an utterance the intonation follows a standard rising interrogative intonation contour for the first part of the clause. It then rises on the first option offered and falls on the last.

(8.6) *Hie' lewi susah, ulun gi Rusia atawa gi Madagaskar?*
who more difficult person LOC Russia or LOC Madagascar

'Who are poorer, people in Russia or in Madagascar?'

Note that in this instance, despite being syntactically acceptable, semantically, the interrogative clause *hie' lewi susah* seems to be incomplete with an expectation that the choice should be somehow limited, either by means of overtly limiting the options as in (8.6) or understood from previous parts of the discourse. However, this is not a general rule of such constructions and usually the initial interrogative clause can stand alone - both syntactically and semantically. Evidence for this is shown in (8.7) in which the first part of the clause *tante kai kuman inun* 'what do you want to eat' is a well-formed clause on its own.

(8.7) *Tante kai kuman inun, kenah atawa manu?*
aunt want eat what fish or chicken

'What do you want to eat, fish or chicken?'

In conversation it is also not uncommon for speakers to just offer two choices without forming any type of clause before it, an example of which is shown in (8.8). The intonation pattern of rising on the first option and falling on the second clearly identifies it as a question whereas the context provides enough information in order for the speaker to omit the actual question. For example, if it was already established that the addressee would like something to drink, the speaker might only lay out the options as in (8.8) without causing confusion for the addressee.

(8.8) *Teh atawa kupi?*
tea or coffee

'Tea or coffee?'

8.3 Tag questions

Tag question are questions in which the speaker seeks confirmation from the addressee. They are formed by adding either *koine* or *koi* to the very end of a statement made by the speaker. There is no difference between those two forms and in all instances speakers would have accepted both. The statement itself follows the structure and intonation pattern of a declarative clause. The rising contour characteristic of questions only occurs on the tag. The structures in (8.9) and (8.10) show examples of tag questions. In (8.9) the speaker is seeking the addressee's confirmation after stating that the food is delicious by adding the tag *koine* to the end of the clause, whereas in (8.10) the speaker follows her statement about life as a farmer sometimes being difficult with the question tag *koi*.

(8.9) *Morouh,* *koine?*
mV-rouh koine
INTR.STA-delicious tag

'This is delicious, isn't it?'

(8.10) *Iyo* *hie* *halinne,* *koi?*
iyo hie halin-ne koi
DEF PART difficult-ART.DEF TAG

'That's what is hard about it, don't you think?'

8.4 Content questions

Content questions are formed using one of several interrogatives (question words). Unlike polar and alternative questions, whose possible range of answers is limited, this question type is used to elicit a specific answer. Content questions are sometimes referred to as wh-questions which is a reference to the fact that in English most interrogatives begin with the letter combination 'wh'. Interrogative elements used for this question type in Paku can be either simplex, i.e. consist of only one morpheme, or complex, i.e. require more than one morpheme to obtain interrogative meaning (see 8.4.6 and 8.4.7). For a list of interrogative words discussed in this section see Table 8.1.

There are several different strategies to form content questions in Paku. One is that the question word occurs in clause-initial position. In elicitation sessions these are typically the default constructions offered by speakers. An example of such a fronted question word is shown in (8.11). Here the interrogative *tekui*, short for *hantekui* 'when', occurs first followed by the rest of the clause.

(8.11) *Tekui* *pah* *Tampa* *kia?*
when DIR Tampa again

'When are you going to Tampa again?'

Interrogative	**Translation**
non	'what'
inun	'what'
hie'	'who'
kolowangun	'how'
nokolo	'how'
hantekui	'when'
pire	'how many/how much'
gi hawe	'where'
engke/teke hawe	'from where'
pah hawe	'to where'
iyo hawe	'which one'
inun ulah	'why
inun ngulah	'why'
pakai inun	'why'
pakai non	'why'

TABLE 8.1: Interrogative words

Another structural feature shared by almost all interrogatives is that they can occur in situ. In in situ questions the interrogative word occurs in the same position within the clause as the equivalent non-interrogative element (i.e. the answer to the content question) would be found in a declarative construction. These questions can be used to ask for objects and prepositional dependants. An example is shown in (8.12) in which the question word *inun* 'which/what' is used to ask for a particular type of rice crops. In a corresponding declarative clause, the name of the rice crops would occur in the same place as *inun*.

(8.12)

Pare	*inun*	*si*	*nabulo*	*kira*	*pasne?*
pare	inun	si	na-bulo	kira	pas-ne
rice.crops	what	EMP	PASS-plant	so.that	fitting-3SG

'Which/what rice crops do you need to use so that this works?'

A final characteristic content questions share is that stress in a default construction is on the question word showing a rise-fall intonation contour, regardless of where in the clause it occurs.

8.4.1 *Non* and *inun* 'what'

The question words *non* or its abbreviated form *no*, and *inun* can be used interchangeably and have two distinct functions. The first is that of the content question asking 'which' or 'what'. Whenever *non* or *inun* occur in situ as part of a noun phrase they function as an interrogative demonstrative limiting the possible range of responses available to the addressee. In this environment *non* and *inun* function more like 'which' rather than 'what'. An example of *inun* in this context was shown in (8.12) in which it follows the noun *pare* 'rice crops'. Example (8.13) shows another instance of *inun*, this time meaning 'what'. Here *inun* also occurs in situ, but it follows the predicate *ngulah* 'to make' and enquires after the object of the clause in which case it functions as a regular question word.

(8.13) *Iko' ganyah ngulah inun?*
iko' ganyah N-ulah inun
2SG PROG AV-make what

'What are you doing?'

The second function expressed by *non* and *inun* is to indicate interrogative mood in polar questions which would otherwise have the same structure as non-interrogative clauses (see 8.1). In this function *non* and *inun* need to be placed in clause-initial position. An example of a polar question formed in this manner can be seen in (8.14). Here, *non* occurs in clause initial position followed by the subject *Amir*, the predicate in actor voice *mantat* 'tap rubber', and the temporal adverbial *onro itu* 'today'. Only considering structure, one might initially argue that this question might very well mean 'what did Amir tap today?'. However, in Paku the verbal root *pantat* can only mean 'tap a rubber tree'. With this knowledge, it becomes obvious that an interpretation other than as a polar question is not possible in this context.

(8.14) *Non Amir mantat onro itu?*
non Amir N-pantat onro itu
Q Amir AV-tap day DEM.PROX

'Did Amir tap rubber trees today?'

It is possible for *non* and *inun* to occur clause-initially in content questions as well. However, in order to disambiguate the question word is mostly placed in situ in this function.

8.4.2 *Hie'* 'who'

Hie' is the question word used for animate entities. Although its closest translation is 'who', its usage in Paku is slightly different to that of 'who' in English. For instance, it is used when asking for someone's name - both that of a person and that of a pet. The structure in (8.15) shows an example in which the question word *hie'* 'who' is fronted as the speaker asks for someone's name.

(8.15) *Hie' ngaran ulun iro?*
who name person DEM.MED

'What is that person's name?'

When asking for the object of a clause, *hie'* 'who' can also occur in situ. This is demonstrated in (8.16) in which *hie'* 'who' immediately follows the verb.

(8.16) *Anrape iko' kite hie' gi tumpuk?*
yesterday 2SG see who LOC village

'Who did you see in the village yesterday?'

When used in an in situ position within a noun phrase, *hie'*, like all nouns in this position, can furthermore function as an interrogative possessive pronoun. This is shown in (8.17) in which *hie'* 'who' follows *udut* 'cigarette', thereby creating a possessive reading of the question word.

(8.17) *Iro* *udut* *hie'?*
DEM.MED cigarette who

'Whose cigarettes are these?'

8.4.3 *Kolowangun* and *nokolo* 'how'

In the data there are two question words for 'how', *kolowangun* and *nokolo* which are used interchangeably by speakers. Question (8.18) shows an example of *nokolo* 'how' being fronted. In (8.19), *kolowangun* is used in the same environment.

(8.18) *Nokolo* *kabarko'* *tataha?*
nokolo kabar-ko' tataha
how news-2SG now

'How are things with you?'

(8.19) *Kolowangun* *Roni* *nangkasus* *mobil* *itu?*
kolowangun Roni N-tVN-k-asus mobil itu
how Roni AV-CAUS2-LE-good car DEM.PROX

'How did Roni fix this car?'

Speakers show a clear preference for constructions in which *kolowangun* and *nokolo* are fronted. However, speakers will generally also accept questions in which these two question words occur in situ. Thus (8.19) can alternatively be expressed as *Roni nangkasus mobil itu kolowangun*.

8.4.4 *Hantekui* 'when'

The question word *hantekui* is used to ask 'when'. It is often abbreviated to *tekui* which was demonstrated in (8.11). Another example of *hantekui* from the corpus is shown in (8.20) in which *hantekui* occurs in clause-initial position. There are no instances in the data in which *hantekui* 'when' occurs in situ.

(8.20) *Hantekui* *soal* *itu* *takam* *nameresne?*
hantekui soal itu takam N-sVN-beres-ne
when problem DEM.PROX 1PL.INCL AV-TR-clean-ART.DEF

'When will we solve this problem?'

8.4.5 *Pire* 'how many'

The question word *pire* is used to ask for quantity and can be translated to 'how many' or 'how much'. When used in situ, *pire*, like quantifiers in Paku, precedes the noun (8.21).

(8.21) *Amir kuman pire punsi?*
Amir eat how.many banana

'How many bananas did Amir eat?'

In cases in which a classifier is used *pire* precedes the classifier (8.22).

(8.22) *Gatahko' pire watang?*
gatah-ko' pire watang
rubber-2SG.POSS how.many CLF6

'How many rubber trees do you have?'

In instances in which *pire* follows the noun within the noun phrase, it follows the structure of ordinal numerals. In such cases the answer requires an ordinal number or the name of an entity that has a fixed order. An example of the latter kind is shown in (8.23) in which the speaker is asking which month people plant seeds in their fields. Given that months always occur in the same order, the speaker can respond with either the name *wulan Oktober* 'October' or number of the month *wulan sapuluh* 'the tenth month'.

(8.23) *Wulan pire ulun miyah?*
month how.many person seed

'Which month do people plant their seeds?'

Pire is also used to ask for the time. This function is demonstrated in (8.24) in which the speaker asks what time school starts.

(8.24) *Sakulah malai jam pire?*
school start hour how.many

'What time does school start?'

There are no instances of *pire* being fronted in the data.

8.4.6 *Hawe* 'which/where'

Hawe is an interrogative morpheme which needs to combine with other elements to form a meaningful question word. It can have two different meanings. *Hawe* can combine with one of the locative prepositions *gi* 'LOC', *engke/teke* 'from', or *pah* 'DIR' in which case it is interpreted as meaning 'where'.

Hawe can also be used in conjunction with the relativiser *iyo* resulting in a reading of *hawe* as 'which (one)'. The following paragraphs discuss and exemplify each of these complex question words.

8.4.6.1 *Gi hawe* 'where'

The complex question word *gi hawe* translates to 'where' with the response referring to a static location. An example is shown in (8.25) in which the speaker is asking for the location of the keys.

(8.25) *Kunsine* *gi* *hawe?*
kunsi-ne gi hawe
key-ART.DEF LOC which/where

'Where is the key?'

Gi hawe 'where' is also frequently fronted (8.26).

(8.26) *Gi* *hawe* *hanangne?*
gi hawe hanang-ne
LOC which/where hurt-NOMZ

'Where does it hurt?'

8.4.6.2 *Engke/teke hawe* 'from where'

Engke hawe or *teke hawe* are used to enquire 'where from' and as with other constructions in which the prepositions *engke* and *teke* occur, they can be used interchangeably. (8.27) shows a question in which the speaker is asking the addressee where they are coming from. In discourse this phrase is used as a conversation starter when meeting another person.

(8.27) *Teke* *hawe* *iko'?*
from which/where 2SG

'Where are you coming from?'

An example of *engke hawe* can be seen in (8.28) in which it occurs in in situ position within the clause.

(8.28) *Ulun* *iro* *engke* *hawe?*
person DEM.MED from which/where

'Where is that person coming from?'

8.4.6.3 *Pah hawe* 'to where'

The directional preposition *pah* can combine with *hawe* to form the interrogative phrase 'where to' as can be seen in (8.29). As with (8.27), the phrase *kai pah hawe* 'where are you going' is often used to initiate an interaction with someone you come across on the road.

(8.29) *Kai pah hawe?*
want DIR which/where

'Where are you going (to)?'

There is no example of *pah hawe* being fronted in the data. However, based on observations of Paku locative prepositions in other syntactic environments as well as evidence from related languages, there is no reason to assume that *pah* in this context would follow different distributional rules than the other locative prepositions.

8.4.6.4 *Iyo hawe* 'which one'

Finally, *hawe* can combine with the relativiser *iyo* to convey the meaning 'which one'. The answer to this type of question typically involves a relative clause, either on its own or following a noun phrase as a modifier. An example is shown in (8.30). Another form which occurs in the data and which is used interchangeably with *iyo hawe* by some speakers is *ya hawe*. This is reflected in (8.30).

(8.30) Q:. *Iko' kai rok iyo/ya hawe?*
2SG want skirt REL which/where

'Which skirt do you want?'

A:. *Iyo/ya mea.*
REL red

'The red one.'

8.4.7 Other prepositional interrogatives

In addition to the complex interrogatives introduced in 8.4.6, there are question words other than *hawe* that can combine with locative prepositions and other prepositions that can head a prepositional interrogative. For example, it is possible to ask for the beneficiary of an action by using *pah hie'* 'for/to whom' which is demonstrated in (8.31).

(8.31) *Amir ngonru wunge pah hie'?*
Amir N-onru wunge pah hie'
Amir AV-give BEN who

'Amir brought flowers for whom?'

Another complex question word in the data is *pakai inun* or *pakai non*. In the data *pakai inun* and *pakai non* have two meanings determined by their position within the question. When used in situ they are used to ask for an instrument which can be seen in (8.32) in which the speaker enquires after the instrument the grandfather used to beat the dog.

(8.32) *Kakah mungkong eteng pakai inun?*
kakah N-pungkong eteng pakai inun
grandfather AV-hit dog using what

'Grandpa hits the dog using what?'

When fronted, *pakai inun/non* are used to ask for a reason which is demonstrated in (8.33). Without context the clause *pakai inun tulak pah Banjar* also allows for a reading in which the speaker asks for a mode of transport. However, in this instance the speaker was asking for a reason. This is in line with the finding that *pakai* as a preposition also has two functions - that of marking an instrument and that of indicating a beneficiary (see 6.2 and 6.3.3).

(8.33) *Pakai inun tulak pah Banjar?*
for what go DIR Banjar(masin)

'Why are you going to Banjar(masin)?'

Paku does not have a designated question word for asking for a reason equivalent to English 'why'. In addition to asking *pakai inun/non* 'for what' as in (8.33), it also possible to form a structure *inun ulah* or *inun ngulah* 'what make(s you)' as can be seen in (8.34).

(8.34) *Inun ngulah iko' bakoi hawi onro itu?*
inun N-ulah iko' bakoi hawi onro itu
what AV-make 2SG NEG arrive day DEM.PROX

'Why did you not come today? (lit. 'what made you not come today?')'

Chapter 9

Complex sentences

Complex sentences are sentences consisting of more than one predicate and thus have more than one clause. Complex sentences differ in terms of the grammatical dependencies between the individual clauses and the way these are marked grammatically. They can take the shape of either two independent main clauses conjoined by a coordinating conjunction (9.1) or one main clause and one or more subordinated clauses (9.2). Subordinate clauses can be divided into two types: adverbial clauses and complement clauses. While the former add adverbial information to the main clause, complement clauses are sentential arguments required by a predicate.

It is also possible for a predicate to require one or more complement clauses as arguments which may be linked to the main clause via the use of a complementiser or juxtaposition (9.2.2). In cases in which clause linkage is not formally marked cues like intonation and pauses function to indicate the structural unity of the clauses.

Whenever the subject of the first clause has the same referent as the one in the second clause, the subject can be omitted in one of them. This co-referentiality principle applies to all types of complex sentences.

Some forms introduced as conjunctions in this chapter can also function as prepositions which will be pointed out in the relevant sections.

9.1 Coordination

Coordination refers to the process "in which two or more units of the same type are combined into a larger unit and still have the same semantic relations with other surrounding elements" (Haspelmath 2007a:1) and in which neither unit is syntactically dominant. Due to this equal status of units, coordination is viewed as symmetrical linking (Haspelmath 2004:6). In Paku coordination has been observed for noun phrases and clauses. Coordination in Paku can be achieved either by using a coordinating conjunction (see Table 9.1) or by juxtaposing the two units. In fact, as Payne (1997:337) points out, in discourse it is sometimes difficult to distinguish coordination from juxtaposition of two independent clauses, a strategy most languages allow at least as a stylistic alternative. According to Haspelmath (2004:10) many languages cross-linguistically have category sensitive coordinators which means that different forms are used depending on the type of units that are being conjoined. In Paku this is only partially true and while some conjunctions only function at the phrase level or only at the clause level, others can be used to link both noun

phrases and clauses (see Table 9.1). Note that despite the fact that this chapter focuses on constructions with multiple predicates, coordination at the phrase level will also be included in the present discussion.

Form of coordinator	**Gloss**	**Syntactic level**	**Section**
ø	'and'	Phrase and clause	9.1.1
ali	'with'	Phrase and clause	9.1.2
anri	'with'	Phrase and clause	9.1.2
atawa	'or'	Phrase and clause	9.1.3
kode'	'but'	Phrase and clause	9.1.4
same	'together with'	Phrase	9.1.5
belalu/balalu	'and then'	Clause	9.1.6
nelang	'while.SS'	Clause	9.1.7
pedesung/pedehung	'while.DS'	Clause	9.1.8
sukuhang	'while, during'	Clause	9.1.9

TABLE 9.1: Coordinating conjunctions

As is cross-linguistically common (Stassen 2000:10; Payne 1997:338), Paku inserts its coordinating conjunctions between the elements that are being conjoined. The only exceptions to this observation are *pedesung/pedehung* 'while.DS' and *sukuhang* 'while, during'. While *pedehung* and *pedesung* have been recorded both in sentence-initial position and inserted between two clauses, *sukuhang* only occurs sentence-initially in the data.

The following discussion introduces the different coordinating strategies in Paku. There are three main semantic subtypes that can be distinguished: conjunctive coordination ('and'-coordination), disjunctive coordination ('or'-coordination, 9.1.3), and adversative coordination ('but'-coordination, 9.1.4) (Stassen 2000; Haspelmath 2004, 2007a). Conjunctive coordination is cross-linguistically most common and therefore also shows the most formal diversity (Haspelmath 2007a:4). This typological tendency is reflected in Paku in that there are four strategies of coordination that can be described as conjunctive: unmarked (9.1.1) and *ali/anri* coordination (9.1.2) conjoin both phrases and clauses. *Same* (9.1.5) functions only at the phrase level and *belalu/balalu* (9.1.6) only at the clause level. In addition to those main semantic subtypes Paku also has three coordinating conjunctions indicating a temporal relationship (9.1.7, 9.1.8, 9.1.9), all three of which only link clauses.

9.1.1 Unmarked coordination

The most common way to coordinate two clauses is by means of juxtaposition in which no formal linker is required between the two clauses. This kind of coordination is also called zero-marked (Stassen 2000:7) or asyndetic[1] (Haspelmath 2007a:7) coordination. The only way coordination is indicated in these structures is by means of intonation (Haspelmath 2007a:7). Asyndesis is the most common conjunctive linking strategy for clauses in the data. An example is presented in (9.1).

1. As opposed to syndetic coordination which refers to the use of a coordinating conjunction.

(9.1) *Anrape Roni tulak mantat, pitanin tatane ngari*
anrape Roni tulak N-pantat pitanin tata-ne N-ari
yesterday Roni go AV-tap.rubber tomorrow older.sibling-3SG.POSS AV-sell
gatahne gi pasar.
gatah-ne gi pasar
rubber-ART.DEF LOC market

'Yesterday Roni went rubber tapping, tomorrow her older sibling will sell the rubber at the market.'

At the phrase level, it is possible for speakers to list a number of noun phrases without using any coordinating conjunction as is illustrated in (9.2). While the clause does contain the comitative conjunction *same* 'together with' linking the noun phrases *Arum* and *Nita*, the first two noun phrases in the list, *Elin* and *Arum*, are juxtaposed without formal marker yet still understood as conjunctive. The observation that asyndesis at the phrase level is possible but only a minor coordinating strategy with more limited scope is in line with findings in other languages (Stassen 2000:7).

(9.2) *Elin, Arum same Nita pah Kalamus.*
Elin Arum together.with Nita DIR Kalamus

'Elin, Arum, and Nita are going to Kalamus.'

9.1.2 *Ali* and *anri* 'with'

Another way of conjoining two constituents is by using one of the comitative conjunctions *ali* or *anri* which are used interchangeably by speakers. They can occur at both clause and phrase level. However, at the clause level it is more common for the two clauses to be linked without any overt marking (see 9.1.1). Phrase level linkage using *anri* is illustrated in (9.3) in which it functions to conjoin the two noun phrases *ulun muntuo iro* 'the old man' and *wawenne* 'his wife'.

(9.3) *Ulun muntuo iro anri wawenne tulak pah umo.*
ulun muntuo iro anri wawen-ne tulak pah umo
person old DEM.MED and wife-3SG.POSS go DIR rice.field

'The old man and his wife are going to the rice field.'

Sentence (9.4) shows and example of clause level coordination using *ali* which links the two clauses *ulun muntuo iro tulak pah pasar* 'the old man is going to the market' and *wawenne tulak pah umo* 'his wife is going to the rice field'.

