ON THE SYNTAX OF WEST KALIMANTAN:

ASYMMETRIES AND A'-MOVEMENT IN MALAYIC AND LAND DAYAK LANGUAGES

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There is much I could say in this section but I will attempt to be brief. This dissertation is a result of the grace and generosity of so many people, as fieldwork is, at its core, about people. It's about people accepting you into their lives and their homes and treating you like family. It's about strangers opening their hearts to you even though they have no reason to trust you. It's about giving. Being in the field and collecting the data that comprises this dissertation was one of the most rewarding experiences of my life – but it was also one of the hardest.

This dissertation is imperfect, as it reflects the imperfect person who wrote it. The hardest battles I fought while writing this were with myself. Despite all my efforts to be a perfect linguist while in the field, I did not succeed. I made many mistakes, forgot to elicit important constructions, and stumbled frequently while speaking Indonesian. I learned so much from these mistakes – the most important thing being that it's okay to be imperfect. That lesson I plan to take with me as I continue my career as a linguist and as a fieldworker.

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I hope I have not forgotten anyone but I likely have. Thank you to everyone both in and out of the field for helping me reach this goal and helping me write (what I hope is) an interesting and compelling dissertation.

ABSTRACT

This dissertation focuses on five Malayic and five Land Dayak languages of West Kalimantan, Indonesia, exploring voice, A'-movement, and extraction asymmetries through a Minimalist framework. The main goal of this dissertation is to bridge the gap between documentation and syntactic analysis in a few ways: a) by using data from all underdocumented, and several undocumented languages; b) by providing syntactically motivated description of ten different languages; and c) by using contemporary syntactic principles, Case licensing and Phase Theory, to explain microvariation found in the voice system of these ten languages. Specifically, I offer an analysis of voice in West Kalimantan that typologically separates Malayic and Land Dayak languages, by showing that Malayic languages have a three 'voice' system, while Land Dayak languages only have a two 'voice' system. This dissertation further expands upon previous analyses of the Austronesian nasal prefix, by presenting data from never before studied languages where the nasal prefix (generally analyzed as an actor voice morpheme) and undergoer voice prefix can co-occur. I also argue that the nasal prefix differs in function between the two subgroups. I further discuss the lack of extraction asymmetries so common to Western Austronesian languages in a few Land Dayak languages through an exploration of both *wh*-movement and relative clauses.

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LIST OF ABBREVIATIONS

1 = FIRST PERSON
2 = SECOND PERSON
3 = THIRD PERSON
ACCID = ACCIDENTAL MARKER
AV = ACTOR VOICE
BE = THE BE- PREFIX WHICH OCCURS ON UNERGATIVES
CAUS = CAUSATIVE MARKER
COP = COPULA
COMP = COMPLEMENTIZER
EXCL = EXCLUSIVE PRONOUN
FUT = FUTURE TENSE
GEN = GENITIVE CASE MARKING
I = SET I PRONOUN (NOM/ACC)
II = SET II PRONOUN (GEN)
INCL = INCLUSIVE PRONOUN
NEG = NEGATION
NONCOMP = NON-COMPLETED ACTION
OV = OBJECT VOICE
PL = PLURAL
PST = PAST TENSE
PFT = PERFECTIVE ASPECT
PERMIS = PERMISSION MODAL
PROG = PROGRESSIVE ASPECT
PV = PASSIVE VOICE
Q = QUESTION MARKER
RED = REDUPLICATION
REFL = REFLEXIVE
REMOTE/DISCONT.PST = REMOTE / DISCONTINUOUS PAST TENSE
SG = SINGULAR
UV = UNDERGOER VOICE

CHAPTER 1: INTRODUCTION

1.1 On Borneo

The purpose of this dissertation is to explore syntactic features and constraints in ten languages of West Kalimantan, a part of the island of Borneo in Indonesia. Borneo, despite being the third largest island in the world and home to some 100-200 languages, has been called a "linguistic backwater" by Robert Blust (Blust 2018); of the small portion of languages that have been previously documented, most have received little syntactic attention. Most previous work has focused on analysis at the word-level, which has culminated in a significant amount of both historical and phonological work. Furthermore, while some syntactic documentation and analysis has been done, it is mainly restricted to languages located in north Borneo, in the Malaysian states of Sarawak and Sabah. This leaves a large gap in the documentation and analysis done in Borneo. This dissertation is a first step toward filling the gap, through primarily syntactic documentation and analysis of languages found not in Malaysia, but in the Indonesian province of West Kalimantan. The ten languages that serve as the focal point of this dissertation are spoken in the northern part of West Kalimantan, from the Kapuas River up to the border of Malaysian Borneo, and range from being previously undocumented to having only one or two morphological or syntactic works published on them. Both documentation and signficant analysis at the syntactic level, then, would prove substantial not only in the context of Western Austronesian languages, but in syntactic analysis as a field. Furthermore, this dissertation focuses on two relevant syntactic phenomenon, voice, and A'-movement, by observing patterns and data in passives, relative clauses, and *wh*-movement.

It has been noted that many Austronesian languages exhibit a voice system where one argument is 'privileged' (often referred to the *subject*, *pivot,* or *trigger*)[1], and A'-movement is limited to this argument (Keenan and Comrie 1977). Keenan and Comrie refer to this as a 'subjects-only' restriction on extraction and famously noted the existence of such a restriction in a number of Austronesian languages. This restriction as well as its interaction with voice systems has long been a central concern in the study of Austronesian syntax. Austronesian languages are generally split into two groups – so-called 'Philippine-type' languages, and 'Indonesian-type' languages. Philippine-type languages are found in Taiwan, the Philippines, Sabah, North Sulawesi, and Madagascar (Adelaar 2005), and are characterized by a voice system with two or more different non-Actor voices (Wolff 1973; Wouk and Ross 2002; Blust 2010). Indonesian-type languages, which are generally spoken in Malaysia and western Indonesia, are characterized by an opposition between actor and undergoer voice (Wouk and Ross 2002; Adelaar 2005). In Indonesian-type languages, this extraction restriction is dependent upon what voice morphology is

[1] When referencing other scholars' work, I use the term that they use. For my own work, I use *pivot* or simply the *privileged argument* for consistency.

present on the verb. In Bahasa Indonesia (henceforth Indonesian), for example, the external argument can be extracted from a clause where the verb takes the nasal prefix *meN-*. This prefix occurs in actor-oriented sentences, such as (1a), and has thus received multiple analyses as a voice morpheme (Sneddon 1996; Son and Cole 2004, among others). In instances of A'-movement, such as *wh*-movement, the nasal prefix is retained if the external argument is extracted (as shown in (1b)). The internal argument, however, cannot be extracted when this nasal prefix occurs on the verb, as shown in (1c).

(1a) Ali **mem**-beli buku. *Indonesian*
Ali AV-buy book
'Ali bought a book'

(1b) Siapa yang **mem**-beli buku?
who COMP AV-buy book
'Who bought a book?'

(1c) *Apa yang Ali **mem**-beli?
what COMP Ali AV-buy
'What did Ali buy?'

In order to extract the internal argument, the verb must occur without the nasal prefix. Extraction is then possible, as seen in (1d).

(1d) Apa yang Ali beli?
what COMP Ali buy
'What did Ali buy?'

This pattern has led many previous researchers to analyze Indonesian-type languages such as Indonesian as having the noted 'subjects-only' extraction restriction: in Indonesian, the internal argument must first be given subject status, through passivization, before it can be extracted (Sneddon 1996 for Indonesian; Davies 1998 for Madurese; Keenan and Comrie 1977 for Toba Batak; Paul 1998 for Malagasy). This is not uncontroversial, however; it has further been argued that direct extraction of internal arguments is possible, by Chung (1976) and Cole and Hermon (1998) for Indonesian, and Cole, Joncyzk, and Lilley (1998) for Javanese.

This issue becomes further complicated if we include languages spoken in Borneo. Blust (2013: 67) notes that Borneo appears to be a syntactic transition area, as languages spoken in Sabah have the Philippine-type verb system, but those spoken further south in Sarawak and into Kalimantan have the morphologically reduced system found in Indonesian-type languages. Following this generalization, we

might expect languages in West Kalimantan, the focus of this dissertation, to have the following characteristics: i) an impoverished system of morphology in general; ii) a voice system that patterns like Indonesian-type languages; and iii) a nasal prefix that attaches to verbs, likely for marking voice. We might also expect a similar extraction pattern in regards to voice morphology and A'-movement: that actor voice morphology cannot co-occur with extraction of the internal, or non-pivot, argument. Given the lack of documentation in this area, a descriptive, comparative, and syntactic approach would serve as a crucial first step in addressing these questions.

1.2 Research questions

The goals of this dissertation are threefold, and focus on the morphological system, through an investigation of passives, and two different types of A'-movement: 1) what is the voice marking system in Malayic and Land Dayak languages? Do these two subgroups of languages differ in their morphological system of voice?; 2) how does relativization work in these languages? Do we see the 'subjects-only' restriction of extraction so commonly found in other Western Austronesian languages?; and 3) what type of *wh*-strategies do these languages employ? Do any of these strategies also have a restriction on extraction? Investigating not one type of A'-movement, but these two, in conjunction with an investigation of the voice system, allows for a more accurate picture of extraction, as well as a more fine-grained analysis of it.

These research questions lend themselves to a much larger goal: to syntactically situate languages of West Kalimantan into the larger picture of voice in Austronesian languages. There has been a significant lack of data on this topic (and syntax in general) on the Kalimantan side of Borneo, creating a gap in the knowledge of voice in Borneo. This, coupled with the observation by Blust that Borneo appears to be syntactic transition area, makes the implications of this dissertation wide-reaching, both for synchronic and diachronic studies. Through description and analysis of voice and A'-movement in ten languages of West Kalimantan, this dissertation serves as an initial step in answering these broad, important questions about syntax in Borneo in general.

1.3 Languages of West Kalimantan

The languages to be included in this dissertation comprise two subgroups: Malayic and Land Dayak. Both Malayic and Land Dayak are a part of the Western Indonesian subgroup within Malayo-Polynesian (henceform, WI)[2], which includes languages spoken in other parts of Indonesia, like Madurese and Indonesian itself (Adelaar 2005). As I introduce each language that will be included, I will provide

[2] I refrain from using the term Western Malayo-Polynesian in this dissertation, as it is generally considered an invalid subgrouping (Smith 2017).

subgrouping evidence for languages that have previously not been documented, as confirmation that they belong in the subgroup I have included them in. I will begin with Malayic languages, which include Desa, Ope, Ahe, Banana, and Balangin, and then I will introduce the Land Dayak languages, which include Ribun, Beaye, Ba'aje, Banyaduq, and Bekati', for a total of ten languages. Each of these languages is spoken in one of two regencies in West Kalimantan: Sanggau or Landak. Map 1 below shows the boundaries of these two regencies.

Map 1. Boundaries of Sanggau and Landak Regencies in West Kalimantan

1.3.1 Malayic languages

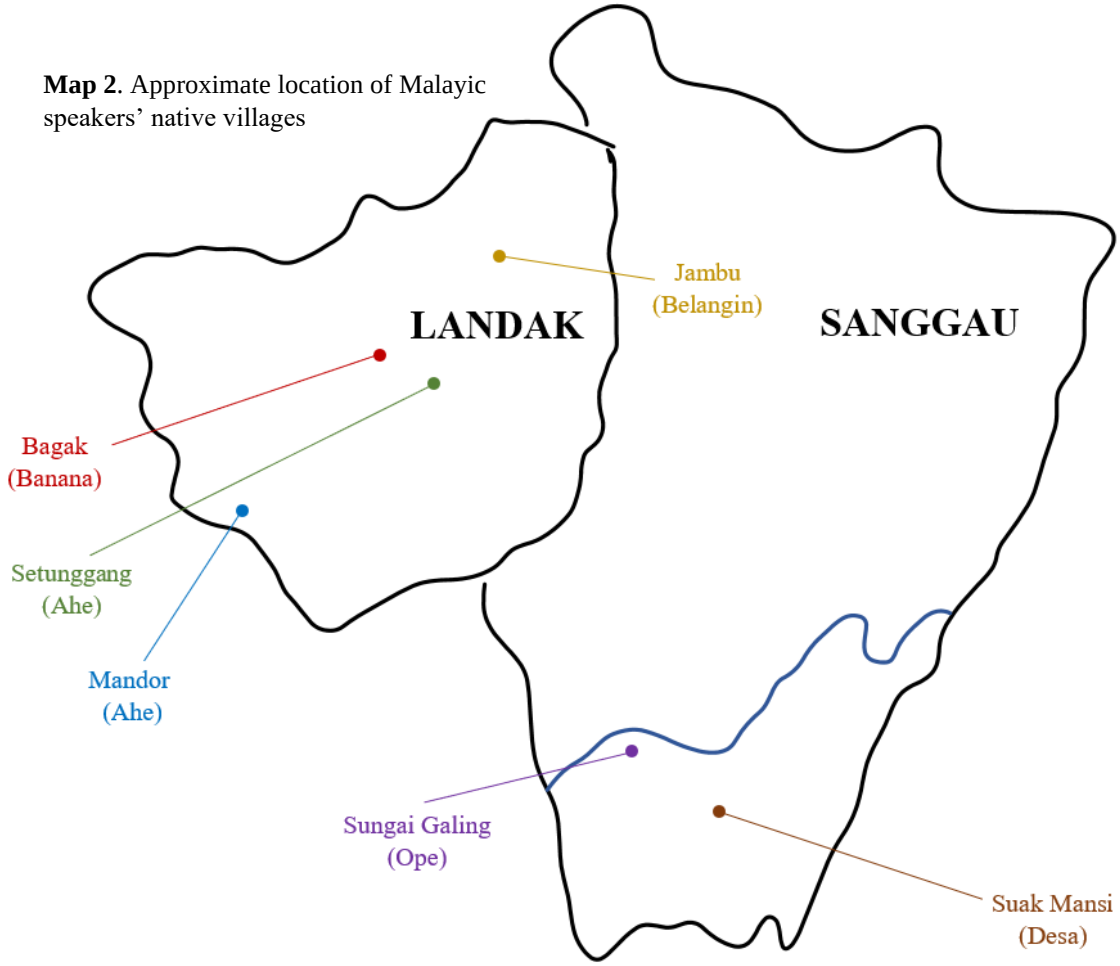
The Malayic subgroup of WI includes Standard Malay and Malay varieties, Iban and other Ibanic languages, and "Malayic Dayak languages" which is not a proper subgroup, but refers to the large number of unclassified but clearly Malayic languages of Borneo including Kendayan and its varieties. West Kalimantan is believed to be the home of this subgroup (Adelaar 2005; Blust 2006; Bellwood 2006), so it is not surprising that a large majority of languages of study here are in the Malayic subgroup. The internal classification of the Malayic subgroup has been disputed over the last thirty years, and it is still not entirely clear how it should be subdivided. I will briefly discuss various relevant divisions that have been proposed by Adelaar, Nothofer, Collins, and Ross.

Collins (1994) has argued that Malay varieties spoken in Borneo comprise their own subgroup, separate from Malay itself and varieties spoken outside of Borneo. Nothofer (1996, 1997), on the other hand, has divided these varieties into two groups – West Borneo Malayic, and Southwest Borneo Malayic. This suggests that more Northwest Borneo varieties (such as Kendayan) should not be included in either of these divisions and instead should comprise a branch of their own. Ross (2004) divides the Malayic subgroup into Western Malayic Dayak (which includes Salako, Ahe, and Balangin) and 'nuclear Malayic', which includes all other Malayic varieties. Ross' subgrouping is based entirely off of bound morphology, with a focus on voice morphology; he does this as he notes that subgrouping based entirely on lexical retentions, innovations, and borrowings has proved difficult (2004: 98). In particular, Ross divides these languages based on the distribution of the verbal prefix *di-*: Western Malayic Dayak languages allow co-occurrence of *di-* (normally considered a passive voice morpheme) with the nasal prefix (normally considered an actor voice morpheme). 'Nuclear Malayic' languages, on the other hand, utilize *di-* in the same way as Indonesian: as a passive voice morpheme (and thus disallow the co-occurrence of the two prefixes). Adelaar rejects most previous analyses, claiming that there is simply not enough evidence to support prior putative divisions (2005). He does note that it may be the case that Kendayan could form a separate branch entirely, as it has multiple features that distinguish it from other Malayic languages. It should be further noted that, despite differences in subgrouping most of Western Borneo Malayic varieties, nearly all authors separate what originally was called 'Malayic Dayak' (Hudson 1978) from Ibanic languages (also spoken in West Kalimantan). This has led Adelaar to loosely claim that there are likely three Malayic branches represented in West Borneo: Malay (and its dialects), Kanayatn (and its dialects, which includes Ahe and Salako), and Ibanic (2006).

Given the lack of data available on Malayic languages – particularly syntactic – the inclusion of the five languages in this dissertation, at least two of which have received no prior documentation, may be useful in determining how languages in this subgroup should be further divided. I now turn to the

languages in question – Desa, Ope, Ahe, Banana, and Balangin – and discuss prior work and subgrouping evidence (when necessary) for each.

Map 2 gives the approximate location of the native village of the speakers consulted for this dissertation: Suak Mansi (Desa), Sungai Galing (Ope), Mandor and Setunggang (Ahe), Bagak (Banana), and Jambu (Balangin)[3].



Map 2. Approximate location of Malayic speakers' native villages

1.3.1.1 Suak Mansi Desa

The first language to be included in this dissertation is Desa, which is spoken in the Sanggau Regency, to the south of the Kapuas River, in a village called Suak Mansi. There is prior documentation on a language called Desa, which has been classified as an Ibanic language (also part of the Malayic subgroup) (Gordon 2005; Herpanus 2014; Collins and Herpanus 2018). This Desa is reportedly spoken much further upriver

[3] Much thanks to Susanto for help with making this map and Map 2 as accurate as possible. Any errors are my own.

in West Kalimantan, with about 40,000 speakers, in both the Sekadau and Sintang Regencies (Smith 2017; Collins and Herpanus 2018). Collins (2004), in a footnote, notes that the Desa he provides data on should not be confused with the Desa spoken further west and south of the Kapuas River, which is a 'non-Ibanic' variant[4]. His description of the location seems to fit with Suak Mansi, so it could be the case that these are separate languages. I compare the two and discuss subgrouping evidence of the Desa of interest here (henceforth Suak Mansi Desa[5]) in Section 1.3.1.6.

1.3.1.2 Ope / Tobag / Tobak

The second language to be included in this dissertation is Ope. There are multiple names of this language; it seems the more formal name is Tobag/Tobak, but conversationally the language is referred to as *ope*, the word for 'what'. Ope is spoken in Sungai Galing, located on the southern bank of the Kapuas River within the Sanggau Regency. The population of Sungai Galing is ~750 people, of which I would estimate around ~700 are native speakers of Ope. Speakers of Ope have additionally noted that Ope is spoken in at least two neighboring villages, so it is unclear how many total speakers of Ope there are. This is made further difficult by the fact that I have been unsuccessful in finding much information on Ope, resulting in only a very small amount of informal (non-linguistic) information (all in Indonesian) from a handful of websites.

Of all the languages in this dissertation, this is one of few that I have found any written documents in the language. There is a law book written in Ope, owned by one speaker in Sungai Galing. This book details specific laws of the village and ramifications for breaking them.

1.3.1.3 Ahe / Kanayatn

The third language to be included is Ahe, also called Kanayatn. Ahe is the only language in which I will be using data from speakers from two different native villages: Setunggang, and Mandor (which is located further west), both in the Landak Regency. While it is not clear how many speakers there are of Ahe, one (likely outdated) estimation is that there are about 350,000 (Thomas et al 1985). Difficulties in determining number of speakers comes from lack of data but also from a somewhat blurry distinction of dialect and language. While there are many names for Ahe, it is unclear if they are all the same language. Ahe is the conversational name given by speakers for their language (similarly to Ope, *ahe* is the word for 'what'), and Kanayatn was given as the official name. However, Adelaar (2006) specifies Ahe as a dialect of Kanayatn, along with Salako. It has been noted that Kanayatn is widely spoken in the northwest

[4] *Desa* is also the word for 'village' in Indonesian, which could be why it is the term used for multiple languages.
[5] I am referring to the Desa that I have done primary fieldwork on as Suak Mansi Desa only to disambiguate. It should not be assumed that this Desa is only spoken in Suak Mansi.

regions of West Kalimantan and is often used a lingua franca with native speakers of neighboring languages (Adelaar 2005). Adelaar (2005) wrote a sketch grammar on Salako, which is the name of the language given in Sarawak, on the Malaysian side of Borneo.

1.3.1.4 Banana

The fourth language to be included in Banana. Like Ahe, Banana has been called a dialect of Kanayatn (Collins 1997; Adelaar 2004). The distinction between Banana, Ahe, and Kanayatn is not clear, but Banana speakers self-identify not as speakers of Ahe, but of speakers of Banana. The word *nana* is 'no' in Banana, so the name seems to be some variation of *no.* The variety of Banana in this dissertation is native to Bagak, in the Landak Regency, but it seems there is a decent amount of Banana speakers in Ngabang (where this data was collected). There is no significant prior work on Banana.

1.3.1.5 Balangin

The last Malayic language in this dissertation is Balangin. Balangin has also been referred to as a dialect of Ahe, but there has been some previous work on how Balangin compares to Kanayatn (Adelaar 2006). Adelaar estimates that there are about 23,000 speakers (he describes it as a 'very local speech form', with significantly less speakers than Kanayatn), and that most Balangin speakers can understand Kanayatn, but Kanayatn speakers cannot understand them (2006: 2). Adelaar further notes that Balangin is spoken in the Landak Regency, along the Kuala Behe and Air Besar rivers, and in Ngabang; the data for this dissertation is native to Jambu, which, while in the Landak Regency, is further north of Ngabang (but was collected in Ngabang). Balangin translates to a version of the word *no*, like Banana, which seems to be a common naming convention in West Kalimantan (this or, as in Ope and Ahe, the word for *what*). I discuss some phonological and lexical similarities between Ahe, Banana, and Balangin in Section 1.3.1.6.

1.3.1.5 Some subgrouping evidence

The status of Ahe, Banana, and Balangin as Malayic languages (specifically, Kendayan-Salako) has already been established and argued for (Hudson 1970; Ross 2004; Adelaar 2004, 2006), so I will instead focus on Desa and Ope, since they are either previously undocumented (Ope), and or their status is uncertain due to lack of knowledge (Suak Mansi Desa). I also mainly provide lexical and phonological evidence at this point; since description and analysis of voice morphology is a key component of this dissertation, I leave that for later sections to allow for more depth.

The subgrouping offered by Smith (2017) that I will be following is provided below in Figure 1[6].

[6] It should be noted that *Other Malayic* is not a valid subgrouping, but rather a catch-all term for languages that do not fit into West Bornean Malayic.

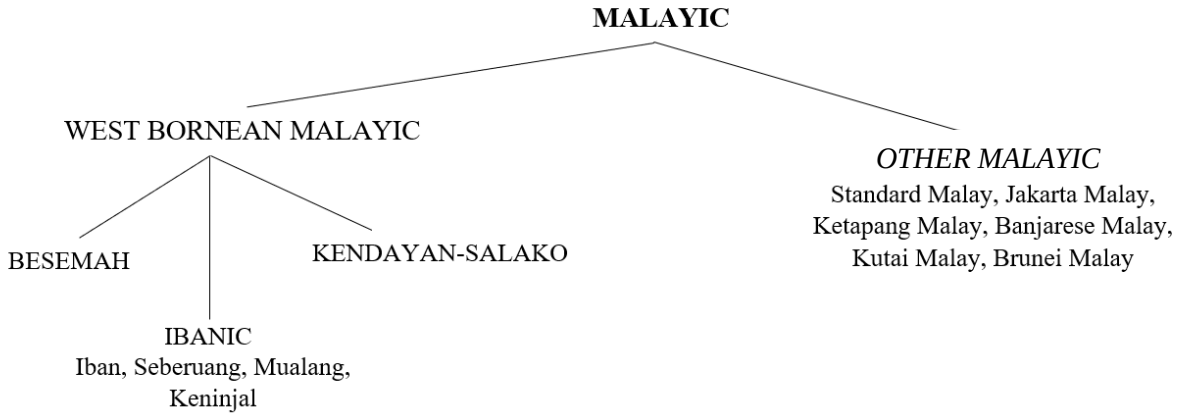


Figure 1. Internal subgrouping of Malayic languages in Smith (2017)

It is now important to a) offer evidence that Ope and Suak Mansi Desa are indeed Malayic, and b) attempt to classify them within this subgrouping, as best as possible given current evidence (and the overall difficulty with the internal classification of Malayic as noted earlier).

Nothofer (1988), Adelaar (1992), and Smith (2017) show that the irregular change *-R > *-ʔ is a feature of Malayic languages, as it is found in Ibanic languages as well as some non-Ibanic languages. This change is additionally found in both Suak Mansi Desa and Ope. In Table 1, I provide evidence of this change in those two languages.

	Sarawak Iban	**Besemah**	**Seberuang**	**Kendayan**[7]	**Ope**	**Suak Mansi Desa**
*wahiR > *aiʔ ‘water’	aiʔ	----	aiʔ	aiʔ	----	aiʔ
*təluR > *təluʔ ‘egg’	təluʔ	toluʔ	təloʔ	taoʔ	toloʔ	toloʔ
*ikuR > *ikuʔ ‘tail’	ikuʔ	ikuʔ	ikoʔ	ekoʔ	ikoʔ	ikoʔ
*hiliR > *iliʔ ‘towards the coast’	iliʔ	----	ileʔ	----	----	kileʔ
*tiduR > *tiduʔ ‘sleep’	----	tiduʔ	-----	-----	tidoʔ	----

Table 1.*-R > *-ʔ in Ope and Suak Mansi Desa, a feature of West Bornean Malayic

[7] All Iban, Besemah, Seberuang, Mualang, Keninjal, Ketapang Malay, and Kendayan data in these tables is from Smith 2017.

This sound change suggests that Suak Mansi Desa and Ope are indeed Malayic, and more specifically, West Bornean Malayic (if we follow the divison offered by Nothofer 1996, 1997). Suak Mansi Desa has another sound change that is additionally found in Keninjal and Ketapang Malay: *e* > *o* in the penultimate syllable. Table 2 shows a multitude of lexemes with this sound change in the three languages.

	Keninjal	**Ketapang Malay**	**Suak Mansi Desa**
besar 'big'	bosaɣ	-----	bosah
tebal 'thick'	tobal	tobal	tobal
kecil 'small'	----	kocɛk	koci
berat 'heavy'	boɣat	borat	borat
benih 'seed'	----	bonɛh	bonɛ
telur 'egg'	toluʔ	tolor	tolo
perut 'stomach'	poɣot	----	porut
membeli 'buy'	moli	(məm)boli	moli
memberi 'give'	moɣi	(məm)bori	more
beras 'rice grain'	boɣas	bóras	boras

Table 2. *e* > *o* in Suak Mansi, additionally found in two Malayic languages

This change has not been reported in any other languages. This is not strong enough evidence to show that Suak Mansi Desa belongs to Malayic, but does show a feature in common with two other Malayic languages.

Given this evidence, it is now worthwhile to consider where these two languages fall within West Bornean Malayic. If we consider features that are unique to Ibanic languages, however, we find conflicting evidence of whether or not Ope or Suak Mansi Desa have these features, while the Desa described by Collins and Herpanus does. Neither, for instance, have diphthongization where final *-a(C) becomes *-ay* or *-aw*, which is found in the Ibanic languages Iban, Seburang, Mualang (Smith 2017), and Lengkanan Desa and Baning Pendek Desa (Collins 2004). This is exemplified in Table 3.

	Iban	**Seberuang**	**Mualang**	**Lengkanan Desa**[8]	**Baning Pendek Desa**	**Ope**	**Suak Mansi Desa**
(be)jalan 'to walk' /'road'	jalay	jalay	jalay	bejalay	bejalay	bajalaʔ	(bə)jalan
besar 'big'	bəsay	bəsay	bəsay	----	----	bosar	bosar
datang 'come'	datay	datay	datay	----	----	ataʔ	deɪtaŋ
panjang 'long'	pañay	pañay	pañay	----	-----	panjaʔ	panjaŋ

Table 3. Lack of diphthongization in Suak Mansi Desa, a feature of Ibanic

[8] The Lengkanan Desa and Baning Pendek Desa data is from Collins 2004.

There is another feature that is more consistent about Ibanic languags that is additionally found in Suak Mansi Desa: the innovation of word-final glottal stops after word-final vowels. Smith (2017) notes that this feature, specific to certain lexemes, is only consistent among Ibanic languages, but is present in other Malayic languages. Consider the data in Table 4 below.

	IBANIC				KENDAYAN	MALAY	
	Keninjal	**Iban**	**Seberuang**	**Suak Mansi Desa**	**Kendayan**	**Ketapang**	**Ope**
nasi ‘cooked rice’	nasiʔ	asɛʔ	nasɛʔ	nasiʔ	nasiʔ	nasɛʔ	nasiʔ
mandi ‘bathe’	maniʔ	maneʔ	maneʔ	mandeʔ	maniʔ	mandɛʔ	manɛ
buka ‘open’	bukaʔ	mukaʔ	bukaʔ	bukaʔ	mukaʔ		muka
sini ‘here’	dituʔ	di toʔ	di toʔ	di sitoʔ	diʔ isen	kaʔ dian	keʔ dɪto
tawa ‘laugh’	kətawaʔ	kətawaʔ	kətawaʔ	galak	kətawa	tətawo	kətawa
dagu ‘chin’	daguʔ	dagoʔ	jagoʔ	jegoʔ	kaŋkam	dagu	jago

Table 4. Final vowels closed with a glottal stop in Malayic languages

Suak Mansi Desa has innovated word-final glottal stops in a several of the lexemes identified by Smith (2017). This groups it with other Ibanic languages, which have done the same. This contrasts with Kendayan, which only consistently innovated glottal stops in a portion of the lexemes. Ketapang Malay, which is not a part of West Bornean Malayic, hardly shows this pattern at all (Smith attributes any word-final glottal stops in Ketapang as borrowings). The pattern in Table 4, then, again suggests that Suak Mansi Desa is a West Bornean Malayic language (note that this is not necessarily enough evidence to consider Desa as Ibanic). Now consider the Ope data. Ope has even less of this pattern: it only occurs in one word, *nasi* ‘rice’. This lack of word-final glottal stops could suggest that Ope is not a West Bornean Malayic language, but rather patterns with other Malayic languages that do not fall into a specific subgroup. This contrasts with the data in Table 1 above, which indicated Ope was a West Bornean Malayic language. Unfortunately, due to a lack of data, the evidence in Table 4 is not particularly strong, and cannot be used exclusively to determine the status of these languages.

It is important to note that Smith (2017) does not believe that dipthongization is consistent enough to be utilized as subgrouping evidence; even in the table above it is not reflected in all lexemes. He does, however, note that certain lexemes reflect this change more consistently – including the lexemes for *road, come, big,* and *long* – and these are not found in the Ope or Suak Mansi Desa data. Incomplete data for the two variants described by Collins (2004) leave some boxes empty, but do show that

diphthongization occurs in at least some lexemes. He also notes that Keninjal, which he groups as Ibanic, does not show diphthongization at all but he still classifies as Ibanic based on the evidence in Table 4. This suggests that classifying Suak Mansi Desa as Ibanic is more supported by the evidence. However, it additionally suggests that Suak Mansi Desa and the Desa varieties described by Collins are likely different languages, given that Suak Mansi Desa lacks any diphthongization at all.

Taking into consideration morphosyntactic evidence (Ross 2004), Suak Mansi Desa does have the *di-* morpheme that seems to be common to Malayic languages. It does not, however, show the pattern found in Kendayan of allowing the co-occurrence of *di-* and the nasal prefix; in Suak Mansi Desa, like Indonesian, the two are in complementary distribution. This will be discussed in detail in Section 3.2. Ope does not follow the pattern; in fact, Ope does not appear to have the *di-* morpheme at all. Passives in Ope are marked by a different morpheme, *konaq*. An Ope passive is provided in (2).