(9.4) *Ulun muntuo iro tulak pah pasar ali wawenne tulak pah umo.*
ulun muntuo iro tulak pah pasar ali wawen-ne tulak pah umo
person old DEM.MED go DIR market and wife-3SG.POSS go DIR rice.field

'The old man is going to the market and his wife is going to the rice field.'

However, as mentioned previously structures like (9.4) are also grammatical, and potentially even more natural, without the linker. Moreover, in discourse it appears that *belalu* 'and then' (see 9.1.6) is the most common coordinator used for linking clauses and to ensure the flow of a story.

Ali and *anri* have also been shown to function as prepositions indicating an instrument (6.2). *Ali* can moreover mark a topic (6.3.5).

9.1.3 *Atawa* 'or'

Disjunction in Paku can be expressed using the conjunction *atawa* 'or'. (9.5) shows a polar question in which the speaker presents the addressee with two options which are linked using *atawa*.

(9.5) *Hamen pah pasar atawa pah umo?*
want DIR market or DIR rice.field

'Do you want to go to the market or the rice field?'

In addition to functioning as a conjunction at the phrase level as shown in (9.5), *atawa* can also function to link constituents at the clause level, as demonstrated in (9.6).

(9.6) *Tulak tataha atawa aku herau polisi!*
go now or 1SG call police

'Go now or I will call the police!'

9.1.4 *Kode'* 'but'

In order to express a contradiction the conjunction *kode'* 'but' is used. Examples (9.7) and (9.8) illustrate clause level linkage utilising *kode'*. In (9.7) the subject in both clauses is identical so that it can be omitted in the second one. As in other complex clause types, if the subject is not the same in both clauses, it needs to be obligatorily expressed in both clauses which is demonstrated in (9.8) in which the subject in the first clause *iyo* '3SG' is different from the subject in the second clause *peane* 'her child'.

(9.7) *Adi'ku nihao pansi teke mena kain kode' bakoi tau nuen.*
adi'-ku nihao pansi teke mena kain kode' bakoi tau nuen
younger.sibling-1SG.POSS borrow pan from aunt 1PL.EXCL but NEG can cook

'My little sister borrows a pan from our aunt but cannot cook.'

(9.8) *Iyo moli sapeda kode' peane mete' tau basapeda.*
iyo N-woli sapeda kode' pea-ne mete' tau bV-sapeda
3SG AV-buy bicycle but child-3SG.POSS not.yet can INTR.DYN-bicycle

'She bought a bicycle but her child cannot ride a bicycle yet.'

When used at the phrase level, *kode'* typically expresses that something is the case contrary to expectation as illustrated in (9.9). Here the speaker says that the cloth was yellow, not green (as seemingly assumed by the addressee).

(9.9) *Kain iro bakoi karado kode' melintang.*
cloth DEM.MED NEG green but yellow

'This cloth isn't green but yellow.'

9.1.5 *Same* 'together with'

The conjunction *same* can only be used to conjoin two noun phrases and its use at both clause level and for conjoining other phrase types is universally judged ungrammatical by speakers. An example of *same* as a conjunction at the phrase level is shown in (9.10) in which it links the two noun phrases *pamakal* 'village chief' and *peane* 'his child'.

(9.10) *Pamakal same peane tulak nganup wawui gi jubut.*
pamakal same pea-ne tulak N-anup wawui gi jubut
village.chief together.with child-3SG.POSS go AV-hunt boar LOC forest

'The village chief and his child went to hunt boar in the forest.'

9.1.6 *Belalu* 'and then'

In order to mark that two activities are occurring in temporal sequence *belalu* or its free variant *balalu* 'and then' is used. Unlike the other conjunctions discussed thus far in this section *belalu* can only function to coordinate clauses. An example is shown in (9.11) in which *belalu* conjoins the two clauses *reo monrus* 'they bathe' and *reo kuman* 'they eat' indicating that the bathing happens before the eating. As in previous examples, the subject *reo* '3PL' in the second clause is omitted because it is identical to the subject in the first one.

(9.11) *Reo monrus, belalu kuman.*
3PL bathe and.then eat

'They bathe and then eat.'

9.1.7 *Nelang* 'while.SS'

In the data there are three conjunctions that convey the meaning of 'while': *nelang*, *pedesung* 9.1.8, and *sukuhang* 9.1.9. The difference between *nelang* and *pedesung* is that of switch-reference. *Nelang* is used to express that two activities are performed simultaneously by the same person. An example is presented in (9.12) in which an unnamed third person actor *iyo* is riding a bike while at the same time smoking a cigarette.

(9.12) *Iyo nyungket motor nelang ngudut.*
iyo N-sungket motor nelang N-udut
3SG AV-ride motorbike while.SS AV-cigarette

'She rides her motorbike while smoking'

In constructions in which *nelang* is used the subject in the second clause is always omitted because it is always co-referential with the subject in the first clause.

9.1.8 *Pedesung* 'while.DS'

While *nelang* is used to indicate that the subject in both clauses is the same, in cases in which two actions are performed by two different people (or groups of people), the coordinating conjunction *pedesung*, produced by some speakers as *pedehung*, is used to link the two clauses. An example is shown in (9.13) in which two actors, Johnny and his wife, are performing two different activities at the same time.

(9.13) *Johnny mulo kayu gatah gi kabun pedesung wawenne ngepo pea*
Johnny N-bulo kayu gatah gi jubut pedesung wawen-ne N-epo pea
Johnny AV-plant tree rubber LOC garden while.DS wife-3SG.POSS AV-fetch children
reo engke sakulah.
reo engke sakulah
3PL.POSS from school

'Johnny plants rubber trees in the garden while his wife picks up their children from school.'

As was mentioned in the introduction to this section, *pedehung* and *pedesung* can occur not only in inter-clausal position, which is the default position, but also sentence-initially. This is illustrated in (9.14) in which the two clauses being joined have two different pronominal actors, *aku* '1SG' and *takam* '1PL.INCL', who, like in (9.13), are involved in two different activities.

(9.14) *Pedehung aku gi Tarinsing, takam tau pa'ajar basa Paku.*
pedehung aku gi Tarinsing takam tau bV-ajar basa Paku
while.DS 1SG LOC Tarinsing 1PL.INCL can INTR.DYN-learn language Paku

'While I'm in Tarinsing, we can study Paku.'

Given that *pedehung* can only be used in structures in which the subjects in the two clauses are not co-referential, the subjects in the second clause can never be omitted.

9.1.9 *Sukuhang* 'during'

If one of the clauses expresses a period of time, it is introduced using *sukuhang*, an example of which can be seen in (9.15).

(9.15) *Sukuhang gi itu, aku mete' suah kahong iyangku Budi.*
sukuhang gi itu aku mete' suah kahong iyang-ku Budi
while LOC DEM.PROX 1SG not.yet ever meet friend-1SG.POSS Budi

'The whole time I have been here, I never met my friend Budi.'

Sukuhang is the only coordinating conjunction in the data which has only been documented in sentence-initial position. When followed by a noun phrase, *sukuhang* can also function as a preposition (see 6.3.2).

9.2 Subordination

Subordination is a type of clause linking in which one main independent clause is combined with a dependent clause. While the former can stand alone, the latter cannot. In the typological literature there are usually three types of subordinate clauses that are distinguished: complement clauses, adverbial clauses, and relative clauses (Thompson et al. 2007:238; Longacre 2007; Dixon 2006:2; Diessel 2001:435). The structural and functional diversity of these clause types has led some authors to question the usefulness of the term "subordinate clause" as a linguistics category as these structures do not have much in common beyond grammatical dependency (Payne 1997; Haiman and Thompson 1984:336). In order to address this, Thompson, Longacre, and Hwang elaborate that subordination needs to be viewed as a continuum with different levels of embeddedness for different types of subordinate clauses. They maintain that relative clauses and complement clauses are clearly embedded within another constituent (a noun phrase and another clause respectively) whereas adverbial clauses in some sense "less subordinate" because they relate to the main clause as a whole (2007:238). Thompson, Longacre, and Hwang refer to this as hypotactic clause combination (2007:238). This view of subordination is in line with Dixon's 2006 summary of complex constructions. He also views adverbial clauses as less embedded structurally and placed them in his category of coordinate and non-embedded subordinate constructions (2006:2). Diessel (2001) does not directly discuss embeddedness of subordinate structures but he does mention it implicitly in his account of identifying criteria for the different subordinate clause types in that relative clauses function as modifiers within a noun phrase, complement clauses are arguments of a predicate, and adverbials modify an entire clause or verb phrase [p.436].

The following discussion of subordinate structures in Paku is divided into two parts. The first one (9.2.1) looks at adverbial clauses and the different kinds of information they add to the event in the main clause. The second part (9.2.2) provides an in-depth analysis of complementation in Paku.

9.2.1 Adverbial clauses

According to Thompson et al. (2007:238) there are three ways of marking an adverbial clause: subordinate morphemes, special verb forms, and word order. Paku exclusively utilises the first method and introduces its adverbial clauses with one of the several subordinating conjunctions. As is common for SVO languages like Paku the subordinating conjunction always occurs at the

beginning of the clause and the choice of subordinator depends on the type of adverbial information that is added to the clause Thompson et al. (2007:238). Table 9.2 shows a list of subordinators found in the data.

Form of subordinator	**Associated clause type**	**Translation**	**Section**
amun	Conditional, temporal	'if', 'when'	9.2.1.1
umpama'ne/ampama'ne	Conditional	'if'	9.2.1.1
pakai	Purpose	'in order to'	9.2.1.2
umak	Purpose	'for, to'	9.2.1.2
malan	Purpose	'so that'	9.2.1.2
ngampan	Purpose	'in order to'	9.2.1.2
et	Reason	'because'	9.2.1.3
ulah	Reason	'because'	9.2.1.3
daya	Reason	'because'	9.2.1.3
et iro	Reason	'therefore'	9.2.1.3
ingkehne	Concessive	'although'	9.2.1.4
semete'	Temporal	'before'	9.2.1.5
sahaut	Temporal	'after'	9.2.1.5
hampe	Temporal	'until'	9.2.1.5
awuk	Temporal	'when'	9.2.1.5
hantek	Temporal	'when'	9.2.1.5

TABLE 9.2: Subordinating conjunctions

Most adverbial clauses can occur at either side of the main clause. However, in a standard and pragmatically neutral construction most speakers tend to place the subordinate clause before the main clause. This is again consistent with typological findings that SVO languages generally allow placement before (preposed) and after (postposed) the main clause but prefer preposed adverbial clauses (Thompson et al. 2007:270; Diessel 2001:442).

The following discussion is divided into separate sections depending on the function of the adverbial clause. Section 9.2.1.1 covers all types of conditional clauses, 9.2.1.2 looks at clauses which express purpose, and 9.2.1.3 introduces reason clauses. Following that is a discussion of concessive clauses (9.2.1.4) and the different types of temporal clauses are illustrated in 9.2.1.5.

9.2.1.1 Conditional clauses

Conditional constructions are used to discuss hypotheses, implications, and consequences. In Paku there are two types of conditional clauses, differing in the semantic features of their respective subordinating conjunctions. The first is used to express a scenario that can and/or is likely to happen. It is introduced by the conjunction *amun* 'if' which is exemplified in (9.16) and (9.17). In (9.16) the actor of the dependent clause is deleted under the co-referentiality principle (see introduction to this chapter). Sentence (9.17) illustrates a negated conditional clause in which the speaker expresses that if the condition is not met, the event in the main clause will occur. Example (9.17) also shows that main clauses can be in undergoer voice which in its pronominal form is expressed through constituent order, a cliticised actor and the lack of voice marking on the predicate.

(9.16) *Amun naan waktu, aku holet.*
if EXIST time 1SG come

'If there is time, I will come.'

(9.17) *Amun iko' bakoi tau bu'ubah, iko' tananku.*
amun iko' bakoi tau bu-ubah iko' tanan-ku
if 2SG NEG can INTR.DYN-change 2SG leave-1SG

'If you don't manage to change, I will leave you.'

In the data, conditional clauses featuring *amun* can have functions beyond expressing straight conditions. They can, for example, also be used as a temporal subordinator meaning 'when'. In many cases the *amun*-clause is ambiguous as to whether its meaning is conditional ('if') or temporal ('when'). The only context in which *amun* is undoubtedly temporal is when the action expressed in the subordinate clause represents a habitual activity. An example is shown (9.18). Knowing that the addressee goes to the market regularly, the subordinate clause introduced by *amun* needs to be interpreted temporally.

(9.18) *Amun iko' pah pasar, woli udut pah aku.*
when 2SG DIR market buy cigarette BEN 1SG

'When you go to the market, buy me cigarettes.'

Many languages do not make a formal distinction between conditional and temporal readings of an adverbial clause (i.e. the difference between 'if' and 'when' in English) and the precise interpretation of such a clause is determined by the degree of expectability of the event (Thompson et al. 2007). With this in mind it is not surprising that in a habitual scenario *amun*-clauses can have a temporal reading.

There are certain constructions in the data in which the *amun*-clause can stand alone. One such instance is shown in (9.19) in which *amun* is used in a question, in a context in which two speakers are talking about different rice cultivation techniques and after one of the speakers explained how to maintain your rice field, the other asks about wet rice fields.

(9.19) *Amun gi sawahtu?*
amun gi sawah-tu
if LOC wet.rice.field-EMP

'And what if you are in a wet rice field?'

The second type of conditional clause is used for events that are unlikely or impossible to happen. They are introduced by either *umpama'ne* or its free variant *ampama'ne*, both of which translate to 'if' but are glossed as 'HYP' to reflect their function and differentiate them from *amun*-clauses. In (9.20) *umpama'ne* is used in a construction in which the speaker talks about a physiologically

impossible event of possessing wings, and its hypothetical consequence of being able to fly. Sentence (9.21) exemplifies the use of *ampama'ne*. Here the event expressed in the conditional clause is not impossible, i.e. it is possible for people to become president, but it is deemed unlikely by the speaker and therefore the clause is introduced by *ampama'ne* and not by *amun*.

(9.20) *Umpama'ne aku naan elat, aku tau similing.*
HYP 1SG EXIST wing 1SG can fly

'If I had wings, I could fly.'

(9.21) *Ampama'ne aku presiden, aku tatau.*
HYP 1SG president 1SG rich

'If I was president, I would be rich.'

Unlike other languages, in which, for instance, tense marking of the clause can provide information regarding the probability of the event, in Paku it is only the choice of subordinator that encodes this kind of information.

9.2.1.2 Purpose clauses

Purpose clauses express the goal or the aim of the action expressed in the main clause. They are marked by the conjunctions *pakai* 'in order to', *umak* 'for, to', *malan* 'so that', and *ngampan* 'in order to'. *Malan* and *umak* were only used by one speaker in this environment. Sentences (9.22)-(9.25) show examples of all purpose subordinators in the data.

(9.22) *Aku pahajar basa-basa pakai die bagawi gi pemerintah.*
aku pah-ajar basa-basa pakai die ba-gawi gi pemerintah
1SG INTR.DYN-study RED-language in.order.to later INTR.DYN-work LOC government

'I study languages in order to later work for the government.'

(9.23) *Ine' ngulah wadai umak na'ari.*
Ine' N-ulah wadai umak na-ari
mother AV-make cake to PASS-sell

'Mum makes cakes to sell.'

(9.24) *Malan iro ma'asus, takam harus ba'usaha.*
malan iro mV-asus takam harus bV-usaha
so.that it INTR.STA-good 1PL.INCL must INTR.DYN-work.hard

'So that it will be good, we have to work hard.'

(9.25) *Ngampan wansit sehat harus kuman obat.*
in.order.to fast healthy must eat medicine

'In order get healthy quickly, you need to take your medicine.'

In (9.22) *pakai* is used to introduce the subordinate clause which semantically is the goal of the activity expressed in the main clause. Example (9.23) shows *umak* in the same function but with an omitted subject in the subordinate clause. Sentence (9.24) illustrates the use of *malan* in a context in which the speaker talks about the benefits of working hard. *Malan* is also a content word meaning 'walk'. Finally, (9.25) shows a purpose subordinate clause introduced by *ngampan* expressing why the addressee needs to take their medicine. Note that in (9.25) the subject is omitted in both clauses allowing an interpretation of either a general statement or a second person addressee.

In addition to functioning as a subordinating conjunction marking a purpose clause, *pakai* also occurs as a preposition marking either an instrument (6.2) or a beneficiary (6.3.3)), the latter function it shares with *umak*. However, as (Thompson et al. 2007:251) note, languages that mark a purpose the same way as a beneficiary are not unheard of.

9.2.1.3 Reason clauses

Reason clauses function to establish a causative link between the two clauses being linked. In the data there are three subordinating conjunctions that are able to convey this concept: *et*, *ulah*, and *daya*. The most commonly used form is *et*, an example of which is shown in (9.26).

(9.26) *Et aku hokun, wolumku mi'itu.*
et aku hokun, wolum-ku mi'itu
because 1SG happy, life-1SG.POSS so

'Because I'm happy, so is my life.'

The three forms occur in free variation so *ulah* and *daya* can be used in the same environment which is shown (9.27) and (9.28). Both *ulah* and *daya* can also function as prepositions marking an oblique actor in a passive construction (see 6.3.4).

(9.27) *Ulah haut sururu, adi'ku kai mihinroi ngarawah*
ulah haut sururu adi'-ku kai mV-hinroi N-karawah
because already tired younger.sibling-1SG.POSS want INTR.STA-stop AV-help
ine' muluh.
ine' muluh
mother cook.rice

'Because she is already tired, my little sister wants to stop helping mum cook rice.'

(9.28) *Daya kakah haut uhang bagawi gi pabrik tataha*
daya kakah haut uhang bV-gawi gi pabrik tataha
because grandfather already long.time INTR.DYN-work LOC factory now
mi'ikor.
mV-ikor
INTR.STA-cough

'Because grandpa has been working in a factory for a long time, he has a cough.'

The subordinator *et* can furthermore combine with *iro* to form *et iro* 'therefore' which functions to express a conclusion. Its use is illustrated in (9.29). Unlike *et*, *et iro* seemingly cannot function to link two clauses and should therefore strictly speaking not be considered a subordinating conjunction but an adverb. There are only few instances in the data all of which follow the same structure as in (9.29): *et iro* occurs in clause-initial position with an independent main clause following it.

(9.29) *Et iro, khusus nudadas, sali'ne.*
et iro khusus nu-dadas sali'-ne
because DEM.MED special have-dadas, before-NOMZ

'Therefore we had a special dadas (ceremony), back in the day.'

9.2.1.4 Concessive clauses

Concessive clauses are introduced by the subordinating conjunction *ingkehne* 'although'. Semantically this sentence type expresses that the event in the main clause occurs despite expectations to the contrary. In cases in which the main clause is positive, the concessive clause presents some sort of obstacle whereas if the main clause is negative, i.e. if either *bakoi* or *koi* occur in the clause, the subordinate clause expresses a benefit that should have supported the event described in the main clause. An example of a concessive clause construction is shown in (9.30).

(9.30) *Ingkehne aku mi'itu susah, aku bakoi laku' teke ulun lain.*
although 1SG like.this poor 1SG NEG ask.for from person other

'Although I am this poor, I do not ask other people for help.'

In one instance the speaker chose a construction introduced by *biar*, however, due to the fact that it only occurs once in the data, *biar* is not listed in Table 9.2. Moreover, a minority of speakers also offered constructions using the form *walaupun* which is most likely taken from Indonesian and therefore also not listed in Table 9.2.

9.2.1.5 Temporal clauses

Temporal clauses add information about the time at which the event in the main clause occurs. As can be seen in Table 9.2, there are a comparatively large number of subordinators conveying

temporal information with each one highlighting different temporal features and nuances of the event. They can express points in time, durations, as well as other events relative to which an action occurs.

In order to express that an action happened before another one, the conjunction *semete'* 'before' is used. An example is shown in (9.31). The dependent clause, which under co-referentiality has an omitted subject *iyo* '3SG', is in initial position and is followed by the main clause *iyo pingikup ine'ne* 'she embraced her mother'.

(9.31) *Semete' tulak, iyo pingikup ali ine'ne.*
semete' tulak iyo pVN-ikup ali ine'-ne
before go 3SG NOMZ-embrace with mother-3SG.POSS

'Before leaving, she embraced her mother.'

On the other hand, if the event expressed in the main clause occurs after another event, the conjunction *sahaut* 'after' is used to introduce the dependent clause (9.32).

(9.32) *Sahaut kuman, wargaku nginte TV.*
sahaut kuman warga-ku N-ite TV
after eat family-1SG.POSS AV-see television

'After eating, my family watches television.'

In order to say that an event occurs until a certain time, *hampe* 'until' is used. The point in time expressed in *hampe* clauses can refer to events in both the past and the future. For instance there is no indication whether the event of leaves falling until the tree is dead as expressed in (9.33) occurred in the past, will occur in the future, or presents a general statement.

(9.33) *Raun mangga iro layar hampe mangga iro pate.*
leaf mango DEF fall until mango DEF dead

'The mango leaves fall until the mango tree is dead.'

To express a point in time the subordinate clause is introduced by *hantek* 'when'. An example is shown in (9.34) in which *hantek* 'when' marks the arrival of the Dutch in Kalimantan.

(9.34) *Rukun gi pulau Kalimantan malai naan bu'ubah hantek ulun*
rukun gi pulau Kalimantan malai naan bV-ubah hantek ulun
culture LOC island Kalimantan begin EXIST INTR.DYN-change when CLF1
Walada hawi.
Walada hawi
Netherlands arrive

'There was a change of culture in Kalimantan when the Dutch arrived.'

Despite the fact that *amun* is technically used for conditional constructions, it can also function to express a point in time similar to *hantek*. This function was illustrated in (9.18) above but is repeated in (9.35).

(9.35) *Amun iko' pah pasar, woli udut pah aku.*
when 2SG DIR market buy cigarette BEN 1SG

'When you go to the market, buy me cigarettes.'

In order to talk about an event in the past, a speaker will use the conjunction *awuk*. Like *hantek* and *amun* it translates to 'when'. However, *awuk* is only used to indicate past events. Sentence (9.36) shows an example of a structure containing *awuk* in which the speaker talks about their childhood.

(9.36) *Awuk aku odik, aku sidi' tuli bal.*
when 1SG small 1SG like play soccer

'When I was little, I liked playing soccer.'

9.2.2 Complementation

In addition to predicates taking noun phrases as arguments there are also those that require an entire clause as their argument. This syntactic situation is known as complementation. Complement-taking predicates are always verbal or adjectival and in many cases the same form can also occur with a direct object noun phrase. In the data there are two shapes such complement clauses can take. In the first, and most common, scenario the complement clause is juxtaposed to the predicate without any formal linking element. This is illustrated in (9.37) in which the complement clause *ine'ne morongin* 'her mother is sick' immediately follows the predicate *kutue'* 'know'.

(9.37) *Iyo kutue' ine'ne morongin.*
iyo kV-tue' ine'-ne mV-rongin
3SG NVOL-know mother-3SG.POSS INTR.STA-fever

'She knows her mother is sick.'

In addition to structures in which the complement clause is simply juxtaposed to the main clause (henceforth matrix clause), some types of complement clause can be introduced by the complementiser *bahawa*. The use of *bahawa* is demonstrated in (9.38) which is the same sentence as (9.37) except for the addition of *bahawa* as a linking element.

(9.38) *Iyo kutue' bahawa ine'ne morongin.*
iyo kV-tue' bahawa ine'-ne mV-rongin
3SG NVOL-know COMP mother-3SG.POSS INTR.STA-fever

'She knows that her mother is sick.'

Bahawa is optional but more likely to occur in the context of indirect speech (to distinguish it from direct quotation, see 9.2.2.11) than with other types of complement-taking predicates. Moreover, it cannot occur with those predicates that have reduced complements (see below). This includes predicates of causation, achievement, pretence, aspect, direct speech, some commentative and most desire predicates (see below for more information on complement types and semantic complement classes).

Examples (9.37) and (9.38) illustrate the default constituent order for these types of complex sentences, i.e. the complement clause usually follows the predicate. However, for some types of complement-taking predicates (causative and direct speech plus potentially propositional attitude) the order can be altered and the complement clause can occur sentence-initially. This is demonstrated in (9.39) in which the unmarked complement clause *iyo bakoi sidi' sakulah iro* 'that she did not want to go to school' precedes the predicate *ngulah* 'make'. Note that *iro* in this context in optional and functions as a discourse marker indicating the end of the subject.

(9.39)

Iyo	*bakoi*	*sidi'*	*sakulah*	*iro*	*ngulah*	*ine'ne*	*sangit.*
iyo	bakoi	sidi'	sakulah	iro	N-ulah	ine'-ne	sangit
3SG	NEG	like	school	DEM.MED	AV-make	mother-3SG.POSS	angry

'That she did not want to go to school made her mother angry.'

In cases in which the complementiser *bahawa* is used it behaves as part of the complement clause, i.e. if the complement clause is in initial position, the sentence begins with *bahawa*.

Whenever the subject of a complement clause is co-referential with the subject of the complement-taking predicate, it can can be deleted in one of the clauses resulting in a serial verb construction. The term serial verb construction simply refers to the phenomenon in which two or more verbs occur in sequence without any linking element inserted between them. These verbs in Paku are all finite, i.e. they are marked for transitivity, voice, and volition (where applicable) and they need to match in these features. An example of verb serialisation can be seen in (9.40). Here Roni is both the subject of the matrix clause and the notional subject of the complement clause. As a result of the omission of the subject in the complement clause, the two verbs *ngahong* 'plan' and *nangkasus* 'repair', both of which are marked for actor voice, occur as a string without any formal linker between them.

(9.40)

Roni	*ngahong*	*nangkasus*	*motorne.*
Roni	N-ahong	N-tVN-k-asus	motor-ne
Roni	AV-plan	AV-CAUS2-LE-good	motorbike-3SG.POSS

'Roni plans to repair his motorbike.'

Serial verb constructions have been observed for predicates of causation, fear, desire, achievement, knowledge and acquisition of knowledge, pretence, and direct speech. It is important to distinguish this kind of discourse-based deletion from other types of deletion, such as for instance equi-deletion, which create similar syntactic structures. The deletion observed in Paku is based on the fact that the omitted constituent is understood from context and, as will be seen in examples throughout this discussion, this process is not obligatory whereas syntactic processes like equi-deletion typically are.

According to Noonan (2007:59ff) there are several different types of complements which are identified by the morphology of the predicate, the syntactic relations the predicate has with its arguments (complement-internal syntax), and the syntactic relation of the complement clause with the rest of the sentence (complement-external syntax). He points out that languages differ as to how many distinct complement types they have. Based on the data two types of complements can be identified for Paku. The vast majority of complement clauses are sentence-like (henceforth s-like) which means that the complement clause without the complementiser *bahawa* has the same form as a declarative clause. In Paku this means that the predicate is marked for transitivity, voice, and volition and that the subject occurs before the predicate whereas any objects follow it. The second type present in the data are reduced complement clauses in which the complement clause does not have an overtly expressed subject.

Noonan (2007:120ff) also put forward a division of complement-taking predicates into different classes based on their semantic properties in the context of complementation. As such some predicates can be analysed as belonging to more than one category. An example of this kind is the root *itung* 'remember' which can be viewed as a predicate of achievement as well as a predicate of knowledge and acquisition of knowledge. The following discussion introduces the individual predicate classes and discusses their specific morphosyntactic and semantic features in Paku. Noonan's category of modals has been omitted in the discussion since their features were sufficiently discussed in 5.1.3.3. The modals that do occur in this section do so because they overlap with another predicate class. Likewise, constructions formed with *ingke* 'let', which technically also contain a complement clause, will not be included as they were covered in 7.8.

An overview of complement-taking predicates, including their semantic type, is presented in Table 9.3.

Complement-taking predicate	Associated clause type	Translation	Section
ulah	Causation	'make'	9.2.2.1
laku'	Causation	'ask'	9.2.2.1
suyu'	Causation	'order, command'	9.2.2.1
paksa'	Causation	'force'	9.2.2.1
pinda	Propositional Attitude	'think'	9.2.2.2
kono	Propositional Attitude	'think'	9.2.2.2
harap	Propositional Attitude	'believe'	9.2.2.2
takut	Fearing	'afraid'	9.2.2.3
koi ronu	Fearing	'worry'	9.2.2.3
harap	Desire	'hope'	9.2.2.4
kutuju	Desire	'enjoy'	9.2.2.4
hamen	Desire	'want'	9.2.2.4
hokun	Desire	'want'	9.2.2.4
kai	Desire	'want'	9.2.2.4
sidi'	Desire	'like'	9.2.2.4
bahasil	Achievement	'succeed'	9.2.2.5
iyuh	Achievement	'able'	9.2.2.5
ule	Achievement	'able'	9.2.2.5
sampat	Achievement	'take the opportunity'	9.2.2.5
suba'	Achievement	'try'	9.2.2.5
ahong	Achievement	'plan'	9.2.2.5
itung	Achievement/Knowledge	'remember'	9.2.2.5, 9.2.2.7
ite	Immediate perception	'see'	9.2.2.6
rongoi	Immediate perception	'hear'	9.2.2.6
tue'	Knowledge	'know'	9.2.2.7
sampaka	Pretence	'pretend'	9.2.2.8
pupura'	Pretence	'pretend'	9.2.2.8
sasal	Comment	'regret, sorry'	9.2.2.9
mahanang ate	Comment	'sad'	9.2.2.9
ma'asus	Comment	'good'	9.2.2.9
malai	Aspect	'begin'	9.2.2.10
palus	Aspect	'continue'	9.2.2.10
luput	Aspect	'finish'	9.2.2.10
hinroi	Aspect	'stop'	9.2.2.10
wada	Utterance	'say'	9.2.2.11
tunti	Utterance	'ask'	9.2.2.11
jawab	Utterance	'answer'	9.2.2.11

TABLE 9.3: Complement-taking predicates

9.2.2.1 Predicates of causation

Predicates of causation express a relation involving an actor or an event (the causer) an affected party (the causee), and a resulting situation (the caused event). Syntactically, they require three

arguments. The actor or event functions as the causer and occurs as the subject of the matrix clause. As will be demonstrated below, in causative constructions it is possible for a whole clause to function as subject. The causee is the grammatical direct object of the matrix clause as well as the subject of the complement clause and the caused state is expressed in the entirety of the complement clause. Noonan (2007:136) includes causative predicates in his manipulative predicates class. In addition to causative predicates it also includes permissive predicates. However, in the data for Paku there are only causative predicates which is why they will be the focus of this discussion. Noonan (2007:136) furthermore distinguishes between efficient and final cause and points out that final cause is typically expressed via adverbials such as purpose clauses (see 9.2).

Predicates of causation may range from neutral ones such as *ulah* 'make' to those providing information about the illocutionary force (Austin 1962) of the predicate such as for instance *paksa'* 'force' and *laku'* 'ask'. In the literature this distinction is also referred to as indirect and direct causation (Dixon 2000:62; Shibatani 2001:11ff; Song 1996:5-6). Indirect causation refers to encoding of a causative event in which the degree of involvement of the actor is unspecified or indirect. In direct causation on the other hand the predicate expresses that the causer is clearly and immediately responsible for the caused event. In Paku the only unequivocally indirect causative predicate is *ulah* 'make'. The other predicates *laku'* 'ask', *suyu'* 'order/command', and *paksa'* 'force' express varying levels of direct involvement of the causer.

Regardless of the predicate used, what they all have in common is that the causee is manipulated into either performing an action or assuming a state. In that sense structures of this kind differ from syntactically transitive constructions discussed in 5.2.3.4 in which the predicate is marked by one of the causative prefixes. Constituent order in sentences with a causative complement taking predicate is fixed, i.e. the causer has to occur in subject position followed by the predicate, the causee and then the resulting action or state. The structure in (9.41) shows an example sentence featuring two causative constructions. The first one involves the predicate *laku'* 'ask ' in the complement clause *ine' eter laku' iyo ngabarasis eletne* 'mum always asks her to clean her room'. The main predicate in this construction is *ulah* 'make'. The causer is a complement clause *ine' eter laku' iyo ngabarasis eletne* 'that mum always asks her to clean her room', *adi'ku* 'my little sister' is the affected participant and the resulting state is expressed by the adjective *muar* 'annoyed'.

(9.41)

Ine'	*eter*	*laku'*	*iyo*	*ngabarasis*	*eletne*	*ngulah*	*adi'ku*
ine'	eter	laku'	iyo	N-barasis	elet-ne	N-ulah	adi'-ku
mother	always	ask	3SG	AV-clean	room-3SG.POSS	AV-make	younger.sibling-1SG.POSS

muar.
muar
annoyed

'That mum always asks her to clean her room annoys my little sister.'

As can be seen in (9.41), the subject of the clause is not an actor in the sense that they can initiate or have direct control over the action. Therefore non-animate entities including complement clauses can act as the syntactic subject of a causative predicate. For the same reason, these structures can only occur in actor voice. Thus the structure in (9.42) is rejected by speakers.

(9.42) **Adi'ku* *na'ulah* *muar* *ine'* *eter* *laku'* *iyo* *ngabarasis* *eletne.*
adi'-ku na-ulah muar ine' eter laku' iyo N-barasis elet-ne
younger.sibling UV-make annoyed mother always ask 3SG AV-clean room-3SG.POSS

'That mum always asks her to clean her room annoys my little sister.'

As was mentioned before, the causative predicate *ulah* 'make' is neutral with regard to illocutionary force. However, there are also those predicates that give information about the manner in which causation is achieved. Two such predicates are *laku'* (9.43) and *suyu'* (9.44).[2] *Laku'* is still relatively neutral with regard to illocutionary force and is possibly translates as 'ask'. *Suyu'* on the other hand is stronger and semantically closer to an order or a command.

(9.43) *Ulun* *susah* *iro* *laku'* *duit* *engke* *ulun* *lain* *gi* *tumpuk.*
person poor DEM.MED ask money from person other LOC village

'This poor person is asking for money from other people in the village.'

(9.44) *Iyo* *nyunyu'* *peane* *ngepo* *punsi* *itu.*
iyo N-suyu' pea-ne N-epo punsi itu
3SG AV-order child-3SG.POSS AV-fetch banana DEM.PROX

'She ordered her daughter to fetch the bananas.'

Paksa' 'force' expresses that the resulting action or state occurs against the will of the affectee (9.45).

(9.45) *Hi* *ine'* *maksa'* *adi'ku* *ngabarasis* *eletne.*
hi ine' N-paksa' adi'-ku N-barasis elet-ne
ART.PERS mother AV-force younger.sibling-1SG.POSS AV-clean room-3SG.POSS

'Mum forces my little sister to clean her room.'

Moreover, *paksa'* is the only causative predicate in the data for which a corresponding undergoer voice construction was accepted by speakers. This is illustrated in (9.46) which shows equivalent undergoer voice construction of (9.45).

(9.46) *Adi'ku* *napaksa'* *hi* *ine'* *ngabarasis* *eletne.*
adi'-ku na-paksa' hi ine' N-barasis elet-ne
younger.sibling-1SG.POSS UV-force ART.PERS mother AV-clean room-3SG.POSS

'Mum forces my little sister to clean her room.'

2. Under nasal substitution a nasal is inserted into the root *suyu'* 'order, command' which results in the finite form *nyunyu'*. This is the same root-internal change as observed for the root *ite* 'see' (which is realised as *nginte* under nasal substitution).

9.2.2.2 Predicates of propositional attitude

Predicates of propositional attitude express a speaker's belief or attitude regarding the truth or likelihood of an event expressed in the complement clause. If the subject of the matrix clause is animate, it is always an experiencer. Morphosyntactically these predicates behave like other predicates in the language in that they can for instance occur in both actor and undergoer voices, which is demonstrated in (9.47) and (9.48). Both examples contain the verb root *pinda*[3] 'think' conveying that the speaker is convinced of the truth of their assertion that the unnamed third party *iyo* '3SG' is indeed rich. In (9.47) the clause is in actor voice whereas in (9.48) it is in undergoer voice.

(9.47) *Aku minda iyo tatau.*
aku N-pinda ito tatau
1SG AV-think 3SG rich

'I think she is rich.'

(9.48) *Pindaku iyo tatau.*
pinda-ku iyo tatau
think-1SG 3SG rich

'I think she is rich.'

Kono 'think' expresses the same propositional attitude as *pinda*. An example is shown in (9.49) in which *kono* 'think' occurs in undergoer voice with a cliticised actor pronoun and is immediately followed by a complement clause which in this case consists of only one constituent *ma'asus* 'good'.

(9.49) *Konoku ma'asus.*
kono-ku mV-asus
think-1SG INTR.STA-good

'I think this is good.'

Complements of predicates of propositional attitude can be s-like as well as reduced. This can be seen when comparing examples (9.47) and (9.48) with (9.49). The former have a well-formed clause containing subject and predicate as their complement whereas the latter consists of only one constituent due to omission.

Another complement-taking predicate in the data expressing a positive attitude towards the event is *harap* 'believe', an example of which is presented in (9.50). Note that the added intensifier *tuu* 'very' results in a reading closer to 'be convinced' which does not have a lexical equivalent in Paku.

3. Some speakers produce this morpheme as pina/mina. Based on the observation that Paku shows a preference for nasal+voiceless obstruent clusters and that it tends to have deleted the obstruent in contexts in which related languages feature a nasal+voiced obstruent cluster, it is likely that pina/pina are the actual Paku forms and that pinda/minda are taken from Maanyan. However, given that the speaker who produced the examples in this section used pinda/minda, they are the forms used in the discussion.

(9.50) *Iyo harap tuu wurunganne ma'asus.*
iyo harap tuu wurung-an-ne mV-asus
3SG believe INTS bird-RES-3SG.POSS INTR.STA-good

'She very much believes her birdcage is good.'

Paku has no predicates that express a negative propositional attitude such as 'doubt' in English. Instead, in the event of negative judgement, the negator *bakoi* is used together with *harap* 'believe'. This can be seen when comparing the positive preposition in (9.51) with the negative one in (9.52). Both examples use the predicate *harap* 'believe', however, the in the negative preposition in (9.52) *harap* is preceded by *bakoi*.

(9.51) *Aku harap iyo ngahong ngonru duit pah aku.*
aku harap iyo N-ahong N-onru duit pah aku
1SG believe 3SG AV-plan AV-give money DIR 1SG

'I believe he plans to give me money.'

(9.52) *Aku bakoi harap iyo ngahong ngonru duit pah aku.*
aku bakoi harap iyo N-ahong N-onru duit pah aku
1SG NEG believe 3SG AV-plan AV-give money DIR 1SG

'I don't believe he plans to give me money.'

9.2.2.3 Predicates of fearing

Predicates of fearing express the fear that an event, expressed in the complement clause, occurs. The subject in such structures is always the entity experiencing fear and hence always has the semantic role of an experiencer. Predicates of fearing can occur with either s-like or reduced complements. The most common complement-taking predicate expressing fear is *takut* 'afraid'. An example is presented in (9.53).

(9.53) *Hi Amir takut katamah gi sunge.*
ART.PERS Amir afraid swim LOC river

'Amir is afraid to swim in the river.'

Another method speakers use to express a fear of something is *koi ronu* 'not brave'. The distribution of *koi ronu* is identical to that of *takut* which is demonstrated in (9.54).

(9.54) *Roni koi ronu peane sakulah gi Banjar.*
Roni koi ronu pea-ne sakulah gi Banjar
Roni NEG brave child-3SG.POSS school LOC Banjar(masin)

'Roni is worried that her child will go to school in Banjar(masin).'

There is no designated predicate to express a lack of fear. As with predicates of propositional attitude the negator *bakoi* in combination with *takut* is used in this context. An example of such a construction is shown in (9.55).

(9.55) *Iyo bakoi takut hi uma' holet.*
3SG NEG afraid ART.PERS father come
'She is not afraid that father is coming.'

There is an additional predicate of fearing in the data, namely *gaer* 'be worried' but there are no examples in which it occurred with a complement clause. However, based on comparative data from Maanyan (Gudai 1985), *gaer* should be able to take a complement.

What all of these constructions have in common is that the event expressed in the complement clause causes the subject to experience fear. However, this event has either not (yet) occurred or it is uncertain if it has occurred. In this sense *takut*, *koi ronu*, and *gaer* as a complement-taking predicates differs from constructions in which they are followed by a subordinate clause introduced by *et*, *ulah* or *daya*, all of which translate to 'because' (see 9.2.1.3). Both cases express a causal relationship but unlike the event in the complement clause, the event in the subordinate clause has already occurred.

9.2.2.4 Predicates of desire

Predicates of desire express a wish which is expressed in the complement clause. These structures are similar to those containing the predicate *takut* 'afraid' in that the subject is an experiencer (see 9.2.2.3). However, while *takut* expresses a negative emotion, predicates of desire express a positive attitude towards the event. In the data there are six desiderative predicates: *harap* 'hope' (9.56), *kutuju* 'enjoy' (9.57), *hamen* 'want' (9.58), *hokun* 'want' (9.59), *kai* 'want' (9.60), and *sidi'* 'like' (9.61). Note that the predicate *harap* is identical in form to *harap* 'believe' discussed in 9.2.2.2, however, as can be seen in (9.56), *harap* 'hope' occurs with voice marking whereas *harap* 'believe' has only been documented as occurring in its root form (see (9.50)). Morphosyntactically desiderative predicates need to be divided into two categories. The first one consists of only *harap* 'hope'. Apart from occurring with voice marking, *harap* 'hope' also takes s-like complements. It is also possible for *harap* to co-occur with the complementiser *bahawa*. The other five predicates in the data, *kutuju* 'enjoy', *hamen* 'want', *hokun* 'want', *kai* 'want', and *sidi'* 'like', on the other hand occur without voice marking, take reduced complements, and *bahawa* cannot be inserted between the predicate and the complement. *Kutuju* 'enjoy' appears to be marked by the non-volition marker *kV-* but the root *tuju* doesn't exist, which is why *kutuju* is analysed as a root form that cannot occur with voice marking. The form *kai* 'want' also indicates immediate future (see 5.1.3.1) marking not only the desire but also the intention of performing the event expressed in the complement clause. For this reason it was already discussed in 5.1.3.1 and 5.1.3.3.

(9.56) *Aku baharap ine' nokonsak kangkung ali tempeh.*
aku bV-harap ine' N-tokonsak kangkung ali tempeh
1SG INTR.DYN-hope mother AV-cook kangkung with tempeh
'I hope mum is cooking kangkung with tempeh.'

(9.57) *Orang Dusun kutuju nganup wawui.*
orang Dusun kutuju N-anup wawui
people Dusun enjoy AV-hunt boar

'The Dusun (people) enjoy hunting boar.'

(9.58) *Aku hamen pahajar basa asing.*
aku hamen pah-ajar basa asing
1SG want INTR.DYN-learn language foreign

'I want to study a foreign language.'

(9.59) *Uma'ku hokun moli mobil wayo.*
uma'-ku hokun N-woli mobil wayo
father-1SG.POSS want AV-buy car new

'My father wants to buy a new car.'

(9.60) *Aku kai ngeto purung gi jubut.*
aku kai N-eto purung gi jubut
1SG will/want AV-look.for firewood LOC forest

'I will/want to look for firewood in the forest.'