(2) Kayu **kona** baieq inya.
wood UV take 3SG
'Wood is brought by him'

This makes it difficult to classify Ope as either of the Malayic subgroups: Western Bornean Malayic or Other Malayic[9]. Ross claims that Other Malayic has grammaticalization of *di-* as a passive marker, but in West Bornean Malayic, *di-* is only proclitcised to the verb if the agent is not expressed. But regardless of this, both subgroups reflect *di-* in passive constructions in some way. Ope does not do that. However, Ope has retained the projective marker **-a*, which is found in West Bornean Malayic. This morpheme in Ope is shown in (3).

(3) Ope nang iko nyalap-**a**?
what COMP 2SG take-INTENT
'What are you taking?'

Ope further sometimes allows *kona*, the passive morpheme, to co-occur with the nasal prefix. This is reminiscent of the pattern in Kendayan-Salako languages, despite the passive morpheme not being *di-*. This co-occurrence is significantly restricted in distribution, however; it only occurs in one type of the undergoer voice. I will discuss the specifics of the voice morphology in Section 3.2.

This evidence, while not entirely complete, does at least confirm that Suak Mansi Desa is a part of the Malayic subgroup, and is potentially Ibanic. Ope is a more difficult case; it does show some phonological and morphosyntactic evidence of being Malayic, but it does not have the *di-* morpheme that

[9] Ross (2004) refers to these as 'Western Malayic Dayak' and 'Nuclear Malayic', but he does not appear to separate the languages differently as the subgrouping given in Smith (2017) (Figure 1).

occurs in other Malayic languages. It futhermore shows conflicting evidence that prevents me from classifying it within any subgroup of Malayic. I tentatively describe Ope as a Malayic language for now, but this requires significantly more evidence to prove.

I therefore tentatively offer the following subgrouping in Figure 2, including the five languages that I have introduced in this section.

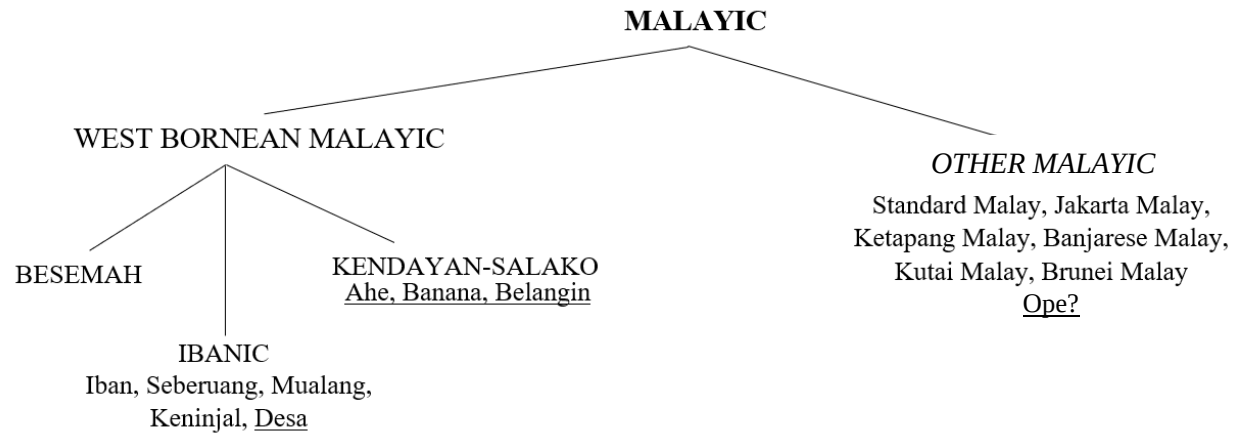


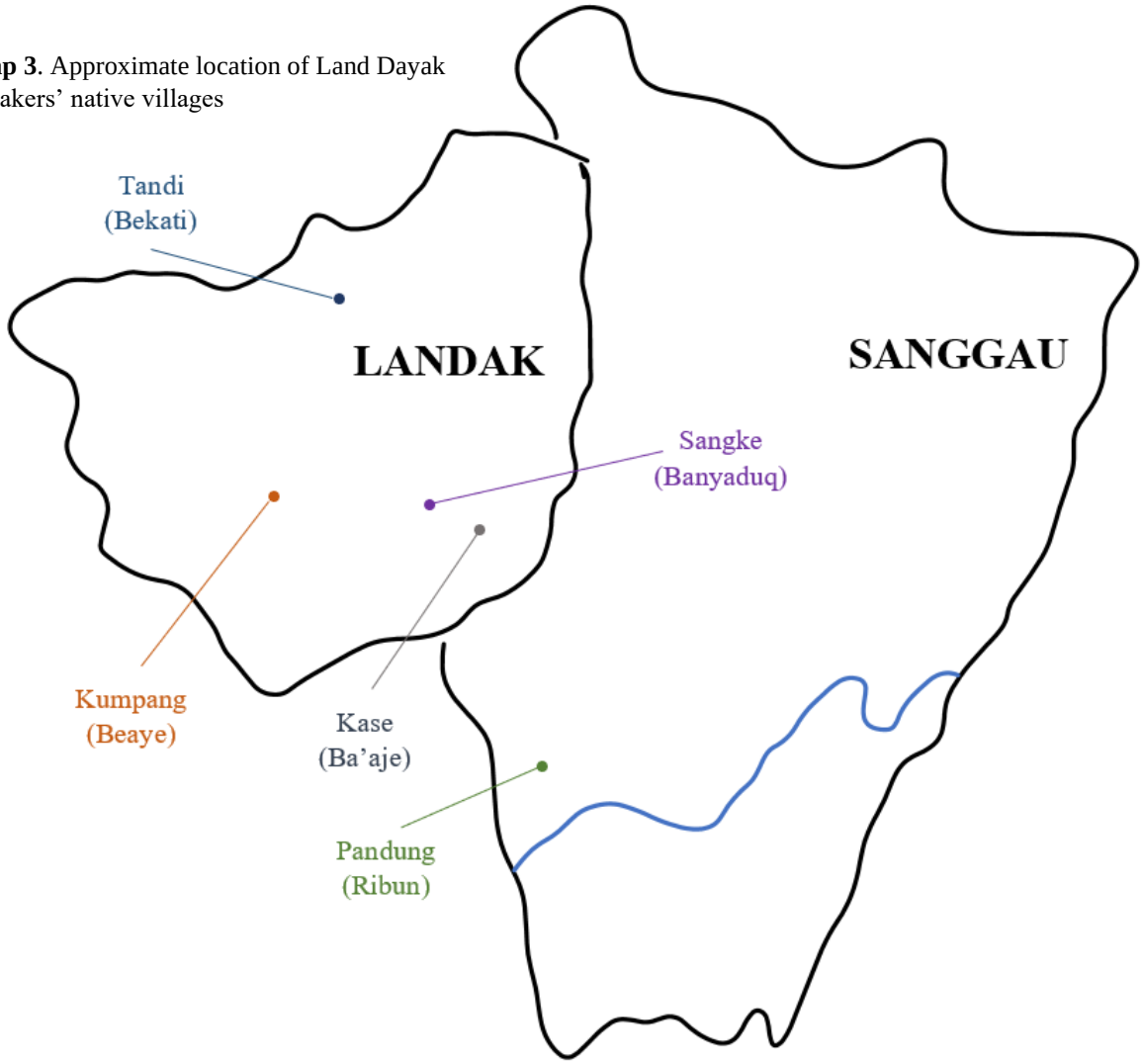
Figure 2. Internal subgrouping of Malayic languages including Ahe, Banana, Balangin, Desa, and Ope

1.3.2 Land Dayak languages

The other half of the languages that comprise this dissertation are part of the Land Dayak subgroup. Blust (2010) classifies Land Dayak languages as part of the Greater North Borneo subgroup and includes languages on both sides of the West Kalimantan-Sarawak border.

The most recent internal subgrouping analysis of Land Dayak comes from Smith (2017), which differs significantly from Rensch et al (2012). I follow Smith's subgrouping in this dissertation, which splits Land Dayak into two subgroups: Benyadu-Bekati' and Bidayuh-Southern Land Dayak. The majority of the five languages included here have been previously described and classified either by myself or others. However, syntactic and morphological data on any of these languages (and any Land Dayak languages in general) has been scarce, which makes the inclusion of them in this dissertation significant for both description and analysis of Land Dayak languages going forward.

Map 3 gives the approximate locations of the native villages of each of the speakers consulted: Tandi (Bekati'), Kumpang (Beaye), Kase (Ba'aje), Sangke (Banyaduq), and Pandung (Ribun).



Map 3. Approximate location of Land Dayak speakers' native villages

The majority of the speakers come from the Landak region, which is not surprising as it has been theorized that Benyadu-Bekati' languages are mainly spoken near the West Kalimatan-Sarawak border (on both sides). Southern Land Dayak languages, on the other hand, extend further to the Kapuas River. I now turn to discuss each one of these languages – Ribun, Beaye, Ba'aje, Banyaduq, and Bekati' – individually.

1.3.2.1 Ribun

The first Land Dayak language to be included is Ribun. Ribun has been classified as a Southern Land Dayak language (Rensch et al 2012; Smith 2017), and there are an estimated 45,000 speakers (Gordon 2005). The Ribun described here is native to Pandung, which is located just north of the Kapuas River in the Sanggau Regency. I have additionally collected data on a language called Bekidoh, which has been

previously described as a dialect of Ribun (Gordon 2005), but it is unclear whether this is true or not. I will not be including the Bekidoh data in this dissertation and thus leave the question of whether they are separate languages for future research. It should be noted, however, that speakers of Bekidoh themselves claim that Bekidoh and Ribun are the same language.

1.3.2.2 Beaye

The second Land Dayak to be included is Beaye. This is a previously undescribed language, with all prior work being my own. I have argued for Beaye's status as a Land Dayak language; more specifically, I have argued (with Alexander D. Smith) that Beaye is a Benyadu-Bekati' language, showing significant phonological changes and lexical innovations that are unique to this subgroup (Smith and Sommerlot 2020). Beaye is spoken in Kumpang in the Landak Regency; unfortunately, given its status as a previously undescribed language, there are no estimations for the number of speakers. Similarly to some of the Malayic languages, the name Beaye is some variation of the word *no*. I have additional data from a language that has been referred to as the same language with a different name (by speakers). This language is called Mali. It could be the case that these are indeed the same language, with Beaye being a nickname, and Mali being the more formal name, but this is unconfirmed. I will not be including the Mali data in this dissertation and thus leave the question of whether they are the same language for future research.

1.3.2.3 Ba'aje

Ba'aje, spoken in a village called Kase in the Landak Regency, is the third language to be included. Like Beaye, I have not been able to find any prior work on Ba'aje, making it previously undescribed. I argue that it is Land Dayak and Benyadu-Bekati' in Section 1.3.2.6.

1.3.2.4 Banyaduq

The fourth language is Banyaduq. It is important to note that there are various spellings of Banyaduq, including Benyadu and Benyaduk. I utilize this spelling as it was provided by my consultant. The data used in this dissertation is native to Sangke in the Landak Regency. There has been some prior documentation on Banyaduq, which is mainly historical (Rensch et al 2012; Smith 2017), but additionally includes a phonetic analysis of the preploded nasals found in this language (Jardine et al 2015[10]). Estimates of speakers vary from 54,000 speakers (Blust and Smith 2014) to five to ten thousand (Jardine

[10] One of the authors of this work, Kristian, is also the Banyaduq consultant used in this dissertation.

et al 2015). It has been argued that Banyaduq is a Benyadu-Bekati' language (Smith 2017), which would indicate one of its closest relatives is Bekati'.

1.3.2.5 Bekati'

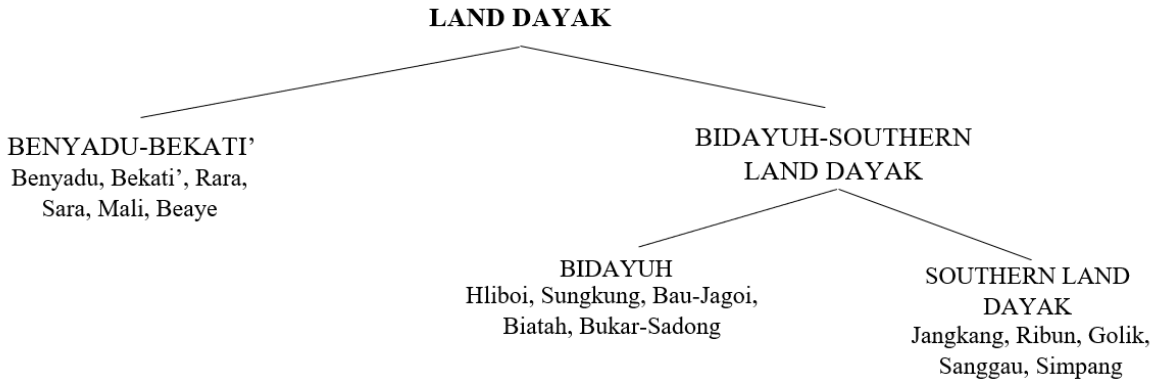
The final Land Dayak language to be included in Bekati'. Like Banyaduq, there is only a small amount of information on Bekati', which is mainly word lists (Hudson 1970) and some subgrouping evidence (Rensch et al 2012; Smith 2017). The latter work argues that Bekati' is a Benyadu-Bekati' language, grouping it together with Banyaduq. The variety of Bekati' spoken here is from Tandi, which is further north near the border of Malaysia. According to my consultant, Tandi is the home of Bekati' in West Kalimantan. I have not found any estimations to the number of speakers of Bekati'.

1.3.2.6 Some subgrouping evidence

Most of the Land Dayak languages used here have been classified previously; the only one that has not is Ba'aje. I provide some preliminary phonological and lexical evidence here that demonstrate the Ba'aje is Land Dayak, and more specifically, part of the Benyadu-Bekati' subgroup.

I utilize the following internal subgrouping of Land Dayak languages, in Figure 3 per Smith (2017), Sommerlot (2018), and Smith and Sommerlot (2020).

Figure 3. Internal subgrouping of Land Dayak languages, per Smith (2017), with the addition of Mali and Beaye per Sommerlot (2018) and Smith and Sommerlot (2020)



I now provide evidence that Ba'aje is Land Dayak. One sound change that characterizes the Land Dayak subgroup is *l > *r* (Rensch et al 2012; Smith 2017). Ba'aje additionally has this sound change, as exemplified in Table 5 below.

	LAND DAYAK[11]				MALAYIC		
	Benyadu	**Jangkang**	**Golik**	**Ba'aje**	**Ketapang Malay**	**Kendayan**	**Seberuang**
*kulit 'skin'	kurit	kurɛt	kurɪt	kurit	kulɛt	kulit	kulit
*təluR 'egg'	turah	turo	----	təray	tolor	----	təloʔ
*bulan 'moon'	buratn	buratn	burot	burah	bulá:n	----	bulan

Table 5. *l > *r* in Land Dayak languages (including Ba'aje) and *l > *l* in Malayic languages

Ba'aje additionally shows shared replacement lexical innovations that are exclusively found in Land Dayak languages (Adelaar 1992; Nothofer 1995, 1997, 1998; Smith 2017). These are shown in Table 6 below.

	LAND DAYAK				MALAYIC		
	Benyadu	**Jangkang**	**Golik**	**Ba'aje**	**Ketapang Malay**	**Kendayan**	**Seberuang**
*qulu 'head'	abak	baʔ	bak	abaʔ	kəpalo	kapala	kəpalaʔ
*namuk 'mosquito'	paruŋakŋ	poruŋakŋ	pəruŋak	pəruŋaʔ	namok	namuk	----
*wahiR 'water'	paitn	----	pitn	pɪt	aray	aiʔ	aeʔ

Table 6. Exclusively shared replacement lexical innovations in Land Dayak languages

The data in Table 5 and Table 6 conclusively show that Ba'aje is a Land Dayak language. Recall that a recent subgrouping hypothesis divides Land Dayak into two subgroups: Benyadu-Bekati' and Southern Land Dayak (Smtih 2017). Benyadu-Bekati' includes Benyadu, Bekati, and more recently I have argued that it additionally includes Mali (Sommerlot 2018) and Beaye (Smith and Sommerlot 2020). I now argue that this subgroup includes Ba'aje as well.

One piece of evidence in support of Ba'aje as a Benyadu-Bekati' language is the coalescence of word-final diphthongs as mid-vowel monophthongs (Rensch el 2012; Smith 2017). In Southern Land Dayak, these word-final diphthongs are reflected as the high vowels *i* and *u*. In Benyadu-Bekati' languages, these are reflected instead as mid-vowels, *e* and *i*. This is exemplified in Table 7 below.

	BENYADU-BEKATI'				SLD		
	Benyadu	**Bekati**	**Beaye**	**Ba'aje**	**Jangkang**	**Ribun**	**Golik**
*qatay 'liver'	ate	ate	ate	at^{h}e	oti	oti	ɔti
*danaw 'lake'	dano	----	----	dano	----	donu	----
*andaw 'day'	ano	ano	----	ano	onu	ɔnu	ɔnu

Table 7. Coalescence of word-final diphthongs as mid-vowel monophthongs in Benyadu-Bekati' languages

[11] Data in these tables (other than Beaye and Ba'aje) are from Smith (2017) and Blust and Trussel (ongoing).

There is additionally lexical evidence that Ba'aje should be classified as a Benyadu-Bekati' language. Smith (2017) identified certain replacement lexical innovations that are unique to Benyadu-Bekati' languages. I show Ba'aje additionally has these innovations in Table 8.

	BENYADU-BEKATI'				SLD		
	Benyadu	**Bekati**	**Beaye**	**Ba'aje**	**Jangkang**	**Ribun**	**Golik**
*adaduq 'long'	aŋo	aŋhu	aŋo	amu[12]	domuʔ	domaoh	ɔmuh
*zelaq 'tongue'	arataʔ	rata	satah	ɣata	jira	jira	lidah
*baRa 'hand/arm'	barekŋ	barɛk	baɣekŋ	bareʔ	toŋan	----	təŋən
*away/daqih 'face'	bahas	bahas	bas	bas	joi	jowi	jɔwi

Table 8. Replacement lexical innovations in Benyadu-Bekati

The evidence in the tables above show that Ba'aje, like Beaye, Banyaduq, and Bekati, should be classified as a Land Dayak language, specifically within the Benyadu-Bekati' subgroup. Prior evidence of this subgroup only included Banyaduq and Bekati as a part of this subgroup, so the addition of Mali and Beaye (in my own recent work) and Ba'aje here serve as important evidence for the existence of this subgroup. It may also be the case, but is beyond the scope of this dissertation, that Mali, Beaye, and Ba'aje should be further classified as a distinct subgroup within Benyadu-Bekati'.

I offer the Land Dayak internal subgrouping again below in Figure 4, with Ba'aje added, and the languages utilized in this dissertation highlighted.

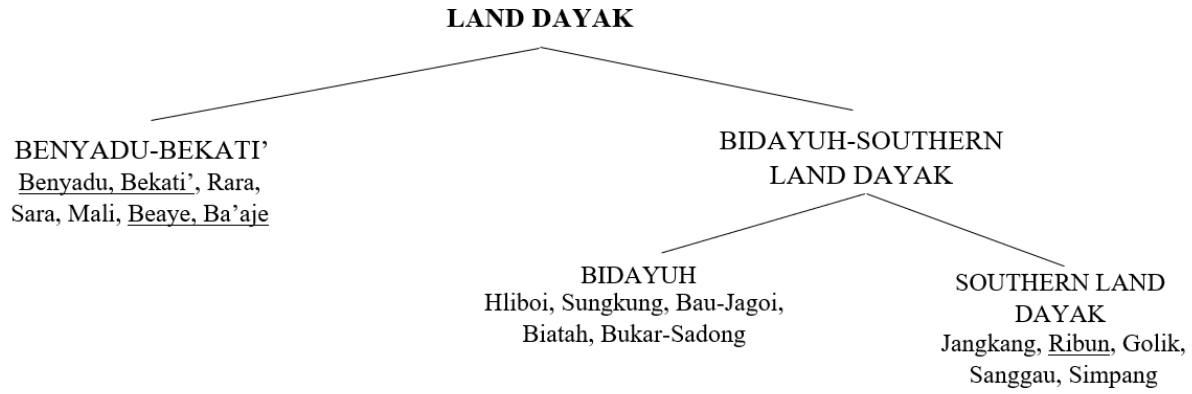


Figure 4. Internal subgrouping of Land Dayak languages, with the addition of Ba'aje

1.4 On the status of current research in Borneo

One of the major goals of this dissertation is to make description available on a multitude of previously under- and undocumented languages of Borneo. This is particularly significant given the lack of

[12] It should be noted that this is a Southern Land Dayak word.

description, particularly at the sentence level, on languages spoken in this area. I now review some of the significant works on languages of Borneo, in two sections: in Section 1.4.1, I review major works on the languages of West Kalimantan in this dissertation, including works in any field. In Section 1.4.2, I review major works of syntactic nature, on any language spoken on the island of Borneo (including the more well-studied languages of Malaysian Borneo). I limit this discussion to description only at this point; any analysis will be discussed in the relevant sections. The following two sections serve as an initial review of work, but I leave any in-depth review of voice and A'-movement for the relevant chapters on these two topics.

1.4.1 Prior work on languages of West Kalimantan

I will begin with work on Malayic languages. As noted earlier, Adelaar has written a significant amount of work on Salako, which is assumed to be a dialect of Kendayan. His work was collected in the Sambas Regency, which is further northwest than the Landak Regency where I collected my data. I discuss his findings in his morphology article from 2002 and his sketch grammar of the language from 2005 in Section 1.4.1.1. I include this as it is the most significant work on a related language to any language I work on, and given its status as a dialect of Ahe, there may be significant overlap in features of the two languages.

I then turn to an additional work by Adelaar (2006) on Balangin. I discuss the findings from this article in Section 1.4.1.2, which mainly revolve around evidence that Balangin belongs in the Malayic subgroup, and more specifically, within Kendayan-Salako.

As far as I know, there is no substantial work on Banana, Ope, or Suak Mansi Desa. I do not include the work by Collins and Herpanus (2018), as I established in Section 1.3.1.6 above that the work done by these two authors is on a different language than the Desa reported on in this dissertation. I do include Suak Mansi Desa in Section. 1.4.1.5 , where I discuss Tadmor's (2015) wordlists on various languages of West Kalimantan, as Tadmor has collected data on a language that he has identified as 'Desa (Meliau), Beopay dialect', which I argue is likely the same language.

I then turn to Land Dayak languages. I first discuss Jardine et al (2015)'s phonetic analysis of Banyaduq, which is one of the first significant phonetic works on any Land Dayak language (or any language in West Kalimantan). I discuss this work in Section 1.4.1.3.

I then briefly discuss major multi-language subgrouping works that include languages of West Kalimantan. This includes Hudson (1978), Adelaar (1995), Nothofer (1988), Ross (2004), Blust (2010), Rensch et al (2012), and Smith (2017). I will not discuss these in great detail, but I will point out any relevant data on the languages of interest here in Section 1.4.1.4.

Lastly, I will discuss some wordlists collected by Tadmor (2015) in Section 1.4.1.5. There

appears to be some overlap with the languages of interest here, but as they are only wordlists they do not require their own section for each. I use this section to compare some of my own data with Tadmor's and to acknowledge his work, particularly since it includes some previously undocumented languages that are further detailed within this dissertation.

1.4.1.1 Adelaar (2002, 2005): Salako

Adelaar (2002) serves as an initial description of the morphological system in Salako. While a significant number of morphemes are described, the most relevant for this dissertation are the actor voice (AV) morpheme and the passive voice (PV) morpheme. While not defined as an AV morpheme, Adelaar discusses a nasal prefix in Salako, which he defines as a 'transitive prefix *N*-'. He notes that this prefixes on all transitive verbs except those in imperative phrases or in undergoer-oriented non-completed phrases. Like in Indonesian, this prefix is phonologically conditioned, and thus has multiple realisations (Adelaar defines seven different realisations depending on the initial sound of the verb). A handful of example verbs affixed with this morpheme are provided below:

(4a)	*N + rabà*	→	*nga-rabà*	'to taste'	
(4b)	*N + bareʔ*	→	*mareʔ*	'to give'	
(4c)	*N + makàtn*	→	*makàtn*	'to eat'	(Adelaar 2002: 6)

Adelaar does not define this as an AV morpheme for a particular reason: it can occur in undergoer-oriented phrases, but only those that express an action that has not been completed or have not taken place at all. Adelaar further notes that the prefix *di-* also can occur in undergoer-oriented phrases. This culminates in sentences like (5), where both morphemes have occurred in an undergoer-oriented, completed phrase, which contrasts with (6), where only *di-* has occurred, as the action did not occur.

(5)	Uma-e	akaʔ	di-nga-rumput.
	field-3SG	done	UV-N-weed[13]
	'Her field was already weeded'		

[13] I have retained Adelaar's glosses here: UV refers to undergoer voice, while N is the transitive prefix.

(6) Jadi ama-ama Neʔ Kulup an-nyian tai
so in the end Grandpa Kulup this aforementioned

anaʔ jaji di-bunuh.
not really UV-kill
'So, in the end Kulup was not killed' (Adelaar 2002: 36-37)

Adelaar cites examples without the transitive prefix *N-* (like (6)) when expressing the following categories: future events, possibility, desirability, necessity, suitability/permission, repeated/habitual acts, and hypothetical events. In each of these undergoer-oriented sentences, *di-* occurs, but *N-* does not.

There are a few interesting features to note about Adelaar's description. One, *N-* cannot be defined as an AV morpheme as it occurs in undergoer-oriented sentences. Adelaar notes the remarkability of this, as the nasal prefix is nearly always a marker of voice in languages of western Indonesia. Furthermore, *di-* in these same languages is analyzed as a marker of undergoer voice. This leads to a second interesting feature of Salako as defined by Adelaar: *di-* is actually optional in undergoer-oriented phrases. Adelaar defines word order as the most important indicator of voice: the actor must follow the undergoer and precede the verb, as seen in (7).

(7) Ddapm saʔ-ari abis uma-e ang-ayaʔ koa ia nga-rumput.
in one-dayfinished field-3SG which-large that 3sg N-weed
'Within a day her field, which was large, had all been weeded by him.

(Adelaar 2002: 24)

In (7), the undergoer *uma-e* 'his field' precedes the agent *ia* '3sg' which precedes the verb *nga-rumput* 'weed'. This order seems to be the only required component of undergoer-oriented sentences, instead of a certain morpheme. A third interesting feature which rises from this data is the co-occurrence of the marker *N-* and *di-*. This also contrasts with other related languages (such as Malay), in which these two occur in complementary distribution. Adelaar leaves these morphemes partially undefined.

This leads some interesting gaps. One, it is unclear what these morphemes do. If Ahe indeed has the same system as Salako, it will be interesting to describe and discuss their functions further. Two, it is unclear if this same system is found in other Malayic languages, and if this differs from Land Dayak languages.

Adelaar builds on this in his sketch grammar of the same language (2005). This sketch grammar is significant for a few reasons: one, it is one of the eaerliest, comprehensive works of any given Malayic language. Two, it includes a number of texts and narratives in Salako, which is extremely beneficial for documentation purposes. While most of his morphosyntactic description of voice (and the role of the

nasal prefix) is identical to his 2002 work, his sketch grammar goes beyond this and includes basic phonological, morphophonemic, and morphosyntactic description of Salako. It is worth noting that Adelaar includes nothing on questions or relative clauses; the only data of this is in the texts, but no description is offered. Given that the description of voice is the only feature of relevance here, I will not go into details of any of the other description offered in this work.

1.4.1.2 Adelaar (2006): Balangin

In his 2006 work, Adelaar uses the comparative method in order to justify its status as a Kanayatn dialect (or, at least within the Kendayan-Salako subgroup).

Adelaar notes that Balangin, while having features specific to Kanayatn, addtionally has some typological changes that are associated with Ibanic languages. I will now outline his major findings. (8) outlines the regular sound changes in Balangin that pattern with Kanayatn. (9) outlines regular sound changes that pattern with Iban. And (10) outlines regular sound changes that are unique to Balangin.

(8) SOUND CHANGES IN BALANGIN AND KANAYATN

1. Monophthongisation of *-ay to *–e* and of *-aw to *-o*
2. Schwa > *a* in penultimate syllables

(9) SOUND CHANGES IN BALANGIN AND IBAN

1. Initial *h- > SM, KNY *(h)-*, IBN, BLN ø
2. Intervocalic *h > KNY *h*, SM *h*/ø, IBN, BLN ø
3. Loss of PMP intervocalic *ʔ

(10) SOUND CHANGES UNIQUE TO BALANGIN

1. Final nasal preplosion where original nasals are dropped
2. Nasalisation of final *-p and *-t

As evidenced in (8-10), regular sound change is not decisive for a subgrouping of Balangin. Balangin has sound changes that pair it with two different subgroups, Kendayan-Salako or Ibanic. However, some of this evidence, particularly in (9) and (10), is not particularly strong. The sound change of *h > ø is very common among languages of Borneo and therefore cannot be used as subgrouping evidence. Final nasal preplosion is an areal feature and also has no subgrouping value. This further supports grouping Balangin with Kanayatn.

Adelaar then turns to irregular sound change evidence, which I will not detail, but ultimately supports subgrouping Balangin with Kanayatn, as there are no irregular sound changes that uniquely

apply to Ibanic languages and Balangin, but there are irregular sound changes that uniquely apply to Kanayatn and Balangin.

Lexical evidence is additionally evaluted. Importantly, Balangin and Kanayatn exclusively share 9/15 lexical replacements, while Balangin and Iban only exclusively share one lexical replacement. Adelaar uses this as further evidence to group Balangin and Kanayatn together.

Lastly, Adelaar considers morphosyntactic evidence. More specifically, Adelaar identifies two important developments: the loss of all suffixes, which Balangin shares with Iban, and the use of the nasal prefix *N-* to express mood in undergoer-oriented constructions, which Balangin shares with Kanayatn.

The first, loss of suffixes, refers to the Proto-Malayic applicatives *-iʔ (comitative) and *-an (causative). In Balangin, the function of these applicatives have been taken over by serial verb constructions. This is exemplified in (11).

(11)	Ba	beri	aku	m-injam	sa-bantar	ba!
	+EXHORT	give	1SG	TRANS-borrow	one-moment	+EXHORT

(about a flute) 'Why don't you lend it to me for awhile!'

(Adelaar 2006: 1a)

In languages that have retained the applicative suffixes (like Kanayatn), the verb *minjam* 'borrow' would take the *-iʔ* suffix instead of using the verb *beri*. This loss of prefixes is also found in Iban, but it has been replaced with another suffix *-ka*.

The second important development is the use of the nasal prefix *N-* to express mood in undergoer-oriented constructions. This has been detailed for Kanayatn previously; prenasalization occurs in undergoer-oriented constructions when the action has been completed (and in turn, does not occur when the action is ongoing). Non-completed actions include repetitive, habitual, or recurrent acts or events, as well as future events that have not yet taken place. Adelaar provides evidence that this occurs in Balangin as well (although he further notes that this is a preliminary finding). Part of this evidence is given in (12a-b) below; contrast the completed event in (12a) to the non-completed in (12b).

(12a)	Na,	ntawaʔ	apeʔ	aku	na,	apeʔ	aku	nanam!
	that	mentawak.fruit	grandfather	1SG	that	grandfather	1SG	N-plant

'Hey, those are my grandfather's fruits, they were planted by my grandfather!'

(12b)	Minta	di-upah	sa-dos	garap	kalo	abis.
	ask.for	UV-pay.wages	one-box	salt	if	finished

'Please pay me with a box-full of salt when I'm done'

(Adelaar 2006: 9-10)

In (12a), the undergoer morpheme *di-* is not utilized, but prenasalization on the verb *tanam* is. In (12b), *di-* is utilized, but the nasal prefix is not. Adelaar does not provide any evidence of *di-* and *N-* co-occurring, however, which is a feature found in Kanayatn. It is not clear from this work whether or not that is possible in Balangin.

The morphosyntactic evidence further leads Adelaar to classify Balangin as Kendayan-Salako instead of Ibanic. His argument is two-fold: 1) that the loss of applicative suffixes is found in many languages spoken in this area (including Bidayuhic languages) so it is more likely to have been an areal feature, and 2) that the use of prenasalization to express completed events in undergoer-oriented constructions in exclusively found in Kanayatn, making it more likely that Balangin is related to Kanayatn as they both have this feature.

1.4.1.3 Jardine et al (2015): Banyaduq

Jardine et al (2015)'s work focuses on the preploded final nasals that are often described as characteristic of Land Dayak languages[14]. Their article focuses on Banyaduq and serves as the first significant analytical work on Banyaduq.

Jardine et al's main argument is that preploded final nasals, as demonstrated in (13), are phonemic, not allophonic as argued for other Land Dayak languages, in Banyaduq. Their basis for this argument comes from: a) the inconsistent application of "prestopping" in Banyaduq, making it unpredictable; and b) a trend in younger speakers of Banyaduq to delete the nasal portion of the prestopped nasal. This is reminiscent of the situation in Balangin as described above in Section 1.4.1.2.

(13)

	Labial	**Alveolar**	**Velar**
Stop	[adup] 'self'	[sampat] 'available'	[ansak] 'red'
Plain nasal	[akum] 'you.pl'	[uman] 'eat'	[sosoŋ] 'breast'
Prestopped nasal	[asupm] 'mango'	[ikatn] 'fish	[turakŋ] 'bone'

(adapted from Jardine et al 2015: 1)

Additionally, Jardine et al provide some background information on Banyaduq. They note that Banyaduq is spoken in the villages of Panchi', Kampet, Padang Pio, Untang, and Barinang Manyun in the north of the Landak Regency, and Sangke (additonally used in this dissertation), Tapis Baru, Karasik Balantian, Engkayar, Gamang, and Temahar in the south. The authors further note the following: a) the language

[14] It is important to note that although preplosion is commonly found in Land Dayak languages, it is additionally found in some non-Austronesian languages (Aslian languages of the Mon-Khmer family) (Phillips 2005), Chamic languages (Thurgood 1999), Barito and Modang languages (Smtih 2017), and Bonggi (Boutin 2000).

closest to Banyaduq is Bekati', although little is known about this language; b) Banyaduq shares some similarities to Biatah (Kroeger 2009) and some Bidayuh dialects (Rensch et al 2012); and c) many Banyaduq speakers, due to proximity, often speak some Kanayatn, although the reverse is not true.

Jardine et al additionally compare their data – henceforth Sangke Banyaduq – to two wordlists of different varieties of Banyaduq, Temahar Banyduq and Panchi' Banyaduq. Specifically, they note that there is dialectal variation in the loss of "poststopped" nasal sequences (the reverse of prestopped, where the nasal precedes the stop). Sangke Banyaduq has completely lost these segments, while both Temahar and Panchi' Banyaduq have retained them.

Jardine et al provide evidence that Sangke Banyduq represents the transition from prestopped nasals to final oral stops as originally argued by Blust (1997). I refer the reader to the article for Jardine et al's full argument. The particular relevance for this dissertation is that Sangke Banyaduq is the same dialect as utilized in this dissertation; in fact, the main speaker used in this article, Kristian, is additionally the consultant used here.

1.4.1.4 A review of relevant subgrouping works

I now turn to briefly discuss some relevant subgrouping works that include the languages in question. My goal in this section is to review and note works that have contributed to the study of these languages in the past. I begin with the earliest prominent work, Hudson (1978), and continue chronologically.

Hudson (1978) marks the first significant classification done on languages of Borneo. While many of the findings and assumptions of this work have more recently been revised by other authors, Hudson's initial work remains an influential subgrouping analysis. First, Hudson discusses Malayic languages (in which he includes Selako) as 'Exo-Bornean' and notes that, while the majority are spoken near the western coast, several (mostly Ibanic varieties) are spoken in the 'mid-Kapuas region' (19). This is directly relevant here, as the majority of the languages of this study are spoken in this region. He also coins the term 'Malayic Dayak', which is largely no longer used.

Hudson additionally discusses the Land Dayak subgroup, in which he includes Ribun. He notes that they appear to be quite 'distinctive' when compared to non-Land Dayak languages (24) (although this is entirely based upon a small amount of lexical and phonological evidence; for instance, he notes a few lexical innovations unique to Land Dayak languages, such as the word for *ten*, and the addition of an intervocalic /k/ in some Land Dayak languages in the word for *two* (in Ribun, *dukoh*). Most of his work is based on a few observations, however, and ultimately more recent works are more relevant today.

I now turn to one relevant work by Adelaar. This work (1995) discusses four subgroups within Borneo, including Malayic and Land Dayak. Adelaar has made significant contributions to the field of Bornean linguistics as a whole, and it is not possible nor efficient to outline all of these details here.

Instead, I focus on a few of his most relevant works to this dissertation. While he has other subgrouping works, I choose to focus only on his 1995 work here. In this work, Adelaar notes several important facts about the Malayic subgroup, particularly a) for the separation of the Kendayan-Salako subgroup from other Malayic languages, and b) for a division of Malayic languages spoken in Borneo from those spoken outside of Borneo. Specifically, he notes that Salako and Kendayan have retained the causative prefix *maka-* and the subjunctive suffix *-aʔ* from Proto-Malayo Polynesian, which were lost in other Malayic languages.

(14) SALAKO *rehetn* 'light' vs *maka-rehetn* 'make lighter'
mareʔ 'to give' vs *mare-aʔ* 'in order to give'

KENDAYAN *lalu* 'past', *mulut* 'mouth' vs *maka-lalu molot* 'keep one's promise'

(Adelaar 1995: pg. 89)

Furthermore, Iban and Salako have retained words from Proto-Malayo Polynesian that were lost in other Malayic languages, like *asuʔ* 'dog' (Iban, Salako) versus *anjiŋ* (Malay), *mua* (Iban), *muha* (Salako) 'face' versus *muka* (Malay). Lastly, Adelaar notes that the division into a separate Bornean Malayic subgroup gives evidence for Borneo as the Malayic homeland.

Adelaar additionally discusses Land Dayak languages, and how they "morphosyntactically rather different from Malayic (and other Austronesian) languages" (although he does not discuss how). He mainly discusses the prevalance of preploded nasals in Land Dayak languages (in addition to Salako and Kendayan) and how this plus some lexical similarities in the words 'to die' and 'to bathe' may indicate a relationship between Land Dayak and Orang Asli languages. He includes in this list of data of 'dead', 'kill,' 'sleep', and 'bathe' data from Bekati' and two varieties of Ribun (though there is no mention of what varieties these are), noting their similarities within the Land Dayak subgroup, but to the same lexical items in a myriad of Orang Asli languages.

Another significant author of work on Bornean linguistics is Nothofer. I discuss one of his relevant subgrouping works here, on Malayic languages (1988). Nothofer notes that there are a considerable amount of innovations exclusively found in what he calls 'Malayan' languages (this includes Minangkabau and Kerinci – in other wods, non-Bornean languages) and Iban, to the exclusion of Selako. While Nothofer only draws tentative conclusions about Selako (based on a lack of data), he does state that Selako seems more 'Malay-like' than Iban (and other languages of Borneo) by lacking many of the innovations found in Malay languages.

Ross (2004), as noted earlier, differs from the other subgrouping proposals discussed here as it is based on morphosyntactic instead of phonological or lexical evidence. Ross argues that a few

morphosyntactic features divide the Malayic languages spoken in Borneo ('Western Malayic Dayak') from those spoken outside of Borneo ('Nuclear Malayic'). Note that these seem to be entirely based upon Kendayan and Salako (there is no mention of other Malayic languages, such as Iban, in discussing these innovations). These are outlined in (15-16) below.

(15) NUCLEAR MALAYIC INNOVATIONS

1. Complete grammaticisation of *di-* as a passive marker
2. Use of an inflected verb instead of a bare stem in additional clauses in narrative sequences
3. Loss of projective marker **-a*

(16) WESTERN MALAYIC DAYAK INNOVATION

1. Use of the nasal prefix to mark mood/completion of action

The innovation of Western Malayic Dayak in (16) is particularly interesting, as it suggests that any Malayic language spoken in Borneo will use the nasal prefix not as a actor marker, as found in Nuclear Malayic languages, but as some sort of mood or telicity marker (which currently has only been found in one subgroup of Western Bornean Malayic: Kendayan-Salako).

The greatest contribution of Blust (2010) is the creation of the subgroup Greater North Borneo, which includes all languages of Borneo except Barito. Its relevance to this dissertation is that it groups together languages of Sabah and North Sarawak with both Malayic and Land Dayak languages under this subgroup Greater North Borneo. Prior to this work, there were two basic assumptions: one, that languages of North Borneo comprised their own subgroup, separate from languages spoken further south; and two, that Malayic languages were part of a group called Malayo-Sumbawan (Adelaar 2005), which claimed their relation to languages like Madurese, Balinese, and Sasak. Blust uses lexical evidence to argue against this, claiming that instead, Malayic languages group into Greater North Borneo with both Northern Borneo languages, and Land Dayak languages.

The first work of considerable length on Land Dayak languages and their subgrouping is Rensch et al (2012). This work is specific to Land Dayak languages and varieties spoken in Sarawak, and the authors make it clear that it may not extend to Land Dayak languages spoken in West Kalimantan. However, we might expect that at least some findings would extend to languages spoken in West Kalimantan, particularly those of the same name, and indeed, the authors include data gathered from the West Kalimantan side throught the book. Of the 25 'dialects' included in this work (the authors use the

term dialect instead of language), two are additonally used in this dissertation: Bekati' and Ribun[15]. This book includes a few notable contributions: 1) a significant cultural background on the development and current status of the Land Dayak people; 2) an entire section dedicated to phonetic description (although it is unclear what languages this description applies to, as they are all grouped as 'dialects' of Bidayuh); 3) some preliminary description of morphology, including a discussion of the nasal prefix; 4) a subgrouping proposal for Land Dayak languages; and 5) a large appendix of words from a variety of Bidayuh 'dialects'.

Rensch et al's main subgrouping proposal is that Bidayuh and Bekati' should be grouped together separate from Southern Land Dayak languages. Given their use of Bidayuh as a cover term of 25 languages, however, it is difficult to determine what languages they are arguing are related, and which are not. Furthermore, a diagram provided in this work shows three subgroups where Bidayuh and Bekati' are not grouped as one subgroup, but as two separate subgroups, and additionally groups Kendayan as a Bekati' language (as previously discussed, most other authors have argued that Kendayan is not a Land Dayak language at all, but a Malayic language) (2012: 210). Bekati' is obviously included in the subgrouping of the same name, along with Rara and Sara. Ribun is included in the Southern Land Dayak subgroup, per earlier authors.

Given these issues, I refrain from discussing any of their proposals in-depth. Instead, I note the existence of this book for its large amount of data from a variety of Land Dayak languages, which could be useful as a resource for Land Dayak languages.

The last subgrouping work I discuss is Smith (2017), which is the most comprehensive classification of languages of Borneo to date. The most significant contributions of Smith's dissertation for this dissertation is the new internal subgrouping of Land Dayak languages into 1) Benyadu-Bekati' and 2) Southern Land Dayak. This is contra the subgrouping proposal offered by Rensch et al (2012). I follow this subgrouping here, and additionally utilized several of his subgrouping diagnostics in Section 1.3.2.6 to determine the subgrouping of the languages included in this dissertation. The most overlap with this dissertation comes from the Land Dayak subgroup, as Smith includes data from Benyadu, Bekati', and Ribun in his work.

1.4.1.5 Tadmor (2015): Some relevant wordlists

The last relevant work I discuss is the work of Tadmor (2015) in collecting wordlists on a variety of Land Dayak languages spoken in West Kalimantan for the Jakarta Field Station. The languages that have wordlists publicly available that overlap with this dissertation are: Banyaduq (listed as 'Banyaduk'),

[15] Rensch et al spell this as Bakati'. They also note that both the Bekati' and Ribun data they use is from Hudson (1970) and not their own fieldwork.

Ribun (listed as 'Bekay, Hibun/Ribun dialect') Bekidoh (not used in this dissertation but potentially a dialect of Ribun), Desa (listed as 'Desa (Meliau), Beopay dialect' – likely related as Meliau is very close to Sungai Galing, one of the field sites of this dissertation), Balangin (listed as 'Kendayan, Balangin dialect'), and potentially Ba'aje (listed as 'Peruwan, Beaje' dialect' so relation is unclear).

While I will not be using any of this data in this dissertation, it is important to note the existence of them, as for many of these previously undocumented languages, they comprise the first publicly available work on that language.

1.4.2 Prior syntactic description in Borneo

I now turn to discuss major works of syntactic description in Borneo. This section is mainly comprised of works such as grammars and typological descriptions, which do not go in-depth into analysis. I mainly limit my discussion to descriptions of voice systems and A'-movement as they are of the greatest relevance to this dissertation, but leave any analysis of these phenomenon for the relevant sections below.

I begin with languages that are spoken on the Kalimatan side of the border in Section 1.4.2.1.

1.4.2.1 Works on languages of Kalimantan

This section on previous syntactic descriptions of languages of Kalimantan is by far the shortest in this section, thus demonstrating the overall lack of syntactic work on languages of Kalimantan. Of the syntactic work conducted in Borneo, most has focused on languages spoken in either Sabah or Sarawak, on the Malaysian side of Borneo.

I start with a discussion of Soriente's (2013) work on voice in five languages of North Borneo (Kenyah, Penan, and Punan languages) in Section 1.4.2.1.1.

I then turn to Connell's (2013) grammar on Mateq, a Land Dayak language spoken in West Kalimantan in Section 1.4.2.1.2. While the grammr includes significant syntactic descirption in all areas, I limit my discussion of voice and A'-movement.

Section 1.4.2.1.3 is an overview of voice in Tija's (2007) grammar in Mualang, an Ibanic language spoken in West Kalimantan.

1.4.2.1.1 Soriente (2013): Kenyah, Penan, and Punan languages

Soriente notes differences and similarities in the voice system between Kenyah languages and Penan and Punan languages (all of North Borneo). While many languages of North Borneo are analyzed as having the 'Phillippine-type' voice system, the languages she discusses the system if more similar to the 'Indonesian-type' found in Western Austronesian languages. Two of the languages she discusses have separate actor and undergoer voice markers: Penan Benalui and Punan Tubu'. An example of the actor

and undergoer morphemes are given in (17) and (18), respectively. In (17a), an actor voice in Penan Benalui is given, with the AV morpheme *men-*. In contrast, the undergoer construction in (17b) shows the infix *-en-* instead, which Soriente argues should be analyzed as a UV morpheme. Soriente does not provide an example of AV morphology in Punan Tubu', but notes that it can be either *n-* or *me-*. An example of undergoer voice is in (18): like Penan Benalui, the infix *-en-* is the indicator of undergoer voice.

(17a) iah men-awai banen. *Penan Benalui*
3SG AV-remember husband
'She remembers her husband'

(17b) aseu-kéq p-en-orah tamen-kéq.
dog-1SG <UV>hit father-1SG
'My dog is/was hit by my father'

(18) bayang ku n-én-gang maléh inéq. *Punan Tubu'*
shirt 1SG <UV>bring yesterday mother
'My shirt was brought by my mother yesterday' (Soriente 2013: 4, 12, 31)

In addition to verbal morphology, Soriente notes that both of these languages have different sets of pronominal forms that are related to the voice construction in which they appear. 'Set I' pronouns are free pronouns that mark the focused argument of the clause (regardless if it actor, undergoer, or instrument), while 'Set II' pronouns tend to occur immediately following a verb or occasionally marking undergoer (Set II pronouns additionally are used for possessives). In addition to this, word order often plays a role in indicating voice in Punan Tubu'.

In actor voice constructions, Kenyah languages behave similarly to both Penan Benalui and Punun Tubu' through the use of a nasal prefix *(me)n-*. Kenyah languages also have sets of pronominal forms which are related to voice constructions: both Òma Lóngh and Lebu' Kulit have two sets of pronouns. These languages, however, differ in how they mark undergoer voice. Soriente notes that, instead of using specific UV morphology, Kenyah uses both word order changes and the use of words marking the agent. In (19), the word order indicates that the construction is in undergoer voice, while in (20), the word *uben* that precedes the agent indicates the voice of the construction.

(19) buaq iti iré tai koq dalem buan. *Lebu' Kulit Kenyah*
fruit this 3PL go LOC inside container
'That fruit was put inside the pocket by them'

(20) sapai uben amai m-eli makéq. *Badeng Kenyah*
dress AG father AV-buy for=1SG
'The dress was bought by father for me' (Soriente 2013: 54, 60)

However, Smith (2017) notes that *uben* is 'because' in Kenyah. This suggests that, instead of a voice marker, *uben* should be analyzed as *by*-phrase marker. Soriente next discusses voice morphology in Kayan. Similarly to Kenyah, Kayan has sets of pronominals. Kayan, however, uses a particle *en* that precedes a verb with actor voice morphology to indicate undergoer voice. An example of this is given in (21).

(21) en naq n-asaq uma anan. *Kayan*
AG 3SG AV-destroy house that
'The house was destroyed by him' (Soriente 2013: 74)

Soriente argues that this particle is a grammatical marker that historically derived from *uben* (which she argues functions more like a preposition) in related Kenyah languages. Lastly, Soriente discusses voice morphology in Punan Malinau. This language has relatively reduced morphology, indicating AV with a nasal prefix *N-* and zero morphology in undergoer voice constructions. Undergoer voice is instead marked through word order or through the use of the word *in*, which seems to function similarly to *en* in Kayan. (22a) shows a simple AV sentence with the use of AV morphology; (22b) shows the verb preceded by the marker *in*, which indicates undergoer voice; and (22c) shows another undergoer voice construction, this time with *in* preceding the agent.

(22a) diq koi n-hut bupet neh. *Punan Malinau*
mother 1SG AV-sew dress that
'My mother sewed that dress'

(22b) bupet neh diq koi in hut.
dress that mother 1SG UV sew
'The dress was sewed by my mother'

(22c) bupet neh in diq koi hut.
dress that AG mother 1SG sew
'The dress was sewed by my mother' (Soriente 2013: 86, 87a-b)

Soriente further notes that undergoer constructions like (16b-c) have the verb occurring in its bare form, without AV morphology.

1.4.2.1.2 Connell (2013): Mateq

Connell, in a sketch grammar of the language, discusses the voice morphology of Mateq, a Land Dayak language. Connell describes four different types of 'passive' constructions: undergoer voice, analytic undergoer voice, a passive construction, and an anticausative construction.

Connell's 'undergoer voice' is a construction in which the undergoer argument is the sentential subject. In this type of construction, one of three morphemes is used to indicate UV: *ni-*, *ku-*, or *pu-*, all of which affix to the actor voice form of the verb. Connell notes that it is unclear if there is any difference between the three prefixes, or if they can be used interchangeability (but does note that it could be related to aspect). The word order in these constructions is generally verb-agent-undergoer, as seen in (23), but can also be undergoer-verb-agent, as seen in (24).

(23)	tobat	neh	ribatu	nyaq	n-gisuq	baq.
	UV-carry	3SG	coconut	for	AV-wash	head
	'She brought an old coconut with her to wash her hair'					

(24)	kojoq	koq	odok	ni-n-sinoq	sinòq.
	leg	1SG	suffer	UV-AV-fall.on	knife
	'My leg got fallen on by a knife'				(Connell 2013: 4.48a, 4.49)

The second construction Connell discusses is what he calls 'analytic undergoer voice'. In this voice, the undergoer is again the sentential subject, but this is formed through the addition of a particle *ni*, which occurs prior to the actor argument. The actor argument is then followed by the verb (in actor voice form). An example of this is in (25).

(25)	pingàt	aiq	yoh	ni	koq	m-oruh
	plate	that	YOH	UV	1SG	AV-smash
	'I smashed the plate'					(Connell 2013: 4.53a)

The third construction, which Connell calls a 'passive construction', again has the undergoer as the sentential subject, but in these, the actor is not expressed syntactically. In all other undergoer constructions (like the two types above), the actor is always present. The passive construction marks the verb with a prefix *ni-*, which attaches to the actor voice form of the verb. An example of this type of construction is given in (26); note that the word order is undergoer-verb.

(26) kosuh ni-n-gesek
dog UV-AV-chase
'The dog was chased' (Connell 2013: 4.57b)

The last construction Connell discusses is what he calls an 'anticausative construction'. These are passive constructions where the event is the result of an unintentional action. These are formed with the prefixes *ti-* or *ri-* (which attaches to the bare form of the verb). These can optionally contain a prepositional phrase headed by *kaneh*. An example is given in (27) below.

(27) nyeget ri-tuas (kaneh bonoq)
door ACAUS-open because wind
'The door was opened (by the wind)' (Connell 2013: 4.59c)

Connell further notes that most undergoer constructions occur with a full NP instead of a pronoun, which occur more frequently in actor voice constructions. Connell's discussion of voice morphology in a Land Dayak language will prove to be a useful diagnostic in determining whether or not there are similarities in the voice systems of Land Dayak languages.

1.4.2.1.3 Tija (2007): Mualang

Tija discusses the voice morphology of Mualang, an Ibanic language, in a sketch grammar published in 2007. Tija discusses two different constructions, one of which he labels as a prototypical passive construction, and another which he labels as an 'inverse' construction.

In the prototypical passive voice in Mualang, the prefix *da-* is used to indicate that the patient of an event has become the subject. Agents are optional in such constructions, and can occur only if they have been demoted to obliques. Compare an active sentence in (28) to a passive one in (29). In (28), the nasal prefix *n-* attaches to the verb, and the agent occurs preverbally. In (29), this actor voice morpheme is entirely replaced by the prefix *da-*, and the patient becomes the subject.

(28) urang n-curi manuk ku
person AV-steal chicken 1SG
'Someone stole my chicken'

(29) manuk ku da-curi
chicken 1SG PV-steal
'My chicken was stolen' (Tija 2007: 7-35a-b)

As noted before, agents can occur as an oblique with the preposition *ulih* 'by'[16]. Agents, however, can also occur as a kind of 'complement' to the verb (internal to the VP), without the use of the preposition. A *by*-phrase passive is given in (30), and this second 'complement'-type is given in (31). Note that Tija argues that the verb-initiality of (31) is due to pragmatic reasons, and is not a required component of this type of passive.

(30) tu' da-kerja ulih dua iku' nsia
this PV-work by two CLASS human
'This is done by two persons'

(31) da-kawut ini' beras se-jeput
PV-scoop grandmother rice one-pinch
'A pinch of rice was scopped by my grandmother' (Tija 2007: 7-39, 7-42)

The second type of construction Tija discusses is what he refers to as an 'inverse' construction. In these constructions, the patient occurs in the same position (i.e., the subject) as in passives, but the agent is obligatory. Furthermore, there is no morphological indicator of voice (as Tija labels it, 'zero marking'). As seen in (32), the word order is patient-agent-verb.

(32) tu' sida' beri' ka ku
this 3PL give to 1SG
'This they gave to me' (Tija 2007: 7-39, 7-43)

Tija acknowledges that such constructions have generally been analyzed as a type of passive in Indonesian/Malay, but that he analyzes these as a distinct voice. Tija argues that the patient in these inverse constructions actually serves as the 'pivot' and the requirement of the agent is because it is in a 'blocking' position between the patient and the verb that contributes to the zero marking of the verb.

Mualang, at least on the surface, appears to encode passive voice similarly to Indonesian and Malay. This is not unexpected, as Ibanic languages are Malayic. It will be interesting to compare this data to other Malayic languages to see if this pattern is typical in Malayic languages.

1.4.2.2 Works on languages of Sabah

I now turn to a brief review of major relevant works on languages of Sabah. I will discuss six different works, a few of which are grammars, and a few of which are syntax-specific articles. Once again, I limit the bulk of my discussion of relevant topics to this disseration: namely, voice and A'-movement.

[16] *Ulih* is functionally identical to *oleh* in Standard Indonesian.

I begin with Townsend's (2017) MA thesis on Serundung Murut in Section 1.4.2.2.1 which, while the focus is on reduplication, begins with a grammatical sketch of the language with a section on voice marking, which I focus my discussion on.

I then turn to Clynes (2001) work on Brunei Malay in Section 1.4.2.2.2. This article is a brief overview of various aspects of Brunei Malay; I limit my discussion here to his notes on the morphosyntax of Brunei Malay, which includes a description of voice.

Next, in Section 1.4.2.2.3, I discuss Goudswaard's (2005) grammar of Begak (Ida'an), where I discuss his findings on voice and questions in Begak.

In Section 1.4.2.2.4, I discuss one of Kroeger's articles on Kimaragang (1988), although his work on this language has been much more extensive. I limit my discussion to this work with its focus on verbal focus in Kimaragang, as it is the most relevant to the work at hand.

I then turn to Boutin's (2002) work on Bonggi in Section 1.4.2.2.5, although like Kroeger, Boutin has written extensively on Bonggi. Again, I limit my discussion to this work as it discusses morphosyntactic alternations in Bonggi in relation to the voice system.

Lastly, I discuss Prentice's (1971) book on the Murut languages, specifically Timugon Murut. He discusses the system of focus in this language, which I briefly discuss here.

1.4.2.2.1 Townsend (2017): Serudung Murut

Townsend's MA thesis covers an externsive list of topics in Serudung Murut, due to his inclusion of a brief sketch grammar prior to switching to his main topic, reduplication. This sketch covers phonology, morphology, and syntax, although the syntax portion is quite brief. I discuss his major findings here.

Townsend claims that voice alternation and assignment of subject and object in Serudung Murut is characteristic of western Austronesian languages, although it is not entirely clear what the basis of this argument is. He notes that actor voice is marked on the verb by the prefix *aN-*, *a-*, *ka-*, or the infix *-um-*. In (33), *aN-* is used; in (34), *a-* is used.

(33) oko angiba? ulu no, aku angiba? taring tu
2S.NOM AV-carry head=PRT 1S.NOM AV-carry tusks=PRT
'You carry the head, I carry the tusks.'

(34) iyo itio tu atulai, benoi itio
3S.NOM this=PRT AT-magic woman this
'She is magical, this woman.'

(Townsend 2017: 43,44)

It is unclear why *a-* is described as an actor voice morpheme. In another section of the grammar, Townsend describes this prefix as a prefix that "derives stative attribute verbs, verbs with punctual semantics, or verbs with middle semantics" (23). In that section, he provides the following example in (35), which is seemingly not in actor voice.

(35) uang-nei-uang, apadaʔ apui o
want-NEG-want AT-extinguish fire=PRT
'Like or not, the fire was extinguished.'

(Townsend 2017: 16)

This *a-* also seems to be a reflex of PMP *ha-ˌwhich marked adjectives.

The prefix *ka-*, which he also describes as actor voice marking, is only used with "non-volitional semantics" (23).

(36) aku nei katanduʔ anduʔ ku di nedi
1S.NOM NEG NV-recognize spouse 1S.GEN=PRT only.just
'I didn't recognize my wife just then.'

(Townsend 2017: 18)

And the infix *-um-* is only used for a closed small group of intransitive verb stems.

(37) iyo sumogou bulan o
3S.NOM *-AV-call.out moon=PRT
'He calls out to the moon.'

(Townsend 2017: 26)

Undergoer voice in Serudung Murut is marked either by the suffix *-on*, which Townsend argues is used only with animate undergoer arguments, or *-in*, which is used with inanimate undergoer arguments. The former is shown in (38), and the latter in (39).

(38) riwoton mu sudai
seek-UV 2S.GEN comb
'You look for the comb'

(39) kalo idoʔ alu-alu, nei iitoʔ muliʔ lamun, ariin mei
if exist leftovers NEG bring-UV go.home rice throw.away-UV 3P.E.GEN
'If there are leftovers, [we] don't bring the rice back home, we throw [it] away.'

(Townsend 2017: 47-48)

Townsend's discussion is limited to voice's interaction with morphology. Townsend does not include any discussion of word order differences between actor and undergoer sentences. Undergoer constructions do utilize what Townsend analyzes as genitive pronouns, as shown in (40).

(40) sadaʔ taakin mu saku?
what give-UV 2S.GEN 1S.OBL
'What are you giving me?' (Townsend 2017: 11)

Looking at this limited set of data, it seems that undergoer constructions crucially differ in word order, in that they are verb-initial, followed by the agent (which must be in the genitive case), and then the theme. Furthermore, the data in (40) is a *wh*-question, which shows us that perhaps *wh*-questions must be in undergoer voice, although this is pure speculation and is not discussed by Townsend at all.

1.4.2.2.2 Clynes (2001): Brunei Malay

In an overview of Brunei Malay, Clynes describes it as having "typical Austronesian syntactic features" (18); namely, that verb affixation gives information about the semantic roles of the core NP arguments. Active voice is marked by a nasal prefix *ma-*, as in (41) below.

(41) aku ma-idup-kan dikau
1SG ACT.SUBJ-alive-APP 2SG
'I gave life to you' (Clynes 2001: 1)

In contrast to this, undergoer voice features an unmarked verb, with no voice prefix, and the agent procliticized onto the verb, as in (42).

(42) ani ku-kirim-kan arah si Bulan.
DEM 1SG-send-APP to DET B.
'This I'm sending this to Bulan' (Clynes 2001: 2)

However, if the agent is third person (overt or not), the verb may carry the prefix *di-*.

(43) kalaw kau inda ba-lurih, kau kan di-bunuh.
if 2SG NEG BA-obtain 2SG will *di*-kill
'If you don't obtain [one], you will be killed'

(Clynes 2001: 48)

Clynes notes that actors in undergoer voice can sometimes occur in a *by*-phrase with *ulih*, as in (44).

(44) karang ayah mu kan di-patuk ulih ular tadung
later father 2SG will *di*-bite by snake t.
'Later your father will be bitten by a tadung snake'

(Clynes 2001: 54)

There is an additional passive-like structure in Brunei Malay as described by Clynes. This again utilizes a bare verb but the verb is preceded by *kana*. These are always actorless.

(45) alum tah kana cahat dinding ani
not.yet PART *kana* paint wall DEM
'The wall has not yet been painted' (Clynes 2001: 63)

Lastly, while Clynes does not discuss *wh*-questions at all, he does note that relativisation "appears to be largely restricted to subjects" (20), as exemplified by the pair in (46a-b).

(46a) naindah ku-unjar atu
goods 1SG-seek DEM
'the things I was looking for'

(46b) *naindah aku ma-unjar atu
goods 1SG AV-seek DEM
'the things I was looking for' (Clynes 2001: 15-16)

This is, at least, some preliminary evidence that Brunei Malay may have the 'subjects-only' restriction on extraction as seen in many related languages.

1.4.2.2.3 Goudswaard (2005): Begak (Ida'an)

In her grammar, Goudswaard notes that Begak differs crucially from other Sabahan languages in having only two voices, active and undergoer, whereas most other languages in this group have four or more. However, there is a complex relationship between voice, mood, and aspect in Begak that is overtly realized through morphology. I reproduce a table summarizing the distribution of morphemes in Table 9 below.

ASPECT	AV	UV
	VOLITIVE MOOD	
INCOMPLETIVE	Class I *gə-*[17] Class II *bəg-* Class III *məng-*	*∅, b-,* or *p-*
COMPLETIVE	Class I *gə- -i-* Class II *bəg- -i-* Class III *məng- -i-*	*-i- (ni-, -ən-)* *b- -i- or p- -i-*
DEPENDENT	N/A	*-u- (m-, -əm-)*
	NON-VOLITIVE MOOD	
	k(ə)-	*a-*

Table 9. Verbal inflection of voice, mood, and aspect in Begak as described in Goudswaard (2005) (153)

Begak distinguishes between two moods: volitive (voluntary actions or changes of state) and non-volitive (completed action, involuntary action, and (in)ability to do something). Furthermore, for verbs in the volitive mood, three types of aspect are possible: incompletive, completive, or dependent (Goudswaard describes this as a kind of 'neutral' aspect, which includes commands, events about to happen, changes of state, and successive action in stories). Non-volitive mood verbs do not distinguish between the three aspects but instead are only differ by voice (this contrasts with other Sahaban languages). As indicated in Table 9, the dependent aspect is only possible in undergoer voice (Goudswaard argues this on the basis of the lack of AV morphology).