(9.61) *Amir sidi' nyonrongoi kakahne basarita ali*
Amir sidi' N-sVN-rongoi kakah-ne bV-sarita ali
Amir sidi' AV-TR-hear grandfather-3SG.POSS INTR.DYN-story about
pomolumne.
pVN-wolum-ne
NOMZ-live-3SG.POSS

'Amir likes listening to his grandfather talk about his life.'

9.2.2.5 Predicates of achievement

Noonan (2007) explains that achievement predicates, also referred to as implicative predicates, can be divided into positive and negative achievement classes. Positive achievement predicates express the manner or realisation of an achievement whereas negative predicates provide a reason for or refer to the manner of the lack of achievement of the event in the complement clause. Both types take reduced complements. The achievement predicates in the data are *bahasil* 'succeed' (9.62), *iyuh* 'able' (9.63), *ule* 'able' (9.64), *sampat* 'take the opportunity' (9.65), *suba'* 'try' (9.66), *ahong* 'plan', and *itung* 'remember' (9.68). In (9.67) and (9.68) *ahong* 'plan' and *itung* 'remember' occur in their negated forms *bakoi ngahong* 'not plan' and *bakoi ki'itung* 'forget' (see below).

(9.62) *Amun bahasil bulo pare, aku ngarine gi pasar.*
amun bV-hasil bulo pare aku N-ari-ne gi pasar
if INTR.DYN-aim plant rice 1SG AV-sell-3SG LOC market

'If I succeed in planting rice, I will sell it on the market.'

(9.63) *Iyo ki'iyuh ngoit barang iro.*
iyo kV-iyuh N-oit barang iro
3SG NVOL-be.able AV-bring thing DEM.MED

'She is able to carry that thing.'

(9.64) *Adi'ku ku'ule notok kayu.*
adi'-ku kV-ule N-totok kayu
younger.sibling-1SG.POSS NVOL-able AV-cut wood

'My little sister is able to chop wood.'

(9.65) *Iyo nyampat suu duit sukuhang jari pamakal.*
iyo N-sampat suu duit sukuhang jari pamakal
3SG AV-take.opportunity collect money during become/be village.chief

'He took the opportunity to collect money during the time he was village chief.'

(9.66) *Ulun tumpuk iro nyuba' bulo sahang.*
ulun tumpuk iro N-suba' bulo sahang
person village DEM.MED AV-try plant pepper

'The villagers are trying to grow pepper.'

(9.67) *Iyo bakoi ngahong tulak pah kabun.*
iyo bakoi N-ahong tulak pah kabun
3SG NEG AV-plan DIR garden

'She does not plan to go to the garden.'

(9.68) *Aku bakoi ki'itung nahur utangku.*
aku bakoi kV-itung N-tahur utang-ku
1SG NEG NVOL-remember AV-pay debt-1SG.POSS

'I didn't remember to pay my debt.'

In Paku negative achievement is not lexicalised. Therefore, in order to express failure of any kind, the negator *bakoi* needs to be used in combination with one of the positive achievement predicates introduced above, i.e. *bakoi bahasil* 'not succeed', *bakoi ki'iyuh* 'not able', *bakoi ku'ule* 'not able', *bakoi nyampat* 'not take the opportunity', *bakoi nyuba* 'not try', *bakoi ngahong* 'not plan', and *bakoi ki'itung* 'forget'.

9.2.2.6 Predicates of immediate perception

Predicates of immediate perception are those predicates which name the sensory mode by which the subject directly perceives the event expressed in the complement clause. In the data there are four such predicates, namely *ite* 'see', *rongoi* 'hear', *ewo* 'smell', and *ingkam* 'feel'. Paku distinguishes predicates of perception based on volition (see 5.2.2), both of which can take s-like compliments as is illustrated using the root *ite* 'see' in (9.69) and (9.70).

(9.69) *Aku nginte ine' muluh.*
aku N-ite ine' muluh
1SG AV-see mother cook.rice

'I watch mum cook rice.'

(9.70) *Aku kite ine' muluh.*
aku kV-ite ine' muluh
1SG NVOL-see mother cook.rice

'I see that mum cooks rice.'

In (9.69) the speaker deliberately watches *ine'* 'mother' cook rice whereas in (9.70) they perceived the same action unintentionally. This difference is expressed lexically in English and reflected in the translations of the examples.

The same distinction can be observed for *nyonrongoi* 'listen' and *korongoi* 'hear'. In (9.71) the speaker actively listens to the grandfather's complaining whereas in (9.72) the act of hearing someone cutting trees in the forest was done without actively listening to it.

(9.71) *Aku nyonrongoi kakah iwada.*
aku N-sVN-rongoi kakah i-wada
1SG AV-TR-hear grandfather INTR-say

'I listen to grandpa complain.'

(9.72) *Aku korongoi naan ulun nowong kakao kayu gi jubut.*
aku kV-rongoi naan ulun N-towong kakao kayu gi jubut
1SG NVOL-hear EXIST person AV-cut tree wood LOC forest

'I hear someone cutting trees in the forest.'

With regard to subject selection volitional constructions such as (9.69) and (9.71) take an agentive subject whereas non-volitional acts of perception like in (9.70) and (9.72) require an experiencer in subject function.

Semantically it is the entire event encoded in the complement clause that is perceived and not just the argument that would be the direct object of the matrix clause. For example, in (9.73) Amir watches not only his grandchildren but he watches the entire event of them playing football on the school field.

(9.73)	*Amir*	*kite*	*opone*	*tuli*	*bal*	*gi*	*lapangan*	*sakulah.*
	Amir	kV-ite	opo-ne	tuli	bal	gi	lapangan	sakulah
	Amir	NVOL-see	grandchild-3SG.POSS	play	football	LOC	field	school

'Amir watches his grandchildren play football on the school field.'

Other predicates of immediate perception in Paku are *ewo* 'smell' and *ngingkam* 'taste'. The former can take both volitional and non-volitional marking depending on whether the act of smelling was done intentionally as in *iyo ngewo wunge Malati* 'she smells the Malati flower' in which verbal marking marks that the actor deliberately smelled the flower, or unintentionally as in *aku ke'ewo tokonsakan Tina* 'I smell Tina's cooking' in which the non-volitional marker *kV-* indicates that this was not done deliberately. The root *ingkam* on the other hand can only function as a predicate of immediate perception when it occurs with the volitional prefix *N-* as the addition of the non-volitional marker *kV-* changes derives the cognitive verb *ki'ingkam* 'feel'. Unfortunately there are no instances in the data in which *ngewo*, *ke'ewo*, or *ngingkam* take a complement clause as their argument.

9.2.2.7 Predicates of knowledge and acquisition of knowledge

In the data there are only two predicates describing a state of knowledge or the process of acquisition of knowledge: *tue'* 'know' and *itung* 'remember'. *Itung* falls into two categories: achievement (see 9.2.2.5) and acquisition of knowledge. There is significant semantic and grammatical overlap between Noonan's (2007) categories of immediate perception and knowledge and acquisition of knowledge predicates. In terms of their semantic properties both classes involve cognitive stimulus. This stimulus can either be physical as in the case of immediate perception predicates or mental as for predicates of knowledge and acquisition of knowledge. In fact the perception predicates *ite* 'see' and *rongoi* 'hear' are often ambiguous as to whether they function as predicates of immediate perception or if they they express a manner of acquiring knowledge. The main difference between the two interpretations is whether the time of perception is identical with the time of the event occurring or not. Moreover, both (non-volitional) predicates of immediate perception and predicates of knowledge and acquisition of knowledge require an experiencer as subject.

Morphosyntactically the class of predicates of knowledge and acquisition of knowledge behaves in a similar way to predicates of immediate perception in that they can occur with both volitional and non-volitional marking. However, in the data only verbs marked by the non-volitional marker *kV-* take a complement. This is demonstrated in (9.74) and (9.75).

(9.74)

Ine'ku	*kutue'*	*kolowangun*	*sara*	*nokonsak*	*tokonsakan*	*Jawa.*
ine'-ku	kV-tue'	kolowangun	sara	N-tokonsak	tokonsak-an	Jawa
mother-1SG.POSS	NVOL-know	how	manner	AV-cook	cook-NOMZ	Java

'My mother knows how to cook Javanese food.'

(9.75)

Wawen	*Amir*	*ki'itung*	*ngoit*	*wadai.*
wawen	Amir	kV-itung	N-oit	wadai
wife	Amir	NVOL-remember	AV-bring	cake

'Amir's wife remembered to bring cake.'

The complements in the data are reduced. However, based on observations in the closely related class of immediate perception predicates, it should be possible for predicates of knowledge and acquisition of knowledge to occur with s-like complements.

There are two instances in the data in which the roots *tue'* 'know' and *itung* 'remember' occurred with the volitional marker *N-*. However, they did not take a complement. These examples are shown in (9.76) and (9.77). In (9.76) *nguntue'*[4] is followed by an interrogative subordinate clause *pah hawe tulak uma'* 'where dad went' and in (9.77) *ngitung* 'think of' is followed by a direct object noun phrase *iko'* '2SG'. In both cases the predicate expresses a deliberate act, i.e. in (9.76) *nguntue'* translates to 'get to know, find out' and in (9.77) *ngitung* involves an active act of thinking.

(9.76)

Aku	*nguntue'*	*pah*	*hawe*	*tulak*	*uma'.*
aku	N-tVN-tue'	pah	hawe	tulak	uma'
1SG	AV-CAUS2-know	DIR	which/where	go	father

'I'm trying to find out where dad went.'

(9.77)

Ngitung	*iko'*	*aku*	*eter*	*mahanang*	*ate.*
N-itung	iko'	aku	eter	mahanang	ate
AV-remember	2SG	1SG	always	pain	liver

'Thinking of you always makes me sad.'

9.2.2.8 Predicates of pretence

Predicates of pretence express that the proposition in the complement clause does not match reality. In the data there are two such predicates: *sampaka* and *pupura'* both of which translate to 'pretend' and take reduced complements. Although it is tempting to analyse *sampaka* as consisting of the transitiviser *sVN-* and a root *paka* (which diachronically may reflect how it developed),

4. Note that *nguntue'* 'think of' consists of not only *N-* and the root but also has either a transitivising prefix *sVN-* or causative prefix *tVN-* inserted between them. These two prefixes can typically be distinguished based on the form *N-* takes ([ɲ] or [n]). However, in this instance it is realised as [ŋ] so that it is not possible to tell which prefix was used. Based on the semantic and syntactic context of the utterance a causative prefix appears more likely.

speakers don't view *paka* as having any meaning on its own which is why *sampaka* is here understood as being the root. An example featuring *sampaka* in actor voice is presented in (9.78).

(9.78) *Kakah* *nyampaka* *mupuk* *adi'ku.*
kakah N-sampaka N-pupuk adi'-ku
grandfather AV-pretend AV-hit younger.sibling-1SG.POSS

'Grandpa pretends to hit my little sister.'

Pupura' is sometimes also produced as *papura'*. Some speakers claim that it is not an original Paku form but taken from Maanyan *purapura'/papura'*. An example containing *pupura'* can be seen in (9.79).

(9.79) *Hi* *Elin* *pupura'* *surui.*
ART.PERS Elin pretend sleep

'Elin pretends to sleep.'

9.2.2.9 Commentative predicates

Commentative predicates, sometimes referred to as factive predicates, are semantically similar to predicates of propositional attitude in that they express a mental attitude towards the complement proposition. If the subject is an overtly expressed human entity it always has the semantic role of experiencer. Commentative predicates differ from propositional attitude predicates in that the latter provide information about mental attitudes towards the truth of a proposition whereas the former provide a comment on factual events in the shape of an emotional reaction or evaluation (*sasal* 'regret, sorry', *mahanang ate* 'sad') or judgement (*ma'asus* 'good'). Examples (9.80) and (9.81) illustrate the structure of clauses in which the predicate expresses an emotional reaction or evaluation. In both instances the matrix clause contains an overtly expressed experiencer subject followed by the predicate and the complement clause.

(9.80) *Aku* *sasal* *iyangku* *bakoi* *hawi.*
aku sasal iyang-ku bakoi hawi
1SG regret friend-1SG.POSS NEG arrive

'I regret my friend didn't come.'

(9.81) *Ine'* *mahanang* *ate* *kite* *wangon* *peane.*
ine' mahanang ate kV-ite wangon pea-ne
mother pain liver NVOL-see condition child-3SG.POSS

'Mum was sad to see her child's condition.'

Sentences (9.80) and (9.81) furthermore demonstrate that complements of predicates expressing an emotional reaction or evaluation can be both s-like (9.80) and reduced (9.81).

Clauses in which the predicate expresses a judgement are structurally different from those expressing an emotional reaction or evaluation in that the matrix clause of the former type is formally without a subject. This difference can be seen when comparing the structures in (9.80) and (9.81) with the one in (9.82) in which the judgement predicate *ma'asus* 'good' occurs first in the sentence followed directly by the complement clause *iko' sakulah gi Buntok* 'that you go to school in Buntok'.

(9.82) *Ma'asus* *iko'* *sakulah* *gi* *Buntok.*
mV-asus iko' sakulah gi Buntok
INTR.STA-good 2SG school LOC Buntok

'It is good that you go to school in Buntok.'

What all examples in this section presented thus far have in common is that they comment on a factive proposition. In the case of judgement predicates it is possible for a speaker to comment on a non-factive event. However, the subordinating conjunction *amun* 'if' needs to be used. An example featuring *amun* plus judgement predicate can be seen in (9.83).

(9.83) *Ma'asus* *amun* *iko'* *sakulah* *gi* *Buntok.*
mV-asus amun iko' sakulah gi Buntok
INTR.STA-good if 2SG school LOC Buntok

'It will be good if you go to school in Buntok.'

Example (9.83) is almost identical to the structure in (9.82). In (9.82) the event expressed in the complement clause is understood to have occurred, i.e. the unnamed second person *iko'* is in fact going to school in Buntok. In contrast (9.83) the same event is marked as not having occurred (yet) via the addition of *amun*. Note that despite technically being a conditional marker, *amun* in this context is only understood to mark the event in the complement clause as non-factual. However, this non-factual marking only works with predicates expressing a judgement. If *amun* co-occurs with a predicate of emotional reaction or evaluation, it is always understood that the event expressed in the *amun*-clause is a condition that needs to be fulfilled in order for the emotion in the predicate to occur. To demonstrate the difference compare the construction in (9.84) to (9.80) discussed earlier in this section.

(9.84) *Aku* *sasal* *amun* *iyangku* *bakoi* *hawi.*
aku sasal amun iyang-ku bakoi hawi
1SG regret if friend-1SG.POSS NEG arrive

'I would regret it if my friend didn't come.'

In (9.80) the complement clause is understood to represent a fact, i.e. the friend did indeed not come which is the reason the speaker feels regret. The situation in (9.84) is slightly different in that *amun* marks the event expressed in the complement not only as non-factive but also as a condition for the speaker to feel regret.

9.2.2.10 Aspectual predicates

There are a number of predicates in the data which provide aspectual information about an activity or state. Due to the fact that they can also be viewed as referring to different phases such as inception, continuation, and termination of an activity or state, these predicates are also described as phasal predicates. They always occur with a reduced complement clause. Aspectual predicates marking these different phases in the data are *malai* 'begin' (9.85), marking the beginning of an event, *palus* 'continue' (9.86) indicating continuation, and *luput* 'finish' (9.87) and *hinroi* 'stop' (9.88) referring to the end of the event.

(9.85) *Leni wayo malai nulis suratne.*
Leni wayo malai N-tulis surat-ne
Leni just.now begin AV-write letter-ART.DEF

'Leni has just begun writing the letter.'

(9.86) *Biar haut uyuh iyo palus mantat.*
biar haut uyuh iyo palus N-pantat
although already exhausted 3SG continue AV-tap.rubber

'Although she is already exhausted, she continues to tap rubber.'

(9.87) *Ine' Nita haut luput muluh.*
mother Nita already finish cook.rice

'Mother of Nita has finished cooking rice.'

(9.88) *Jam dimo kain mihinroi bagawi.*
jam dimo kain mV-hinroi bV-gawi
hour five 1PL.EXCL INTR.STA-stop INTR.DYN-work

'At five o'clock we stop working.'

These predicates differ from aspectual auxiliaries discussed in 5.1.3.2 in that they head the verb phrase whereas auxiliaries are modifiers to a verbal head. Moreover, aspectual predicates require two arguments (subject and complement clause) whereas aspectual auxiliaries are grammatical markers can occur in different clause types.

9.2.2.11 Utterance predicates

Utterance predicates describe a simple transfer of information initiated by an agentive subject. Utterance predicates in the data are *wada* 'say', *tunti* 'ask', and *jawab* 'answer'. In terms of structure, the complement clause contains the information being transferred while the predicate describes the manner of that transfer, the illocutionary force of the original statement, or in some cases the

speaker's evaluation of the accuracy of the proposition expressed in the complement clause. Utterance predicates typically function to introduce direct and indirect speech in which the speaker reports what someone else has said. For this reason the complement of an utterance predicate is always s-like. The reporting can be done in the form of either a direct or indirect quotation. Direct quotation presents the actual words used by the actor (orthographically marked by being placed between inverted commas) whereas indirect quotation can be adapted in various ways and represents the sense of what is said rather than the actual wording.

Speakers show a strong preference for direct speech when quoting another person. As with other types of complementation discussed in this section, there is typically no formal element marking the utterance as a quote and instead the quotation immediately follows the predicate. This can be seen in (9.89) and (9.90) in which the predicates *nyawab* 'to answer' and *nunti* 'to ask' are immediately followed by the quotations *aku bakoi kutue'* 'I don't know' and *naan inun gi huang tasne* 'what is in the bag?' respectively. To clarify the boundary between matrix clause and quotation a colon has been inserted between the two constituents.

(9.89) *Roni nyawab: "aku bakoi kutue'".*
Roni N-jawab aku bakoi kV-tue'
Roni AV-answer 1SG NEG NVOL-know

'Roni answered: "I don't know".

(9.90) *Ulah iro ine' nunti: "naan inun gi huang tasne?".*
ulah iro ine' N-tunti naan inun gi huang tas-ne
because DEM.MED mother AV-ask EXIST what LOC inside bad-ART.DEF

'Therefore mum asked: "what is in the bag?".

The addressee may optionally be expressed as a prepositional phrase introduced by *pah* 'DIR' which directly follows the utterance predicate, examples of which can be seen in (9.91) and (9.92). However, more often than not, the addressee is omitted. Examples (9.91) and (9.92) furthermore illustrate that utterance predicates can occur in either actor (9.91) or undergoer voice (9.92). Note that in (9.92) undergoer voice is marked by word order, i.e. the actor occurs after the (morphologically unmarked) predicate.

(9.91) *Ine' nyawada pah adi'ku "ada surui".*
ine' N-wada pah adi'-ku ada surui
mother AV-say DIR younger.sibling-1SG.POSS PROH sleep

'Mum said to my little sister: "don't sleep!".

(9.92) *Wada ine' pah adi'ku "ada surui".*
wada ine' pah adi'-ku ada surui
say mother DIR younger.sibling-1SG.POSS PROH sleep

'Mum said to my little sister: "don't sleep!".

Despite the fact that the majority of structures containing utterance predicates follow the order actor-predicate-(addressee)-utterance, it is also possible for the quotation to occur before the matrix clause. However, in this kind of structure the matrix clause can only be in undergoer voice as in undergoer voice the actor needs to follow the predicate. This is demonstrated in (9.93), (9.94), and (9.95). The structure in (9.93) shows the direct quotation in initial position followed by the predicate in undergoer voice and the actor which is universally deemed grammatical by speakers. Examples (9.94) and (9.95) on the other hand are ungrammatical. In (9.94) the direct quotation is followed by the actor and then the predicate in actor voice. However, the undergoer (the quotation) cannot occur before the verb in actor voice construction and therefore the whole structure is rejected by speakers. Example (9.95) shows a construction in which the order of predicate and actor is identical to the grammatical example in (9.93), but the actor voice marking on the predicate makes the whole construction ungrammatical. This is again due to the fact that in an actor voice construction the actor needs to occur before the predicate and the undergoer needs to follow it.

(9.93) *"Monrus pono", wada ine'.*
bathe before say mother

"Take a bath first", said mum.

(9.94) **"Monrus pono'", ine' nyawada.*
monrus pono' ine' N-wada
bathe before mother AV-say

**'"Take a bath first", mum said.'

(9.95) **"Monrus pono'", nyawada ine'.*
monrus pono' N-wada ine'
bathe before AV-say mother

**'"Take a bath first", said mum.'

The predicate *wada* 'say' can also occur with the prefix *i-* to form the meaning of 'complain'. An example featuring *iwada* 'complain' is presented in (9.96). Normally *i-* functions to derive an intransitive verb from a semantically transitive root and *iyo iwada* 'she is complaining' can stand alone as a clause (see 5.2.3.3). If the cause of the complaining is overtly mentioned, it is most commonly expressed in a complement clause which is demonstrated in (9.96).

(9.96) *Iyo iwada ku'uyuhan.*
iyo i-wada kV-uyuh-an
3SG INTR-say NOMZ-exhausted-NOMZ

'She complained about feeling fatigued.'

As discussed in 5.3.5, many forms derived with the circumfix *kV-an* express an adversative passive and can form a clause of their own. Their occurrence in constructions like (9.96) can therefore be analysed as complementation.

In order to mark a statement as an indirect quote the complementiser *bahawa* is used. This is demonstrated in (9.97) for the predicate *wada* 'say' and in (9.98) for *jawab* 'answer'. Note that unlike direct quotations, in which the order of matrix clause and complement can be reversed, constituent order for indirect speech is fixed and always follows the structure subject-predicate-(object)-complement.