Goudswaard further notes that morphology is not the most important factor in voice marking, however. Unlike Philippine languages where verbal morphology is necessary to determine the semantic roles of arguments, Begak also uses word order and case marking of pronouns to determine semantic roles.

Begak has two word orders: Verb-Actor-Undergoer and Subject-Verb-Object. Either word order can occur in either voice, active or undergoer. This is demonstrated in (47) with SVO, and (48) with VAU.

(47a)	Pius	(da)	gedagang	pait	di'	Dengon.	*SVO-AV*
	Pius	PR	AV-dagang	fish	LOC	Dengan	
	'Pius is buying fish in Dengan'						
(47b)	Pait	ino	degang	Pius	di'	Dengon.	*SVO-UV*
	fish	yonder	-COM-buy UV	Pius	LOC	Dengan	
	'This fish was bought by Pius in Dengan'						

[17]The different classes (i.e., choice of morpheme) is largely dependent upon the semantic class of the verb.

(48a)	(Da)	gedagang	Pius	pait	di’	Dengon.	*VAU-AV*
	PR	AV-buy	Pius	fish	LOC	Dengan	
	‘Pius is buying fish in Dengan’						
(48b)	(Bay)	degang	Pius	pait	di’	Dengon.	*VAU-UV*
	PRF	-COM-buy UV	Pius	fish	LOC	Dengan	
	‘Pius has already bought fish in Dengan’						

(Goudswaard 2005: 15-16)

In SVO clauses, the preverbal NP must be interpreted as the subject, but the voice morphology indicates whether or not it is interpreted as the actor or undergoer. In VAU clauses, the NP that follows must be interpreted as the actor and the second the undergoer, regardless of voice marking on the verb.

Begak also relies on case marking in pronouns in voice marking. Nominative case is used exclusively for subjects: either actors in active voice or undergoers in undergoer voice. The accusative voice always indicates the postverbal undergoer. The oblique case is used for undergoers in active voice constructions. And the genitive case is used for actors in undergoer voice. Note that this case marking system is only found in pronouns, not full DPs (which also contrasts with other Sabahan languages).

Goudswaard also describes A’-movement in her grammar, with a discussion of both relative clauses and *wh*-questions. She notes that, like many other Austronesian languages, Begak shows the ‘subjects-only’ restriction in both types of A’-movement. (49) shows a subject relative clause with the verb marked with actor voice morphology, and (50) shows an object relative clause with the verb in undergoer voice.

(49)	Mengan	pait	geligkut	nong	bano	rumo	ne.
	-COM-AV.eat	fish	AV-COM.swallow	OBL	husband	3S	this
	‘(They) ate the fish that had swallowed her husband’						

(50)	Aku	bay	ketegbuk	ulun	nong	ku	sowo.
	1S.N	PRF	AV.NV-meet	person	AUX	1S.G	-DEP-marry.UV
	‘I have met the person I am going to marry’						

(Goudswaard 2005: 74, 77)

This is true in *wh*-questions as well. (51) is a subject *wh*-question with the required actor voice morphology on the verb, and (52) is an object *wh*-question, with the required undergoer voice marking on the verb.

(51) Nay menemmu' niun mengerara' ulang?
who AV-command 2S.A AV-look.after snake
'Who told you to look after the snake?'

(52) Nu liwat mo di' Dengon?
what -COM-sell.UV 2S.G LOC Dengan
'What did you sell in Dengan?'

(Goudswaard 2005: 94, 96)

Begak thus has the expected restriction in two types of A'-movement, and these constructions show all voice marking features (including aspect and mood) that is found in declarative sentences.

1.4.2.2.4 Kroeger (1988): Kimaragang

Kroeger notes that Kimaragang should be characterized as a Philippine-type language, in part due to its system of verbal focus ('focus' here being roughly equivalent to voice; most works on Philippine-type languages use the term focus instead of voice). Like Philippine-type languages (and unlike Indonesian-type languages), Kmaragang has seven focus possibilities: Nominative Focus (53), Accusative Focus (54), Dative Focus (55), Translative Focus (56), Locative Focus, Instrument Focus (57), and Setting Focus (58). Each of these identify a different pivot (i.e., focused element).

(53) Momoli okuh do tasin.
NOMF-TRANS-buy 1SG NONP/INDEF salt
'I am going to buy salt'

(54) Amu kuh boli-on itih tasin ditih.
not 1SG-NONP buy-ACCF salt this
'I won't buy this salt'

(55) Boli-ai okuh poh do tasin!
buy-DATF/IMP 1SG-P yet NONP-INDEF salt
'Buy me some salt!'

(56) N-i-boli kuh it siin kuh dot tasin.
PAST-TF-BUY 1SG-NONP P/DEF money 1SG-GEN NONP-INDEF salt
'I spent my money on salt'

(57) Songkuroh ot pinomoli nuh dinoh pondulung nuh?
how.much P/INDF PAST-if-buy 2SG-NONP that-NONP ring 2SG-GEN
'How much did you pay for your ring?'

(58) Siongoh pinomolian nuh dilo gampa nuh?
where PAST-SF-buy-SF 2SG-NONPthat-NONP machete 2SG-GEN
'Where did you buy your machete?'

(Kroeger 1988: 4-9)

Kimaragang overtly realizes its focus system in a few key ways: one, pivot NPs are always marked by a definite determiner, while non-pivot NPs are marked by indefinite determiners. In the examples above, pivots take *it* as in (56), where it marks the pivot *money*, and non-pivots take *do* as in (53) where it marks that *salt* is not the pivot; the first singular pronoun is. Two, some pronouns have pivot and non-pivot forms. In (55) above, the first person singular pronoun is *okuh*, the pivot form; contrast this with (56), where the pronon is *kuh*, the non-pivot form. Three, the verb takes certain morphology depending on which type of focus is being used. Some are prefixes, like Nominative Focus in (53) (the nasal prefix *m-*), while others are suffixes, such as Dative Focus in (55), *-an*.

Kroeger further notes that certain focus morphemes or types differ in terms of tense, aspect, and mood. For instance, Accusative Focus has two different suffixes, past (a null morpheme), and non-past (*-on*). Furthermore, he notes that using Accusative Focus versus Dative Focus in some contexts can be dependent on volition. Consider the following pair:

(59a) Irak-on koh dih Lucy.
laugh-ACCF 2SG-P NONP-DEF Lucy
'Lucy is laughing at you (for no reason)'

(59b) I-ra-rak-an koh dot tulun.
REDUP-laugh-DATF 2SG-P NONP-INDEF person
'People are laughing at you' (Kroeger 1988: 81-82)

Kroeger notes that the distinction here is one of volition. In (59a), where Accusative Focus is used, there's something strange about Lucy that is making her laugh (volitional laughter. In (59b), where Dative Focus is used, you are doing something to provoke it (non-volitional laughter).

Three of the focus types additionally have non-finite forms to indicate either 1) imperatives, or 2) the "narrative tense" (which marks mainline events in narrative discourse).

Lastly, like other Philippine-type languages, only the pivot NP can be relativized in Kimaragang (although more than one focus type can be used in relativization). An example is given in (60) below.

(60) A-tarom ih pe'es n-i-ta'ak dih kamaman sid dogon.
stat-sharp P/DEF knife PAST-TF-give NONP-DEF uncle to 1SG-NONP
'The knife my uncle gave me is sharp'

(Kroeger 1988: 131)

The pivot in (60) is *knife*, which has been relativized in Transitive Focus.

1.4.2.2.5 Boutin (2002): Bonggi

Boutin's (2002) work on Bonggi describes the voice system in this language, which, like the languages described in the sections above, has many characteristic features of Philippine-type languages. Verbal affixes in Bonggi signal the semantic role of the nominal indexed by the affix. Verbal morphology generally only index the privelidged argument (the pivot). When the actor is indexed on the verb, a nasal prefix *ng-* occurs, as in (61). This contrasts with (62), where the undergoer is indexed, and the suffix *-an* is used instead.

(61) Sia imori diaadn siidn, maʔ miniliʔ.
3S.NOM REAL-ISA.ACT-give 1S.NONACT money and REAL-ACY.return
'He gave me money, and he returned home'

(62) Ou biniriadn nya siidn, maʔ miniliʔ.
1S.NOM REAL-give-ISA.MARKED.UND 3S.GEN money and REAL-ACY.return
'I was given money by him, and I returned home'

(Boutin 2002: 37-38)

Furthermore, Bonggi has a system of case-marked nouns, in both personal nouns and pronouns, that indicate their semantic role. For example, personal pronouns are marked with *si* if the noun is nominative, and *ny* if is it not. This distinction is shown in (62).

(62a) Si Lonti miliug.
PN.NOM Lonti STAT-tall
'Lonti is tall'

(62b) Si Mual imori siidn ny amaq di ny Umal.
PN.NOM Mual REAL-ISA.ACT-give money PN father to.DAT PN Umal
'Mual gave father's money to Umal'

(Boutin 2002: 13,16)

Pronouns exhibit case marking as well, although they show a three-way distinction, instead of the two-way distinction in personal nouns. Nominative case is used only on the syntactically prominent nominal in a clause, in (63). Genitive case is most commonly used to encode actors that are not syntactically prominent, in (64). The last, accusative/dative case is used for nonactors that are not syntactically prominent, in (65).

(63) Sia kindi bali nu.
3S.NOM GOAL-to house 2S.GEN
'She is going to your house'

(64) Louk nyu biagi nya.
fish 2PL.GEN REAL-divide-ISA.UND 3S.GEN
'Your fish was divided by him'

(65) Sia mori diaadn siidn.
3S.NOM ISA.ACT-give 1S.NONACT money
'He gives me money'

(Boutin 2002: 17-19)

In (63), the third singular pronoun is in the nomintive case, *sia*. In (64), the non-syntactically prominent actor in undergoer voice, the third singular pronoun, is in the genitive case, *nya*. In (65), the non-syntactically prominent non-actor, the first person singular, is in the accusative case, *diaadn*.

1.4.2.2.6 Prentice (1971): Timugon Murut

In his book on the Murut languages of Sabah (1971), Prentice describes the focus system of Timugon Murut as a Philippine-type language with five different focuses: subject, object, referent, associate, and instrument. This is reflected both in inflection on the verb, as wsell as case marking on the noun phrase. Prentice provides examples of some of these different focus types; subject focus in (66), object focus in (67), and instrument focus in (68).

(66) namatoy i Amat ra kukuo-i ra tataun[18].
killed Amat snake stick
'Amat killed the snake with a stick'

(67) pinatoy ri Amat kukuo-i ra tataun.
killed Amat snake stick
'The snake was killed with a stick by Amat'

(68) tataun pinamamatoy ri Amat ra kukuo-i.
stick killed Amat snake
'What Amat killed the snake with was a stick' (Prentice 1971: 33)

Prentice does not go into much detail about the examples provided above, but he does note that *i* marks the focused noun phrase (in other words, the pivot), and *ri* is used to mark any non-pivots. This can be seen in (66), with *Amat*, the subject, being focused with *i*. Contrast this with (67), where *Amat*, no longer the focused noun phrase, is marked with *ri* instead. The three examples in (66-68) also show the change in verbal inflection, dependent upon the type of focus, on the verb *kill*.

1.4.2.3 Works on languages of Sarawak

South of Sabah, in the Malaysian state of Sarawak, less linguistic work has been done; in this section, then, I only discuss two relevant works: Clayre (1996) on Lun Bawang and Sa'ban, and Hemmings (2015) on Kelabit.

In Section 1.4.2.3.1, I discuss Clayre's (1996) work on focus in two languages of Sarawak: Lun Bawang and Sa'ban. Her work details how focus is reflected in these languages.

I then turn to Section 1.4.2.3.2, where I discuss one of Hemming's (2015) works on Kelabit, a language which she wrote her dissertation on. I chose this work as it focuses only on voice in Kelabit, and thus is the most relevant to the work at hand.

1.4.2.3.1 Clayre (1996): Lun Bawang and Sa'ban

Clayre's survey on multiple languages spoken in Borneo extends beyond Lun Bawang and Sa'ban, but the others she discusses have previously been discussed above, with no major differences in findings. I thus focus my discussion on the two languages from Sarawak, particularly given the lack of information on languages of this area, and a few notes on languages of Kalimantan, although there is some overlap with Soriente's findings discussed earlier.

[18]Prentice does not provide full glosses for sentences.

Clayre's main claim is that languages of Borneo do have a system of voice similar to Philippine-type languages, but it is reduced and less overtly marked. While she notes many of the above-mentioned similarities between languages of Sabah and Philippine-type languages, she further notes that many of these similarties do not extend to languages of Sarawak and Kalimantan.

Clayre first discusses marking of nominal arguments, frequently found in languages of Sabah. In languages of Sarawak and Kalimantan, however, common nouns remain unmarked and therefore have no marker used to distingiush non-focused arguments from focused arguments. This includes demonstratives, where there are no focused versus non-focused counterparts.

In pronouns, however, Lun Bawang patterns with languages of Sabah by having three sets of pronouns: nominative, genitive, and accusative. All three are shown in (69-71) below.

(69) Ui b-in-abeh neh.
1SG.FOC R-CM-carry 3SG.NF
'He carried me'

(70) Ieh n-ier negku.
3SG.FOC AF-see 1SG.NF.NA
'He sees me'

(71) In-apung ku ieh rat neneh.
CM-hide 1SG.NF 3SG.FOC from 3SG.NF.NA
'I hid it from him'

(Clayre 1996: 1-3)

In (69), the first person pronoun appears in its focused (nominative form) but it is in its non-focused, non-actor (accusative) form in (70). Then in (71), it is in its non-focus form (genitive).

Sa'ban and several languages of southeast Kalimantan, however, only have two sets of pronouns. In Sa'ban, the pronouns do not differ by focus, as can be exemplified by the pair of (72), which is in actor focus, and (73), which is in undergoer focus, below.

(72) Éek n-nal ieh.
1SG AF-see 3SG
'I see him'

(73) Éek i-nal ieh.
1SG CM-see 3SG
'He saw me' (Clayre 1996: 9-10)

Instead, Clarye identifies Set I pronouns as undergoer and focused actor, and Set II pronouns as non-focused actor and genitive. A similar system is found in the Ma'anyan and Ngaju languages of southeast Kalimantan. However, at least some Ngaju languages additionally allow the third person singular pronouns of Set II to be used as the object of an actor focus verb, as exemplified in (74) below (compare to the declarative sentence in (75)).

(74) Mamukul-e.
AF.beat-3SG.II
'Beat him'

(75) Aku m-ita ikau.
1SG.I AF-see 2SG.I
'I see you' (Clayre 1996: 12-13)

Clayre also notes that in some of these languages certain pronouns have been lost in one of the sets, and it seems that plural pronoun distinctions are lost first.

Lun Bawang also differs from other languages of Sarawak in that it has three focus types - actor, undergoer, and instrument - while other languages only have two focus types, actor and undergoer. Clayre notes that, because non-pronominal noun phrases do not have focus marking, word order is essential in distinguishing semantic roles of arguments. In transitive clauses the postverbal position is restricted to the non-focused core argument (regardless of focus), and nothing can intervene between the verb and this argument. This is exemplified in (76). The focused core argument has more flexibility in word order, with one possible position being preverbally. This is exemplified in (77). And lastly, focused instruments (in instrument focus) always occurs clause-finally. This is exemplified in (78).

(76) Ui m-aré kuyu nih neneh.
1SG.FOC AF-give shirt this OBL.3SG
'I give this shirt to him'

(77) Kuyu nih b-i-ré ku neneh.
shirt this R-CM-give 1SG.NF OBL.3SG
'I gave this shirt to him'

(78) Ping-akan ku ubi sudu' nih.
IF-eat 1SG.NF ubi spoon this
'I'll use this spoon to eat the ubi'

(Clayre 1996: 14-15,17)

In Sa'ban, there are only two focus types, actor and undergoer. Word order consistently shows the focus type, by restricting the postverbal slot to the non-focused core nominal. This is true in languages of southeast Kalimantan as well.

Clayre then turns to discuss the verbal inflections used in focus systems in these languages. Lun Bawang has a nasal prefix *N-* which is used in actor focus constructions, similarly to most other Western Austronesian languages. There is an additional prefix *ne-*, which indicates completed action. Undergoer focus is marked by the suffix *-en* for uncompleted action, and unmarked for focus for completed action. Instead, completed action in undergoer focus by the infix *-in-*. Instrument focus is marked by the prefix *piN-*, which can additionally occr with the completed action *ne-* morpheme.

As noted earlier, Sa'ban only has two focus types, actor and undergoer. Actor focus is marked by a few different prefixes, including a nasal prefix. There is no morpheme to indicate completed versus non-completed action like in Lun Bawang; instead, a temporal marker is used to indicate tense. In undergoer focus, on the other hand, almost all forms are in completed aspect. This is marked through the prefix *i-*.

In languages of southeast Kalimantan, again, there are only two focus types. Actor focus is generally indicated by a nasal prefix, but undergoer focus is less consistent among the languages. It is almost always unmarked, and aspect is generally marked instead, by an infix such as *-en-* or a nasal prefix *ne-* (in Berawan and Melanau) or *i-* (Ngaju). In general, the pattern seems to be: nasal prefix for actor focus, and aspect is not marked morphologically in this focus type. Undergoer focus is unmarked for focus, but different prefixes are used to indicate completed action (which is significantly more common).

Clayre also briefly discusses the status of the non-focused actor. In Philippine-type languages, this non-focused actor is not demoted to oblique status (unlike the canonical passive in Indonesian-type languages). Both Sarawak languages and languages of southeast Kalimantan conform to this pattern. However, Clayre does note that the language Ma'anyan has an 'agent marker' *daya* which is optional unless the verb and the agent is separated by another constituent.

1.4.2.3.2 Hemmings (2015): Kelabit

Hemmings (2015) discusses the voice system of Kelabit, a language of Sarawak. While she has done extensive other work on Kelabit (including her dissertation), I focus on this work.

Hemmings notes that Kelabit, like Lun Bawang, has three voices: actor, undergoer, and instrumental. Morphological marking is dependent upon the interaction with mood and aspect. Table 11 summarizes the system of voice markers.

	REALIS/PERFECTIVE	IRREALIS
ACTOR	*neN-*	*N-*
UNDERGOER	*-in-*	*-en*
INSTRUMENTAL	*peneN-*	*peN-*

Table 10. Voice affixes in Kelabit according to Hemmings (2015) (12)

An example actor voice (79), undergoer voice (80), and instrument voice (81) are given below.

(79) la'ih sineh ne-nekul nubaq nedih ngen seduk.
man DEM PRF-AV.spoon rice 3SG.POSS with spoon
'That man spooned up his rice with a spoon'

(80) sikul la'ih sineh nubaq nedih ngen seduk.
UV.PRF-spoon man DEM rice 3SG.POSS with spoon
'That man ate his rice with a spoon'

(81) seduk penekul la'ih sineh nubaq nedih.
spoon IV.spoon man DEMN rice 3SG.POSS
'That man used a spoon to spoon up his rice'

(Hemmings 2015: 8a-c)

There are also some word order restrictions, like in other Sarawak languages as described by Clayre. The non-subject core argument generally follows the verb, while the subject argument has more flexibility. It is ungrammatical for the non-subject core argument to precede the verb. There is a distinction that is unique to Kelabit, however; in actor voice, the subject argument can intervene between the verb and the non-subject argument. In undergoer voice, however, nothing can intervene between these two. This is exemplified in (82-83) below.

(82) ne-nge-laak tesineh nedih nubaq.
PRF-AV-cook mother 3SG.POSS rice
'Her mother cooked rice'

(83) *l-in-aak nubaq tesineh nedih.
UV-PRF.cook rice mother 3SG.POSS
'Her mother cooked rice' (Hemmings 2015: 13a-b)

(82) is in actor voice, where separating the verb from the non-subject argument is grammatical. In undergoer voice in (83), this is not possible.

Hemmings further notes that, like other Austronesian languages, Kelabit additionally shows the

‘subjects-only’ restriction in relative clauses, allowing only the subject to be extracted.

Overall, these findings (along with some semantic and pragmatic findings) lead Hemmings to categorize Kelabit as an ‘in-between’ language between Philippine-type and Indonesian-type languages.

CHAPTER 2: METHODOLOGY

2.1 Elicitation-based fieldwork

The main methodology used in this dissertation is elicitation-based fieldwork. This chapter is dedicated to one, describing the specifics of the method used while in the field while additionally providing some background data on the speakers with whom I consulted. I also discsus my rationale for this methodology, identifying both benefits and drawbacks to this type of approach.

In Section 2.1.1, I first provide some background information on two field sites. I then describe how elictation sessions were conducted, including information on the tools I use. I additionally discuss any post-field data management that was done.

I then turn to background information on the speakers consulted in this study in Section 2.1.2. I include general information such as name, age, gender, as well as specifics about the amount of data collected.

Lastly, in Section 2.1.3, I discuss my rationale for doing an elicitation-based approach instead of using naturally-occurring data, noting advantages and drawbacks to this approach.

2.1.1 Specifics of field sites and sessions

2.1.1.1 Field sites: Sungai Galing and Ngabang

Elicitation sessions were conducted at two different field sites over the course of three summers. The first and primary field site was Sungai Galing, located on the Kapuas River in the Sanggau Regency. The bulk of the data collected for this dissertation was collected in Sungai Galing. I collectively spent 12 weeks there over three summers, beginning in the summer of 2017. Map 4 below shows the approximate location of Sungai Galing.

Map 4. Approximate location of Sungai Galing

The population of Sungai Galing is estimated to be about ~750 people, according to residents of the village. Households in Sungai Galing generally have multiple generations living under one roof, with men being the main breadwinners of the family. However, this has begun to change within the last few years; when I returned in 2019, many women had begun to work as well, due to the falling economy in the village. The main source of income in the village is "cutting rubber", the collection of rubber from rubber trees that is then sold.

Education is minimal in the village. There is a free kindergarten within the village as well as an elementary school. The nearest high school is about thirty minutes away by boat. Most children do not attend high school as their families either cannot or will not pay for the boat fee to get to school or the cost of the school itself. Attitudes in the village towards education are not favorable. This has led to a high illiteracy rate in the village. However, in 2017, the village did celebrate the first Sungai Galing native to attend college in Jakarta.

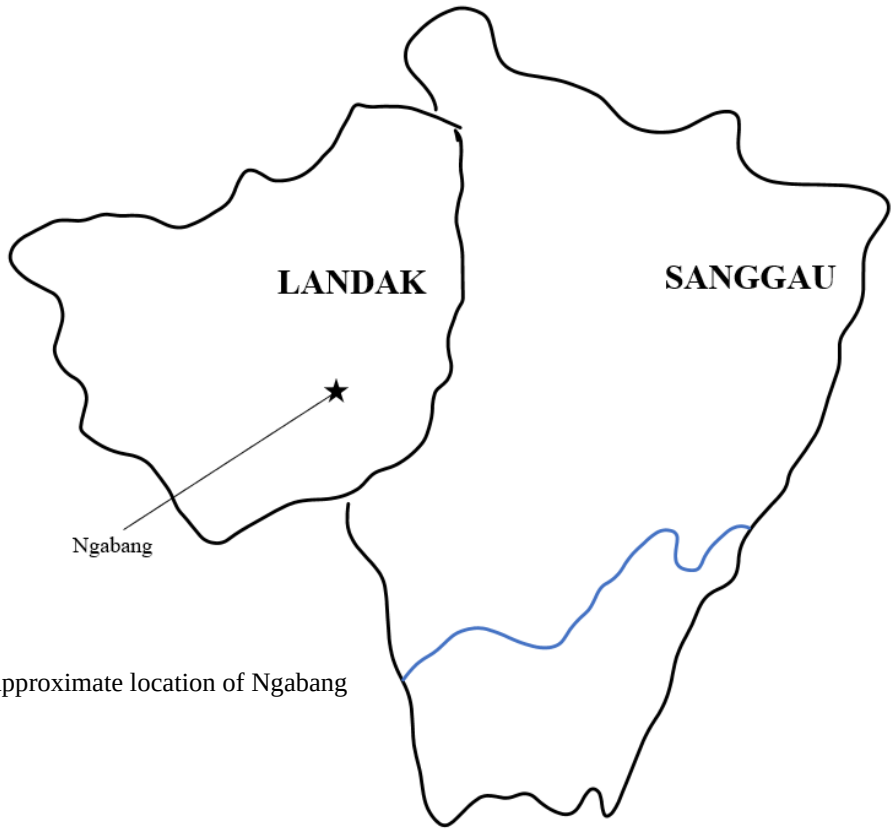
The majority 'Dayak'[19] language spoken in the village is Ope, one of the languages in this dissertation. Nearly all communication amongst villagers is done in Ope, and villagers have noted that

[19] *Dayak* is the term used to describe the ethnic peoples of Borneo and is often used as a broad term for minority languages spoken in Borneo as well.

they additionally use Ope with neighboring villages. People who are not native to Sungai Galing are often native speakers of other languages, but learned Ope once moving there. Most people are multilingual both in other Dayak languages as well as in some form of Indonesian. Indonesian and some English is taught in some of the schools, but English is not widely used. Furthermore, the consistent use of Ope on a daily basis has led to a decline in other minority language use in the village, with most non-native speakers of Ope exclusively using Ope both in and out of the house.

Both religion and traditional Dayak beliefs play a large role in society in Sungai Galing. There are several churches and one mosque; churches are both Catholic and Protestant. Sungai Galing has notably been the site of missionaries from the United States and Indonesia for the past eight years, which has likely led to a rise in Christianity in the village. Observationally, it seems that the religions co-exist quite peacefully; many non-Muslims partake in the end of Ramadan celebration with their Muslim neighbors, and both religions are welcome at traditional village events, like weddings. Additionally, many villagers retain traditional Dayak beliefs, which are prevalent in day-to-day life.

The second field site is Ngabang, located further north and west of Sungai Galing in the Landak Regency. Ngabang is a much larger district, with a university which draws in a significant amount of people from smaller, neighboring villages. I spent much less time in Ngabang, I did not go to Ngbang my first year in 2017, but began in 2018. Furthermore, I only spent a total of three weeks there over the course of two summers, which resulted in much less time to gather data. Map 5 shows the approximate location of Ngabang.



Map 5. Approximate location of Ngabang

The census in 2010 set the population of Ngabang at 60,583, and that seems to be the most recent count. The population in Ngabang seems to be significantly younger than the population in Sungai Galing, likely due to the presence of a university there.

Unlike Sungai Galing, there are many options for work and education in Ngabang. There is a significantly higher literacy rate here (which is reflected in literacy rates of my speakers), and within Ngabang is access to several schools, businesses, and facilities.

The main language spoken in Ngabang seems to be Ahe, but nearly everyone is multilingual. Indonesian is spoken by the majority of the population, and English is at least taught at the university (there is an English degree program there), so a large portion of younger speakers study and speak some English. Given that many people from neighboring villages have moved to Ngabang, a wide variety of languages are used here, and there does not seem to be the same level of language shift (compared to Sungai Galing) away from speakers' native languages to say, Ahe or Indonesian. This is purely observational, however.

Religion and traditional Dayak beliefs play a large role in Ngabang as well. Both Christians and Muslims co-exist in Ngabang. Futhermore, at least some of the population still holds traditional Dayak

beliefs found in smaller villages. It is worth noting, in both Sungai Galing and Ngabang, that at least some people hold both Christian and traditional Dayak beliefs.

2.1.1.2 The structure of elicitations

Elicitations are generally conducted one-on-one with speakers (or *consultants*) and are conducted entirely in a *lingua franca*, which for the majority of these speakers was Indonesian. English is not widely spoken in Kalimantan (this contrasts with Malaysian Borneo), but a few of these speakers did speak English (mostly those located in Ngabang). In Table 12 in the next section I have indicated which speakers had some grasp of English. Even some of these speakers preferred to conduct sessions in Indonesian as they were more comfortable with that, so very few sessions were conducted in English. It is important to note at this point that I am not a fluent speaker of Indonesian. Because of this, I was always accompanied by a native Indonesian with a good grasp of English in all my sessions, in case of misunderstandings between myself and the speakers. Although I myself conducted the sessions, this person, from whom I will loosely use the term *interpreter* to refer to, was present to help with any misunderstandings or comments on the constructions that I could not understand. Furthermore, all sentences that were elicited were first checked to ensure they were correct in Indonesian. The presence of this interpreter has another benefit as well: given that, at least in Sungai Galing, a large majority of speakers spoke a non-standard variety of Indonesian (with a large overlap with Ope), there were some difficulties in comprehension between me and speakers due to difference in variety. My interpreter was always either native to Borneo, or had lived in Borneo for several years and therefore was better-equipped to understand and converse with speakers using a non-standard variety. It is also worth noting that, regardless of my proficiency (or lack there of) in Indonesian, I was required to always be accompanied by someone due to cultural and safety reasons[20].

There were two speakers for which elicitation sessions were done in a group: two Ope speakers, Ad and Markus. This was possible as I had multiple speakers of Ope, and they were also friends. All other elictation sessions were conducted one-on-one (although I often had an audience of family members).

Elicitation sessions ranged from 30 minutes to an hour but never exceeded an hour (to ensure that consultants did not get fatigued). As stated before, sessions were generally conducted in Indonesian; I give a word/sentence in Indonesian, and consultants provided the same in their language. All sessions were recorded on a Zoom H4N PRO Digital Multitrack Recorder which was then analyzed and segmented into smaller files in Praat. After initial elicitiation and transcribing, every word, phrase, and sentence is checked for accuracy and then segmented into its own .wav file and .TextGrid file. Nearly 100 hours of data was collected over the course of three years.

[20]This being said, any errors in interpretation are my own.

I also often ask for acceptability judgements. These are based on previous sentences given by the consultant with changes made by myself. For example, I elicited (84a) (in Indonesian), (84b) was provided by the consultant, and I then asked if (85c) is a possible version of the originally asked for construction.

(84a)	Apa	yang	dia	tanam	setiap	hari?		*Indonesian*
	what	COMP	3SG	plant	every	day		
	'What does she plant every day?'							
(84b)	Ani	nang	kuniq	ko	m-orop	tiap	ari?	*Be-aye*
	what	COMP	UV	2SG	N-plant	every	day	
(84c)	Nang	kuniq	ko	m-orop	tiap	ari	ani?	
	COMP	UV	2SG	N-plant	every	day	what	

When asking for (84c), I follow with *Bisa? (is this okay?)*. The consultant responds that it either is possible or is not possible, and then I try and ask for some comments on it: does it have the same meaning as the initial construction (by saying *Sama? (the same?)*? Is this common? Is it more or less common than what was originally given? I also ask for the consultant to repeat (84c) themselves. These grammaticality judgments were particularly important when elicting some syntactic diagnostics, such as *wh*-islands (which are quite difficult to elicit), and in determining when certain voice morphology is possible and when it is not.

2.1.1.3 A note on orthography

Any usage of written language for this research is not possible. The only written material I've seen in any of the languages I've worked on is a 'law book' written in Ope; other than that (and texting on cellphones), these languages do not seem to be written. Furthermore, at least half of my speakers are illiterate (mainly those in Sungai Galing).

Because of this, I have adopted writing conventions here that a) are based on Indonesian orthography, and b) are based on prior work on other languages of Borneo. This includes representing the velar nasal as *ng*, the palatal nasal as *ny*, the voiceless alveo-palatal affricate as *c*, the voiced alveo-palatal affricate as *j*, and the glottal stop as *q*. This is done for consistency and is not intended to make any claims on how these languages shoud be represented in written language. However, when citing other authors, I have retained their orthographic conventions, which sometimes differ from my own (for example, some authors use ʻ to represent a glottal stop instead).