(9.97) *Aku nyawada bahawa aku kai wasun pah Jakarta.*
aku N-wada bahawa aku kai wasun pah Jakarta
1SG AV-say COMP 1SG will move DIR Jakarta

'I said that I will move to Jakarta.'

(9.98) *Uma' Tani nyawab bahawa koi uweng duit.*
Uma' Tani N-jawab bahawa koi uweng duit
Uma' Tani AV-answer COMP NEG EXIST money

'Papa Tani answered that he didn't have the money.

Indirect speech in which the matrix clause is in undergoer voice was also accepted by speakers. However when prompted, they showed a preference for constructions in actor voice. Thus (9.98) can alternatively be expressed as (9.99) although (9.98) is considered more idiomatic.

(9.99) *Jawab Uma' Tani bahawa koi uweng duit.*
answer Uma' Tani COMP neg EXIST money

'Papa Tani answered that he didn't have the money.

The strategy involved in forming indirect questions depends on the type of question in the original utterance. If the original question is a polar or alternative question (see 8.1 and 8.2 respectively), the complement clause is introduced using *amun* 'if'. An example of an indirect polar question is shown in (7.101).

(9.100) *Iyo nunti amun naan ulun gi lowu.*
iyo N-tunti amun naan ulun gi lowu
3SG AV-ask if EXIST person LOC house

'She asked if someone was home.'

In order to form indirect questions in which the original question is a content question (see 8.4), the indirect question is formed by using question words as complementisers. The question word used corresponds to the one used in the original question. The structure in (9.101) shows an example of an indirect question introduced by *pire* 'how much'. The corresponding direct question would have been *pire jumanne* 'how much is the total (price)'.

(9.101) *Roni nunti pire jumanne.*
Roni N-tunti pire juman-ne
Roni AV-ask how.much total-ART.DEF

'Roni asked how much the total (price) was.'

Sentence (9.101) only serves to illustrate the structure of indirect content questions. It is in theory possible for all interrogative words listed in Table 3.22 to function in this way.

Another important difference between direct and indirect speech is that indirect quotation involves the reorientation of the various deictic elements such as for instance pronouns, locatives, and temporal adverbials. This can be seen when comparing the direct quotation in (9.102) with the indirect quotation in (9.103). The utterance is the same, but it is adjusted to the time of speaking which is a day after the original statement was made. Moreover, the temporal adverbial was moved from initial to final position within the complement clause. However, this change of position is solely based on speaker preference and is not obligatory.

(9.102) *Amir nyawada: "pitanin aku tulak pah Tampa".*
Amir N-wada pitanin aku tulak pah Tampa
Amir AV-say tomorrow 1SG go DIR Tampa

'Amir says: "tomorrow I'm going to Tampa".'

(9.103) *Amir nyawada bahawa iyo tulak pah Tampa onro itu.*
Amir N-wada bahawa iyo tulak pah Tampa onro itu
Amir AV-say COMP 3SG go DIR Tampa day DEM.PROX

'Amir said that he is going to Tampa today.'

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Appendix A: Texts

This appendix contains four texts. The first two are stories that have been translated from Indonesian by speaker Iterman. The third text is a narration by speaker Rimayanto and the fourth text is a dialogue between speakers Weti and Maris. Unfortunately many speakers these days do not feel comfortable to produce spontaneous texts to be recorded. However, as a compromise Iterman asked me to give him short stories to translate into Paku. Once he finished writing down the translation, he helped with the interlinearisation. No prompts other than the Indonesian version of the stories were used for this task. The third text was narrated freely and while Rimayanto was the only narrator, there were other speakers present during the recording session. Pastor Garin, a Maanyan priest from Ampah, aided in the elicitation of the text in that he prompted the speaker in Maanyan and encouraged him to continue in Paku whenever he felt that he was falling back into Maanyan. Weti and Maris chose the topic of their dialogue themselves and carried the conversation without intervention or prompts.

In all four texts there are instances in which speakers use forms that are not consistent with previous elicitations. These can usually be traced back to Maanyan influence in their speech. Sometimes they are Indonesian loans used for concepts which do not have a Maanyan or Paku term. Borrowings can be identified either based on their accompanying morphology, i.e. affixes that have a Paku cognate or affixes that should undergo vowel harmony in Paku, or because they show a for Paku unusual combination of segments. An example of a Maanyan loan in the first two texts include *tarue* 'the two of us' in line (3). This form uses the Maanyan numeral *rue* 'two' instead of the Paku equivalent *ruo*. Example (37) shows the Indonesian borrowing *sanggup* 'able' which contains a nasal plus voiced stop sequence which is not attested in Paku whereas *utara* 'north', also an Indonesian loan, does not have a Paku cognate since traditionally they used a different system for navigation. In the interlinearisations throughout this appendix loans are treated as one unit regardless of whether they consist of a single or multiple morphemes.

Riwut Utara ali Mato'onro

'The North Wind and the Sun'

The following text is the Paku version of the classic fable 'the North Wind and the Sun' which has traditionally been used for the phonetic transcription of languages illustrated in the Journal of the IPA.

(1) *Riwut Utara ali mato'onro busual mengenai hie' gi antara reo iyo*
Riwut Utara ali mato'onro bV-sual mengenai hie' gi antara reo iyo
wind north with sun INTR.DYN-argue about who LOC between 3PL REL
lewi wigas.
lewi wigas
more strong

'The North Wind and the sun argued about who between them is the stronger one.'

(2) *Pedesung reo busual ali rami erang ku'ulun panjalangan metah erang*
Pedesung reo bV-sual ali rami erang kV-ulun panjalangan metah erang
while.DS 3PL INTR.DYN-argue with intense one kV-CLF1 wanderer through one
lalan ali tonga tubungkus jubah.
lalan ali tonga tV-bungkus jubah
road with body PASS.STA-wrap cloak

'While they were arguing intensely, a wanderer came crossed the path with his body wrapped in a cloak.'

(3) *"Ayo tarue mambuktine", wada Mato'onro, "bahawa iyo pangawigas gi*
ayo ta-rue mam-bukti-ne wada mato'onro bahawa iyo panga-wigas gi
HORT ta-two AV-proof-ART.DEF say sun that REL SUP-strong LOC
antara tarue balalu hie' iyo tau ngulah panjalangan iro muka
antara tarue balalu hie' iyo tau N-ulah panjalangan iro N-buka
between ta-two and.then who REL can AV-make wanderer DEM.MED AV-open
jubahne".
jubah-ne
cloak-3SG.POSS

'"Let the two of us prove it", said the Sun, "that the strongest one between the two of us is then the one who can make that wanderer take off his cloak."'

(4) *"Ma'asus", wada Riwut Utara, balalu hantek iro jua siwut riwut royoh*
mV-asus wada Riwut Utara balalu hantek iro jua siwut riwut royoh
INTR.STA-good say wind north and.then when DEM.MED also blow wind strong
iyo mirisak pah panjalangan iro.
iyo mV-risak pah panjalangan iro
REL cold DIR wanderer DEM.MED

'"Very well", said the North Wind, and then immediately started blowing strong and cold wind towards the wanderer.'

(5) *Ali siwuian riwut iyo royoh, pulot jubah iyo napakai panjalangan pi siwui*
ali siwui-an riwut iyo royoh pulot jubah iyo na-pakai panjalangan pi siwui
with blow-NOMZ wind REL strong ends cloak REL PASS-wear wanderer PART blow
pah waling.
pah waling
DIR back

'The strength of the gusts of wind made the ends of the cloak worn by the wanderer blow behind him.'

(6) *Kode iyo sagara murungkus pisit jubah iro pah tongane.*
kode iyo sagara murungkus pisit jubah iro pah tonga-ne
but 3SG at.once wrap tight cloak DEF DIR body-3SG.POSS

'But he immediately wrapped the cloak tight around his body.'

(7) *Balalu pagin royoh riwut ngewus, pagin pisit iyo murungkus tongane.*
balalu pagin royoh riwut N-ewus pagin pisit iyo murungkus tonga-ne
and the.more strong wind AV-blow the.more tight 3SG wrap body-3SG.POSS

'And the stronger the wind blew, the tighter he wrapped his body.'

(8) *Riwut Utara bu'usaha nyinsitat jubah panjalangan iro ali ewusan riwut*
Riwut Utara bV-usaha N-sinsitat jubah panjalangan iro ali ewus-an riwut
wind north INTR.DYN-attempt AV-tear cloak wanderer DEF with blow-RES wind
kode kanahai usahane mamos.
kode kanahai usaha-ne mamos
but all attempt-3SG.POSS waste

'The North Wind struggled to tear off the wanderer's cloak with his gusts but all his attempts were in vain.'

(9) *Hampe giliran mato'onro, Mato'onro malai nguluar kaine.*
hampe gilir-an mato'onro mato'onro malai N-kuluar kai-ne
until turn-RES sun sun begin AV-exit ray-3SG.POSS

'When it was the sun's turn, the sun started shining.'

(10) *Pada malaine kai iyo nakuluar sukup babaya,*
pada malai-ne kai iyo na-kuluar sukup babaya
on begin-ART.DEF ray REL PASS-exit enough soft

'At the beginning the sunshine was nice,'

(11) *balalu* *huang* *erang* *alik* *kalayongan* *nganti* *nanam* *mirisak* *teke*
balalu huang erang alik kV-layong-an N-ganti N-tanam mirisak Riwut
and.then inside one while NOMZ-warm-NOMZ AV-change AV-plant cold from
Riwut *Utara.*
Utara
north wind

'and within a short while the warmth eased the cold from the North Wind.'

(12) *Panjalangan* *ukah* *iro* *nyunungar* *jubahne* *balalu* *maladarne*
Panjalangan ukah iro N-sunungar jubah-ne balalu mV-ladar-ne
wanderer after DEM.MED AV-loose cloak-3SG.POSS and.then INTR.STA-let/leave-DEF.ART
bugugueng *gi* *pulukone.*
bV-gugueng gi puluko-ne
INTR.DYN-hang LOC shoulder-3SG.POSS

'The wanderer loosened his cloak and let it hang from his shoulders.'

(13) *Kai* *mato'onro* *balalu* *mai* *lewi* *malayong* *balalu* *magin* *malayong.*
kai mato'onro balalu mai lewi mV-layong balalu magin mV-layong
ray sun and.then shine more warm and.then increasingly INTR.STA-warm

'The sun became warmer and warmer.'

(14) *Panjalangan* *iro* *dapas* *tupine* *balalu* *musut* *kiningne* *iyo* *wisa*
panjalangan iro dapas tupi-ne balalu N-pusut kining-ne iyo wisa
wanderer DEF take.off hat-3SG.POSS and.then AV-wipe eyebrow-3SG.POSS REL wet
ulah *larik.*
ulah larik
from sweat

'The wanderer took off his hat and wiped his brows which were wet from sweat.'

(15) *Panampukne* *iyo* *jari* *kalayongan* *hampe* *iyo* *dapas* *jubahne.*
panampukne iyo jari kV-layong-an hampe iyo dapas jubah-ne
finally 3SG become NOMZ-warm-NOMZ until 3SG take.off cloak-3SG.POSS

'Eventually, he became so hot that he took off his cloak.'

(16) *Balalu kai nyingkir koi mato'onro iyo royoh, iyo bisilinung gi*
balalu kai N-singkir koi mato'onro iyo royoh iyo bV-silinung gi
and.then want AV-avoid ray sun REL strong 3SG INTR.DYN-take.shelter LOC
pida pisilinungan aban lawi kayu gi hiring lalan.
pida pV-silinung aban lawi kayu gi hiring lalan
underneath shelter shade wood LOC side road

'Then he had the desire to avoid the strong sun, he took shelter in the shade underneath a tree at the side of the road.'

(17) *Uyang uyut paling ma'asus nataning ali ra'at rungkak.*
uyang uyut paling mV-asus na-taning ali ra'at rungkak
gentleness SUP INTR.STA-good PASS-compare with force

'Gentleness is better than force.'

Wurung Langamet ali Wurung Okak

'The Hornbill and the Crow'

This version of the fable 'the eagle and the crow' has been slightly altered to accommodate the fauna of Central Kalimantan. The speaker insisted on changing the 'eagle' to 'hornbill' which is one of the island's most impressive birds of prey and which holds cultural significance for many of the Dayak ethnic groups. However, despite the fact that sheep are also not native to Borneo the speaker was happy to just use the Indonesian term *domba* in his translation.

(18) *Erang ku'ukui wurung langamet ali kiwigasen elatne nyaput*
erang kV-ukui wurung langamet ali kV-wisa-en elat-ne N-saput
one kV-CLF2 bird hornbill with NOMZ-strong-NOMZ wing-3SG.POSS AV-snatch
erang ku'ukui domba.
erang kV-ukui domba
one kV-CLF2 sheep

'With the strength of its wings a hornbill grabbed a sheep.'

(19) *Ali kukune balalu ngoitne tulak orok pah langit.*
ali kuku-ne balalu N-oit-ne tulak orok pah langit
with nail-3SG.POSS and.then AV-bring-ART.DEF go far DIR sky

'With its claws it then carried it far towards the sky.'

(20) *Erang ku'ukui wurung okak nginte kajadian iro,*
erang kV-ukui wurung okak N-ite kV-jadi-an iro
one kV-CLF2 bird crow AV-see NOMZ-happen-NOMZ DEM.MED

'A crow saw what was happening,'

(21) *balalu tokono gi atene erang ransana bahawa iyo*
balalu tV-kono gi ate-ne erang ransana bahawa iyo
and.then NVOL-think LOC liver-3SG.POSS one taste COMP 3SG
bakawigasen kai ngulah wangon iyo same ali
bV-kV-wigas-en N-ulah wangon iyo same ali wurung
INTR.DYN-NOMZ-strong-NOMZ want AV-make thing REL same with
wurung langamet iro.
langamet iro
bird hornbill DEM.MED

'and it thought to itself that it has the strength to do the same things as that hornbill.'

(22) *Belalu ali ngenrang elatne buka-buka ukah iro similing gi*
balalu ali N-kenrang elat-ne buka-buka ukah iro similing gi
and.then with AV-swing wing-3SG.POSS red-open after DEM.MED fly LOC
awan ali rungkakne,
awan ali rungkak-ne
cloud with fierce-ART.DEF

'Then with a swing of its wings wide open, it flew into the air all its strength.'

(23) *iyo mulunsur pah iwa balalu ali wansit nantam hila lutuk erang*
iyo mV-lunsur pah iwa balalu ali wansit N-hantam hila lutuk erang
3SG INTR.STA-glide DIR down and.then with quick AV-strike part back ART.INDF
ku'ukui domba,
kV-ukui domba
kV-CLF2 sheep

'it glides down and quickly strikes the back of a sheep,'

(24) *kode dami iyo soba kai similing mulek iyo wayo maharati amun iyo*
kode dami iyo soba kai similing mulek iyo wayo mV-harati amun iyo
but when 3SG try will fly again 3SG just.now INTR.STA-realise when 3SG
bakoi tau ngengkat dombaro.
bakoi tau N-engkat domba-ro
NEG can AV-lift sheep-DEF

'but only when it tried to fly again it realised that it could not lift the sheep.'

(25) *Balalu iyo bakoi ki'iyuh similing kia kukune haut mereket*
balalu iyo bakoi kV-iyuh similing kia kuku-ne haut mV-reket
and.then 3SG NEG NVOL-able fly anymore nail-3SG.POSS already INTR.STA-snare
gi wulu domba.
gi wulu domba
LOC hair sheep

'Then it was not able to fly anymore and its claws were already entangled in the sheep's fur.'

(26) *Walau iyo soba kai nyanapas tongane,*
walau iyo soba kai N-sVN-lapas tonga-ne
regardless 3SG try will AV--TR-let.go REFL-3SG.POSS

'Regardless regardless of how it tried to free itself,'

(27) *reket iro kajut mahalin kai lapas,*
reket iro kajut mV-halin kai lapas
snare DEF too INTR.STA-difficult will let.go

'The snare was too difficult to get out of,'

(28) *Hampe iyo ki'ingkam putus asa*
hampe iyo kV-ingkam putus asa
until 3SG NVOL-feel surrender

'so it felt defeated'

(29) *balalu tatap duloi gi bawo lutuk domba iro.*
and.then same live LOC above back sheep DEM.MED

'and remained on top of the sheep's back.'

(30) *Erang ku'ulun pakatik iyo kite wurung okak iro ngebur-ngebur*
erang kV-ulun pakatik iyo kV-ite wurung okak iro N-kebur-N-kebur
one kV-CLF2 shepherd REL NVOL-see bird crow DEF RED-RED-AV-wag
elatne bu'usaha nyanapas tongane.
elat-ne bV-usaha N-sVN-lapas tonga-ne
wing-3SG.POSS INTR.DYN-attempt AV-TR-let.go REFL-3SG.POSS

'A shepherd saw the crow wag its wings in an attempt to free itself.'

(31) *Pakatik iro kataru non iyo haut jari pakatikro melempat*
pakatik iro kV-taru non iyo haut jari pakatik-ro mV-lempat
shepherd DEF NVOL-understand what REL already happen shepherd-DEF INTR.STA-run
balalu sagara nyama wurung iro,
balalu sagara N-sama wurung iro
and.then at.once AV-catch bird-DEF

'The shepherd realised what was going on, ran and quickly caught the crow,'

(32) *Palus nyoruk balalu ngurung wurung okakro.*
palus N-soruk balalu N-kurung wurung okak-ro
continue AV-bind and.then AV-cage bird crow-DEF

'and proceeded to bind and then cage the crow.'

(33) *Sahaut hila nanyap iyo ngonru wurung okak iro pah peane pakai tuli.*
sahaut hila nanyap iyo N-onru wurung okak iro pah pea-ne pakai tuli
after side afternoon 3SG AV-give bird crow DEF DIR child-3SG.POSS BEN play

'when it was approaching afternoon, he gave the crow to his children to play.'

(34) *"Lusune wurung itu" wada reo nelang kikihi.*
lusu-ne wurung itu wada reo nelang kikihi
funny-3SG bird DEM.PROX say 3PL while.SS laugh

'"It is funny, this bird", they said while laughing.'

(35) *"Itu na'ontuh wurung non, uma'?".*
itu na-ontuh wurung non uma'
DEM.PROX PASS-call bird what father//

'"What's this bird called, father?"'

(36) *"Iro wurung okak kode amun iko' nunti pah iyo, iyo sagar nyangai iyo*
iro wurung okak kode amun iko' N-tunti pah iyo iyo sagar N-sangai iyo
DEM.MED bird crow but if 2SG AV-ask DIR 3SG 3SG will AV-answer 3SG
erang ku'ukui wurung langamet."
erang kV-ukui wurung langamet
one kV-CLF2 bird hornbill

'"This is a crow but if you ask it, it will answer that it is a hornbill."'

(37) *Ada* *maladar* *kasakahenko'* *ngulah* *iko'* *koi* *ki'itung*
ada mV-ladar kV-sakah-en-ko' N-ulah iko' koi kV-itung
PROH INTR.STA-let NOMZ-vain-NOMZ-2SG.POSS AV-make 2SG NEG NVOL-remember
tonga *atawa* *kasanggupenko'.*
tonga atawa kV-sanggup-en-ko'
REFL or NOMZ-able-RES-2SG.POSS

'Don't let your vanity make you forget yourself or your competence.'

Adat basagor

'The Practice of Appeasing the Ancestral Ghosts'

The following text was narrated by speaker Rimayanto at speaker Ilun's house in Tarinsing. Speakers Ilun and Hardinanto were also present. The text was collected with the help of Pastor Garin who prompted the speakers in Maanyan. He also encouraged them to continue the narration in Paku whenever they fell back into speaking either Maanyan or Indonesian. Despite these efforts, there are multiple instances in this text in which the speaker used a loan. The narration explains the offering of sacrificial plates to appease the ancestral ghosts. Once a year these plates are placed at the entrance of the Dayak village. This text is recorded as DD2-20150819-1. Given that the text is narrated freely, it includes a number of discourse markers. The translation of the text into Indonesian was done by Iterman.

(38) *Carane* *mi'itu.*
cara-ne mV-itu
way-ART.DEF INTR.STA-DEM.PROX

'This is how you do it.' (lit. 'the way to do this is like this.')

(39) *Soal* *iyo* *miwit* *paket* *iro,*
soal iyo N-wiwit paket iro
thing REL AV-give ancestral.ghost DEM.MED

'The (first) thing with offering to the ancestral ghosts,'

(40) *usul.asalne* *malai* *nasadiaro* *ansak.*
usul.asal-ne malai na-sadia-ro ansak
beginning-ART.DEF start UV-prepare-DEM.MED offering.plate

'is to start preparing the offering plate.'

(41) *Ansak* *ropo* *belalu* *ukah* *iro*
offering.plate large and.then after DEM.MED

'The plate is large and then after that'

(42) *belalu* *nasaji.saga* *gi* *iro* *hene'.*
balalu na-saji.saga gi iro hene'
and.then UV-prepare.offering LOC DEM.MED many

'And then you prepare the many offerings.'

(43) *Nasaji.saga* *gi* *iro,* *sesukupne.*
na-saji.saga gi iro, sesukupne
UV-prepare.offering LOC DEM.MED enough

'Prepare the offerings there, enough of them.'

(44) *Dite',* *longkong* *iyo* *monsak* *iyo* *monta'* *gi* *iro.*
sticky.rice normal.rice REL cook REL raw LOC DEM.MED

'Sticky rice, normal rice that's cooked or raw (goes) in there.'

(45) *Ansak* *iro* *balalu* *naulah* *pakai* *paring*
ansak iro balalu na-ulah pakai paring
offering.plate DEM.MED and.then PASS-make using bamboo

'The offering plate is made using bamboo'

(46) *belalu* *nalalin* *makai* *ue'.*
belalu na-lalin makai ue'
and.then PASS-intertwine using rattan

'and then tied using rattan.'

(47) *Kililing* *mi'iro* *nalalin,*
kililing mV-iro na-lalin
circumference INTR.STA-DEM.MED PASS-intertwine

'The circumference is tied like this (shows the size with his hands),'

(48) *belalu* *sadang* *luput* *na'ulah* *ansak* *ropo.*
belalu sadang luput na-ulah ansak ropo
and.then after finish UV-make offering.plate large

'and then after that the big offering plate is finished.'

(49) *Ansak* *ropo* *luput* *haut* *ulah.*
offering.plate large finish already make

'The offering plate is now (already) made.'

(50) *Bulu* *iro* *nokonsak* *saji.saga.*
bulu iro N-tokonsak saji.saga
and.then DEM.MED AV-cook offering

'And then the offerings are cooked.'

(51) *Saji.saga* *gi* *iro,* *ano* *hi,* *ano,* *inun* *iyo* *ngaranne,* *manu',*
saji.saga gi iro ano hi ano inun iyo ngaran-ne manu'
offering LOC DEM.MED well PART well what REL name-ART.DEF chicken,
parangkang.manu' *gi* *iro,*
parangkang. manu' gi
charcoaled.chicken LOC DEM.MED

'The offerings here, well, what's is called again, chicken, charcoaled chicken (goes) in there,

(52) *parangkang.manu'* *bulu* *ukah* *iro,*
charcoaled.chicken and.then after DEM.MED

'charcoaled chicken and then after that,'

(53) *ano* *tumpi'* *kuluwit* *gi* *iro* *dodol,* *tepung* *silidiri* *na'ulah,* *belalu* *pais*
ano tumpi' kuluwit gi iro dodol tepung silidiri na-ulah belalu pais
well fry kuluwit LOC DEM.MED dodol tepung silidiri PASS-make, and.then pais
oto', *dite'* *longkong.*
oto' dite' longkong
oto', sticky.rice normal.rice

'well, fried kuluwit (a type of rice flour cake) (goes) in there, dodol (oven-baked rice flour cake filled with red sugar), tepung silidiri (picture painted on a banana leaf using flour-based paint) is made, and then pais oto' (bran wrapped in a banana leaf and then baked), sticky rice and normal rice.'

(54) *Iro lengkap saji iro saji monsak.*
DEM.MED complete offering DEM.MED offering cook

'That completed the offering, the cooked offering.'

(55) *Iyo nasui gi iro haut monsak kutuluh.*
iyo na-sui gi iro haut monsak kutuluh
REL PASS-put.into LOC DEM.MED already cook all//

'What is put in there is all already cooked.'

(56) *Haut monsak kutuluhne, baru nasui huang ansak iro*
haut monsak kutuluh-ne baru na-sui huang ansak iro
already cook all-ART.DEF just.now PASS-put.into inside offering.plate DEM.MED
belalu iro natangai.
belalu iro na-tangai
and.then DEM.MED PASS-notify.spirit

'Once everything is cooked, it is put inside the offering plate and then it is offered to the spirits.'

(57) *Amun sali' naan hampe welian.*
if back.in.the.day EXIST until shaman

'Back in the day there was a shaman (and the offering plate was handed to them).'

(58) *Welian, naan hampe nawelian, welian dadas.*
welian naan hampe na-welian welian dadas
shaman EXIST until PASS-shaman shaman female

'The shaman that was there to perform the ritual was a female shaman.'

(59) *Bakoi uweng si welian bawo.*
NEG EXIST ART.PERS shaman male

'There were no male shamans.'

(60) *Et iro khusus nodadas, sali'ne.*
et iro khusus no-dadas sali'-ne
because DEM.MED special have-female back.in.the.day-ART.DEF

'Because of that we had special female (shamans), in the old days.'

(61) *Belalu nawelian dadas gi iro iyo iro iyo bararapoi*
belalu na-welian dadas gi iro iyo iro yo bV-ra-rapoi
and.then UV-shaman female LOC DEM.MED 3SG DEM.MED 3SG INTR.DYN-RED-trance
nadap ansak itu inre.
N-hadap ansak itu inre
AV-face.up offering.plate DEM.PROX earlier

'And then the shaman there, she would fall into a deep trance and hold up the offering plate from before.'

(62) *Na, iro gunane, luwan iro naingkeh gi perbatasan,*
na iro guna-ne luwan iro na-ingkeh gi perbatasan
PART DEM.MED purpose-ART.DEF then DEM.MED PASS-put.down LOC border

'So that is the purpose, then it (the offering plate) is put down on the border,'

(63) *perbatasan antara tumpuk gi itu anri tumpuk gi aro.*
border between village LOC DEM.PROX with village LOC DEM.DIST

'the border between the village here and the village over there.'

(64) *Helang tumpuk ruo, artine.*
helang tumpuk ruo arti-ne
between village two meaning-ART.DEF

'Between the two villages that is.'

(65) *Ruo kutumpuk iro kerja sama.*
ruo kV-tumpuk iro kerja sama
two kV-village DEM.MED work together

'The two villages work together.'

(66) *Artine, yiro pakai rekenanne nangkis,*
arti-ne yiro pakai reken-an-ne nangkis
meaning-ART.DEF DEM.MED for count-RES-ART.DEF fend.off

'That is, this is (done) for balance and to fend off (evil spirits).'

(67) *kawan sagala' masam panyakit pangaring gi iro, belalu sagala' masam*
kawan sagala' masam panyakit pangaring gi iro belalu sagala' masam
some some type illness grave LOC DEM.MED and.then some type
marabahaya,
mV-ra-bahaya
INTR.STA-?-dangerous

'There are different types of grave illnesses there, and dangerous ones,'

(68) *takut panyakit pangaring iro ki'iyuh masuk pah tumpuk iro.*
takut panyakit pangaring iro kV-iyuh masuk pah tumpuk iro
afraid illness grave DEM.MED NVOL-able enter DIR village DEM.MED

'(and people are) afraid that these grave illnesses can enter the village.'

(69) *Misal naan gi tumpuk irola gudan gunsana bakoi ma'asus*
misal naan gi tumpul iro-la gudan gunsana bakoi mV-asus
example EXIST LOC DEM.MED-PART natural disaster NEG INTR.STA-good DEM.MED
iro.
iro

'For example (if) there are natural disasters in that village, that is not good.'

(70) *Belalu iro terhindar teke artine iyo penyakit pangaring*
belalu iro terhindar teke arti-ne iyo panyakit pangaring
and.then DEM.MED spared from meaning-ART.DEF REL illness grave
iro inre iyo masuk pah huang tumpuk iro inre.
iro inre iyo masuk pah huang tumpuk iro inre
DEM.MED earlier REL enter DIR inside village DEM.MED earlier

'Then this (offering) spares (us) from, that is, those grave illnesses from before which enter the village.'

(71) *Belalu sehinggane amun nalaksana mi'iro, belalu tumpuk iro aman.*
belalu sehinggane amun na-laksana mV-iro belalu tumpuk iro aman
and.then so.that if PASS-do INTR.STA and.then village DEM.MED safe

'And as a result, if it is done like that, then the village is safe.'

(72) *Artine* *teke* *panyakit* *pangaring.*
arti-ne teke panyakit pangaring
meaning-ART.DEF from illness grave

'That is, from grave illnesses.'

(73) *Ukah* *iro* *ku-m-ulek* *teke* *gudan* *gunsana* *koi* *manyu* *maribasa* *gi*
ukah iro kV-m-ulek teke gudan gunsana koi manyu maribasa gi
after DEM.MED NVOL-LE-return from natural disaster NEG good except LOC
iro.
iro
DEM.MED

'After that natural disasters (can) return except to there.'

(74) *Belalu* *luput.*
and.then finish

'And then it is finished.'

(75) *Ukah* *iro* *belalu* *na'ator* *pah* *perbatasanro.*
ukah iro belalu na-ator pah perbatasan-ro
after DEM.MED and.then PASS-place.across DIR border-DEM.MED

'After that, (the offering plate) is brought to the border.'

(76) *Belalu* *na'anak* *ansakro* *gi* *obo* *mi'iro.*
belalu na-anak ansak-ro gi obo mV-iro
and.then PASS-place offering.plate-DEM.MED LOC tall INTR.STA-DEM.MED

'And then the offering plate is placed above like this (gestures with hands).'

(77) *Belalu* *nyarah* *gi* *iro.*
belalu N-sarah gi iro
and.then AV-give LOC DEM.MED

'And then (you) give (provide offerings) there.'

(78) *Itu* *nukam* *kawan* *panyakit* *pangaring,*
itu nu-kam kawan panyakit pangaring
DEM.PROX have-2PL some illness grave

'This is for all of you who suffer from illness.'

(79) *itu* *na'okan* *ikam* *kawan* *ano* *hi* *gudan* *gunsana* *bakoi* *ma'asus*
itu na-okan ikam kawan ano hi gudan gunsana bakoi mV-asus
DEM.PROX UV-eat 2PL some well PART natural disaster NEG INTR.STA-good
gi *iro.*
gi iro
LOC DEM.MED

'All of you eat this, (because of) the disaster (-bringing ghosts) here.'

(80) *Belalu* *nahoyong* *gi* *iro.*
belalu na-hoyong gi iro
and.then PASS-offer LOC DEM.MED

'And then (the ancestral ghosts) are invited there.'

(81) *Itu* *bagi.kala* *sikat* *kawariskam.*
itu bagi.kala sikat kV-waris-kam
DEM.PROX part known kV-heritage-2PL

'This is part of your heritage.'

(82) *Belalu* *ada* *ikam* *kia.*
and.then PROH 2PL again

'And then some (villages) do not do it.'

(83) *Artine* *pah* *huang* *tumpuk* *itu* *ngulah* *bakoi* *ma'asus* *hila*
arti-ne pah huang tumpuk itu N-ulah bakoi mV-asus hila
meaning-ART.DEF DIR inside village DEM.MED AV-make NEG INTR.STA-good side
morunsia.
morunsia
mankind

'That is, inside this village people are not doing well.'

(84) *Hila kamanusia itu.*
hila kV-mankind itu
side kV-mankind DEM.PROX

'With these people.'

(85) *Belalu iro na'adakan tiap taun.*
belalu iro na-adakan tiap taun
and.then DEM.MED PASS-hold every year

'This is held every year.'

(86) *Tiap ukah masi.*
every after harvest

'After every harvest.'

(87) *Gi iro naisi panan raun pare, raun pare wayu, wunge pare*
gi iro na-isi panan raun pare raun pare wayu wunge pare
LOC DEM.MED PASS-fill type leaf rice.plant leaf rice.plant new flower rice.plant
wayu, wunge taun.
wayu wunge taun
new flower year

'You can fill it (the offering plate?) with different kinds of rice plant leaves, new rice plant leaves, new rice plant flowers, yearly flowers (*wunge taun* is is a specific type of plant, perhaps this is also true of *pare wayu*, which could be a type of rice plant).'

(88) *Na'anak gi hiring ansakro.*
na-anak gi hiring ansak-ro
PASS-place LOC edge offering.plate-DEM.MED

'These are placed on the edge of the offering plate.'

(89) *Nataria-nataria gi iro.*
RED-RED-PASS-stick LOC DEM.MED

'(They are) stuck in there.'

(90) *Yiro artine nalaksanakan tiap taun ukah masi.*
yiro arti-ne na-laksanakan tiap taun ukah masi
DEM.PROX meaning-ART.DEF PASS-do every year after harvest

'This is done every year after harvest.'

(91) *Ari yiro kisah.*
PART DEM.PROX story

'This is the story.'

(92) *Artine, naontuh basagor.*
arti-ne na-ontuh bV-sagor
meaning-ART.DEF PASS-call INTR.DYN-refuse.bad

'This (ritual) is called "refusing the bad".'

(93) *Iro artine ulah sali.*
iro arti-ne ulah sali
DEM.MED meaning-ART.DEF make back.in.the.day

'This was back in the day.'

(94) *Kode hampe tataha iteku rama ulun ngulah iro.*
kode hampe tataha ite-ku rama ulun N-ulah iro
but until now see-1SG many person AV-do DEM.MED

'But until now I (still) often see people doing that.'

(95) *Artine menghindar gudan gunsana teke huang tumpuk.*
arti-ne menghindar gudan gunsana teke huang tumpuk
meaning-ART.DEF keep.away natural disaster from inside village

'It means that you keep disaster away from inside the village.'

(96) *Iro ngaranne ansak ropo, melaksana ansak ropo.*
Iro ngaran-ne ansak ropo melaksana ansak ropo
DEM.MED name-ART.DEF offering.plate large make offering.plate

'And the name (of the offering plate) is *ansak ropo*, making *ansak ropo*.'

(97) *Itu* *kisah* *singkatne.*
itu kisah singkat-ne
DEM.PROX story short-ART.DEF

'This was the short story.'

Ngumo naun

'Agricultural Practices and Harvest'

The final text is a dialogue between speakers Weti (W) and Maris (M). It was recorded (DD2-20150802-1) at Maris' daughter's house in Tampa. The two women discuss traditional ways of farming and the agricultural cycle. They also talk about present-day difficulties associated with farming in their area. This text contains a large number of discourse particles whose meaning is mostly unclear. These are glossed as PART. The text was translated from Paku into Indonesian by Iterman who pointed out that it contains a relatively large number of borrowings from both Maanyan and Indonesian. Note that the last three utterances *habis sudah* 'already finished', *habis* 'finished' and *ceritanya* 'the story', which are in Indonesian, are directed at me, the interviewer, should therefore not be viewed as borrowings. With regard to the translation, Iterman sometimes preferred to forego a literal translation and to instead provide a translation that preserves the coherence of the text. Words and phrases in brackets clarify referents in cases in which the reader might otherwise have difficulty following what is being talked about. In some instances it is unclear what the speakers are referring to so that alternative referents or interpretations are placed in brackets as well. For example, in (130)-(133) it is not entirely clear if the speakers are talking about fertiliser or pesticide which is due to a (potential) mismatch of context and translation.

(98) W:. *Hie* *sipuno'?*
hie' si-puno'
who PART-first

'Who goes first?'

(99) M:. *Iko'.*
2SG

'You.'

(100) W:. *Iyo, amun mi'iro. Jari, gi itu naan iro kai*
iyo amun mV-iro jari gi itu naan iro kai
PART if INTR.STA-DEM.MED well LOC DEM.PROX EXIST DEM.MED want
ngumo, ahengro, kode iyo et onro mihin
N-umo aheng-ro kode iyo et onro mV-ihin
AV-rice.field intention-DEM.MED but well because day INTR.STA-DEM.PROX
bakoi ki'iyuh ngulah pea pare. Nokolo se'eau mi'iro?
bakoi kV-iyuh N-ulah pea pare nokolo se'eau mV-iro
NEG NVOL-able AV-make child rice.plant how really INTR.STA-DEM.MED

'Well, it is like this. There are people here who want to farm, or have the intention to, but if the weather is like this, you cannot make paddy. How exactly do you make it?'

(101) M:. *Ekat amun ngumo gi kutuan gi jawuk.*
ekat amun N-umo gi kutuan gi jawuk
except if AV-rice.field LOC forest LOC dry.soil

'Except when farming on dry soil.'

(102) W:. *Ha amun mi'iro kia'...?*
ha amun mV-iro kia'
PART if INTR.STA-DEM.MED again

'Yes, in that case...?'

(103) M:. *Susuk budas, hi ano ulun dolui ulahro bulu kapanan*
susuk budas hi ano ulun duloi ulah-ro bulu kapanan
good honestly PART well person go.down make-DEM.MED and.then all
bowah, nowong. Ngumo jawukleh ware.
bowah N-towong N-umo jawuk-leh ware
slash AV-cut.down AV-rice.field dry.soil-EMP good

'Right right, well people who go down to make (prepare) them (the plots), slash and cut everything down. So that they can farm on good dry soil.'

(104) W:. *Bakoi, si haut ano tepeta?*
NEG SI already well pass

'No, has the time not already passed for that?'

(105) M:. *Wulan walu?*
month eight

'In August?'

(106) W:. *Mete'?*
not.yet

'Not yet?'

(107) M:. *Mete. Amun ulun bowah hi ano lasih uro.*
not.yet of person slash PART well

'Not yet. If people cut slash a field without large trees.'

(108) W:. *Amun haut ano kayune idu' bakoi sampat.*
amun haut ano kayu-ne idu' bakoi sampat
if already well wood-ART.DEF big NEG have.chance

'If the trees are already large, you cannot do it.'

(109) M:. *Bakoi sampat.*
NEG have.chance

'You cannot do it.'

(110) W:. *Nokolo iro amun kapanan nowong segala nowong iyo hie*
nokolo iro amun kapanan N-towong segala N-towong iyo hie
how DEM.MED if forest AV-cut.down all AV-cut.down REL PART
nelai.
nelai
dry.out

'What do you do with the cut wood, all the cut wood that is drying.'

(111) M:. *Nelai jowa'.*
dry.out felled.wood

'It dries.'

(112) W:. *Belalu, nyulukut wadaku.*
belalu N-sulukut wada-ku
and.then AV-burn say-1SG

'I would say you burn it.'

(113) M:. *Bulu nutung iro. Kode sampatleh sika'.*
bulu N-tutung iro kode sampat-leh sika'
and.then AV-burn DEM.MED but have.chance also

'Then burn it. That is also possible.'

(114) W:. *Wulan pire si ano ulun miyah?*
month how.much PART well person miyah

'What month do people celebrate *miyah* (a traditional harvest celebration)?'

(115) M:. *Wulan sepuluh. Wulan sepuluh amun gi kutuan gi jawuk*
month ten month ten if LOC forest LOC dry.soil

'In October. In October if you harvest on the dry rice fields.'

(116) W:. *Amun gi sawahtu?*
amun gi sawah-tu
if LOC wet.rice.field-DEM.PROX

'And on the wet rice fields?'

(117) M:. *Amun gi sawahtu, mete'.*
amun gi sawah-tu mete'
if LOC wet.rice.field-DEM.PROX not.yet

'Not yet on the wet rice field.'

(118) W:. *Wulan pire ano...?*
month how.many well

'What month...?'

(119) M:. *Mete'. Ulun gi sawah itu japo' hi ano nawah tana'*
mete' ulun gi sawah itu japo' hi ano N-tawah tana'
not.yet person LOC wet.rice.field just.now AV-clean soil AV-make place child
ngulah duoi pea parero wulan suei paling hinang. Kode
N-ulah duoi pea pare-ro wulan suei paling hinang kode
rice.plant-DEM.MED month nine SUP quick but DEM.PROX PART again
itu si kia' kamarau.
itu si kia' kamarau
dry.season

'Not yet. People in new wet rice field first clear the land and only start making their paddies in September at the fastest. But this is still the dry season.'

(120) W:. *Iyo hie koi iyuh. Tane' bangkang mi'ihi.*
iyo hie koi iyuh tane' bangkang mV-ihin
Yes PART NEG able soil crack INTR.STA-DEM.MED

'Yes, the soil cannot crack like this.'

(121) M:. *Bulu nokolo si wangonnero?*
bulu nokolo si wangon-ne-ro
and.then how PART situation-ART.DEF-DEM.MED

'Then what happens? (lit. then what is the situation?)'

(122) W:. *Iyo hie halinne, koi?*
iyo hie halin-ne koi
DEM.MED PART difficult-ART.DEF TAG

'Well, it is difficult, isn't it?'

(123) M:. *Kode mensoba ngulah gi napuleh gereku.*
but mensoba N-ulah gi napu-leh gere-ku
but try AV-make LOC wet.rice.field-EMP feel-1SG

'But I feel that (we should still) talk about the wet rice fields.'

(124) W:. *Hie hie.*
PART PART

'Indeed.'

(125) M:. *Amun gi napuro, belalu wulan walu, wulan suei ngulah*
amun gi napu-ro belalu wulan walu wulan suei N-ulah
if LOC wet.rice.field-DEM.MED and.then month eight month nine AV-make
pea pare. Bulu tubang ngulah pea parero tubang
pea pare bulu tubang N-ulah pea pare-ro tubang
child rice.plant and.then if AV-make child rice.plant-DEM.MED if
kamarau kia' kapanan nasiram. Tubang ukah nasiramro
kamarau kia' kapanan na-siram tubang ukah na-siram-ro
dry.season again all PASS-water if after PASS-water-DEM.MED
bulu nganrero hampe pire erang wulankah?
bulu N-anre-ro hampe pire erang wulan-kah
and.then AV-wait-DEM.MED until how.many one month-q

'On the wet rice field people make their paddy in August or September. Then when you made the paddy, when it is dry season again, all rice plants are watered. Once it is watered, how long do you wait, one month?'

(126) M:. *Japo' si ano memikir kode kia' nyomporot tana' aro ngampan iyo*
japo' si ano memikir kode kia' N-samporot tana' aro ngampan iyo
just.now PART well think but again AV-spray soil DEM.DIST in.oder.to 3SG
milihing malada bulu ki'iyuh ipalai. Ipalairo
mV-lihing malada bulu kV-iyuh i-palai i-palai-ro
INTR.STA-clean total and.then NVOL-able DETR-plant DETR-plant-DEM.MED
lana ulun paling hinang sahampe umur parero erang wulan,
lana ulun paling hinang sa-hampe umur pare-ro erang wulan
normal person SUP quick ?-until age rice.plant-DEM.MED one month
tangah.ruo wulan. Bulu japo' si ulun mikir ipalai.
tangah.ruo wulan bulu japo' si ulun N-pikir i-palai
one.and.a.half month and.then just.now PART person AV-think DETR-plant

'That is up to you but the land needs to be sprayed again (watered) to clean it and then you can plant. To plant, the quickest people (wait) until the paddy is one month, one and a half months of age. Only then do people start planting.'