2.1.2 Speaker background information

I now provide some basic background information on the speakers consulted for this study. In Sungai Galing, over half of my speakers were older and were women; this is because of the lifestyle in the village. Men work during the day while women stay home with the children, which make women more available and willing. Of the men consulted, I worked with one older male speaker (age likely around 70) as he is the 'cultural head' of the village (and thus his job is being present for births and weddings), as well as two younger men, in their 20s. Only the Ope speakers were native to Sungai Galing.

In Ngabang, my speakers were mainly male and in their 20s. None of these consultants are native to Ngabang but moved from smaller neighboring villages. Table 11 provides more detailed information on all my speakers. The speakers are divided by which field site I collected the data from – Sungai Galing or Ngabang.

	LANGUAGE/SPEAKER	AGE	NATIVE VILLAGE	GENDER	OTHER LS	LINGUA FRANCA	HOURS OF DATA
SUNGAI GALING	**DESA – Mama Luki**[21]	~23	Suak Mansi	F	O / I	I	~14
	OPE – Pak Tak/Kakek	~70	Sungai Galing	M	I	I	~13
	OPE - Adrianus	~23	Sungai Galing	M	I / E	I	~4
	OPE - Markus	~29	Sungai Galing	M	I	I	~4
	RIBUN – Mama Dita	~35	Pandung	F	O / I	I	~16
	AHE – Mama Gilang	~25	Setunggang	F	O / I	I	~10
	AHE – Ressy	~28	Mandor	F	I / E	E	~5
NGABANG	**BEAYE – Mama Tasya**	~25	Kumpang	F	I	I	~5
	BE'AJE – Lomiyus	~21	Kase	M	I / E	I	~5
	BANYADUQ – Pak Kris	~35	Sangke	M	I / E	E / I	~5
	BEKATI – Johannes	~30	Tandi	M	I / E	I	~4
	BANANA – Mama Petra	~25	Bagak	F	I	I	~5
	BELANGIN - Susanto	~28	Jambu	M	I / E	E / I	~5

Table 11. Background information on speakers KEY: O = Ope / I = Indonesian / E = English

[21]A note on names: it is impolite to refer to people older than you by their first names. For any speaker older than myself, I use a familial term dependent upon their age to be polite, and retain this here. Thus, *Kakek* is the term for 'grandfather', *Pak* is the term for 'father', and *Kak* is 'older sibling'. There is an additional convention that is frequently used in Kalimantan, where you call someone by *Mama* or *Papa* plus the name of their oldest child. I also retain this here. Any name given without a familial term before it is because we were similar in age or I was older (and therefore they referred to me as *Kak* instead).

For the majority of the languages used in this study I only worked with one speaker. This is obviously not ideal, but was a consequence of working with speakers not native to the field sites in which I was working. Because of this, it should be stated that the findings of this dissertation may not be generalizable to all speakers of these languages. However, due to the undocumented nature of almost every language here, I still believe that this serves as an important first step in describing these languages.

It is also the case that, for some languages, I collected significantly less data. This is true of the languages I worked on in Ngabang and is a result of spending significantly less time there than in Sungai Galing. This is also not ideal, but again, any description or analysis on these languages is important at this point. It is my hope that I will be able to gather more data on these languages in the future in order to lend more support to the findings presented in this dissertation.

2.1.3 In defense of an elicitation-based approach

There are some that prefer documentation work such as what is presented here to be based upon naturally-occurring data. It is not the case that I do not find value in an approach like that, but for the purposes of this dissertation this was not the best option. Most documentation work (particularly in Borneo) is not extended to analysis, particularly in the case of syntactic analysis. The needs of a syntactic approach are significantly different than the needs of a descriptive approach. I note a few arguments in support of using an elicitation-based approach here.

The first reason for choosing an elictation-based approach was the importance of utilizing syntactic diagnostics. In order to develop an accurate analysis for voice and extraction in these languages, I needed to know not only what is grammatical, but what is not grammatical. It is not possible to use naturally-occurring data to identify what is not grammatical; this must be done through elicitations and acceptability judgments. Furthermore, in order to determine, say, the status of the agent in undergoer statuses (whether they are arguments or adjuncts), it was necessary to run diagnostics that distinguish the two options. Again, this is not possible through the analysis of naturally-occurring data.

The second reason for choosing this approach was one of constraints. I was under several constraints in developing this dissertation: one of time, one of resources, and one of money. Most significant documentation work through the collection of naturally-occurring data is done over years spent in the field and is done on one language at a time. The fact that a dissertation must be completed in a certain time frame, and that travel to Indonesia is expensive has not made such significant documentation work possible. Furthermore, I chose to work on over ten languages during my short time in Borneo, instead of focusing on one language. This was done on purpose: given that every language that I encountered was underdocumented, I felt that contributing at least some documentation (even if not complete) on these languages was better than contributing nothing at all. I also felt that a typological

syntactic analysis of multiple languages would be more beneficial to the research community than a sketch grammar on one language. More significant documentation for these languages is a long-term goal of mine, but is simply not within the bounds of a dissertation.

The third reason was due to the topic of this dissertation. In order to both describe and analyze voice and A'-movement in these languages, I needed to gather a significant amount of passives, *wh*-questions, and relative clauses of different types, which do not necessarily occur that often in natural speech. It would have been difficult to ensure that I gathered enough of these constructions without using elicitation.

There are also drawbacks to not using naturally-occurring data. I am limited in what I can say about the role of context in any of the syntactic constructions I discuss, and there could be pragmatic constraints on the constructions I discuss that I am unaware of. I did collect some naturally-occurring data in the form of narratives but they were not utilized for this dissertation (as they were not particularly applicable here). I hope to, after finishing this work, return to these narratives and utilize them for future work.

CHAPTER 3: VOICE SYSTEMS OF WEST KALIMANTAN

The focus of this chapter is two-fold: one, to offer preliminary description of voice on ten languages of West Kalimantan, and two, to offer syntactic analyses of these voice systems, couched in the modern theory of Minimalism, and building off of existing analyses of voice in related languages.

I begin with a description of voice in each of the ten languages in the first two sections, focusing first on Malayic languages in Section 3.1, and then Land Dayak languages in Section 3.2. Languages within these sections are organized by subgroup as discussed in Chapter 1. At the end of each of these sections, in Section 3.1.3 and 3.2.2, I discuss patterns found in the respective subgroups, comparing my findings to voice systems of other languages of Borneo, as described in Chapter 1, Section 1.4.

3.1 Voice in Malayic languages

This section describes the voice system of five Malayic languages: Ahe, Banana, Balangin, Desa, and Ope. I begin with Kendayan-Salako languages, which include Ahe, Banana, and Balangin. I then turn to Desa and Ope, which I have grouped together under Ibanic/Other, since their status is less clear. The description offered in this section is focused on voice, but I include other relevant syntactic details when necessary, given the previously undocumented status of the majority of these languages.

Section 3.1.1 and all included subsections offer a description of the Kendayan-Salako languages Ahe, Banana, and Balangin.

Section 3.1.2 and all included subsections turns to the description of voice in Ibanic/Other languages Desa and Ope.

3.1.1 Kendayan-Salako: Ahe, Banana, Balangin

There are three languages that are included in this section: Ahe, Banana, and Balangin. First, I will briefly discuss the basic syntax of these three languages, which includes word order, aspect/mood marking, and some morphological marking. The Kendayan-Salako languages described here all share three characteristics: i) evidence for two types of undergoer voice, ii) the use of the morpheme *di-* as a marker of undergoer voice; and iii) the ability of the nasal prefix to occur in undergoer voice.

3.1.1.1 Basic syntactic features of Kendayan-Salako languages

3.1.1.1.1 Word order and tense/aspect marking

Kendayan-Salako languages, like many other languages of Indonesia, seem to have the standard word order of Subject-Verb-Object (SVO). This is demonstrated for all three languages in (85-87) below.

	S	**V**	**O**				
(85)	Aku	n-ele	kamuda.				*Ahe*
	1SG.I	AV-see	child				
	'I see the child'						
(86)	Aku	m-aca	buku	naq.			*Banana*
	1SG.I	AV-read	book	that			
	'I read the book'						
(87)	Diri	n-anam	bunga	kaq	taman.		*Balangin*
	1PL.INCL.I	AV-plant	flower	in	field		
	'We plant flowers in the field'						

Additionally, these three languages pattern like Indonesian in that tense is typically not morphologically marked, and sentences like those in (85-87) can be interpreted as past or present depending on context. Adverbs of time like 'yesterday' can be used to indicate tense, as exemplified in (88-90).

(88)	Aku	jantu	tumare.	*Ahe*
	1SG.I	fall	yesterday	
	'I fell yesterday'			
(89)	Aku	jantu	tumareya.	*Banana*
	1SG.I	fall	yesterday	
	'I fell yesterday'			
(90)	Aku	labu	bari.	*Balangin*
	1SG.I	fall	yesterday	
	'I fell yesterday'			

Temporal markers can also be used to indicate tense: all three languages have some variation of *dah*[22].

(91)	Aku	**dah**	m-akatn	nasi.	*Ahe*
	1SG.I	PST	AV-eat	rice	
	'I ate rice (recently)'				

[22] These temporal markers can additionally co-occur with some adverbs of time as well. I leave the specifics of these temporal markers for future research.

(92) Iya **dah** n-abaliq kapal naq. *Banana*
3SG.I PFT AV-capsize boat that
'S/he capsized the boat'

(93) Aku **udah** m-ali obat ntu duq uraq sakin. *Balangin*
1SG.I PFT AV-buy medicine this for person sick
'I bought this medicine for a sick person'

The temporal marker *dah* seems similar to *sudah* in Indonesian, which is generally analyzed as an aspect marker indicating either perfect or perfective aspect (Sneddon et al 2013). However, the Ahe *dah* has both tense and aspect functions, particularly when compared to an additional temporal marker, *deqe.* The temporal marker *deqe* indicates an event that took place either in the remote past, or an event that no longer takes place. For example, consider the distinction between using *dah* and *deqe* with the verb *mati* 'to die' in (94):

(94a) Ular dah mati. *Ahe*
snake PST die
'The snake died (recently)'

(94b) Ular deqe mati.
snake REMOTE/DISCONT.PST die
'The snake died (a long time ago)'

However, when occurring with other verbs, like *makatn* 'eat', *deqe* instead indicates an action that no longer takes place.

(95a) Aku dah m-akatn nasi. *Ahe*
1SG.I PST AV-eat rice
'I ate rice (recently)'

(95b) Aku deqe m-akatn nasi.
1SG.I REMOTE/DISCONT.PST AV-eat rice
'I no longer eat rice'

The marker *deqe* seems to be fuctioning as tense marker of both the remote past and the discontinous past[23]. On the other hand, *dah* indicates more recent past events, but can additionally indicate events that are not yet completed, like with the predicate *babuntn* 'pregnant'.

(96a) Nang bini koa ba-buntn. *Ahe*
person female that BA-pregnant
'That woman is pregnant'

(96b) Nang bini koa dah ba-buntn.
person female that PST BA-pregnant
'That woman is pregnant but has not yet given birth' not '#The woman was pregnant'

In (96b), the addition of *dah* does not indicate that she was pregnant, but that she has already become pregnant but not yet given birth. This indicates that *dah*, in addition to indicating past tense, also indicates an atelic event, an aspectual distinction.

A more thorough, extensive analysis of both of these markers (in addition to more data) is necessary before concretely determing their functions. There is currently no evidence that such a distinction exists in either Banana or Balangin, but I leave a more extensive study of *dah* in all three languages for future work.

In addition to *dah*, Banana and Balangin both have a progressive temporal marker, and a future tense marker. Progressive aspect can be marked by *giq*, and future tense can be marked by *mau* in both Balangin and Banana, as well as *naq* in Balangin[24].

PROGRESSIVE ASPECT

(97) Aku **giq** m-aca buku naq. *Banana*
1SG.I PROG AV-read book that
'I am reading the book'

(98) Aku **giq** m-baca buku ntu. *Balangin*
1SG.I PROG AV-read book this
'I am reading this book'

[23] It is not uncommon for discontinous past tense markers to be derived from remote past markers (Plungian and Auwera (2006)).
[24] It is not clear what the distinction between *mau* and *naq* is at this point. In Indonesian, *mau* is occasionally used as a future tense marker as well, with a rough translation of 'want'. This could potentially be the difference in Balangin as well.

FUTURE TENSE

(99) Diri **mau** ng-analiq babon naq. *Banana*
1PL.INCL.I FUT AV-skin pig that
'We will skin the pig'

(100) Aku **mau** n-ulis buku. *Balangin*
1SG.I FUT AV-write book
'I will write a book'

(101) Makanan **naq** di-kirim keq Ponti diq uma-ku.
food FUT UV-send to Pontianak by mother-1SG.II
'Food will be sent to Pontianak by my mother'

These markers are all optional but serve to provide additional tense and aspectual information.

Ahe diverges from these two languages here, in three ways: one, there is currently no evidence of any progressive aspectual marker in Ahe. This could be a gap in the data collected, or it could be that Ahe does not have a dedicated progressive marker[25]. Two, future tense is morphogically marked in Ahe, with the morpheme *-a*. While Banana and Balangin utilize a free standing morpheme, Ahe uses a suffix. Three, this future tense morpheme is not optional, even if an adverb of time indicating future tense (like 'tomorrow') is used, in (102), but can also occur without any additional tense information, as in (103).

(102) Mpagi aku m-ikiri-**qa**[26] Indonesia. *Ahe*
tomorrow 1SG.I AV-think-FUT Indonesia
'Tomorrow I will think about Indonesia'

[25] Elicitations done with Ahe speakers often included the Indonesian progressive marker *sedang*, but no equivalent was given. Sentences elicited with *sedang* were given with no temporal markers.
[26] The form of the suffix appears to be phonologically conditioned. When attaching to a word that ends in a vowel, it surfaces with a glottal stop: *-qa*. When attaching to words that end in consonants, there is some initial evidence that final obstruents geminate, while final nasals do not:

(1) Iya ta-kajut-ta.
3SG ACCID-surprise-FUT
'She will be surprised'

(2) Iya ny-omong-a kaq apaq-nya.
3SG AV-talk-FUT to father-3SG
'She will talk to her father'

Futhermore, final preploded nasals seem to resyllabify:

(103) Aku n-ele-**qa** kamuda.
1SG.I AV-see-FUT child
'I will see the child'

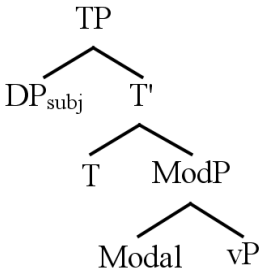
In constructions with auxiliaries or modals, the future tense suffix attaches to the highest auxiliary or modal. In (104a), where the modal *baiya* 'PERMIS' is used, *-qa* attaches to the modal. It cannot attach to both the modal and the main verb, as evidenced by (104b).

(104a) Kao baiya-**qa** m-uka jandela. *Ahe*
2SG.I PERMIS-FUT AV-open window
'You will be allowed to open the window'

(104b) *Kao baiya-qa m-uka-qa jandela.
2SG.I PERMIS-FUT AV-open-FUT window
'You will be allowed to open the window'

Neither Banana nor Balangin mark future tense with a morpheme, as indicated in (99-101) above. At least among these three Kendayan-Salako languages, Ahe is unique in this respect.

I now offer a brief sketch of standard declarative active voice constructions below. This is based upon the facts above; minimally, I am assuming that the external argument moves to the spec,TP, and that tense is hosted at T. More specifics of this analysis will be provided in Section 3.3[27].



(3a) Aku makatn nasi.
1SG eat rice
'I eat rice'
(3b) Aku makat-na nasi.
1SG eat-FUT rice
'I will eat rice'

[27] The Ahe facts in (104) are obviously of interest to this anaylsis; namely, how do we account for the observation that the future tense affix must be located on the highest verbal element. While this is an interesting and worthwhile question, I leave this to future work.

3.1.1.1.2 Pronominal systems

I now turn to a description of the pronominal system of these three Kendayan-Salako languages. Like many other Malayo-Polynesian languages, Ahe, Banana, and Balangin do not show case in common nouns: case marking is restricted to pronouns. Before discussing specifics of each language, I have summarized the system found in all three languages in Table 12 below.

		NOM (I)[28]	ACC (I)	GEN (II)
AHE	1SG	aku	aku	ku
	2SG	kao	kao	nyu
	3SG	(i)ya	(i)ya	nya
	1PL.INCL	diri	diri	diri
	1PL.EXCL	kami	kami	kami
	3PL	iya kaqawan	iya kaqawan	nya
BANANA	1SG	aku	aku	ku
	2SG	kao	kao	kao
	3SG	(i)ya	(i)ya	nya/(i)ya
	1PL.INCL	diri	diri	diri
	1PL.EXCL	kami	kami	kami
	3PL	daqayunya	daqayunya	nya
BALANGIN	1SG	aku	aku	ku
	2SG	kau	kau	kau
	3SG	(i)ya	(i)ya	ya
	1PL.INCL	diri	diri	diri
	1PL.EXCL	wakitu	wakitu	wakitu
	3PL	yupuya	yupuya	yupuya

Table 12. A summary of personal pronouns in Ahe, Banana, and Balangin

Table 12 reveals significant similarities between the three languages; all three use nearly identical singular forms in Set I, with some differences in the plural pronouns. Additionally, all three utilize a distinct Set II form for the first singular. However, there are clear differences between the three languages as well; namely, that Banana and Balangin lose the Set II distinction in most other pronouns.

I now discuss the specifics of each language in turn, beginning with Ahe. I repeat the pronominal system of Ahe in Table 13 below.

[28] I use Set I and Set II to refer to the fact that the shape of the pronoun changes dependent upon syntactic position. Several descriptive works done on languages of Borneo separates pronominal systems in this way, particularly as different 'sets' are significant in these languages' voice systems. I follow this convention, but additionally note that, from an analysis point of view, these positions also differ in Case-marking.

	NOM (I)	ACC (I)	GEN (II)
1SG	aku	aku	ku
2SG	kao	kao	nyu
3SG	(i)ya	(i)ya	nya
1PL.INCL	diri	diri	diri
1PL.EXCL	kami	kami	kami
3PL	iya kaqawan[29]	iya kaqawan	nya

Table 13. Personal pronouns in Ahe

As evidenced by Table 13, Ahe has two sets of pronouns in the singular, and only one set in the plural.

Similarly to other languages of Indonesia, Ahe does not distingiush between the nominative and accusative case in its pronominal system, but does have a specific genitive case-marked form in some cases. I will refer to the nominative and accusative form as Set I, and the genitive form as Set II. The 1st exclusive and inclusive plurals only occur in one form, lacking the genitive case-marked form that the singular pronouns have, therefore only having Set I. The 3rd plural serves as an outlier, as it has a different genitive form, but this is shared with the 3rd singular. The data below in (105-114) of the singular pronouns show the two sets for each.

1ST PERSON SINGULAR: TWO SETS

(105) **Aku** bejalan kaq abut-abut sa-jam.
1SG.I walk in forest-RED 1-hr
'I walk in the forest for an hour'

(106) Kao n-ele **aku**.
2SG.I AV-see 1SG.I
'He sees me'

(107) Laki tua koa m-are kotaq enaq kaq **aku**.
male old that AV-give box small to 1SG.I
'The old man gave a small box to me'

(108) Iya ayutn-**ku**[30].
3SG friend-1SG.II
'He is my friend'

[29] This seems to be some combination of the 3SG pronoun and an additional element. This is reinforced by the genitive form, which is identical to the 3SG genitive pronoun.
[30] In Indonesian, genitive pronouns are analyzed as bound morphemes. I follow this convention for the languages discussed in this dissertation if there is a dedicated genitive (Set II) pronoun. I want to stress that this is for consistency only. In future work I hope to work on this more in-depth, in order to determine if genitive pronouns in these languages are actually bound morphemes.

2ND PERSON SINGULAR: TWO SETS

(109) **Kao** inaq m-uka jandela.
2SG.I NEG AV-open window
'You don't open the window'

(110) Aku n-ele **kao**.
1SG.I AV-see 2SG.I
'I see you'

(111) Nang koa amput-**nyu**.
COMP that have-2SG.II
'It's yours'

3RD PERSON SINGULAR: TWO SETS

(112) **Iya** ny-omong kaq apaq-nya.
3SG.I AV-talk to father-3SG.II
'S/he talks to her/his father'

(113) Aku n-ele **iya**.
1SG.I AV-see 3SG.I
'I see him/her'

(114) Apaq-**nya**[31] diatn kaq Kalimantan.
father-3SG.II live in Kalimantan
'Her/His father lives in Kalimantan'

A few observations from this data: note that (107) shows that Set I, not Set II, is used in obliques. Furthermore, Set II occurs as suffixes that attach to the noun being modified, as evidenced by (108), (110), and (113). This contrasts with the 1st person plural inclusive and exclusive, which only have Set I, even when the pronoun occurs in a genitive case-marked position. Below is evidence of this with *diri*, the inclusive pronoun, as the exclusive pronoun is not commonly used.

1ST PERSON PLURAL: ONE SET

(114) **Diri** inaq m-angang-an apaq roti.
1PL.INCL.I NEG AV-bake-APPL father bread
'We don't bake father bread'

[31] This Set II form is occasionally used as the definite determiner as well, similarly to Indonesian.

(115) Iya n-ele **diri**.
3SG.I AV-see 1PL.INCL.I
'S/he sees us'

(116) Babi **diri** dari.
pig 1PLINCL.I run
'Our pig escaped'

Gentives in the plural additionally contrast with their singular counterparts as they retain status as a free morpheme, as evidenced by (116).

The 3rd person plural, as noted above, is distinct in that it does have a Set II pronoun, but this pronoun is identical to the 3rd singular, as exemplified by (118) below.

3RD PERSON PLURAL: ONE SET + 3SG SET II

(117) **Iya kaqawan** ng-angkaq perau koa.
3PL.I AV-lift boat that
'They lift the boat'

(118) Iya kaqaqwan n-ele diri-**nya**.
3PL.I AV-see REFL-3PL.II
'They see themselves'

This seems to indicate that the 3rd person Set II morpheme is underspecified for number.

I now turn to Banana. Table 14 below summarizes the pronominal system of Banana.

	NOM (I)	ACC (I)	GEN (II)
1SG	aku	aku	ku
2SG	kao	kao	kao
3SG	(i)ya	(i)ya	nya/(i)ya
1PL.INCL	diri	diri	diri
1PL.EXCL	kami	kami	kami
3PL	daqayunya	daqayunya	nya

Table 14. Personal pronouns in Banana

The pronominal system of Banana shares several similarities with Ahe. One, Banana has two sets of pronouns in the singular, and only one in the plural. Two, many pronouns are identical to their forms in Ahe. And three, the 3rd person Set II pronoun is underspecified for number, being used for both the singular and plural pronoun. These two sets in the 1st singular are exemplified in the data in (119-121) below.

1ST PERSON SINGULAR: TWO SETS

(119) **Aku** m-ayar nang laki naq duapuluh rupiah.
1SG.I AV-pay person male that two.ten rupiah
'I pay the man twenty rupiah'

(120) Kao n-ele **aku**.
2SG.I AV-see 1SG.I
'You see me'

(121) Tolong bere iso naq kaq **aku**.
please give knife that to 1SG.I
'Please give that knife to me'

(121) Mama-**ku** ny-uman nasi.
mother-1SG.II AV-cook rice
'My mother cooks rice'

(119-120) show no distinction between pronouns in a nominative case-marking position versus an accusative-case marking position. (121) shows that obliques, like Ahe, use Set I pronouns. (121) shows the Set II pronoun, used as a suffix attaching to the noun that is being modified.

This contrasts with the 1st plural, where only Set I pronouns are used.

1ST PERSON PLURAL: ONE SET

(122) **Kami** ny-aru dokter.
1PL.EXCL.I AV-call doctor
'We call a doctor'

(123) Babon **kami** dari.
pig 1PL.EXCL.1 run
'Our pig escaped'

However, the pronominal system of Banana differs from Ahe in one crucial way: the 2nd singular lacks a Set II pronoun, and there is some evidence that this is being lost in the 3rd singular as well. The 2nd singular uses the Set I pronoun, even in the genitive, as evidenced below.

2ND PERSON SINGULAR: ONE SET

(124) **Kao** n-ancur rumah naq.
2SG.I AV-destroy house that
'You destroy the house'

(125) Bisa keq aku mantis **kao**?
PERMIS Q 1SG.I AV-help 2SG.I
'Can I help you?'

(126) Kao n-ele diri **kao** sorong.
2SG.I AV-see REFL 2SG.I REFL
'You see yourself'

Despite being in three different case-marked positions in (124-126), the 2nd singular form is *kao* throughout. For the 3rd singular, sometimes a Set II pronoun *nya* is used, as in (129), but other times the Set I pronoun *ya* is used instead, as in (130).

3RD PERSON SINGULAR: ONE/TWO SETS

(127) **Iya** na-racaitn asu-ku.
3SG.I AV-poison dog-1SG.II
'S/he poisoned my dog'

(128) Manyaq urang n-ele **iya**.
many person AV-see 3SG.I
'Many people see him/her'

(129) Anaq naq n-ele diri-**nya**[32] sorong.
child that AV-see REFL-3SG.II REFL
'The child sees him/herself'

(130) Iya n-irim surat kaq akat **ya**.
3SG.I AV-send letter to grandfather 3SG.I
'S/he sent a letter to her/his grandfather'

It was noted that the 3rd person Set II pronoun is underspecified for number as it additionally is used with the 3rd plural. This is shown below in (132).

[32] It is possible that this is a result of elicitation bias, as the 3rd singular genitive pronoun in Indonesian is additionally *-nya*. However, this does not explain (130), where the Set I pronoun is used. This is the more unexpected finding, as Ahe demonstrates that these languages follow other languages of Borneo in having two sets only in the singular pronouns.

3RD PERSON PLURAL: ONE SET + 3SG SET II

(131) **Daqayunya** n-anam bunga naq.
3PL.I AV-plant flower that
'They plant flowers'

(132) Kamuda anaq n-ele diri-**nya** sorong.
child child AV-see REFL-3PL.II REFL
'The children see themselves'

Interestingly, unlike Ahe, the Set I form of the 3rd plural pronoun (*daqayunya)* seems to be a compound that includes the Set II form *nya*.

Lastly, I now describe the pronominal system found in Balangin, which is summarized in Table 3 below.

	NOM (I)	ACC (I)	GEN (II)
1SG	aku	aku	ku
2SG	kau	kau	kau
3SG	(i)ya	(i)ya	ya
1PL.INCL	diri	diri	diri
1PL.EXCL	wakitu	wakitu	wakitu
3PL	yupuya	yupuya	yupuya

Table 15. Personal pronouns in Balangin

Balangin, when compared to Ahe and Banana, has the most reduced pronominal system. Only the 1st singular has two sets of pronouns, while the rest all use Set I. The 1st singular two-set system is demonstrated below in (133-135).

1ST PERSON SINGULAR: TWO SETS

(133) **Aku** n-anam bunga nan.
1SG.I AV-plant flower that
'I plant the flowers'

(134) Kao n-ele **aku**.
2SG.I AV-see 1SG.I
'You see me'

(135) Rombong anak laki m-aliq duin dari **aku**.
some child male AV-steal money from 1SG.I
'Some boys stole money from me'

(136) Apaq-**ku** m-ali buku ntu.
father-1SG.II AV-buy book this
'My father bought this book'

Set I is used for pronouns in the nominative and accusative positions, as well as in obliques, as in (135). Set II is used for genitives, as in (136). As noted earlier, Set II pronouns are only found in the 1st singular. Neither the 2nd singular, nor the 3rd singular have two sets, contrasting with Ahe.

2ND PERSON SINGULAR: ONE SET

(137) **Kao** n-ataq kayu man isu.
2SG.I AV-cut wood with knife
'You are cutting the wood with a knife'

(138) Aku n-ele **kao**.
1SG.I AV-see 2SG.I
'I see you'

(139) Apeq **kao** m-aliq kerejang-ku.
grandmother 2SG.I AV-steal basket-1SG.II
'Your grandmother stole my basket'

3RD PERSON SINGULAR: ONE SET

(140) **Ya** ne-racuq asu-ku.
3SG.I AV-poison dog-1SG.II
'S/he poisoned my dog'

(141) Banyaq uraq n-ele **iya.**
many person AV-see 3SG.I
'Many people see him/her'

(142) Iya n-irim suraq kaq akaq **ya**[33].
3SG.I AV-send letter to grandfather 3SG.I
'S/he sent a letter to her/his grandfather'

This same pattern occurs in the plural pronouns as well. The 1st plural inclusive and exclusive, as well as the 3rd plural all only have Set I pronouns. This is exemplified below in (143-146).

[33] Given that *ku* is the Set II form of *aku*, we might expect *ya* to be the Set II form of *iya*. However, *ya* is not restricted to the genitive, as evidenced by (140). It is likely just a shortened form used in casual speech.

1ST PERSON PLURAL: ONE SET

(143) **Wakitu** n-anam bunga nan.
1PL.EXCL.I AV-plant flower that
'We plant flowers'

(144) Babi **wakitu** dari.
pig 1PL.EXCL.I run
'Our pig escaped'

3RD PERSON PLURAL: ONE SET

(145) Nele **yuqupuya** ataq?
when 3PL.I come
'When are they coming?'

(146) Apaq **yuqupuya** dulu dokter.
father 3PL.I PST doctor
'Their father was a doctor'

Since the 3rd singular only has one set of pronouns, the 3rd plural cannot share a Set II pronoun with it. Instead, the 3rd plural only uses Set I pronouns.

These three languages exhibit stark similaries but seem to represent three languages on a continuum of loss. Ahe, the most complex in terms of having case-marked pronouns, has two sets of pronouns only in the singular. It has been noted that plural pronoun distinctions are generally lost first in languages of Borneo (Clayre 1996), so this is unsurprising. We might predict that both Banana and Balangin used to have a pronominal system identical to Ahe but some distinctions are being lost. Banana, for example, patterns like Ahe in having only two sets in the singular, but this distinction is being lost in the 3rd person and has already been lost in the 2nd person. Balangin is the furthest along the continuum of loss: it only has two sets in the 1st singular. This suggests that Balangin used to have two sets in all of its singular pronouns, but these have been lost over time. We might even predict that all three of these languages used to have Set II pronouns in the plural as well, but this distinction was the first to be lost.

I have only discussed the pronominal system of these languages in terms of case at this point. Notably, many languages of Borneo have a pronominal system that additionally varies by voice. This will discussed in the upcoming sections as I describe the voice systems of these languages.

3.1.1.2 Evidence for two types of undergoer voice

The first characteristic that Ahe, Banana, and Belangin all share in terms of voice is evidence of two types of undergoer voice, one that is morphologically marked with *di-*, and one in which the verb occurs in its bare form. I begin with a description of the actor voice, and then turn to describe these two types of undergoer voice.

3.1.1.2.1 Actor voice

All three of these languages exhibit an actor voice that is marked by a nasal prefix *N-*. Actor voice occurs on syntactically transitive verbs and on some intransitive verbs as well[34]. A variety of verbs in the actor voice are provided below in all three languages. These include the transitive verbs *write, read, kick, kill,* and *open* (among others) as well as some ditransitive verbs *give* and *send*. The bare form of the verb and its nasal prefixed equivalent is provided for each example.

AV IN AHE

(147) Diri **n-ulis** buku. *(tulis > nulis)*[35]
1PL.I AV-write book
'We write a book'

(148) Aku inaq pernah **m-aca** buku koa. (*baca > maca)*
1SG.I NEG ever AV-read book that
'I have never read that book'

(149) Kamuda koa **n-ipaq** karusi. *(sipaq > nipaq)*
child that AV-kick chair
'The child kicks the chair'

(150) Diri **m-ali** baras. *(bali > mali)*
1PL.I AV-buy rice
'We buy some rice'

[34] This does not seem to be very common. Each of these languages has *nari* 'to dance' which could be broken up into a nasal prefix plus a verb root, but in Ahe this is additionally (optionally) prefixed by *ba-*, which occurs on several intransitive verbs. There are no other verbs that take both *ba-* and *N-*, so it's likely the case that *nari* is the root. Furthermore, *nari* is commonly borrowed in languages of Indonesia.

[35] Like in Indonesian, the nasal prefix is phonologically conditioned in all three languages. The nasal consonant assimilates to the place of articulation of the initial consonant of the verb root. Root-initial obstruents are deleted. Note that, unlike Indonesian, all root-initial obstruents are deleted, not just voiceless ones (this pattern is more similar to Madurese (Davies 2005)).

(151) Aku **m-areq** buku kaq awutn-ku. *(bareq > mareq)*
1SG.I AV-give book to friend-1SG.II
'I give a book to my friend'

AV IN BANANA

(152) Apaq-ku **m-uat** rumah nya. *(buat > muat)*
father-1SG.II AV-build house that
'My father builds the house'

(153) Ino-ku **n-irim** makanan kaq Maliau. *(kirim > nirim)*
mother-1SG.II AV-send food to Meliau
'My mother sends food to Meliau.

(154) Kao **m-unuh** manoq. *(bunuh > munuh)*
2SG.I AV-kill chicken
'You kill a chicken'

(155) Diri **n-amu** bunga beru kaq sungi. *(tamu > namu)*
1PL.INCL.I AV-find flower new by river
'We find new flowers by the river'

(156) Mama-ku **ny-uman** nasi. *(suman > nyuman)*
mother-1SG.II AV-cook rice
'My mother cooks rice'

AV IN BALANGIN

(157) Aku **m-uka** longop nan. *(buka > muka)*
1SG.I AV-open window that
'I open the window'

(158) Ya **ng-abun** perau nan. *(kabun > ngabun)*
3SG.I AV-tie boat that
'S/he ties the boat'

(159) Apaq-ku **m-ali** buku ntu. *(bali > mali)*
father-1SG.II AV-buy book this
'My father buys this book'

(160)	Ya	**ne-racuq**	asu-ku.				*(racuq > neracuq)*[36]
	3SG.I	AV-poison	dog-1SG				
	'S/he poisons my dog'						
(161)	Ya	**ny-arah**	diri	ya	kaq	palisi.	*(sarah > nyarah)*
	3SG.I	AV-surrender	REFL	3SG.I	to	police	
	'S/he surrenders him/herself to the police'						

In Indonesian, the nasal prefix is commonly omitted in casual speech. This seems to be possible in these three Kendayan-Salako languages as well, but does not seem to occur as frequently. Speakers genereally accept sentences like those above without the nasal prefix on the verb, but do not seem to produce them when elicited.

3.1.1.2.2 Undergoer voice with di-

Undergoer voice in these Kendayan-Salako languages indicates that the actor of a transitive predicate has not been selected as the most prominent argument, or the subject. This is indicated by both a syntactic change and a morphological change: verbs in undergoer voice are prefixed with *di-*, and undergoers are promoted to the subject position, resulting in Undergoer-Verb-Agent (UVA) word order. An example of this is given below in (162-164) for all three.

	U		**V**		**A**	
(162)	Jandela	koa	**di**-m-uka		di-nyu.	*Ahe*
	window	that	PV-NONCOMP-open[37]		GEN-2SG.II	
	'The window is opened by you'					
(163)	Manoq	**di**-m-unuh		gawe	kao.	*Banana*
	chicken	PV-NONCOMP-kill		by	2SG.I	
	'The chicken is killed by you'					
(164)	Buku	ntu	**di**-baca		aku.	*Balangin*
	book	this	PV-read		1SG.I	
	'This book is read by me'					

[36] It seems that liquids, instead of deleting, are retained and a vowel is epenthesized between the prefix and the initial liquid. This is shown here for *r* but is additionally true for *l*.

[37] Although this section is dedicated to description, I use glosses to reflect the analyses I propose in Section 3.3. I refer the reader ahead for evidence of *di-* marking the passive voice, and the *N-* here as a marker of non-completed action.

Agents in the *di-* undergoer voice are optional. This is exemplified by (165-167) below.

(165) Awutn-ku di-m-ari buku. *Ahe*
friend-1SG.II PV-NONCOMP-give book
'My friend is given a book'

(166) Makanan di-kirim kaq Maliau. *Banana*
food PV-send to Meliau
'Food will be sent to Meliau'

(167) Babi ntu mau di-sangin. *Balangin*
pig this FUT PV-skin
'This pig will be skinned'

The *di-* undergoer voice in each of these languages has these same basic properties, but there are crucial differences between the three in terms of both morphology and syntax. Because of this, I will discuss specifics of the *di-* undergoer voice in each language individually. I begin with Ahe.

Additional examples of the *di-* undergoer voice in Ahe are given below.

(168) Oto-ku di-n-uper ampus kaq toko di diq-ku.
car-1SG.II PV-NONCOMP -drive go to store GEN sister-1SG.II
'My car is driven to the store by my sister'

(169) Awutn-ku di-m-ari buku di guru-nya.
friend-1SG.II PV-NONCOMP -give book GEN teacher-3SG.II
'My friend is given a book by his teacher'

(170) Karusi koa dah di-n-ipaq di kamuda koa.
chair that PST PV-NONCOMP-kick GEN child that
'The chair was kicked by the child'

(171) Baras koa dah di-m-ali di diri.
rice that PST PV-NONCOMP -buy GEN 1PL.INCL.I
'Rice was bought by us'

The *di-* undergoer voice in Ahe is characterized by: a repetition of *di-*, attaching not only to the verb but additionally marking the agent; pronominal agents occuring in Set II forms (as exemplified in (162) above, where the 2nd singular occurs as *nyu*, not *kao*, and in (172) below where the 1st singular occurs as

ku instead of *aku*); and movability of the agent prior to the verb, where *di-* only occurs as marking the agent, as exemplifeid in (172-173) below.

(172) Bunga di-ku n-anam.
flower GEN-1SG.II NONCOMP-plant
'Flowers were planted by me'

(173) Toko koa di diri m-uka.
store that GEN 1PL.INCL.I NONCOMP-open
'The store is opened by us'

I now turn to the *di-* undergoer voice in Balangin. At first glance, Balangin patterns quite similarly to Ahe. Like Ahe, *di-* occurs on the verb and additionally can be repeated, preceding the agent.

(174) Makanan naq di-kirim keq Ponti di uma-ku.
food FUT PV-send to Pontianak by mother-1SG.II
'Food will be sent to Pontianak by my mother'

(175) Babi ntu mau di-sangin diq diri.
pig this FUT PV-skin GEN 1PL.INCL.I
'This pig will be skinned by us'

However, *di-* is only required to precede the agent when there is an intervening element between it and the verb, like the locative phrase in (174). When there is no intervening element, the second *di-* is commonly omitted, as in (176-179).

(176) Uma ntu di-gawei apaq-ku.
house this PV-build father-1SG.II
'This house is built by my father'

(177) Bunga di-taman diri kaq taman.
flower PV-plant 1PL.INCL.I in field
'Flowers are planted in the field by us'

(178) Mandoq di-bunuh kao.
chicken PV-kill 2SG.I
'A chicken is killed by you'

(179) Perau nan niq di-baleq aku.
boat that NEG PV-capsize 1SG.I
'The boat was capsized by me'

A second difference between Balangin and Ahe is the form of the agent. In Ahe, pronominal agents occurred in their Set II forms. In Balangin, pronominal agents occur in their Set I forms. This only applies to the 1st singular, as no other pronoun has Set II forms in Balangin. In (179), the agent occurs as *aku*, its Set I form, not *ku*, its Set II form. However, it does seem that the Set II pronoun can be used if *di-* is repeated, but this is not a requirement.

(180) Bunga di-tanam di-ku.
flower PV-plant GEN-1SG.II
'Flowers are planted by me'

(181) Bunga di-tanam di aku[38].
flower PV-plant GEN 1SG.I
'Flowers are planted by me'

Both (180) and (181) are deemed grammatical, but neither are particularly common. It is far more common to omit the second *di-*.

Balangin does allow the agent to move to the preverbal position. Like Ahe, the agent must be preceded by *di-*, and *di-* does not attach to the verb, as in (182). Contrast this with (183), which is ungrammatical as *di-* is attached to the verb instead of the agent.

(182) Bunga di-ya n-anam.
flower GEN-3SG.I NONCOMP-plant
'Flowers are planted by him/her'

(183) *Bunga diri di-taman.
flower 1PL NONCOMP-plant
'Flowers are planted by us'

[38] There is a fascinating distinction between using *di-* with singular pronouns versus plural pronouns when optional. Plural pronouns more readily accept *di-*, even when there is no intervening element. Singular pronouns, on the other hand, seem more resistant to *di-* and, while sometimes acceptable, others times speakers feel using *di-* with them is odd. This could potentially be a remnant of an earlier pronominal system where singulars had two sets and *di-* attached to Set II pronouns, like in Ahe.

I now turn to Banana, which varies the most out of these three languages. While Banana uses *di-* to mark the verb in undergoer voice, there is no repetition of *di-* prior to the agent. Instead, *gawe* is used to mark the agent.

(184) Rumah nya di-m-uat (gawe) apaq-ku.
house that PV-NONCOMP-build by father-1SG.II
'The house is built by my father'

(185) Padi di-n-aliq (gawe) nang laki naq.
rice PV-NONCOMP-steal by person male that
'The rice is stolen by a boy'

(186) Dokter dah di-ny-aru (gawe) kami.
doctor PEFF PV-NONCOMP-call by 1PL.EXCL.I
'The doctor is called by us'

(187) Paruha na nana di-n-abliq (gawe) aku.
boat that NEG PV-NONCOMP-capsize by 1SG.I
'The boat was not capsized by me'

The marker *gawe* seems to be optional unless there is some intervening element, like in Balangin. When a locative phrase intervenes, *gawe* is necessary, like in (188). The agent, however, can occur either before or after any locative phrases.

(188) Bunga di-n-anam kaq taman gawe diri.
flower PV-NONCOMP-plant in field by 1PL.INCL.I
'Flowers are planted in the field by us'

(189) Bunga di-n-anam (gawe) diri kaq taman.
flower PV-NONCOMP-plant by 1PL.INCL.I in field
'Flowers are planted in the field by us'

In addition, Banana shares another feature with Balangin: the marking of pronominal agents. Pronominal agents in Banana occur in their Set I form, as evidenced by (187) above. This is regardless of whether *gawe* is omitted or not.

While *gawe* occurs in the same position as the second *di-* in Balangin and Ahe, and even share some similar features (being optional, for example), it seems to hold a different status. Consider the following ungrammatical sentences:

(190) *Nasi gawe mama-ku di-ny-uman.
rice by mother-1SG.II PV-NONCOMP-cook
'Rice is cooked by my mother'

(191) *Nasi gawe mama-ku ny-uman.
rice by mother-1SG.II PV-NONCOMP-cook
'Rice is cooked by my mother'

In both (190) and (191), the agent has moved into the preverbal position, still being preceded by *gawe*. This pattern was possible in Ahe and Balangin, as long as the verb was no longer prefixed with *di-*. This is not true of Banana, as evidenced by the ungrammaticality of (191). Even if *di-* remains on the verb, it is not possible for an agent preceded by *gawe* to move into the preverbal position.

3.1.1.1.3 Bare undergoer voice

These three Kendayan-Salako languages are further characterized by a second undergoer voice. This second type of undergoer voice is crucially different from the *di-* undergoer voice in two ways: one, the verb occurs in its root form, with no dedicated undergoer morpheme; and two, while the undergoer is still promoted to subject status, the order of verb and agent has switched, resulting Undergoer-Agent-Verb (UAV) word order. I will henceforth refer to this as the 'bare undergoer voice', where 'bare' refers to the fact that verbs do not take a special UV morpheme[39]. This is exemplified in all three languages below in (192-194).

	U		**A**	**V**	
(192)	Baras	koa	diri	m-ali.	*Ahe*
	rice	that	1PL.INCL.I	NONCOMP-buy	
	'Some rice is bought by us'				
(193)	Buku	nya	giq aku	n-ulis.	*Banana*
	book	that	PROG 1SG.I	NONCOMP-write	
	'The book is being written by me'				

[39] The object voice in Indonesian is described as using a 'bare' form of the verb as well. I note that, in these Kendayan-Salako languages, this is not referring to the verb occurring with no voice morphology (which is the case in Indonesian), but without a dedicated UV morpheme. This is because undergoer voice can occur with AV morphology, the nasal prefix. This interesting fact will be discussed in detail in Section 3.1.1.3.

(194) Nang laki an aku m-unuh. *Balangin*
person male that 1SG.I AV-kill
'That man is killed by me'

This second undergoer voice is reminiscent of the 'object voice' in Indonesian, as described by Chung (1976) and numerous others. The object voice in Indonesian is also characterized by UAV word order and a verb that occurs without a dedicated UV marker. Additionally, both Indonesian object voice and the bare undergoer voice described here require agents, unlike the *di-* undergoer voice, where agents are always optional. Furthermore, the ordering of aspect/temporal markers in the bare undergoer voice mirrors the object voice: aspectual makers, like *giq* in (193) above, occur prior to the agent. This pattern has been noted for Indonesian as well. Lastly, undergoers in object voice in Indonesian must be anaphoric and generic (Chung 1976), and this at least initially seems true in these three languages. Observe that all undergoers in (192-194) are followed by a defnite determiner (generally a demonstrative).

However, this bare undergoer voice in Ahe, Banana, and Balangin does differ from the object voice in Indonesian in a few ways. One, Indonesian object voice famously only allows pronouns as agents (Chung 1976). This is not true in the bare undergoer voice. All three of these languages allow full DPs as agents, as evidenced below in (195-197).

(195) Karusi koa dah kamuda koa n-ipaq. *Ahe*
chair that PST child that NONCOMP-kick
'The chair was kicked by the child'

(196) Rumah nya apaq-ku m-uat. *Banana*
house this father-1SG.II NONCOMP-build
'This house was built by my father'

(197) Padi nang laki paling. *Balangin*
rice person male steal
'Rice is stolen by the boy'

A second difference is in the form of the pronominal agent. Agents in object voice in Indonesian sometimes uses a proclitic form when they are pronouns. This is additionally true in Ahe:

(198) Buku koa dah ku-m-aca. *Ahe*
book that PST 1SG.II- NONCOMP-book
'The book was read by me'

This is only the case in the 1st singular. Even in the 2nd and 3rd singular, where Ahe has Set II pronouns, Set I pronouns are used instead.

(199) Jandela koa kao m-uka. *Ahe*
window that 2SG.I NONCOMP-open
'The window is opened by you'

(200) Jandela koa ya m-uka.
window that 3SG.I NONCOMP-open
'The window is opened by him/her'

In Banana and Balangin, however, there is no evidence of any procliticization of the 1st singular pronoun in agents. Agents occur in their Set I pronouns; the 1st singular pronoun occurs as *aku*, its Set I form, in both (201) and (202) below.

(201) Nang laki nya aku m-unuh. *Banana*
person male that 1SG.I NONCOMP-kill
'The man is killed by me'

(202) Nang laki an aku m-unuh. *Balangin*
person male that 1SG.I NONCOMP-kill
'That man is killed by me'

I have summarized the pronominal system in each voice for all three languages below in Table 4.

	AV		***di-* UV**		**BARE UV**	
	AGENT	**UNDERGOER**	**AGENT**	**UNDERGOER**	**AGENT**	**UNDERGOER**
AHE	I	I	II	I	II (1ST); I	I
BANANA	I	I	I	I	I	I
BALANGIN	I	I	I / II	I	I	I

Table 16. Summary of pronominal systems by voice in K-S languages I = Set I pronouns; II = Set II pronouns

Interestingly, only Ahe has any interaction of voice and the form of the pronoun. In Ahe, non-focused agents generally occur in their Set II forms; this is true in the *di-* undergoer voice, and true of the 1st singular pronoun in the bare undergoer voice. Balangin can get Set II pronouns in the *di-* undergoer voice, but it is not required. Banana and Balangin show no interaction of voice and pronominal system; regardless of which element is being focused, Set I pronouns are used. It is also of interest that the languages contrast more in the *di-* undergoer voice than in the bare undergoer voice.

3.1.1.2.4 Other undergoer-oriented constructions

There are a few other undergoer-oriented constructions worth mentioning prior to moving onto the last defining characteristic of Kendayan-Salako voice: the 'accidental' passive, morphologically marked with *ta-* (Ahe, Banana) or *te-* (Balangin), and the periphrastic passive.

3.1.1.2.4.1 The 'accidental' passive

All three of these languages have evidence of a construction that I will refer to as the 'accidental' passive. In the accidental passive, the action is non-intentional. An example of this is given below in (203).

(203)	Jendela	na	**ta**-buka	gawe	nyaru.	*Banana*
	window	that	ACCID-open	by	wind	
	'The window was opened up by the wind'					

In (203), the window was not purposely opened by the wind. The accidental passive is morphologically marked by *ta-* in Banana and Ahe, and by *ke-* in Balangin.

(204)	Laki	nya	**ta**-tidur	kaq	bangku.	*Ahe*
	male	that	ACCID-sleep	in	chair	
	'The man fell asleep in the chair'					

(205)	Longon	nan	**te**-buka	di	naya.	*Balangin*
	window	that	ACCID-open	GEN	wind	
	'The window was opened up by the wind'					

The morpheme *ta-*/*te-* can occur with transitive verbs, as in (203) and (205), or with unaccusatives, as in (204). In both cases the undergoer is the focused element, occurring sentence-intially. A few more examples are given below in (206-).

(206)	Perau	nan	te-baleq	di	aku.	*Balangin*
	boat	that	ACCID-capsize	GEN	1SG.I	
	'The boat was (accidentally) capsized by me'					

(207)	Pintu	nan	te-buka.
	door	that	ACCID-open
	'The door was (accidentally) opened up'		

(208) Paruha na ta-baliq. *Banana*
boat that ACCID-capsize
'The boat was (accidentally) capsized'

(209) Talabo na ta-buka.
door that ACCID-open
'The door was (accidentally) opened up'

As exemplified above, these constructions can occur with or without agents.

3.1.1.2.4.2 The periphrastic passive

There has been some previous description of a type of passive construction that occurs in languages in Indonesia called the 'periphrastic passive' (Gil 2015; Connors, Bowden, and Gil 2015). This construction uses some variant of *kena*[40] that is roughly translated to English as 'undergo; got' as in *She got hit*. There is evidence that this type of construction occurs in these Kendayan-Salako languages as well, with *kana*.

(210) Uratn koa **kana** gigit. *Ahe*
person that got bite
'That person got bit'

(211) Aku **kana** pelaga.
1SG.I got chase
'I got chased'

(212) Aso nya **kana** bunuh. *Banana*
dog that got kill
'The dog got killed'

(213) Rumah nya **kana** banjir.
house that got flood
'The house got flooded'

(214) Asu-ku **kana** racuq. *Balangin*
dog-1SG.II got poison
'My dog got poisoned'

[40] This is the form used in Jakarta Indonesian (Connors, Bowden, and Gil 2015) and other langauges spoken in the west. The form *dapa* is used in languages spoken in eastern Indonesia (David Gil, p.c.).

(215) Duin **kana** paliq dari aku diq rombong anak laki.
money got steal from 1SG.I GEN some child boy
'Money was stolen from me by some boys'

Like in other undergoer-oriented constructions in these languages, the undergoer occurs sentence-initially, while agents can occur but are largely optional. Gil (2015) notes that these types of constructions are often characterized as adversative passives, as they are commonly used when referring to some misfortune or adversity; as evidenced by the examples in (210-215), this seems to be plausible analysis for this construction in these Kendayan-Salako languages as well.

3.1.1.3 The nasal prefix in undergoer voice

The last characteristic shared by Ahe, Banana, and Balangin is the ability of the nasal prefix, generally analyzed as an actor voice morpheme in related languages, to occur in undergoer-oriented constructions. This is exemplified by (216-220) for all three languages; crucially, note that the nasal prefix can occur both in the *di-* undergoer voice, and the bare undergoer voice.

(216) Jandela koa di-**m**-uka di-nyu. *Ahe*
window that PV-NONCOMP-open GEN-2SG.II
'The window is opened by you'

(217) Karusi koa dah kamuda koa **n**-ipaq.
chair that PST child that NONCOMP-kick
'The chair was kicked by the child'

(218) Padi di-**n**-aliq (gawe) nang laki na. *Banana*
rice PV-NONCOMP -steal by person male that
'The rice is stolen by a boy'

(219) Buku nya giq aku **n**-ulis.
book that PROG 1SG.I NONCOMP-write
'The book is being written by me'

(220) Bunga di-ya **n**-anam. *Balangin*
flower GEN-3SG.I NONCOMP-plant
'Flowers are planted by him/her'

(221) Nang laki an aku **m**-unuh.
person male that 1SG NONCOMP-kill
'That man is killed by me'

This is clearly unexpected if the nasal prefix is analyzed as an actor voice morpheme; in Indonesian, for example, the nasal prefix cannot occur in undergoer-oriented constructions. There are some restrictions on the distribution of the nasal prefix in the undergoer voice, at least in Ahe. Recall that Ahe morphologically marks future tense with *-a*. The nasal prefix does not occur on verbs that have been marked for future tense in either the *di-* undergoer voice (222-223), or the bare undergoer voice (224-225).

(222) Awutn-ku **di-bari-qa** buku. *Ahe*
friend-1SG.II PV-give-FUT book
'My friend will be given a book'

(223) Baras koa **di-bali-qa**.
rice that PV-buy-FUT
'Rice will be bought'

(224) Jandela koa kao **buka-qa.**
window that 2SG.I open-FUT
'The window will be opened'

(225) Baras koa diri **bali-qa.**
rice that 1PL.INCL.I buy-FUT
'Rice will be bought by us'

It is crucial to note that it is not just a preference, but ungrammatical to use the nasal prefix in any undergoer construction that is future tense. Additionally, the nasal prefix does not occur if the verb has been negated, as in (226).

(226) Bunga nana di-tanam di diri.
flower NEG PV-plant GEN 1PL.INCL.I
'Flowers are not planted by us'

(227) *Bunga nana di-n-anam di diri.
flower NEG PV-NONCOMP-plant GEN 1PL.INCL.I
'Flowers are not planted by us'

In contrast, the nasal prefix can occur with no tense/aspect marking, like in (216) above, or with *dah*, which indicates past tense, as in (226) below.

(226) Karusi koa dah di-n-ipaq di kamuda koa.
chair that PST PV-NONCOMP-kick GEN child that
'The chair was kicked by the child'

With *bisa* 'can', verbs can occur with or without the nasal prefix[41].

(227) Bunga bisa di-diri n-anam.
flower can PV-1PL.INCL.1 NONCOMP-plant
'Flowers can be planted by us'

(228) Bunga bisa di-diri tanam.
flower can PV-1PL.INCL.1 plant
'Flowers can be planted by us'

What the above data suggests is that the nasal prefix can only occur with non-completed actions, as described for Salako by Adelaar (2002, 2005). This will be discussed further in Section 3.3. The status of the nasal prefix in Banana and Balangin is less clear. In Banana, the nasal prefix does not co-occur with the future marker *mau*, as evidenced by (229-230) below.

(229) Makanan mau **di-kirim** kaq Maliau. *Banana*
food FUT PV-send to Meliau
'Food will be sent to Meliau'

(230) Babon nya mau **di-kanaliq** gawe diri.
pig that FUT PV-skin by 1PL.INCL.I
'The pig will be skinned by us'

This is expected, given the pattern in Ahe. However, we might also expect that the nasal prefix would be disallowed with negation, but this does not seem to be the case. The sentences in (231-232) freely allow the nasal prefix to occur, despite the apperance of setential negation.

(231) Babon nya nana di-n-analiq gawe diri.
pig that NEG PV-NONCOMP-skin by 1PL.INCL.I
'The pig was not skinned by us'

[41] This could potentially change the meaning of sentence. *Bisa* can be used to indicate both permission and ability in the right context. It is not clear if the meaning changes when the nasal prefix is added at this point.

(232) Paraha nya nana di-n-abaliq gawe aku.
boat that NEG PV-NONCOMP-capsize by 1SG.I
'The boat was not capsized by me'

The nasal prefix in Banana can additionally co-occur with the progressive marker *giq* and the perfective marker *dah*; the first is exemplified in (233), while the latter is in (234).

(233) Buku nya giq aku n-ulis.
book that PROG 1SG NONCOMP-write
'The book is being written by me'

(234) Dokter dah di-ny-aru.
doctor PEFF PV-NONCOMP-call
'The doctor was called'

Balangin diverges from the other two the most; the nasal prefix, while allowed in the undergoer voice, does not occur frequently. There is some evidence that it occurs in constructions that lack any overt tense or aspect marking, as in (235-236).

(235) Bunga baru di-n-amu kaq aie. *Balangin*
flower new PV-NONCOMP-find by river
'New flowers are found by the river'

(236) Meja ntu aku ny-atuh.
table this 1SG.I NONCOMP-touch
'This table is touched by me'

Additionally, it can occur with *dah* 'PERF', as in (237).

(237) Dokter udah ny-aru.
doctor PERF NONCOMP-call
'The doctor was called'

More frequently, however, undergoer constructions are given without the nasal prefix. This is true when overt temporal marking is added, including *giq* 'PROG', as in (238), *bisa* 'can', in (239), *mau* 'FUT', in (240), and *dah* 'PERF', in (241), as well as without any temporal marking, in (242).

(238) Buku ntu giq di-baca aku.
book this PROG PV-read 1SG.I
'This book is being read by me'

(239) Bunga baru bisa di-tamu kaq aie.
flower new can PV-find by river
'New flowers can be found by the river'

(240) Babi ntu mau di-sangin.
pig this FUT PV-skin
'This pig will be skinned'

(241) Buku nan dah di-tulis aku.
book that PERF PV-write 1SG.I
'The book was read by me'

(242) Rumah nan di-rusaq kao.
house that PV-destroy 2SG.I
'The house was destroyed by you'

There is some evidence that Balangin follows the same pattern of Ahe and Banana in disallowing the nasal prefix with non-completed actions. It was deemed ungrammatical to add the nasal prefix to (240), which is in future tense, above; additionally, it is ungrammatical to include the nasal prefix if negation is added as well. These ungrammatical variants are given below in (243-244).

(243) *Babi ntu mau di-ny-angin.
pig this FUT PV-NONCOMP-skin
'This pig will be skinned'

(244) *Babi ntu niq di-ny-angin.
pig this NEG PV-NONCOMP-skin
'This pig is not skinned'

However, it also seems uncommon to add the nasal prefix to a variey of other constructions that indicate completed actions. On more than one occasion, undergoer constructions without overt non-completed action marking that had the nasal prefix were deemed either ungrammatical or not common. This makes it difficult to analyze the nasal prefix in Balangin undergoer voice as indicating completed action, like it is in Ahe, Banana, and Salako.

3.1.2 Other Malayic: Desa, Ope

I now turn to a description of voice in the remaining two Malayic languages: Desa and Ope. These two do not share as many similarties as the Kendayan-Salako languages, as it is unclear if they should be grouped

together as this point (beyond both being putative Malayic languages). Because of this, there are not defining characteristics that group these together (like in the three Kendayan-Salako languages); rather, I discuss similarities to the other Malayic languages in this dissertation, as well as note how they significantlly differ from each other but also Kendayan-Salako languages.

I begin with a discussion of basic syntactic features that are relavant to the discussion of voice in Section 3.1.2.1. I then turn to the voice systems found in these two languages. One shared characteristic between the two is that they both, like the Kendayan-Salako languages, show evidence for two types of undergoer voice. However, these crucially differ in marking, as Desa follows Ahe, Banana, and Balangin in using the prefix *di-* to mark one type of undergoer voice while Ope uses *kona* instead. This is discussed in Section 3.1.2.2. Furthermore, both Desa and Ope have a more restricted usage of the nasal prefix; in Desa, the nasal prefix is disallowed in any undergoer construction, and in Ope, it is disallowed in the marked undergoer voice. This is discussed in detail in Section 3.1.2.3.

3.1.2.1 Basic syntactic features of Desa and Ope

The basic syntactic features I discuss before turning to a description of voice is basic word order, including how tense/aspect is marked, as well as any basic morphology, and a look at the pronominal systems of both these languages. I discuss the former in Section 3.1.2.1.1, and the latter in Section 3.1.2.1.2.

3.1.2.1.1 Word order and tense/aspect marking

Like the Kendayan-Salako languages described in this dissertation, both Desa and Ope seem to have the standard word order of SVO in basic declarative, transitive sentences. This is exemplified for Desa in (245), and Ope in (246).

	S	**V**	**O**	
(245)	Omo-ku	mem-angkol	aku.	*Desa*
	older.brother-1SG.II	AV-hit	1SG.I	
	‘My older brother hit me’			
(246)	Laki ya	m-ijaq	banyaq kayu.	*Ope*
	male that	AV-hold	many wood	
	‘The man is holding a lot of wood’			

Additionally, these languages pattern like Kendayan-Salako languages in how tense and aspect are marked. Tense is usually marked through the use of a temporal adverb, such as *sumare* ‘yesterday’ or *isoq*’ tomorrow’ in Desa, and *mari* ‘yesterday’ or *molap* ‘tomorrow’ in Ope.

(247) Akeq m-ali nasi sumare. *Desa*
grandfather AV-buy rice yesterday
'Grandfather bought rice yesterday'

(248) Aku mauq me-liet anaq-ku isoq.
1SG.I FUT AV-see child-1SG.II tomorrow
'I will see my child tomorrow'

(249) Inya m-oli boras mari. *Ope*
3SG.I AV-buy rice yesterday
'S/he bought rice yesterday'

(250) Aku nari molap.
1SG.I dance tomorrow
'I will dance tomorrow'

These languages also have aspectual markers to indicate tense/aspect: both languages have a progressive marker (*tongah* in both), a perfective marker (*(u)dah* in both), and a future tense marker (*mauq* in Desa, *daq* in Ope). Examples in context of all of these is provided below in (251-256).

(251) Aku **tongah** ny-apah kawan-ku. *Desa*
1SG.I PROG AV-call friend-1SG.II
'I am calling my friend'

(252) Inya **udah** m-ali baju sumare.
3SG.I PFT AV-buy shirt yesterday
'I bought a shirt yesterday'

(253) Kita **mauq** meng-ukor beibi to.
1PL.INCL.I FUT AV-skin pig this
'We will skin this pig'

(254) Laki ya **tongah** n-ulis buku. *Ope*
male that PROG AV-write book
'The man is writing a book'

(255) Iko **dah** ny-alap tayaq aku.
2SG.I PFT AV-take small.basket 1SG.I
'You took my basket'

(256) Aku **daq** n-otaq buah ya.
1SG.I FUT AV-cut fruit that
'I will cut the fruit'

Without any of the above temporal markers or adverbs, sentences can be interpreted as having either past, present, or future tense depending on context.

3.1.2.1.2 Pronominal systems

This section is dedicated to describing the pronominal systems of Desa and Ope. Like Ahe, Banana, and Balangin, neither Desa nor Ope have case marking on anything but pronouns. I will begin with Desa; Table 17 summarizes its pronominal system below.

	NOM (I)	ACC (I)	GEN (II)
1SG	aku	aku	ku
2SG	ikau	ikau	kau
3SG	inya	inya	nya
1PL.INCL	kita	kita	kita
1PL.EXCL	kame	kame	kame
3PL	sidaq	sidaq	sidaq

Table 17. Personal pronouns in Desa

Desa patterns similarly to Ahe in that it only has Set II pronouns in the singular, as evidenced by Table 17. No plural pronouns have any variation in form dependent upon case-marked positions. This is shown in the 1st singular below in (257-260).

1ST PERSON SINGULAR: TWO SETS

(257) **Aku** ndaq me-liet opai-opai.
1SG.I NEG AV-see what-RED
'I didn't see anybody'

(258) Yen adalah omoq-ku yang mem-angkol **aku**.
that EXIST older.brother-1SG.II COMP AV-hit 1SG.I
'It was my older brother who hit me'

(259) Lelaki tu yen m-ore kotaq kecek keq aku
man old that AV-give box small to 1SG.I
'The old man gave a small box to me'

(260) Aku n-uci rambut-**ku.**
1SG.I AV-wash hair-1SG.II
'I wash my hair'

(260) shows the Set II pronoun as the genitive form of the pronoun. This differs from the pronoun in other case-marked positions, including as an oblique, as shown in (257-259).