(127) W:. *Pare inun si nabulo kira pasne?*
pare inun si na-bulo kira pas-ne
rice.plant what PART PASS-plant so.that fit-ART.DEF

'What type of rice plant is right type to be planted?'

(128) M:. *Hi ano kerdil, mun koi kerdil inun lanane? Paloi same, same mi'iro.*
hi ano kerdil mun koi kerdil inun lanane paloi same same mV-iro
PART well kerdil if not kerdil what normal paloi same same INTR.STA-DEM.MED
Siam cantik, unte pinaku.
siam cantik unte pina-ku
siam cantik slow think-1SG

'Well, Kerdil (type of rice plant) and if not Kerdil what is normal? Paloi (standard rice plant) is the same. Siam Cantik (type of rice plant) is slow I think.'

(129) W:. *Same.*
same

'Same.'

(130) M:. *Bulu ngumo, bulu tubang ngumoro ha mikir*
bulu N-umo bulu tubang N-umo-ro ha N-pikir
and.then AV-rice.field and.then if AV-rice.field-DEM.MED PART AV-think
ipalai ngumo naun pinako' ki'iyuh amun bakoi kapanan
i-palai N-umo N-taun pina-ko' kV-iyuh amun bakoi kapanan
DETR-plant AV-rice.field AV-year mother-2SG NVOL-able if NEG all
nawoli ubat
na-woli ubat
PASS-buy medicine

'When planting, when planting like this, I think it is not possible without buying medicine (pesticide).'

(131) W:. *Nyamprot.*
N-samprot
AV-spray

'To spray.'

(132) M:. *Nasamprot pupuk rasun gi iro haut.*
na-samprot pupuk rasun gi iro haut
UV-spray hit poison LOC DEM.MED already

'Pesticide is sprayed.'

(133) W:. *Kapanan pupuk amun haut ukah nabulo.*
kapanan pupuk amun haut ukah na-bulo
all hit if already after PASS-plant

'All pesticide (and fertiliser?) (is sprayed) after the rice is already planted.'

(134) M:. *Lah babiayatu ngumo naun ini he'e aku.*
lah ba-biaya-tu N-umo N-taun ini he'e aku
EMP bV-price-DEM.PROX AV-rice.field AV-year DEM.PROX PART 1SG

'Oh my, the price of farming.'

(135) W:. *Amaya hie, maka'ne iro tu mahalin.*
amaya hie maka'-ne iro tu ma-halin
correct PART times-ART.DEF DEM.MED very INTR.STA-difficult

'That is right, the times are very difficult.'

(136) M:. *Mahalin.*
mV-halin
INTR.STA-difficult

'Difficult.'

(137) W:. *Ano daya onro mi'inin...*
ano daya onro mV-inin
well because day INTR.STA-DEM.PROX

'And because the times are like this...'

(138) M:. *Et* *nelang* *pengairan* *takam* *gi* *ihi* *sebakoi* *hampe*
et nelang pengairan takam gi ihi se-bakoi hampe
because while.SS irrigate 1PL.INCL LOC DEM.PROX ?-NEG until
ma'asus. *Bulu* *hie* *ulun* *iyo* *hawi* *gi* *mahara.pangairan*
mV-asus bulu hie ulun iyo hawi gi mahara.pangairan
INTR.STA-good and.then PART person REL arrive LOC estuary
bulu *yi'iro* *ngepo* *ranu* *re'erai* *bakoi* *babagi* *anri*
bulu yi-iro N-epo ranu re'erai bakoi bV-bagi anri
and.then LOC-DEM.MED AV-fetch water self NEG INTR.DYN-divide with
ulun *gi* *waling.* *Ari* *iyo* *wangon* *takam* *gi* *ihi.*
ulun gi waling ari iyo wangon takam gi ihi
person LOC behind well 3SG situation 1PL.INCL LOC DEM.PROX

'Because while we are irrigating here, this is not so good. Then whoever arrives at the estuary first, fetches water only for themselves and does not share with people at the back (and whose plots are further away). That is our situation here.'

(139) W:. *Dasar.*
basic

'Basically.'

(140) M:. *Belalu* *tubang* *ki'iyuh* *ngono* *ipalairo* *si* *ranu* *banjir*
belalu tubang kV-iyuh N-kono i-palai-ro si ranu banjir
and.then if NVOL-able AV-think DETR-plant-DEM.MED PART water flood
tamam.
tamam
large

'If you want to be able to plant rice, I think you need the flood.'

(141) W:. *Amun* *haut* *wulan* *Desember?*
if already month December

'And in December?'

(142) M:. *Bulu* *banjir* *lotong* *hawe* *si* *tau* *ma'asus* *ki'iyuh* *pare*
bulu banjir lotong hawe si tau mV-asus kV-iyuh pare
and.then flood drown where PART can INTR.STA-able much 1PL.INCL-DEM.MED
hene' *takamro.*
hene' takam-ro

'And when the flood sinks, where can we get a lot of it (water)?'

(143) W:. *Ya hawe amun saluran koi ma'asus ulah ulun.*
ya hawe amun salur-an koi mV-asus ulah ulun
yes where if channel-RES NEG INTR.STA-good by person

'Yes, if people do not build a good channel (for the water).'

(144) M:. *Inunne.*
inun-ne
what-ART.DEF

'Of course.'

(145) W:. *Padahal, wayah-wayah itu su'ulun ngulah ano saluranro*
padahal wayah-wayah itu sV-ulun N-ulah ano salur-an-ro
although RED-times DEM.PROX ONE-person AV-make well channel-RES-DEM.MED
nangkasusne amun iyo rusak natangkasus jaka'ne.
N-tVN-k-asus-ne amun iyo rusak N-tVN-k-asus jaka'-ne
AV-CAUS2-LE-good-ART.DEF if DEM.MED broken AV-CAUS2-LE-good should

'Even if at times someone makes a channel, it should be repaired when it is broken.'

(146) M:. *Belalu ukah hie tubang ki'iyuh ipalairo takam, iro*
belalu ukah hie tubang kV-iyuh i-palai-ro takam iro
and.then after PART if NVOL-able DETR-plant-DEM.MED 1PL.INCL DEM.MED
kawan laworo bihimat.
kawan lawo-ro bV-himat
some mouse-DEM.MED INTR.DYN-crowd

'And then after, when we are able to plant, there are many mice.'

(147) W:. *Bihimat ngokanne.*
bV-himat N-okan-ne
INTR.DYN-crowd AV-eat-ART.DEF

'They eat a lot (of the crop).'

(148) M:. *Kuman iro bulu kawan iyo inun iro keong amas,*
kuman iro bulu kawan iyo inun iro keong amas
eat DEM.MED and.then. some DEM.MED what DEM.MED snail gold
kuman pea parero ari tu si kesulitantu
kuman pea pare-ro ari tu si kesulitan-tu
eat child rice.plant-DEM.MED PART DEM.PROX PART difficulty-DEM.PROX
takam ngumo naun gi taharo terutama si gi
takam N-umo N-taun gi taha-ro terutama si gi
1PL.INCL AV-rice.field AV-year LOC place-DEM.MED especially PART LOC
daerah pengairan takam gi Tampa itu. Si iteku paling
daerah pengairan takam gi Tampa itu si ite-ku paling
area irrigation 1PL.INCL LOC Tampa DEM.PROX PART see-1SG SUP
mahalin tutu.
mV-halin tutu
INTR.STA-difficult really

'They (the mice) eat it and then many others like snails eat the paddy. That is our true difficulty in farming here, especially in our irrigation area here in Tampa. The way I see it, this is the most difficult.'

(149) W:. *Dasar uyuh.*
basic tough

'Tough indeed.'

(150) M:. *Kala wadako'ro inre. Tubang naan ranu ke bendunganro*
kala wada-ko'-ro inre tubang naan ranu ke bendungan-ro
like say-2SG-DEM.MED earlier if EXIST water from weir-RES-DEM.MED
bulu okan epo reo gi mahara.
bulu okan epo reo gi mahara
and.then eat fetch 3PL LOC estuary

'Like you said earlier, when there is water from the dam, they take it in the estuary.'

(151) W:. *Epo ulun duhulu'.*
fetch person time.before

'People take it first.'

(152) M:. *Kawan gi taluk si bakoi bangat ki'iyuh. Ari, iyo wangonne.*
kawan gi taluk si bakoi bangat kV-iyuh ari iyo wangon-ne
some LOC corner PART NEG always NVOL-able PART DEM.MED situation-ART.DEF

'That part (the plot) in the corner is not always able to get enough (water). That is the situation.'

(153) W:. *Iyo hie maka'ne yi'iro pokokne la mahalin*
iyo hie maka'-ne yi-iro pokok-ne la mV-halin
yes PART times-ART.DEF LOC-DEM.MED main PART INTR.STA-difficult
ngumo.
N-umo
AV-rice.field

'So that is the main difficulty in farming.'

(154) M:. *Bulu iro iyo yalah nakain rue uma'ne gi tran*
bulu iro iyo yalah na-kain rue uma'-ne gi tran
and.then DEM.MED yes like have-1PL.EXCL two father-ART.DEF LOC transmigrant
iro. Iyo hi ano amun aro' malalai ngumo hie ha hene'.
iro iyo hi ano amun aro' malalai N-umo hie ha hene'
DEM.MED yes PART well if before first.time AV-rice.field PART yes many
Ki'iyuhro. Tau main jatuh tangah.ruo jatuh belek.
kV-iyuh-ro tau main jatuh tangah.ruo jatuh belek
NVOL-able-DEM.MED can reach hundred one.and.a.half hundred container

'And then it is like we have two transmigrant men here. In the past even when farming for the first time (that year? on a particular plot?) we got a lot (of harvest). That was possible. You could reach a hundred, a hundred fifty containers (one container = circa twelve kilos).'

(155) M:. *Bulu si tataha et nelang tana' gambut iro hampe kai koi*
bulu si tataha et nelang tana' gambut iro hampe kai koi
and.then PART now because while.SS soil turf DEM.MED until will NEG
uweng bana'ne mitu' amun si la ki'iyuh tamam,
uweng bana'-ne mitu' amun si la kV-iyuh tamam
EXIST thing-ART.DEF as.strong.as.possible if PART EMP NVOL-able large
jajatuh belekro.
jatuh belek-ro
hundred container-DEM.MED

'But now because everything is turf, there is almost nothing left and you can get a hundred containers at the most.'

(156) W:. *Ha sika', nakainro mete'. Mete' nasamprot. Bahumro*
ha sika' na-kain-ro mete' mete' na-samprot bahum-ro
PART also PASS-1PL.EXCL-DEM.MED not.yet not.yet UV-spray plan-DEM.MED
riet-riet gi iro.
riet-riet gi iro
RED-near LOC DEM.MED

'Yes, same here. We do not have it yet. We have not sprayed yet. But it is planned, our plot is very close to there (to Maris' plot).'

(157) M:. *Bulu apo parero nelang tamam ari si wangonne.*
bulu apo pare-ro nelang tamam ari si wangon-ne
and.then hollow rice.plant-DEM.MED while.SS large PART PART situation-ART.DEF
Iyo ngumo naunni koi murah-murah. Iro tampukne
iyo N-umo N-taun-ni koi murah-murah iro tampuk-ne
REL AV-rice.field AV-year-ART.DEF NEG RED-easy DEM.MED peak-ART.DEF
hampe koi mayu' okan tubang mabukne.
hampe koi mayu' okan tubang mabuk-ne
until NEG EXIST enough eat if

'So a lot of damaged rice, that is the situation. The ones who farm do not have it easy. The edges (of the plot) are not enough to eat (do not give enough to eat?).'

(158) W:. *Kode oboh.*
but not.bad

'Better than nothing.'

(159) M:. *Kode oboh sika'. Pakai namah-namah ala penghasilanro inre. Ari,*
kode oboh sika' pakai namah-namah ala penghasilan-ro inre ari
but not.bad also for RED-add PART income-DEM.MED earlier PART
gi samping iro amun ku'ule-ule kapanan mamantat
gi samping iro amun kV-ule-ule kapanan mV-mantat
LOC side DEM.MED if NVOL-RED-healthy all INTR.STA-tap.rubber
inun he'e.
inun he'e
what PART

'But it is also not bad to add to that income (the harvest) from before. Also, if you are healthy, you have all the rubber tapping. Oh my.'

(160) W:. *Mamantat* *onro* *mi'ihi* *karing* *koi* *uweng* *ditene.*
mV-mantat onro mV-ihi karing koi uweng dite'-ne
INTR.STA-tap.rubber day INTR.STA-DEM.MED dry NEG EXIST sap-ART.DEF
Ka'awe *saraba* *ano...*
kV-awe saraba ano
NVOL-awesome completely well

'Tapping rubber these days, there is no sap. It is baffling...'

(161) M:. *Saraba* *mahalin.*
saraba mV-halin
completely INTR.STA-difficult

'Totally difficult.'

(162) W:. *Koi* *uweng* *wuahne.*
koi uweng wuah-ne
NEG EXIST truth-ART.DEF

'There is no reward.'

(163) M:. *Bulu* *iyo* *tataha* *mun* *yalah* *kaintu* *ngumo* *naun,* *ada*
bulu iyo tataha mun yalah kain-tu N-umo N-taun ada
and.then REL now if like 1PL.EXCL-DEM.PROX AV-rice.field AV-year PROH
si *maka'* *ngumo* *naun* *hampe* *amun* *naan* *parero* *lepuh*
si maka' N-umo N-taun hampe amun naan pare-ro lepuh
PART times AV-rice.field AV-year until if EXIST rice.plant-DEM.MED leave
minggiling *gin* *sika'* *nunyu'* *ulun.* *Ngaun* *ngoit* *pare* *hampe*
minggiling gin sika' N-sunyu' ulun N-taun N-oit pare hampe
mill that also AV-command person AV-year AV-bring rice.plant until
koi *kahaba* *akal.*
koi kV-haba akal
NEG NVOL-find sense

'Now if we farm, we leave it alone until there is rice. But (getting the grain) the mill also requires people. Transport and carry rice until you cannot do it anymore.'

(164) W:. *Amun* *bakoi* *ulun* *mat* *ha'awe.*
amun bakoi ulun mat ha-awe
if NEG person ? help

'If people do not help.'

(165) M:. *Amun bakoi ulun, koi kahampe pinggilingan.*
amun bakoi ulun koi kV-hampe pinggilingan
if NEG person NEG NVOL-until mill

'If there are no people (helping), farmers (who are old) do not reach the mill.'

(166) W:. *Amun harap ngotopang.*
amun harap ngo-topang
if hope AV-carry.on.back

'If they are carrying (the grain) on their backs.'

(167) M:. *Himat. Jari iro kesulitan eleh.*
agree so DEM.MED difficulty all

'Right, so all of it is difficult.'

(168) W:. *Ampama' si momontek. Iyo iyo onro mi'ihi koi uweng*
ampama' si mV-montek iyo iyo onro mV-ihi koi uweng
EXAMPLE PART INTR.STA-tap yes yes day INTR.STA-DEM.PROX NEG EXIST
uranne. Ha'awe gatah iro iteku layar haut awis raun
uran-ne ha-awe gatah iro ite-ku layar haut awis raun
rain-ART.DEF where rubber DEM.MED see-1SG fall.out already finish leaf
anone.
ano-ne
well-ART.DEF

'For example rubber tapping. Yes, yes, today there is no rain. Where is the rubber, I see the leaves fall out and all of them are gone.'

(169) M:. *Samula wulan walutu. Ari iko' amun kahaba lenganne*
samula wulan walu-tu ari iko' amun kV-haba lengan-ne
normally month eight-DEM.PROX PART 2SG if NVOL-find sound-ART.DEF
ari kia' nokolo koi uweng aku kahaba haut. Irolah
ari kia' nokolo koi uweng aku kV-haba haut iro-lah
PART again how NEG EXIST 1SG NVOL-find already DEM.MED-EMP
wangonne ngumo naunro inre dasar si
wangon-ne N-umo N-taun-ro inre dasar si
situation-ART.DEF AV-rice.field AV-year-DEM.MED earlier real PART
mahalin.
mV-halin
INTR.STA-difficult

'Normally in August, do you have another idea? How come you have not said anything. I already have. This is the situation of farming. Truly difficult.'

(170) W:. *Koi uweng kahaba haut. Et alam onro koi iyuh si makai*
koi uweng kV-haba haut et alam onro koi iyuh si N-pakai
NEG EXIST NVOL-find already because nature day NEG able PART AV-use
bahum morunsia. Yi'iro si...
bahum morunsia yi-iro si
plan mankind LOC-DEM.MED PART

'I have no more to say (on the topic). Nature does not bow to human will.'

(171) M:. *Et takam bakoi si kala ulun tiba alam Jawa aro. Si*
et takam bakoi si kala ulun tiba alam Jawa aro si
because 1PL.INCL NEG PART like person DIR nature Jawa DEM.DIST PART
ulun ngatur ranu, takamtu si atur ranu.
ulun N-atur ranu takam-tu si atur ranu
person AV-control water 1PL.INCL-DEM.PROX PART control water

'Because we here are not like people from Java. People there control the water, we here are controlled by the water.'

(172) W:. *Tau ngulah kapanan uran non. Takamtu la nganre.*
tau N-ulah kapanan uran non takam-tu la N-anre
can AV-make all rain what 1PL.INCL-DEM.PROX PART AV-wait

'They can make rain, we here have to wait.'

(173) M:. *Nganre wada alam. Ari...*
N-anre wada alam ari
AV-wait say nature PART

'Wait says nature.'

(174) W:. *Amun alam mete' lagi ngami'...*
amun alam mete' lagi N-ami'
if nature not.yet again AV-give

'If nature is not giving yet...'

(175) M:. *Iyo hie, saraba belalu tubang nganre wada alamro saraba*
iyo hie saraba belalu tubang N-anre wada alam-ro saraba
yes PART completely and.then all AV-wait say nature-DEM.MED completely
sayup.simpe. Belalu haut koi uweng ala kapanyarine. Ari...
sayup.simpe belalu haut koi uweng ala kapanyari-ne ari
too.late and.then already NEG EXIST PART become-ART.DEF PART

'Then that is all, waiting for what nature says it is all too late. (If) Nothing happens, well...'

(176) W:. *Iyo hie nelang muntuo mi'itu. Koi ku'ule haut...*
iyo hie nelang muntuo mV-itu koi kV-ule haut
yes PART while.SS old INTR.STA-DEM.MED NEG NVOL-can already

'Yes, when old like this, you already do not have (the strength)...'

(177) M:. *Ha. Koi ku'ule haut kono umur haut mi'itu*
ha koi kV-ule haut kono umur haut mV-itu
PART NEG NVOL-can already think age already INTR.STA-DEM.MED
wangonne. He'e.
wangon-ne he'e
situation-ART.DEF PART

'Ha! (We are) already not strong enough, imagine at that age. That is how it is. Oh my!'

(178) W:. *Wadaku anri uma' Lori: Takam ngumo taun itu pada su'uyuh*
wada-ku anri uma' Lori takam N-umo taun itu pada sV-uyuh
say-1SG with father Lori 1PL.INCL AV-rice.field year DEM.PROX also ?-tired
mi'itu moli wiyah matanni. Sababahum ulun
mV-itu N-woli wiyah matan-ni saba-bahum ulun
INTR.STA-DEM.MED AV-buy uncooked.rice ?-ART.DEF as.you-plan person
ma ano hargane.
ma ano harga-ne
mention well price-ART.DEF

'I said to Papa Lori (Fernandez): We farm here this year also but if it gets too difficult we buy rice. (But) People can ask whatever price they like.'

(179) M:. *Kain* *ruetu.* *Haut* *payah* *koi* *ku'ule* *ngumo* *haut*
kain rue-tu haut payah koi kV-ule N-umo haut
1PL.EXCL two-DEM.PROX already will NEG NVOL-can AV-rice.field already
wadaku *pada* *ma-mayu.*
wada-ku pada mV-mayu
say-1SG also RED-enough

'That makes two of us. I cannot work in the field any longer, I already said "enough".'

(180) W:. *Bakoi* *ngumo* *ikam?*
bakoi N-umo ikam
NEG AV-rice.field 2PL

'You do not work in the field?'

(181) M:. *Bakoi.*
NEG

'No.'

(182) W:. *Na.* *Kain* *si* *ngumo.*
na kain si N-umo
PART 1PL.EXCL PART AV-rice.field

'Well, we are farming.'

(183) M:. *Jari* *iro* *si* *wangon* *hasil* *la* *ngumo* *naun* *koi* *maka'* *onro*
jari iro si wangon hasil la N-umo N-taun koi maka' onro
well DEM.MED PART situation result EMP AV-rice.field AV-year NEG times day
jaka'ne.
jaka'-ne
should

'Well, the farming results should not be very good.'

(184) W:. *Tapi,* *yi'iro* *la* *harus* *na'ulah.*
tapi yi-iro la harus na-ulah
but LOC-DEM.MED PART must PASS-make

'But it must be done.'

(185) M:. *Iro* *nagawi* *ari.*
iro na-gawi ari
DEM.MED PASS-work PART

'It was done.'

(186) W:. *Ha,* *koi* *ku* *kahaba.*
ha koi ku kV-haba
PART NEG 1SG NVOL-find

'I do not have anything else (to say).'

(187) M:. *Koi* *ku* *kahaba* *haut.*
koi ku kV-haba haut
NEG 1SG NVOL-find already

'I do not have anything else (to say). I'm done already.'

(188) W:. *Habis* *sudah.*
finish already

'Already finished.'

(189) M:. *Habis.*
finish

'Finished.'

(190) W:. *Ceritanya.*
cerita-nya
story-ART.DEF

'The story.'

Appendix B: Word lists

The following word lists present some of the basic vocabulary in Paku. With the exception of the first word list, which represents an extended Swadesh list used to elicit basic vocabulary, they are divided by semantic domain. The initial five word lists feature prototypical nouns (body parts, animals, nature, weapons and tools, and fruits and vegetables), the following three lists are concerned with basic adjectival notions (attributes and physical properties, colour terms and tastes, dimensions and distance), and the final three lists cover different types of inherently verbal domains (motion, affect, and communication and cognition).

In addition to English and Paku the word lists also include an Indonesian translation. This was done for two reasons: a) some people interested in consulting these word lists might be more fluent in Indonesian than in English, and b) because in the vast majority of items the Indonesian word was used to elicit the Paku lexeme. In instances in which this was not the case and in which the Indonesian translation is unclear, this is indicated by "xx" in the Indonesian column. Slashes indicate that there are competing forms in the data.

The lexical items were collected over time and not elicited in one session which means all speakers contributed (see Appendix C for speaker metadata). The individual word lists were checked by different speakers to confirm their accuracy.

English	**Paku**	**Indonesian**
I	aku / uki	saya
you (sg.)	iko’	kamu
he (masc.) / she (fem.)	iyo	dia
we (excluding the listener)	kain	kami
we (including the listener)	takam	kita
you (pl.)	ikam	kalian
they	reo	mereka
this	itu	ini
that	iro (medial distance) / aro (out of sight)	itu
here	gi itu	di sini
there	gi iro	di situ
over there	gi aro	di sana
who	hie’	siapa
what	non / inun	apa
where	gi hawe	di mana
when	hantekui	kapan
how	nokolo / kolowangun	bagaimana
no / not	bakoi	tidak / bukan
all	kanahai / kahai	semua
many / much	rama / wahai	banyak

English	Paku	Indonesian
some	papire	beberapa
a little / a few	dohe	sedikit
other	lain	lain
one	erai / erang	satu
two	ruo	dua
three	tolu	tiga
four	opat	empat
five	dimo	lima
big	idu’	besar
long	obo	panjang
wide	lebar	lebar
high	iwa’	tinggi
thick	makapan / kakapan	tebal
heavy	wiet	berat
small	odik	kecil
short	idok	pendek
narrow	hipit	sempit
thin	meriris	tipis
woman / female	wawe	wanita
man / male	upo	pria
mankind	morunsia	manusia
child	pea / anapea / napea	anak
wife	wawen	istri
husband	hong	suami
mother	ine’	ibu
father	uma’	bapak
animal	setua / eha	binatang
fish	kenah	ikan
bird	wurung	burung
dog	eteng	anjing
louse	kutu	kutu
snake	nipo	ular
worm	sasing / lokung	cacing
tree	kakao kayu	pohon
forest	jompon / jubut	hutan
stick	jangkeng	ranting
branch	raan / watang	dahan / batang
fruit	ua’	fruit
leaf	raun	daun
core	liki	biji
root	wakat	akar
bark (tree)	upek kayu	kulit kayu
flower	wunge	bunga
grass	rikut	rumput
rope	tali	tali

English	Paku	Indonesian
skin	upek	kulit
blood	raya	darah
bone	tu'ulang	tulang
fat (n.)	senolo	lemak
egg	tolui	telur
horn	tanruk	tanduk
tail	ukui	ekor
hair	wulu	rambut
feather	wulu	bulu
head	ulok	kepala
ear	telingo	telinga
eye	mato	mata
nose	urung	hidung
mouth	wowa	mulut
snout	songur	moncong
teeth	kukut	gigi
fingernail	kuku	kuku
foot / leg	poo	kaki
knee	ulok katuk	lutut
heel	rijeng	tumit
hand / arm	longon	tangan
elbow	hiku	siku
wing	elat	sayap
stomach	wuntung	perut
bowl	senai	usus
neck	wiung	leher
back (body part)	lutuk	punggung
chest	dada	dada
heart	jantung	jantung
drink	minum	minum
eat	kuman / okan	makan
bite	kikit	gigit
suck	seut	hisap
spit	iwoi	ludah
vomit	dua'	muntah
blow	siwui	tiup
breathe	hengo	nafas
laugh	kikihi	tawa
see	ite	lihat
hear	rongoi	dengar
know	tue'	tahu
think	kono / ahong	pikir
kiss	siuk	cium
afraid	koi ronu / takut	takut
worried	gaer	khawatir

English	Paku	Indonesian
sleep	surui	tidur
live	wolum	hidup
life	pomolum	kehidupan
dead	mate	mati
kill	wunu’	bunuh
meet	kalait	kelahi
hunt	anup	buru
hit	pungkong	pukul
cut	totok	potong
split	sika	belah
puncture	sodok	tusuk
scratch	soret	coret
dig	kali	gali
swim	katama	berenang
fly	similing	terbang
walk	malan	berjalan
arrive	hawi	datang
come	holet	datang
lie (position)	ubis	berbaring
sit	harung	duduk
stand	sokonrong	berdiri
fall	lawu’	jatuh
give	onru	beri
hold	kepot	pegang
wring	piyek	peras
rub	kosok	gosok
wash	pupuk	cuci
erase	puhut	hapus
pull	jujut	tarik
push	singkoi	dorong
throw	pedak	lempar
bind	soruk	ikat
sew	wolit	jahit
count	reken	hitung
talk	paner	berkata
sing	nyanyi	nyanyi
float	nota	apung
flow	kare	alir
swell	bakah	bengkak
sun	mato’onro	matahari
moon	wulan	bulan
star	wuyoh	bintang
water	ranu	air
rain	uran	hujan
river	sunge	sungai

English	Paku	Indonesian
lake	danau	danau
sea	laut	laut
salt	sira	garam
stone	watu	batu
sand	kerasik	pasir
ash (under a fireplace)	ronun	abu
ash (from a cigarette)	habu	abu
soil	tana’	tanah
rain cloud	wae onro	awan (hujan)
fog	kabut	kabut
sky	langit	langit
wind	riwut	angin
smoke	atuk	asap
fire	apui	api
burn	rakit	bakar
grill	nutung	bakar
street	lalan	jalan
mountain	gunung	gunung
red	mea	merah
green	karado	hijau
yellow	melintang	kuning
white	wura	putih
black	wuyung	hitam
night	malom	malam
day	onro	hari
year	taun	tahun
hot	layong	hangat / panas
cold	merisak	dingin
full	ponuh (ponu’)	penuh
new	wayo	baru
long (temporal)	uhang	lama
old	muntuo	tua
young	uro	muda
good	asus	baik
dirty	bere’	kotor
straight	witu	lurus
round	bulat	bulat
sharp	komat	tajam
blunt	lelao / kalor	tumpul
slippery	mokoleh, miliei	licin
wet	wisa	basah
dry	karing	kering
true / correct	uah	betul / benar
close	rupak	dekat
far	orok	jauh

English	Paku	Indonesian
right	kawanan	kanan
left	kewi	kiri
at	gi / ji	di
in / inside	lalom / huang	dalam
with / and	ali / anri	dengan / dan
if	amun	kalau
because	ulah / et	karena
name	ngaran	nama
house	lowu	rumah
face	wae	wajah
	Body parts	
head	ulok	kepala
eye	mato	mata
eyeball	liki mato	bola mata
eyebrow	kining	alis
eyelid	upak mato	kelopak mata
eyelash	wulu mato	bulu mata
white of the eye	wura mato	putih mata
crow's feet	keriput	keriput
face	wae	wajah
forehead	rai	dahi
temple	kining	pelipis
nose	urung	hidung
bridge of the nose	tu'ulang urung	jembatan hidung
nostril	luwang urung	lubang hidung
cheek	pahu	pipi
cheekbone	tu'ulang pahu	tulang pipi
jaw	ra'ang	rahang
chin	ra'ang	dagu
mouth	wowa	mulut
tooth	kukut	gigi
gums	lilingiren	gusi
lip	wiwi	bibir
upper lip	wiwi obo	bibir atas
lower lip	wiwi iwa	bibir bawah
tongue	lola	lidah
adam's apple	bolokok	jakun
ear	telingo	telinga
lobe	raun telingo	cuping telinga
hair	wulu	rambut
short beard	rame	jenggot
long beard	jangut	jenggot
mustache	sangsingut	kumis
neck	wiung	leher
back of the neck	lepok	leher

English	Paku	Indonesian
occiput	lepok	tengkuk
back	lutuk	punggung
shoulder	puluko	bahu
elbow	hiku	siku
armpit	kelek	ketiak
wrist	pagelangan longon	pergelangan tangan
back of hand	wungkunung	xx
palm	palar longon	telapak tangan
finger	kingking	jari
thumb	wurudu	jempol
index finger	kingking tuta	jari telunjuk
middle finger	kingking soang	jari tengah
ring finger	kingking mamis	jari manis
little finger	kingking kirik	jari kelingking
fingernail	kuku	kuku
chest	dada	dada
breast	utet	payudara
rib	tu'ulang hengkang	tulang rusuk
waist	towing	pinggang
hip	jaram-pagang	pinggul
stomach	wuntung	perut
navel	puhor	pusar
bottom	lawut	pantat
spine	tu'ulang lutuk	tulang punggung
leg / foot	poo	kaki
thigh	kahapang / sapak	paha
knee	ulok katuk	lutut
ankle	pagelangan poo	pergelangan kaki
shin	soi	garas
calf	wisis	betis
sole	palar poo	telapak kaki
toe	kingking poo	jari kaki
toe nails	kuku poo	kuku kaki
big toe	kingking tampuan poo	ibu jari / jempol kaki
ball of the foot	tungka	mata kaki
skin	upak	kulit
bone	tu'ulang	tulang
muscle	lunok	otot
bladder	kantung oni / wuwuni'an	kandung kemih
lunges	kumpao	paru-paru
intestines	senai	usus
blood	raya	darah
blood vessel	luwang raya	pembuluh darah
heart	jantung	jantung
liver	ate	hati

English	Paku	Indonesian
kidney	pingang	ginjal
pancreas	wae ate	pankreas
brain	utek / lalu	otak
	Animals	
orang-utan	keu	orang utan
monkey	warik	monyet
probiscis monkey	paikah	bekantan
squirrel	memai	tupai
mouse	lawo	tikus
flying squirrel	kuwung	tupai terbang
sun bear	wayuang	beruang madu
bat	pain	kelelawar
beetle	kame toyung	kumbang
centipede	kalayawar	kaki seribu
cockroach	lipas	lipas
bee	wani	lebah
fly	sawakang	lalat
spider	gandrang lawa’	laba-laba
flying spider	wai	laba-laba terbang
clouded leopard	angkudi	macan dahan
tarsier	tatuwat / buok	binatang hantu
frog	wekok	katak
mosquito	poyongo	nyamuk
hornbill	monongang / langamet	burung enggang
turtle	kolon	kura-kura
sea turtle	bedawang	penyu
gecko	wuliai	tokek
crocodile	bahaya	buaya
bull	banteng	banteng
civet	hiwit	musang
otter	dongon	berang-berang
pangolin	ayom	trenggiling
deer	talau / parang	kijang
deer	kawawe’	rusa
heron	kare (wao)	kuntul (kerbau)
mouse-deer	palanuk	kancil
lizard	waliai	kadal
ant	wisik	semut
porcupine	tetung	landak
butterfly	tiwirpi	kupu-kupu
bird	wurung	burung
dog	eteng	anjing
cat	using	kucing
snake	nipo	ular
worm	sasing / lokung	cacing

English	Paku	Indonesian
louse	kutu	kutu
scorpion	alimango	kalajengking
fish	kenah	ikan
boar	wawui	babi hutan
domestic pig	unik	babi
chicken	manu’	ayam
chick	piak	anak ayam
cockerel	jagan	xx
hen	punan	xx
goose	itik	bebek
goat	kaming	kambing
sheep	domba	domba
	Nature	
tree	kakao kayu	pohon
palm	kayu ilao	sawit
forest	jubut / jompon	hutan
rubber	gatah	karet
flower	wunge	bunga
orchid	lokut	anggrek
grass	rikut	rumput
fern	paku	paku
leaf	raun	daun
stick	jangkeng	ranting
branch	raan / watang	dahan / batang
sky	langit	langit
rain cloud	wae onro	awan (hujan)
sun	mato’onro	matahari
moon	wulan	bulan
new moon	pawolum wulan	bulan muda
full moon	wulan gala	bulan purnama
star	wuyoh	bintang
day	onro	hari
morning	pita	pagi
midday	suan onro	siang
afternoon	nanyap	sore
night	malom	malam
river	sunge	sungai
sea	laut	laut
lake	danau	danau
mountain	gunung	gunung
hill	wunkur	bukit
stone	watu	batu
sand	kerasik	pasir
wood	kayu	kayu
bark	upak kayu	kulit kayu

English	Paku	Indonesian
fire	apui	api
rain	uran	hujan
wind	riwut	angin
water	ranu	air
earth / soil	tana’	tanah
lightning	kelat	kilat
thunder	ampeng	guntur
dew	amun	embun
ash	habu	abu
rainy season	musim panguran	musim hujan
dry season	musim kemarau	musim kering
fruit season	musim ua’	musim buah
charcoal	arong	arang
copper	tamaga	tembaga
gold	amas	emas
silver	perak	perak
clay	putak	tanah liat
iron	jatang	besi
Weapons and tools		
spear	jalak / doha	tombak
machete (for fighting)	otak / manau	parang
machete for cutting grass	otak muruluk / taruh	parang perumput
blowpipe	potan	sumpitan
shield	talawang	perisai
small knife carried on belt	urit	pisau
sickle	arit	sabit
fishing net	wintan	jaring ikan
spoon	sanuk	sendok
bowl	mansi	mangkok
clay pot	kabali-kabali	kuali
iron pot for cooking	kenseng	panci
Fruits and vegetables		
rambutan	maliti	rambutan
papaya	nansang / katila	pepaya
mango	mangga	mangga
banana	punsi	pisang
durian	ruyan	durian
rose apple	jamu’	jambu
langsat	lehat	langsat
duku	ruku	duku
mangosteen	mangis	manggis
mushroom	kulat	jamur
coconut	neui	kelapa
chilli	sabe	lombok
sweet potato	dumpu	ubi jalar

English	Paku	Indonesian
corn	jagung	jagung
balule	balole	balule
cucumber	tantimun	timun
long bean	lamayung	kacang panjang
nut	kasang	kacang
betel nut	samai	sirih
hazelnut	keminting	kemiri
soy	kadele	kedelai
cassava	dengkot	singkong
sago	sago	sago
ginger	lio	jahe
taro	upi	keladi
eggplant	toyung	terong
bamboo	somoe / paring	bambu
leek	bawang umo	bawang perai
jicama	bangkuang	bangkuang
jackfruit	nangka	nangka
sirsak	nangka walana	sirsak
salak	salak	salak
pineapple	tarinsing	nanas
sapodilla	sau	sawo
noni	wangkudu	mengkudu
breadfruit	ua' sukun	buah sukun
	Attributes and physical properties	
dark	sirom	gelap
light	mai	terang
brave	ronu	berani
good	ma'asus	baik
bad	koi ma'asus	jelek
shy	bangan	malu
lazy	botur	malas
fast	wansit	cepat
slow	gamat	pelan
angry	sangit	marah
dirty	bere	kotor
clean	barasis	bersih
hard	mape	keras
soft	moloma	lembut
heavy	wiet	berat
light	mean	ringan
fat	molompu	gemuk
skinny	mais	kurus
pale	mula'	pucat
strong	wigas / royoh	kuat
weak	lebe	lemah

English	Paku	Indonesian
wet	wisa	basah
dry	karing	kering
sharp	kumat	tajam
blunt	lelao / kalor	tumpul
deaf	morongon	tuli
mute	muna	bisu
blind	pehe	buta
stupid	galu	bodoh
smart	pintar / panai	pintar
old	muntuo	tua
young	uro	muda
Colour terms and tastes		
black	wuyung	hitam
white	wura	putih
red	mea	merah
blue	karado	biru
green	karado	hijau
yellow	melintang	kuning
coklat	coklat	coklat
hot (temperature)	layong	panas
cold	mirisak	dingin
sweet	mamis	manis
bitter	ampait	pahit
sour	mahari	asam
salty	ma'erang	asin
hot (spicy)	marare	pedas
Dimensions and distance		
big	idu'	besar
long	obo	panjang
wide	lebar	lebar
high	iwa'	tinggi
thick	makapan / kakapan	tebal
heavy	wiet	berat
small	odik	kecil
short	idok	pendek
narrow	hipit	sempit
thin	meriris	tipis
close	rupak	dekat
far	orok	jauh
Verbs of motion		
go	tulak	pergi
run	lempat	lari
walk	malan	berjalan
swim	katamah	berenang
go home	buli	pulang

English	Paku	Indonesian
arrive	hawi	datang
come	holet	datang
Affective verbs		
kill	wunu’	bunuh
hunt	anup	buru
hit	pungkong	pukul
burn	tutung	bakar
bite	kukut	gigit
lift	engkat	angkat
help	karawah	bantu
cut	totok	potong
split	sika	belah
puncture	sodok	tusuk
scratch	soret	coret
Verbs of communication and cognition		
say	wada	berkata
talk	paner	bicara
ask	tunti	tanya
answer	jawab	answer
think	ahong / kono	pikir
remember	itung	ingat
feel	ingkam	rasa
know	tue’	tahu
understand	taru	mengerti

Appendix C: Speaker metadata

Unless otherwise noted, all speakers are fluent native speakers of Paku and ethnically descended from two Paku parents.

(1) Iterman

Gender:	Male
Age (2013):	57
Place of birth:	Tampa
Place of residence:	Bantai Napu
Languages:	Paku, Maanyan, Lawangan, Banjarese, Indonesian
Family:	Married to a Maanyan, three daughters, two grandchildren
Education:	Nine years of Primary school, agricultural school run by Barmen Mission
Occupation:	Farmer
Other:	Adat keeper of the Paku

(2) Ilun

Gender:	Male
Age (2013):	56
Place of birth:	Tarinsing
Place of residence:	Tarinsing
Languages:	Paku, Maanyan, Ngaju, Banjarese, Indonesian
Family:	Married to a Maanyan from Paku Beto, two daughters, one grandchild
Education:	Six years of primary school, three years of secondary schooling
Occupation:	Rubber farmer

(3) Weti

Gender:	Female
Age (2013):	52
Place of birth:	Tampa
Place of residence:	Tampa
Languages:	Paku, Maanyan, Indonesian
Family:	Husband Dominikus Fernandez, four children, several grandchildren
Education:	Six years of primary school, three years of secondary schooling
Occupation:	Housewife
Other:	Weti and her husband are very involved in the conservation of Dayak languages and cultures, and Fernandez, being from Flores, studied both Paku and Maanyan after he moved to Tampa. Although their children never learned the language, Paku is still sometimes spoken at home in an effort to emphasise the importance of local languages in the area.

(4) Maris

Gender:	Female
Age (2013):	68
Place of birth:	Tampa
Place of residence:	Tampa
Languages:	Paku, Maanyan, Ngaju, Indonesian
Family:	Married to a Ngaju, five children, several grandchildren
Education:	Six years of primary school, three years of secondary schooling
Occupation:	Housewife

(5) Hakel

Gender:	Female
Age (2013):	67
Place of birth:	Tarinsing
Place of residence:	Tarinsing
Languages:	Paku, Maanyan, Lawangan, Indonesian
Family:	Married to a Paku, seven children
Education:	Six years of primary school
Occupation:	Farmer
Other:	Is the only speaker who still uses Paku at home.

(6) Rimayanto

Gender:	Male
Age (2013):	54
Place of birth:	Tarinsing
Place of residence:	Tarinsing
Languages:	Paku, Maanyan, Lawangan, Banjarese, Indonesian
Family:	Married, three children
Education:	Six years of primary school, three years of secondary schooling
Occupation:	Rubber farmer

(7) Hardinanto

Gender:	Male
Age (2013):	32
Place of birth:	Tarinsing
Place of residence:	Tarinsing
Languages:	Maanyan, Paku, Banjarese, Indonesian
Family:	Married to a Maanyan, no children
Education:	Six years of primary school, three years of secondary schooling
Occupation:	Rubber Farmer
Other:	Hardi is not a native Paku speaker, however, having grown up in a Paku village he exhib

(8) Un

Gender:	Male
Age (2013):	60
Place of birth:	Tarinsing
Place of residence:	Tarinsing
Languages:	Paku, Maanyan, Banjarese, Indonesian
Family:	Married to a Maanyan
Education:	Six years of primary school
Occupation:	Rubber farmer

(9) Kalutek

Gender:	Male
Age (2013):	79
Place of birth:	Kupang Baru
Place of residence:	Tampa
Languages:	Paku, Maanyan, Kapuas, Lawangan, Banjarese, Indonesian
Family:	Widower, no children
Education:	Six years of primary school
Occupation:	Pensioner, Rubber farmer

(10) Undut Liusman

Gender:	Male
Age (2013):	51
Place of birth:	Bantai Napu
Place of residence:	Kalamus
Languages:	Paku, Maanyan, Kapuas, Pantian, Banjarese, Indonesian
Family:	Married, two daughters, two sons
Education:	Six years of primary school, three years of secondary schooling, three years of theologic
Occupation:	Rubber farmer

(11) Sarianti

Gender:	Female
Age (2013):	55
Place of birth:	Tarinsing
Place of residence:	Tarinsing
Languages:	Paku, Maanyan, Kapuas, Banjarese, Indonesian
Family:	Married, two children
Education:	Six years of primary school, three years of secondary schooling
Occupation:	Rubber farmer