This is true in the 2nd and 3rd singular as well, as shown below. The 2nd singular set is given in (261-263), while the 3rd singular is given in (264-266).

2ND PERSON SINGULAR: TWO SETS

(261) **Ikau** tongah n-igang landing.
2SG.I PROG AV-hold knife
'You are holding a knife'

(262) Aku me-liet **ikau**.
1SG.I AV-see 2SG.I
'I see you'

(263) Inya beluda di landing-**kau**.
3SG.I spit on knife 2SG.I
'S/he spit on your knife'

3RD PERSON SINGULAR: TWO SETS

(264) **Inya** n-ain pokot kayu.
3SG.I AV-climb tree
'S/he climbs trees'

(265) Sidah m-ore **inya** duwiq.
3PL.I AV-give 3SG.I money
'They give him money'

(266) Rumah-**nya** di adap rumah-ku.
house-3SG.II in front house-1SG.II
'His/her house is in front of mine'

Each of the Set II pronoun varies from the Set I pronoun in omitting the first vowel sound: *aku* becomes *ku*, *ikau* becomes *kau*, and *inya* becomes *nya*. These seem to attach to the noun they are modifying.

This contrasts with the plural pronouns, which only have one set. This is exemplified by the 1st plural exclusive and 3rd plural in (267-268), and (268-270) respectively.

1ST PERSON PLURAL: ONE SET

(267) **Kame** me-liet diri kame sendiri.
1PL.EXCL.I AV-see REFL 1PL.I alone
'We see ourselves'

(268) Aku me-pecaya tetangga **kame**.
1SG.I AV-believe neighbor 1PL.EXCL.I
'I trust our neighbor'

3RD PERSON PLURAL: ONE SET

(269) **Sidaq** m-utiq benyaq bunga.
3PL.I AV-pick many flower
'The picked many flowers'

(270) Buku to mpo **sidaq**[42].
book this own 3PL.I
'This book is theirs'

Despite occurring in a genitive case-marked position, neither the 1st plural exclusive nor the 3rd plural have a differing form in (268) and (270). Desa does contrast from Ahe in terms of its 3rd plural; recall that, in Ahe, the 3rd plural utilized the same Set II pronoun as the 3rd singular. This is not the case in Desa, where the 3rd plural does not have a Set II form.

Next, I will discuss the pronominal system found in Ope. Table 18 summarizes this.

	NOM (I)	ACC (I)	GEN (II)
1SG	aku	aku	aku
2SG	iko	iko	iko
3SG	inya	inya	inya
1PL.INCL	nana	nana	nana
1PL.EXCL	kemana	kemana	kemana
2PL[43]	sidah	sidah	sidah
3PL	belinga	belinga	inya

Table 18. Personal pronouns in Ope

[42] This construction would take a Set II pronoun if it were singular. Compare to the following:

(1) Dua beibi mpo-ku.
two pig own-1SG.II
'These two pigs are mine'

The 1st singular occurs in its Set II form, *ku*, instead of its Set I form *aku*.

[43] The translation of *sidah* offered by speakers was 'you two' so I roughly consider this to be a dual pronoun. Both *sidah* and *belinga* were given when Indonesian constructions with *mereka* '3PL' were elicited.

As shown in Table 18, Ope only has Set I pronouns, regardless of the syntactic position they occur in. Even in the genitive, pronouns occur in their Set I form. This is shown for the 1st singular in (271-273).

1ST PERSON SINGULAR: ONE SET

(271) **Aku** naq m-unuh laki ya.
1SG.I NEG AV-kill male that
'I didn't kill that man'

(272) Iko m-ele **aku**.
2SG.I AV-see 1SG.I
'You see me'

(273) Tulong bori kaq **aku** lading ya.
please give to 1SG.I knife that
'Please hand me that knife'

(274) Apaq **aku** m-oli buku to.
father 1SG.I AV-buy book this
'My father is buying this book'

The data above shows that, regardless of syntactic position, the 1st singular pronoun only occurs as *aku.* This is true in a nominative position (271), an accusative position (272), an oblique position (273), and a genitive position (274). This is additionally true in the other two singular pronouns; consider the data in () and () below, for 2nd and 3rd singular respectively.

2ND PERSON SINGULAR: ONE SET

(275) **Iko** n-aroh bumbu keq dalap tayaq.
2SG.I AV-put spices into basket
'You put spices in the basket'

(276) Aku m-ele **iko**.
1SG.I AV-see 2SG.I
'I see you'

(277) Ino **iko** m-ane iko.
mother 2SG.I AV-wash 2SG.I
'Your mother washes you'

3RD PERSON SINGULAR: ONE SET

(278) **Inya** ng-obeq perau ya.
3SG.I AV-tie boat that
'S/he ties the boat'

(279) Iko n-luka **inya**.
2SG.I AV-wound 3SG.I
'You wounded him'

(280) Inya ny-erah diri **inya** keq polisi.
3SG.I AV-surrender REFL 3SG.I to police
'S/he surrendered herself/himself to the police'

Given this pattern, Ope contrasts with the majority of the other Malayic languages described in this chapter, as it lacks any Set II pronouns; even Balangin, which had the most reduced pronominal system of the Kendayan-Salako languages, had a Set II pronoun for the 1st singular.

This holds for the 1st and 2nd plural pronouns as well. The 1st person exclusive pronoun in the nominative and genitive positions is exemplified in (281-282) below, while the 2nd plural in the same positions is given in (283-284).

1ST PERSON PLURAL: ONE SET

(281) **Kemana** m-uka toko ya.
1PL.EXCL.I AV-open shop that
'We open the shop'

(282) Kemana m-ele **kemana** kediri.
1PL.EXCL.I AV-see 1PL.EXCL.I REFL
'We see ourselves'

2ND PERSON PLURAL: ONE SET

(283) **Sidah** m-ijaq tayaq ya.
2PL.I AV-hold basket that
'They are holding the basket'

(284) Banyaq uraq m-asoq pakai **sidah.**
many person AV-wash clothes 2PL.I
'Many people wash their clothes'

The 3rd plural, however, utilizes the 3rd singular Set I pronoun, similarly to Ahe and Banana. This is exemplified in (285-286) below.

3RD PERSON PLURAL: ONE SET + 3SG SET I

(285) **Belinga** n-aroh bumbu keq dalap tayaq.
3PL.I AV-put spices into basket
'They put the spices in the basket'

(286) Onaq-onaq m-ele **inya** kediri.
child-RED AV-see 3SG.I REFL
'The children see themselves'

Ope thus contrasts with the other four Malayic languages described here in having exclusively Set I pronouns, but it patterns like Ahe and Banana in utilizing a form of the 3rd singular for the 3rd plural pronoun in a genitive case-marking position. This is somewhat unexpected, given that the 3rd plural thus has a special status in Ope, being the only pronoun that has a differing Set II form in the genitive.

Desa, on the other hand, follows Ahe in having Set II forms for the singular pronouns. I speculated that the Kendayan-Salako languages at one point had Set II forms in the plural as well; this could additionally be true for Desa and Ope. Such an analysis would suggest that Ope has gone through the largest amount of loss, given that it has not retained any Set II forms.

3.1.2.2 Evidence of two types of undergoer voice

Both Desa and Ope have two types of undergoer voice: one which is morphologically marked (*di-* in Desa, *kona* in Ope), and one which is not morphologically marked, but occurs with a verb in its bare form. Before discussing these two types of undergoer voice in Section 3.1.2.2.2, I first discuss the actor voice in both of these languages, in Section 3.1.2.2.1. I then turn to the marked undergoer voice in Section 3.1.2.2.2, and the bare undergoer voice in Section 3.1.2.2.3. I discuss an additional passive construction, the 'accidental' passive, in Section 3.1.2.2.4.

3.1.2.2.1 Actor voice

Both of these languages exhibit an actor voice that is marked by a nasal prefix *N-*. Like in other langauges of Indonesia, actor voice occurs on syntactically transitive verbs. A variety of verbs in the actor voice are provided below in both languages. These include the transitive verbs *cut, read, tie, kill,* and *buy* (among others) as well as the ditransitive verb *give*. The bare form of the verb and its nasal prefixed equivalent is provided for each example.

AV IN DESA

(287) Aku **n-ungkong** buah yen. *(tungkong > nungkong)*
1SG.I AV-cut fruit that
'I cut the fruit'

(288) Ikau **m-eca** buku. *(beca > meca)*
2SG.I AV-read book
'You are reading a book'

(289) Ikau ndaq **ny-akit** inya. *(sakit > nyakit)*
2SG.I NEG AV-hurt 3SG.I
'You didn't hurt him/her'

(290) Sidaq **m-ore** inya duwiq. *(bore > more)*
3PL.I AV-give 3SG.I money
'They give him/her money'

(291) Opaq-ku **m-ali** buku to. *(bali > mali)*
father-1SG.II AV-buy book this
'My father bought this book'

AV IN OPE

(292) Aku **m-unuh** laki ya. *(bunuh > munuh)*
1SG.I AV-kill male that
'I killed the man'

(293) Inya **ng-obeq** perau yen. *(kobeq > ngobeq)*
3SG.I AV-tie boat that
'S/he ties the boat'

(294) Iko **m-ele** ikaq kaq sungai. *(bele > mele)*
2SG.I AV-see fish in river
'You see fish in the river'

(295) Aku **ng-ao** onaq betina aku. *(gao > ngao)*
1SG.I AV-look.for child female 1SG.I
'I'm looking for my daughter'

(296) Inya **ne-racutn** aso aku. *(racutn > neracutn)*
3SG.I AV-poison dog 1SG.I
'S/he poisoned my dog'

In Desa, it is additionally possible to have *me-* attach with *N-*. Consider the examples in (297-299) below.

(297) Seseurang yang **me**-ny-uri motor-nya.
someone COMP AV-N-steal motorcycle-3SG.II
'Someone stole his motorcycle'

(298) Kame **me**-ny-apah dokter.
1PL.EXCL.I AV-N-call doctor
'We call the doctor'

(299) Aku **me**-m-aliq-an perau yen.
1SG.I AV-N-capsize-CAUS boat that
'I capsized the boat'

In Section 3.3 I discuss and provide evidence that *me-* and *N-* in Desa are not two instantiations of the same prefix, but are actually two separate prefixes with separate functions.

In terms of obligatoriness of the nasal prefix, it does seem that, in Desa, the nasal prefix can be omitted in casual speech. It is nearly always provided in elicitation, however. In Ope, on the other hand, the nasal prefix seems obligatory, with bare verbs being deemed ungrammatical in actor-oriented constructions.

3.1.2.2.2 Marked undergoer voice

Both Desa and Ope have a marked undergoer voice, although they differ in how this is marked. I will begin with Desa, which marks this type of undergoer voice with the prefix *di-*, patterning like the three Kendayan-Salako languages above. This *di-* undergoer voice additionally results in UVA word order, with agents being entirely optional. A few examples of this type of construction are given below in (300-302).

U **V** **A**
(300) Perau yen **di**-ikaq oleh inya.
boat that PV-tie by 3SG.I
'The boat is tied by him/her'

(301) Agung-ku **di**-ambeq oleh ikau.
basket-1SG.II PV-take by 2SG.I
'My basket was taken by you'

(302) Kelapa **di**-jual oleh lelaki yen.
coconut PV-sell by man that
'Coconuts are sold by the man'

Verbs are prefixed with *di-* with agents following. Agents are preceded by *oleh* 'by'; this *di-* undergoer voice thus shares many similarities with the same type of voice in Indonesian, which additionally uses both *di-* and *oleh*. As mentioned above, agents are optional; it is entirely possible to omit agents in any of the constructions provided in (300-302); this is shown for (302) below in (303).

(303) Kelapa yen di-jual.
coconut that PV-sell
'Coconuts are sold'

Agents additionally have some movability within the sentence. Adjuncts can occur postverbally, with the agent coming after, or adjuncts can be sentence-final, after the agent. These two possibilities are shown in (304-305):

(304) Kayu di-tungkong pakei landing oleh ikau.
wood PV-cut with knife by 2SG.I
'Wood is cut with a knife by you'

(305) Kayu di-tungkong oleh ikau pakei landing.
wood PV-cut by 2SG.I with knife
'Wood is cut with a knife by you'

Agents in the undergoer voice (non-focused agents) utilize the Set I form of the pronoun; in (300), the agent occurs as *inya*, not *nya*, and in (305), the agent occurs as *ikau* instead of *kau*. This contrasts with Ahe, where non-focused agents occur in their Set II form. In fact, Desa seems most similar to Banana, as neither repeat *di-* prior to the agent (instead using another marker, likely a preposition), and pronominal agents occur in their Set I form instead of their Set II form.

Ope, in terms of its marked undergoer voice, seems to contrast the most from the other Malayic languages described in this dissertation. It is the only Malayic language that does not prefix the verb with *di-* in undergoer voice; instead, it uses *kona.* The marker *kona* occurs preverbally, like in other Malayic languages, and Ope reflects the same change in word order from the actor voice that we see in Desa, Ahe,

Balangin, and Banana, as its undergoer voice utilizes UVA word order. Some examples of this voice are provided below in (306-308).

	U			**V**	**A**
(306)	Tayaq	aku	**kona**	alap	iko.
	basket	1SG.I	PV	take	2SG.I
	'My basket was taken by you'				
(307)	Perau	ya	**kona**	kobeq	inya.
	boat	that	PV	tie	3SG.I
	'The boat is tied by him/her'				
(308)	Banyaq	kayu	**kona**	pijaq	laki ya.
	many	wood	PV	hold	male that
	'A lot of wood is held by that man'				

Agents occur immediately postverbal, with no additional maker (like *di-* in Ahe) or preposition (*oleh* in Desa, *gawe* in Banana) to mark them. This is similar to what is found in Balangin. There is some evidence that Ope uses *oleh* to mark agents, but this only occurs when the agent cannot be immediately postverbal, like in (309).

(309)	Bumbu	kona	taroh	keq	dalap	oleh	inya.
	spices	PV	put	in	basket	by	3SG.I
	'Spices are put in the basket by him/her'						

However, while (309) is possible, speakers find it a little odd. It is more acceptable to move the adjunct to the sentence-final position, allowing the agent to occupy the postverbal slot, as in (310).

(310)	Bumbu	kona	taroh	inya	keq	dalap.
	spices	PV	put	3SG.I	in	basket
	'Spices are put in the basket by him/her'					

Agents are additionally optional, as evidenced by (311).

(311)	Ikaq	kona	bele	keq	sungai.
	fish	PV	see	in	river
	'Fish are seen in the river'				

Ope only has one set in its pronominal system, Set I, and agents in these undergoer-oriented constructions use this set.

3.1.2.2.3 Bare undergoer voice

In addition to a marked undergoer voice, both Desa and Ope have an additional undergoer-oriented construction that occurs with a bare verb. Like the Kendayan-Salako languages, this construction again has a sentence-intial undergoer, but the order of the verb and agent is reversed, resulting in UAV. This is shown in Desa in (312) and in Ope in (313).

(312) Rumah to opaq-ku bangun. *Desa*
house this father-1SG.I build
'This house was built by my father'

(313) Dango ntu omaq aku buwaq. *Ope*
house this father 1SG.I build
'This house was builty by my father'

This bare undergoer voice is quite similar in Desa and Ope. In both, agents are obligatory; omitting them results in ungrammaticality.

(314) *Rumah to bangun. *Desa*
house this build
'This house was built'

(315) *Dango ntu buwaq. *Ope*
house this build
'This house was built'

Additionally, both Desa and Ope allow a variety of different agents in this construction; unlike Indonesian, agents can be full DPs, as evidenced by (312) and (313). Pronouns are also possible as agents in this construction.

(316) Buku ikau beca. *Desa*
book 1SG.I read
'The book is read by you'

(317) Bunga kitu tanam di taman.
flower 1PL.INCL.I plant in field
'Flowers are planted in the field by us'

(318) Buah ya dah ku-n-otaq. *Ope*
fruit that PFT 1SG.II-NONCOMP-cut
'Fruit was cut by me'

In the Desa examples in (316-317), the pronominal agents occur in Set I form, like in the marked undergoer voice. The Ope example in (318) is particularly interesting, as the pronominal agent occurs in what looks like a Set II form – but Ope only utilizes Set I forms for any case-marked positions. The occurrence of *ku* in (318) seems to show that the bare undergoer voice in Ope uses a pronominal set that is distinct from any set used in the actor voice[44].

These examples also show that Desa and Ope follow Indonesian and the three Kendayan-Salako languages in how temporal markers are ordered: prior to the agent. This can been seen for Desa below in (319), and is evident from the Ope example in (318) where *dah* precedes the agent.

(319) Buku yen tongah lelaki yen tulis.
book that PROG man that write
'The book is being written by the man'

In (319), *tongah* precedes both the agent and the verb, instead of its actor voice position between the agent and verb.

3.1.2.2.4 Other passive constructions

Before concluding this section, I wish to discuss one additional passive construction: the 'accidental' passive. I discussed this for the three Kendayan-Salako languages in Section 3.1.1 above, and Desa and Ope seem to pattern similarly. In both Desa and Ope, this is marked by the prefix *te-*.

(320) Aso yen **te**-bunoh bekelai. *Desa*
dog that ACCID-kill fight
'The dog was (accidentally) killed during a fight'

(321) Perau yen **te**-baliq oleh aku.
boat that ACCID-capsize by 1SG.I
'The boat was (accidentally) capsized by me'

[44] It is obviously of interest to see if this holds for all pronouns. Unfortunately, this is the only example of this phenomenon in Ope. Due to this lack of data, I cannot at this time conclude whether this pattern is restricted to the 1st singular (like in Balangin), or whether it applies to either a) all pronouns or b) all singular pronouns.

(322) Pinang yen **te**-jetuq.
cup that ACCID-fall
'The cup was (accidentally) dropped'

(323) Perau ya **te**-baleq. *Ope*
boat that ACCID-capsize
'The boat was (accidentally) capsized'

(324) Pintu ya **te**-buka.
door that ACCID-open
'The door was (accidentally) opened'

Accidental passives can occur with or without agents ((321) has an overt agent), and mirrors other passive constructions in that undergoers are in the grammatical subject position. Note that (322) shows that undergoers can additionally be derived from unaccusatives as well (*jetu* 'fall' is intransitive).

3.1.2.3 A restricted use of the nasal prefix

An important characteristic of these two non-Kendayan-Salako languages is a restricted use of the nasal prefix. Recall that Ahe, Banana, and Balangin all allow the co-occurrence of the nasal prefix and undergoer voice, in both the morphologically marked *di-* undergoer voice and the bare undergoer voice. Desa and Ope both diverge from this, but at a different scale. While Ope allows the nasal prefix in the bare undergoer voice but disallows it in the *kona* undergoer voice, Desa completely restricts the nasal prefix in both types of undergoer voice. I begin with Ope, as it is less restricted.

Ope crucially disallows the nasal prefix in any undergoer-oriented construction marked with *kona*. This is regardless of agent, tense/aspect, and mood. Regardless of agent, the nasal prefix cannot be added, as seen in (325-326) below.

(325a) Puqkayu kona angoq aku. *Ope*
wood PV lift 1SG.I
'Wood is lifted by me'

(325b) *Puqkayu kona ny-angoq aku.
wood PV NONCOMP-lift 1SG.I
'Wood is lifted by me'

(326a) Tayaq ya kona pijaq sidah.
basket that PV hold 2PL.I
'The basket is being held by those two'

(326b) *Tayaq ya kona m-ijaq sidah.
basket that PV NONCOMP-hold 2PL.I
'The basket is being held by those two'

This is true regardless of tense and aspect as well. Since Kendayan-Salako languages allow the nasal prefix in undergoer-oriented constructions that have completed actions, we might expect this same restriction for Ope as well. As evidenced by (327-328) below, this is not the case.

(327a) Buku to daq kona bali.
book this FUT UV buy
'This book will be bought'

(327b) *Buku to daq kona m-ali.
book this FUT PV NONCOMP-buy
'This book will be bought'

(328a) Buku to dah kona bali.
book this PFT PV buy
'This book was bought'

(328b) *Buku to dah kona m-ali.
book this PFT UV NONCOMP-buy
'This book was bought'

If Ope followed the same pattern as the Kendayan-Salako languages, we would expect that (328b) would be grammatical, but it is not. The nasal prefix is disallowed in non-completed actions as well, as it cannot occur even when the perfective marker *daq* is used in (327b).

There is evidence, however, that the nasal prefix is allowed in the bare undergoer voice. Recall this example from earlier, repeated here in (330).

(330) Buah ya daq ku-n-otaq.
fruit that FUT 1SG.II-NONCOMP-cut
'Fruit will be cut by me'

The sentence in (330) was interesting earlier as it utilizes an unexpected pronominal form. However, it also shows the nasal prefix in an undergoer-oriented construction with the future marker *daq*. This suggests a) that the nasal prefix is not completely disallowed in undergoer-oriented constructions, and b) that it is not restricted by completion of an event, like in Kendayan-Salako languages. Note that the nasal

prefix is not obligatorily used in this voice (even with the perfective marker *dah*), as evidenced by (331-332).

(331) Kayu keq kampong ya onaq ya taiq.
wood in village that child that climb
'Every tree in the village was climbed by the child'

(332) Dokter dah kemana soro.
doctor PFT 1PL.EXCL.I call
'The doctor was called by us'

It is unclear, then, what function the nasal prefix plays when being used in the undergoer voice. More data is necessary to determine if and how it is restricted being used outside of the actor voice.

The most restricted use of the nasal prefix in any of these five Malayic languages is found in Desa. In Desa, the nasal prefix is never allowed in any undergoer-oriented construction. This is true of the *di-* undergoer construction, as exemplified by the ungrammaticality of (333b) and (334b) below.

(333a) Sepatu di-boli oleh onaq yen. *Desa*
shoes PV-buy by child that
'Shoes are bought by the child'

(333b) *Sepatu di-m-oli oleh onaq yen.
shoes PV-NONCOMP-buy by child that
'Shoes are bought by the child'

(334a) Kayu di-bewaq oleh inya.
wood PV-bring by 3SG.I
'Wood was brought by him'

(334b) *Kayu di-m-ewaq oleh inya.
wood PV-NONCOMP-bring by 3SG.I
'Wood was brought by him'

This is true regardless of aspect as well. In all sentences elicited, the nasal prefix was never affixed onto the verb in a *di-* undergoer construction. In the following sentences, a variety of different temporal markers occur, yet the nasal prefix never does.

(335) Buku yen tongah di-tulis oleh lelaki yen.
book that PROG PV-write by man that
'The book is being written by the man'

(336) Ali mau di-kirim surat to oleh kame.
Ali FUT PV-send letter this by 1PL.EXCL.I
'Ali will be sent a letter by us'

(337) Buku yen udah di-tulis.
book that PFT PV-write
'The book has been written'

Even if a marker of a completed action is used like in (337), the verb still does not occur with the nasal prefix. This restriction additionally is true in the bare undergoer voice as well.

(338a) Meja yen aku tepel.
table that 1SG.I touch
'I touch the table'

(338b) *Meja yen aku n-epel.
table that 1SG.I NONCOMP-touch
'I touch the table'

Similarly to the *di-* undergoer voice, a variety of bare undergoer voice constructions were elicited with no occurrence of the nasal prefix. A handful of these are given in (339-340).

(339) Buku yen tongah lelaki yen tulis.
book that PROG man that write
'The book is being written by the man'

(340) Lelaki yen aku bunoh.
man that 1SG.I kill
'I kill the man'

(341) Dokter udah kame sapah.
doctor PFT 1PL.EXCL.I call
'A doctor was called by us'

This suggests that, regardless of tense or aspect, the nasal prefix is disallowed in any undergoer-oriented construction in Desa.

3.1.3 Summary: Patterns in Malayic languages

Before moving onto a description of voice in Land Dayak languages, I would first like to summarize some descriptive (and potentially typological) patterns discussed in the Malayic languages described here. A range of interesting patterns have emerged from the data provided here, both at the subgrouping level of Malayic and at a lower subgrouping level. I begin with Table 19, which summarizes important similarities and distinctions between the five languages in the *di-* undergoer voice, and Table 20, which summarizes important similarities and distinctions in the bare undergoer voice.

	FEATURES OF THE *DI-* UNDERGOER VOICE					
	VOICE MARKING	**WORD ORDER**	**OPTIONAL AGENT?**	**AGENT MARKING**	**FORM OF THE AGENT**	**NASAL PREFIX?**
AHE	*di-*	UVA	✓	doubled voice	Set II	✓
BANANA	*di-*	UVA	✓	preposition	Set I	✓
BALANGIN	*di-*	UVA	✓	none	Set I	✓
DESA	*di-*	UVA	✓	preposition	Set I	*
OPE	*kona*	UVA	✓	none	Set I	*

Table 19. A summary of the *di-* undergoer voice in Malayic languages

	FEATURES OF THE BARE UNDERGOER VOICE					
	VOICE MARKING	**WORD ORDER**	**OPTIONAL AGENT?**	**TYPES OF AGENTS**	**FORM OF THE AGENT**	**NASAL PREFIX?**
AHE	∅	UAV	*	full DP	Set I (1ST) / II	✓
BANANA	∅	UAV	*	full DP	Set I	✓
BALANGIN	∅	UAV	*	full DP	Set I	✓
DESA	∅	UAV	*	full DP	Set I	*
OPE	∅	UAV	*	full DP	Set I	✓

Table 20. A summary of the bare undergoer voice in Malayic languages

One observation from these two tables is that there is significantly more variablitiy in the *di-* undergoer voice. Languages differ in this type of undergoer voice in both in the form of the agent and how the agent is marked. Additionally, languages contrast in whether they can use the nasal prefix in either type of the undergoer voice, only one type of undergoer voice, or both. These are not only descriptively interesting, as they reveal microvariation in Malayic voice systems, but additionally are important distinctions that will have to be accounted for in an analysis of voice in these languages. I discuss how these two types of undergoer voice are similar to the *passive voice* and the *object voice*, as argued for more well-studied languages of western Indonesia in Section 3.3.

I now turn to a discussion of some of the crucial patterns revealed in this section.

PATTERN #1 OF MALAYIC LANGUAGES:

Malayic languages have two types of undergoer voice: one that is marked, and one that is not.

All five Malayic languages described here have two types of undergoer-oriented construction: one in which the verb is in some way marked (most commonly morphologically with *di-* but not always), and one that occurs with a 'bare' (in terms of a dedicated UV marker) verb. These two types of undergoer voice share the same word order in all five languages: the undergoer always occurs in the sentence-initial position, but the order of the verb and agent change. In the marked undergoer voice, agents follow the verb, while in the bare undergoer voice, the agent precedes the verb.

These two constructions are reminiscent of Indonesian and Malay; the bare undergoer voice is often referred to as the 'object voice' and shares many of the same features that this construction has in these Malayic languages have. Furthermore, *di-* is used to morphologically mark undergoer voice in Indonesian as well. Since Indonesian and Malay are also part of the Malayic subgroup, this is unsurprising. What this dissertation shows, then, is that Malayic languages spoken in Borneo pattern like Malayic languages outside of Borneo in terms of their voice systems.

PATTERN #2 OF MALAYIC LANGUAGES:

Malayic languages generally use *di-* to mark undergoer voice.

Four of the five languages described here utilize *di-* to mark one type of the undergoer voice. Ope is the only exception here. It has been noted that *di-* is widely used in Malayic languages before (Ross 2004) but recall that Malayic languages (with the exception of Standard Indonesian/Malay) are widely understudied. This dissertation provides evidence that this pattern holds true for an additional four Malayic languages. Using Smith's (2017) internal subgrouping, additional West Bornean Malayic languages are Besemah, Iban, Seberuang, Mualang, and Keninjal. Of these, there is evidence that Besemah uses *di-* (McDonnell 2016), and Mualang uses *da-* (Tija 2007). I am not aware of any work on Iban, Seberuang, or Keninjal that includes enough syntactic description of voice. Mualang differs the most, using *da-*, but this is still quite similar. Ope, then, seems to be an outlier in using *kona*.

What is particularly interesting about this construction in Ope is the form of the marker is quite similar to *kana/kena* 'undergo/got', which is used in periphrastic passives in a multitude of Malayic languages. In other Malayic languages, the periphrastic passive is generally described as being used in describing unfortunate events. In Ope, *kona* is used as a general undergoer marker instead. One could speculate that *kona* originated as a periphrastic passive marker in Ope, but was repurposed into a broader usage at some point.

PATTERN #3 OF MALAYIC LANGUAGES:

Malayic languages have a relatively reduced pronominal system.

Several languages of Borneo have a pronominal system that reflects its prominence. Languages of Sabah and Lun Bawang (Clayre 1996) for instance, have three sets of pronouns: focused form, non-focused, non-actor form, and non-focus form. This is not a feature found in Indonesian and Malay, and these five Malayic languages described seem to show some variation in their pronominal systems. However, all have a reduced system compared to languages of Sabah, as none have a three-set system. Of the five, only Ahe has a two-set system that is consistently used. Ahe has Set I pronouns that are used for the undergoer and the focused actor, and Set II pronouns that are used non-focused actor and in the genitive (this is similar to the system Clayre (1996) describes for Sa'ban).

The other four languages all have an even more reduced system than this. Set II pronouns, even the language has them, are exclusively used for case-marking relations, not voice relations.

I now turn to patterns exclusive to Kendayan-Salako languages.

PATTERN #1 OF KENDAYAN-SALAKO LANGUAGES:

Kendayan-Salako languages use the nasal prefix to indicate more than actor voice.

Kendayan-Salako languages seem to have a feature that is unique from other Malayic languages: the use of the nasal prefix to indicate completed actions in undergoer voice. This was noted by Ross (2004) and Adelaar (2005), and the data from Ahe, Banana, and Balangin further cement this. This suggests a re-analysis of the nasal prefix in these languages, as it would be unexpected for a true 'actor voice morpheme' to be used in a non-actor voice context.

The fact that this feature does not exist in Desa, Besemah (McDonnell 2016), Mualang (Tija 2007), or Standard Indonesian/Malay suggests that it is only found in Kendayan-Salako languages. Ope is an interesting case, as it is an outlier in many ways, including allowing the nasal prefix in only one type of undergoer voice. It is unclear where Ope fits in general.

3.2 Voice in Land Dayak languages

This section describes the voice system of five Land Dayak languages: Ribun, Beaye, Ba'aje, Banyaduq, and Bekati. I begin with the only Southern Land Dayak language, Ribun. I then turn to the four Benyadu-Bekati' languages, which I have further divided into two smaller groups: Banyaduq and Bekati in one group, and Beaye and Ba'aje in another. I have divided these as such, as there are stark similarities between the two in each group, and this may potentially indicate a further necessary subdivision within this subgroup. The description offered in this section is focused on voice, but I include other relevant syntactic details when necessary, given the previously undocumented status of the majority of these

languages.

Section 3.2.1 and all included subsections offer a description of Ribun, a Southern Land Dayak language.

Section 3.2.2 discusses Benyadu-Bekati' languages, with Banyaduq and Bekati in Section 3.2.2.1, and Beaye and Ba'aje in 3.2.2.2.

3.2.1 Southern Land Dayak: Ribun

This section is dedicated to describing the voice system of Ribun. As Ribun is the only Southern Land Dayak language included in this dissertation, it receives its own dedicated section. This, unfortunately, means that patterns of voice in SLD languages will be based upon only one language. First, I will briefly discuss the basic syntax of Ribun, which includes word order, aspect/mood marking, and some morphological marking. I then turn to the key characteristics of voice in Ribun, which include a) an undergoer voice marked by *leq*, b) some variability in the application of undergoer voice, and c) the ability of the nasal prefix to occur in undergoer voice.

3.2.1.1 Basic syntactic features of Ribun

3.2.1.1.1 Word order and tense/aspect marking

Ribun, like the Malayic languages described in 3.1, seems to have standard word order of SVO. This is demonstrated in (342-343).

	S	**V**	**O**	
(342)	Omo	m-aco	buku.	*Ribun*
	2SG.I	AV-read	book	
	'You read a book'			

(343)	Oko	n-tilai	monoq.
	1SG.I	AV-see	chicken
	'I see a chicken'		

Ribun additionally follows Malayic languages like Banana and Balangin marking tense and aspect through the use of a) temporal adverbs, such as *mindun* 'yesterday', *juji* 'tomorrow', *ondu nto* 'today', and *ato* 'later', and and b) aspectual markers. (344-347) show the four temporal adverbs listed in context.

(344)	Oko	n-oping	gelumbang	han	ondu	ntu.
	1SG.I	AV-hear	storm	that	day	this
	'I heard the storm today'					

(345) Oko jotu mindun.
1SG.I fall yesterday
'I fell yesterday'

(346) Onoq sade m-endang kursi duji.
child AV-kick chair tomorrow
'The child will kick the chair tomorrow'

(347) Oko n-oping gelumbang han ato.
1SG.I AV-hear storm this later
'I heard the storm later'

The second way aspect and tense are expressed in Ribun is through the use of aspectual markers, like *jeh* 'PFT' and *haq* 'FUT'[45]. These are shown in (348-349).

(348) Dokter **jeh** leq m-iyu.
doctor PFT UV AV-call
'The doctor was already called'

(349) Mimoq **haq** n-isiq tohis han.
1PL.INCL.I FUT AV-tie boat that
'We will tie the boat'

While *jeh* and *haq* seem analogous with *sudah* (the perfective marker) and *akan* (future tense marker) in Indonesian, it is unclear if these have identical semantics. This is a question for future research.

3.2.1.1.2 Pronominal system

This section describes the pronominal system found in Ribun. Table 7 summarizes this system.

	NOM (I)	ACC (I)	GEN (II)
1SG	oko	oko	oko/ko
2SG	omo	omo	omo
3SG	odi(ya)	odi(ya)	odi(ya)
1PL.INCL	odi(ya)	odi(ya)	odi(ya)
1PL.EXCL	mimoq	mimoq	mimoq
3PL	odi(ya)	odi(ya)	odi(ya)

Table 21. Personal pronouns in Ribun

[45] It is unclear if Ribun has a dedicated progressive marker. The Indonesian *sedang* was often provided, but this could be elicitation bias. Other times, no marker was given at all, suggesting that sentences with the proper context can be interpreted as having progressive aspect without any kind of dedicated marking.

There are a few comments to be made about the data in Table 7: one, there is a significant amount of repetition among these forms. Both the singular and plural 3rd person and the 1st person inclusive are *odi(ya)*[46]. A second comment is that 1st singular form, in the genitive position, can occur as the Set I pronoun, *oko*, but can additionally be shortened to *ko*, which only occurs in this position (thus representing a Set II form). This differs from Ahe and Desa in that this Set II pronoun is optional; the Set I pronoun can be used here as well. The full range of pronominal forms is shown in (350-354).

1ST PERSON SINGULAR: TWO SETS + SET II OPTIONAL

(350) **Oko** ngkaq m-ihis boha.
1SG.I NEG AV-buy rice
'I did not buy rice'

(351) Omo ny-oniq **oko**.
2SG.I AV-wound 1SG.I
'You wound me'

(352) Tulong m-unjo lading han kone **oko**.
please AV-give knife that to 1SG.I
'Please give that knife to me'

(353) Maq **oko** m-uhuv podi.
mother 1SG.I AV-plant rice
'My mother plants rice'

(354) Oko ny-erah diri-**ko** polisi.
1SG.I AV-surrender REFL-1SG.II police
'I surrendered myself to the police'

The Set I pronoun, *oko*, can be used in all case-marked positions: nominative (350), accusative (351), oblique (352), and genitive (353). The Set II pronoun can only be used in the genitive (354).

There is currently no evidence that any other pronoun in Ribun can use a Set II pronoun. The 2nd singular, for instance, utilizes the Set I pronoun in all positions, and no Set II pronoun was ever provided. This is shown in (355-357) below.

[46] There is a possiblity that *odiya* is the not correct form for the 1st person inclusive, but rathered was given because there is a gap here. Ribun may not an inclusive form of the 1st person pronoun, so speakers offer *odiya*, which seems somewhat underspecified, instead. It is curious that speakers would not give *mimoq*, however.

2ND PERSON SINGULAR: ONE SET

(355) **Omo** m-ande omo todi.
2SG.I AV-wash 2SG.I REFL
'You wash yourself'

(356) Oko n-tilai **omo**.
1SG.I AV-see 2SG.I
'I see you'

(357) Umaq **omo** m-ande omo.
mother 2SG.I AV-wash 2SG.I
'Your mother washes you'

We might predict that something like *?umaq-mo* is possible for (357), but there is no evidence of this at this time.

The 3rd person additionally only has one set of pronouns. Unlike the 1st singular, which has a shortened form of the Set I pronoun as a Set II pronoun, the inclusion of the final syllable *ya* does not seem to be dependent upon syntactic position: the full form, *odiya*, can occur in a nominative position, but can additionally occur in a genitive position. This is additionally true of the shortened form, *odi*. This is exemplified for the singular in (358-359) and in the plural in (360-361).

3RD PERSON SINGULAR: ONE SET

(358) **Odiya** jatuth pinga.
3.I fall plate
'S/he dropped the plate'

(359) **Odi** ny-erah diri **odiya** kone polisi.
3.I AV-surrender REFL 3.I to police
'He surrendered himself to the police'

3RD PERSON PLURAL: ONE SET

(360) **Odiya** m-ondiq keq gereja mohing nto.
3.I AV-come to church night this
'They are coming to church tonight'

(361) Obiyat onyo m-bei gaqodo **odi.**
many person AV-wash clothes 3.I
'Many people wash their clothes'

The 1st plural *mimoq* also only has one set of pronouns, as shown in (362-363) below.

1ST PERSON PLURAL: ONE SET

(362) **Mimoq** m-iyu dokter.
1PL.EXCL.I AV-call doctor
'We call a doctor'

(363) Janeq **mimoq** abu.
pig 1PL.EXCL.I escape
'Our pig escaped'

In Ribun, then, there is only evidence of multiple pronoun sets in the 1st singular, and even this distinction is optional, with the Set I pronoun being available regardless of case marking.

3.2.1.2 Evidence for one type of undergoer voice

Recall that the Malayic languages discussed in Section 3.1 all followed Indonesian/Malay in having two types of undergoer voice: one that is marked, often through morphology, and one that is not. This is not true of Ribun. Ribun seems to only have one type of undergoer voice, which is indicated through the use of a preverbal marker *leq*. However, there is some variablity in how this is executed. I begin with a brief discussion of actor voice in 3.2.1.2.1. I then turn to the undergoer voice in 3.2.1.2.2, with specifics of its marker *leq* in 3.2.1.2.2.1.

3.2.1.2.1 Actor voice

Following many languages spoken in Indonesia, and the five Malayic languages discussed earlier, syntactically transitive verbs in the actor voice occur with a nasal prefix *N-*. A variety of verbs in the actor voice are provided below in Ribun. These include the transitive verbs *see, tie, hear,* and *plant* (among others) as well as the ditransitive verb *give*.

(364) Oko **n-tilai** onoq sade-sade.
1SG.I AV-see child-RED
'I see the children'

(365) Nahi han **n-ulis** buku.
man that AV-write book
'The man is writing a book'

(366) Odi **n-isiq** tohis han.
3.I AV-tie boat that
'S/he ties the boat'

(367) Mimoq **m-uhuv** bungo han.
1PL.EXCLI AV-plant flower that
'We plant flowers'

(368) Oko jeh **n-oping** gelumbalong han.
1SG.I PFT AV-hear storm that
'I hear the storm'

(369) Omo **n-ulong** odiya.
2SG.I AV-help 3.I
'You helped him'

(370) Oko **m-unjo** buku kone kawan-ko.
1SG.I AV-give book to friend-1SG.II
'I give a book to my friend'

Syntactically transitive verbs overwhelmingly occur with a nasal prefix. Interestingly, however, it is difficult to determine what the bare forms of these verbs are. This can be partially attributed to the fact that many of the syntactic constructions that do not take the nasal prefix in more widely studied languages (for instance, object voice, the canonical passive, and imperatives) still retain the nasal prefix in Ribun. In fact, many expected bare forms of verbs are simply not possible according to speakers: **tilai* for (364) and **piyu/biyu* for *miyu* 'to take', for example. This contrasts with the Malayic languages described earlier, which all have clear bare forms of verbs. This will be discussed further in Section 3.3.

3.2.1.2.2 Undergoer voice with leq

Undergoer voice in Ribun is indicated two ways: through a change in word order, with the undergoer occurring in the sentence-initial position, following by the agent, then the verb (UAV), and through the use of a preverbal marker *leq*. A few examples of the undergoer voice are given below in (371-373).

	U		**A**	**V**
(371)	Buah han	**leq**	oko	m-iyo.
	fruit that	UV	1SG.I	AV-cut

'The fruit is cut by me'

(372) Nahi han **leq** polisi n-oki.
man that UV police AV-catch
'The man was caught by the police'

(373) Setiep koyuv **leq** sade han ny-ako.
every tree UV child that AV-climb
'Every tree was climbed by the child'

Agents can be pronouns (as in (371)) or full DPs (in (372-373)). Agents are additionally optional; the marker *leq* still occurs preverbally without an agent in this case.

(374) Odiya leq ny-oniq.
3.I UV AV-wound
'S/he was wounded'

(375) Homing han leq huho.
house that UV destroy
'The house was destroyed'

When aspect, mood, or negation is indicated, these markers must precede *leq*. This is exemplified for negation in (376), the perfective marker *jeh* in (377), and *jadi*, potentially a potential marker[47], in (378).

(376) Homing han **ngkaq** leq odi huho.
house that NEG UV 3.I destroy
'The house was not destroyed by him/her'

(377) Duwiq **jeh** leq odi m-unjo.
money PFT UV 3.I AV-give
'Money was given by him'

[47] There are a few modals in Ribun. Here, *jadi* seems to be associated with the potential of something being done. There is additionally *taq* and *panda*.

(1) Odiya taq leq m-unjo duwiq.
3.I can UV AV-give money
'S/he can be given money'

(2) Bungo bah panda leq n-opaq.
flower new can UV AV-find
'New flowers can be found'

At this point, there is not enough evidence to determine their exact function. Both seem to have do with ability in some sense, but the difference between the two is not clear. I leave this for future research.

(378) Motor **jadi** leq onyo n-angku nohing ondu.
motorcycle can UV person AV-steal night day
'A motorcycle could have been stolen last night'

These markers must occur prior to both the agent and the verb. For instance, they cannot occur in their canonical actor voice position (between the agent and the verb). This is shown for negation in (377).

(377) *Homing han leq odi ngkaq huho.
house that UV 3.I NEG destroy
''The house was not destroyed by him/her'

This ordering of aspect and agent is reminiscent of the object voice in Indonesian/Malay and the bare undergoer voice in the five Malayic voices described above.

Pronominal agents in the undergoer voice occur as their Set I form. Recall that most pronouns in Ribun only have one set, but the 1st singular can be shortened in a genitive case-marked position. There is no evidence that the 1st singular pronoun can occur in its Set II form in the undergoer voice; instead, it occurs in its Set I form. This is shown in (371) above, with additional examples in (378-79) below.

(378) Nahi han leq oko ng-kombis.
man that UV 1SG.I AV-kill
'The man was killed by me'

(379) Gelumbang han leq oko n-oping.
storm that UV 1SG.I AV-hear
'The storm was heard by me'

3.2.1.2.2.1 Some characteristics of leq

Undergoer voice in Ribun has a few important details. One is the optionality of the marker *leq*. As long as UAV word order is adhered to, *leq* can be omitted in undergoer constructions.

(380) Sayoq maq-ko cihing kone Liau.
vegetables mother-1SG.II Send to Meliau
'Food is sent to Meliau by my mother'

(381) Ikan han omo doh.
fish that 2SG.I eat
'The fish was eaten by you'

(382) Koyu deq bah taq oko m-onki.
thing COMP new can 1SG.I AV-make
'A new thing can be made by me'

(383) Bungo bah odi n-apaq teq ahutn.
flower new 3.I AV-find by river
'New flowers are found by the river by us'

In (380-383), the undergoer still occurs in the sentence-initial position, followed by the agent, and then the verb. Aspectual/mood markers, like *taq* in (380), precede both the agent and the verb. The only difference in these compared to the constructions given in the section above is the omission of *leq*. However, it is also possible to omit *leq* when there is no agent:

(384) Gaqodo m-bei teq ahutn nto.
clothes AV-wash in river this
'Clothes are washed in this river'

(385) Ponaq haq cihing kone Liau.
food FUT send to Meliau
'Food will be sent to Meliau'

(386) Cuhaq nto haq cihing kone Ali.
letter this FUT send to Ali
'This letter will be sent to Ali'

In each of (384-386), only an undergoer-oriented reading is possible, as the verb in each is missing an internal argument and therefore cannot be grammatical as an actor voice construction. Furthermore, the undergoer in each of these is inanimate with verbs that require animate subjects. This might suggest that *leq* can only be omitted if there is no potential ambiguity in meaning. However, it is possible to omit *leq* even with animate undergoers. Consider (387).

(387) Odiya taq m-unjo duwiq.
3.I can AV-give money
'S/he can be given money' OR 'S/he can give money'

(387) was given as an undergoer construction, but the lack of *leq* leads to ambiguity[48]. Context would be required to determine which of the readings is the intended. This suggests that *leq* can be omitted even if it can lead to amibiguity. It should be noted, however, that *leq* is more frequently given in all undergoer constructions than it is omitted.

The marker *leq* can additionally be shortened if the preceding word starts with a vowel. This occurs most frequently prior to pronominal agents, as most pronouns in Ribun begin with a vowel. Both the 1st singular and the 2nd singular, for example, occur with a shortened marker in (388-389) and (390) below, respectively.

(388) Mija han l'oko n-oki.
table that UV-1SG.I AV-touch
'The table is touched by me'

(389) Cuhaq han jeh l'oko m-aco.
letter that PFT UV-1SG.I UV-read
'The letter was read by me'

(390) Abang oko l'omo cinta.
older.brother 1SG.I UV-2SG.I love
'My older brother is loved by you'

Another important characteristic of the undergoer voice is the doubling of *leq*. There are some constructions in which *leq* occurs twice, as in (391-393).

(391) Koyuv han **leq** n-opaq **l'**oko nang baiq.
tree that UV AV-cut GEN-1SG.I with knife
'The wood was cut with a knife by me'

(392) Bungo **leq** m-uhuv **leq** mimoq.
flower UV AV-plant GEN 1PL.EXCL.I
'Flowers were planted by us'

[48] Note that this argument requires that the verb *munjo* 'give' can occur with only internal argument in the actor voice as well. This is true, as (3) below was provided for an actor voice construction:

(3) Odiya m-unjo duwiq.
3.I AV-give money
'S/he gives money'

(393) Nahi han **leq** ng-konbis **leq** oko.
man that UV AV-kill GEN 1SG.I
'The man was killed by me'

(394) Oko **leq** m-ise **leq** odiya.
1SG.I UV AV-call GEN 3.I
'I was called by him/her'

The marker *leq* is only doubled when the agent moves to a postverbal position. This is reminiscient of *di-* doubling in Ahe and Balangin: in both, the UV marker occurs once preverbally, and once marking the agent. When agents are moved preverbally in Ahe, *di-* only occurs once, on the agent. This is the same pattern seen here in Ribun, with *leq.* However, UV marker doubling in Ribun does not seem to occur frequently. It is far more common for agents to be preverbal with *leq* preceding both the agent and the verb. It is additionally possible to use a *by*-phrase with *leq*, as in (395) below.

(395) Odiya **leq** m-unjo duwiq **noso** odi.
3.I UV AV-give money by 3.I
'S/he is given money by them'

In (395), *leq* occurs prevebally and the agent occurs postverbally, preceded by *noso* 'by'. The preoposition *noso* is used instead of doubling *leq*. It is unclear if this strategy is only utilized in ditransitives (perhaps due to the extra argument after the verb) as this is the only example of this.

3.2.1.3 The nasal prefix in undergoer voice

There is one last crucial component of Ribun voice to discuss: Ribun follows Kendayan-Salako languages in allowing the nasal prefix to occur in undergoer-oriented constructions. Consider the following sentences in (396-401).

(396) Joq onyo mondang obat nto leq **m-**ihis.
for person sick medicine this UV AV-buy
'For a sick person, this medicine was bought'

(397) Cuhaq han jeh l'oko **m-**aco.
letter that PFT UV-1SG.I AV-read
'The letter was already read by me'

(398) Ohuq han leq odiya **n**-isi.
boat that UV 3.I AV-tie
'The boat was tied by him/her'

(399) Ikan leq **n**-tilai tiq ahutn.
fish UV AV-see in river
'Fish are seen in the river'

(400) Odiya taq leq omo **n**-ulong.
3.I can UV 2SG.I AV-help
'S/he can be helped by you'

(401) Obiyon koyuv leq nahi han **n**-igang.
many wood UV man that AV-hold
'A lot of wood is held by that man'

Each of (396-401) above is an undergoer-oriented construction marked by *leq*, yet the verb occurs with a nasal prefix. This is unexpected if the nasal prefix were analyzed as an indicator of actor voice. Recall Kendayan-Salako languages like Ahe have a restriction on the use of the nasal prefix in the undergoer voice: the nasal prefix can only be used for completed actions. Non-completed actions, like constructions that overtly mark the future tense, disallow the use of the nasal prefix. There is some evidence that this could be the case in Ribun as well. Consider (402-403) below, which are non-completed actions in the undergoer voice.

(402) Cuhaq han haq oko baco.
letter that FUT 1SG.I read
'The letter will be read by me'

(403) Tohis han haq tisiq leq odi.
boat that FUT tie GEN 3.I
'The boat will be tied by him/her'

Neither (402) nor (403) have verbs marked by the nasal prefix (they would be *maco* and *nisiq* respectively). There are, however, a few other noteworthy comments on these constructions. Neither has the expected pattern in terms of *leq*: in (402), *leq* has been omitted (which was noted to be possible yet somewhat unusual in Section 3.2.1.2.2.1). In (403), *leq* occurs postverbally, along with the agent. This pattern is rarely seen; often, in fact, it is deemed ungrammatical to have *leq* postverbally if it has not doubled:

(404) *Tohis han ngkaq n-isiq leq odi.
boat that NEG AV-tie GEN 3.I
'The boat was not tied by him/her'

(404) is an identical construction to (403) except that instead of being in the future tense, it has been negated. Yet, it is ungrammatical to have *leq* occur postverbally (and additionally, note that the nasal prefix now occurs on the verb).

While (402-403) seem evidence in support of an Kendayan-Salako-type analysis for the nasal prefix in Ribun, there is additionally evidence against it. Some non-completed actions in the undergoer voice do use the nasal prefix, as in (405-407).

(405) Odiya haq leq omo n-ulong.
3.I FUT UV 2SG.I AV-help
'S/he will be helped by you'

(406) Obiyon koyuv haq leq nahi han n-igang.
many tree FUT UV man that AV-hold
'A lot of wood will be held by that man'

(407) Tuko han haq mimoq m-uko.
store that FUT 1PL.EXCL.I AV-open
'The store will be opened by us'

Any analysis of the nasal prefix as indicating completed action would not be able to account for the grammatical sentences given above in (405-407).

The nasal prefix can occur with a variety of other aspect/tense/mood markers as well. It is grammatical with *jeh*, the perfect marker, (408), *taq* 'can' (409), and *ngaq*, a marker of negation (410).

(408) Tuko han jeh leq mimoq m-uko.
store that PFT UV 1PL.EXCL.I AV-open
'The store was opened by us'

(409) Ato gelumbang taq oko n-oping.
now storm can 1SG.I AV-hear
'Now a storm can be heard by me'

(410) Odiya ngaq leq omo n-ulong.
3.I NEG UV 2SG.I AV-help
'S/he is not helped by you'

It is not entirely clear, then, what the conditions are on the nasal prefix in the undergoer voice.

3.2.2 Benyadu-Bekati': Banyaduq, Bekati, Beaye, Ba'aje

I now turn to discussing four Benyadu-Bekati' languages. I will begin with a section on Banyaduq and Bekati, with a discussion and a description of voice in these two languages. I then turn to a section on Beaye and Ba'aje, where I will do the same for these two languages.

3.2.2.1 Banyaduq and Bekati

This section is dedicated to the description of voice in Banyaduq and Bekati. I have chosen to group these two together due to their similarities, which will become apparent in this section. I begin with a discussion of basic syntactic features of these two languages, including word order, temporal marking, and their pronominal systems. I then turn to a discussion of voice with an emphasis on a) evidence for one type of undergoer voice, marked by *ka(t)n,* and b) the ability of the nasal prefix to occur in undergoer-oriented constructions.

3.2.2.1.1 Basic syntactic features of Banyaduq and Bekati

3.2.2.1.1.1 Word order and tense/aspect marking

Banyaduq and Bekati follows the other languages described in this dissertation in having standard SVO word order. This is demonstrated for both languages below in (411-412).

	S	**V**	**O**			
(411)	Diri	m-ura	bunga	kaq	taman.	*Banyaduq*
	1PL.I	AV-plant	flower	in	field	
	'We plant flowers in the field'					
(412)	Kitn	n-akap	dua	ca.		*Bekati*
	1SG.I	AV-catch	two	fish		
	'I catch two fish'					

Sentences without overt tense and aspect marking, like those in (411-412), can be interpreted as past, present, or future depending on context. Additionally, both Banyaduq and Bekati utilize a) temporal adverbs, and b) aspectual markers to indicate time. Some temporal adverbs, like *ano dia* 'today', *jakap* 'tomorrow' and *naraming* 'yesterday' in Banyaduq, and *ari nya* 'today' in Bekati, are shown below in (413-416).

(413) Kome mu n-angkap ikat **ano** **dia**? *Banyaduq*
where 2SG.II AV-catch fish day this
'Where did you catch fish today?'

(414) Ikin na nari **jakap**.
1SG.I FUT dance tomorrow
'I will dance tomorrow'

(415) Ikin jantu **naraming.**
1SG.I fall yesterday
'I fell yesterday'

(416) Ku keraja **ari** **nya**? *Bekati*
2SG.I work day this
'Are you working today?'

Banyaduq and Bekati have a range of aspectual/temporal markers. These include *giq*, a progressive marker, *angah/laku*, a perfect marker, and *naq/atiq*, a marker of future tense. (417-423) below provide examples of each in both languages.

PROGRESSIVE ASPECT

(417) Ikin **giq** m-aca buku ya. *Banyaduq*
1SG.I PROG AV-read book this
'I am reading this book'

(419) Kitn **giq** baca buku dia. *Bekati*
1SG.I PROG read book this
'I am reading this book'

PERFECTIVE ASPECT

(420) Ikin **angah** n-ulis buku. *Banyaduq*
1SG.I PFT AV-write book
'I wrote a book'

(421) Kitn **laku** n-ulis buku. *Bekati*
1SG.I PFT AV-write book
'I wrote a book'

FUTURE TENSE

(422) Ikin **naq** n-utuq buha dako. *Banyaduq*
1SG.I FUT AV-cut fruit that
'I will cut the fruit'

(423) Kitn **atiq** ny-ataq buah do. *Bekati*
1SG.I FUT AV-cut fruit that
'I will cut the fruit'

As with the other languages, I leave a more in-depth description and analysis of these markers for future research.

3.2.2.1.1.2 Pronominal systems

This section describes the pronominal system of both Banyaduq and Bekati. I begin with Table 22, which summarizes the system in both languages (for ease of comparison).

		NOM (I)	ACC (I)	GEN (II)
BANYADUQ	1SG	ikin	(i)kin	ko
	2SG	imu	(i)mu	mu
	3SG	eneq	eneq	eq
	1PL.INCL	diri	diri	diri
	1PL.EXCL	akum	akum	---
	3PL	ayuq	(a)yuq	eq
BEKATI	1SG	kitn	kitn	kitn
	2SG	ku	ku	ku
	3SG	nyum	nyum	nyum
	1PL.INCL	adep	adep	adep
	1PL.EXCL	kayuq	kayuq	kayuq
	3PL	ayuqnyum	ayuqnyum	nyum

Table 22. A summary of personal pronouns in Banyaduq and Bekati

These two largely differ in their systems outside of a similar first singular form. Most notable, however, is that Banyaduq has two pronominal sets, while Bekati only has one.

I will begin with Banyaduq. Table 23 below summarizes Banyduq's pronominal system.

	NOM (I)	ACC (I)	GEN (II)
1SG	ikin	(i)kin	ko
2SG	imu	(i)mu	mu
3SG	eneq	eneq	eq
1PL.INCL	diri	diri	diri
1PL.EXCL	akum	akum	---[49]
3PL	ayuq	(a)yuq	eq

Table 23. Personal pronouns in Banyaduq

The 1st singular is the most varied of the pronouns, as it almost seems to have three sets of pronouns. There is a distinct Set I pronoun, used for the nominative, and a distinct Set II pronoun, used for the genitive. The accusative, however, can be either a) the Set I pronoun, or b) a shortened form of the Set I pronoun. Examples of this are below in (424-427).

1ST PERSON SINGULAR: TWO SETS + A POTENTIAL THIRD

(424) **Ikin** n-angkap ikat dako.
1SG.I AV-catch fish that
'I caught the fish'

(425) Imu n-ele **kin**.
2SG.I AV-see 1SG.I
'You see me'

(426) Na-man-kan baiq dako keq **ikin**.
AV-give knife that to 1SG.I
'Please give me that knife'

(427) Samaq-**ko** bangun ramin diyu.
father-1SG.I build house this
'My father built this house'

Additionally, (426) shows that obliques use the Set I pronoun.

This system for the 1st singular contrasts with the 2nd and 3rd singular pronouns, which have only two sets; in the case of the 2nd person, a Set I, used in the nominative position, a Set II, used in the genitive position, and the accusative which can be either the Set I or Set II pronoun. (428-430) demonstrate this.

[49] Unfortuantely, I do not have the data to fill in this gap.

2ND PERSON SINGULAR: TWO SETS

(428) **Imu** n-angkup karanjang-ko.
2SG.I AV-take basket-1SG.II
'You took my basket'

(429) Ikin n-ele **mu**.
1SG.I AV-see 2SG.I
'I see you'

(430) Sega-**mu**?
name-2SG.II
'What is your name?'

For the 3rd singular, there is a Set I form, used for both nominative and accusative, and Set II form, used for the genitive. This is exemplified in (431-433).

3RD PERSON SINGULAR: TWO SETS

(431) **Eneq** n-ingoq perahu dako.
3SG.I AV-tie boat that
'S/he ties the boat'

(432) Ikin suka **eneq**.
1SG.I like 3SG.I
'I like him/her'

(433) Eneq n-ingin surat kaq sakuq-**eq**.
3SG.I AV-send letter to grandfather-3SG.II
'S/he sends a letter to his/her grandfather'

The plural pronouns additionally differ. The 1st plural exclusive has only one set of pronouns (a system seen previously in Malayic languages). This is seen in (434-436).

1ST PERSON PLURAL: ONE SET

(434) **Diri** m-ura bunga dako.
1PL.EXCL.I AV-plant flower that
'We plant the flowers'

(435) Eneq n-ele **diri**.
3SG.I AV-see 1PL.INCL.I
'S/he sees us'

(436) Diri n-ele adup **diri**.
1PL.INCL.I AV-see REFL 1PL.INCL.I
'We see ourselves'

The 3rd plural is most similar to the 1st singular: it has a Set I form, used for nominative, and a Set II form, used for the genitive (which is the same as the 3rd singular Set II form). Additionally, however, a pronoun in an accusative-marked position can be either the Set I form, or a shortened form of it.

3RD PERSON PLURAL: ONE SET + 3SG SET II

(437) **Ayuq** m-ura bunga dako.
3PL.I AV-plant flower that
'They plant the flowers'

(438) Inya **yuq** taikut?
when 3PL.III come
'When are they coming?

(439) Anaq-anaq dako n-ele adup-**eq**.
child-RED that AV-see REFL-3SG.II
'The children see themselves'

It is worth noting that using the Set II pronoun in a nominative-marked case position, at least for the 2nd singular, changes the meaning of a sentence. Consider the pair below in (440-441).

(440) Imu n-angkup karanjang-ko.
2SG.I AV-take basket-1SG.II
'You took my basket'

(441) Mu n-angkup karanjang-ko?
2SG.II AV-take basket-1SG.II
'Did you take my basket?' *#You took my basket*

Using the Set II form *mu* in (441) is not possible with the interpretation of (440). Instead, question intonation is necessary, and it becomes a polar question.

I now turn to the pronominal system of Bekati. This is summarized in Table 9.

	NOM (I)	ACC (I)	GEN (II)
1SG	kitn	kitn	kitn
2SG	ku	ku	ku
3SG	nyum	nyum	nyum
1PL.INCL	adep	adep	adep
1PL.EXCL	kayuq	kayuq	kayuq
3PL	ayuqnyum	ayuqnyum	nyum

Table 24. Personal pronouns in Bekati

Bekati differs significantly from Banyaduq as nearly every pronoun has only one set of pronouns. There is not difference in the form of the pronoun regardless of syntactic position. This is exemplified for the 1st singular below in (442-445).

1ST PERSON SINGULAR: ONE SET

(442) **Kitn** ma nasi.
1SG.I eat rice
'I eat rice'

(443) Ku m-ili **kitn**.
2SG.I AV-see 1SG.I
'You see me'

(444) Sinu kitn n-irim makanan keq **kitn**.
mother 1SG.I AV-send food to 1SG.I
'My mother sent food to me'

(445) Samaq **kitn** seorang dokter.
father 1SG.I COP doctor
'My father is a doctor'

This is additionally true of both the 2nd and 3rd singular pronouns as well. The same form of the pronoun is used for all three syntactic positions in (446-448) for the 2nd singular, and in (449-451) for the 3rd singular.

2ND PERSON SINGULAR: ONE SET

(446) **Ku** ny-amis siap.
2SG.I AV-kill chicken
'You kill a chicken'

(447) Kitn m-ili **ku**.
1SG.I AV-see 2SG.I
'I see you'

(448) Ku m-ili **ku** ado sadi.
2SG.I AV-see 2SG.I REFL
'You see yourself'

3RD PERSON SINGULAR: ONE SET

(449) **Nyum** n-ulis buku.
3SG.I AV-write book
'S/he wrote a book'

(450) Kitn suke **nyum**.
1SG.I like 3SG.I
'I like him/her'

(451) Anaq doh m-ili **nyum** ado sadi.
child that AV-see 3SG.I REFL
'The child sees him/herself'

The 1st plural additionally follows this pattern. This is show in (452-454).

1ST PERSON PLURAL: ONE SET

(452) **Adep** m-urap bunga kaq taman.
1PL.INCL.I AV-plant flower in field
'We plant flowers in a field'

(453) Anaq doh m-ili **adep**.
child that AV-see 1PL.INCL.I
'The child sees us'

(454) Adep m-ili **adep** ado sadi.
1PL.INCLI AV-see 1PL.INCL.I REFL
'We see ourselves'

The 3rd plural is the only pronoun that has what looks like two sets; there is a separate form of the pronoun when in a nominative or accusative case-marked position. For the genitive, however, the 3rd

singular pronoun is used. This pattern was additionally seen in some Malayic languages, like Ahe and Banana.

3RD PERSON PLURAL: ONE SET + 3SG SET I

(455) **Ayuqnyum** m-urap bunga doh.
3PL.I AV-plant flower that
'They plant flowers'

(456) Anaq-anaq m-ili **nyum** ado sadi.
child-RED AV-see 3SG.I REFL
'The children see themselves'

We see two rather different systems in Bekati and Banyaduq, then; Bekati shares some similarities with Ribun, as neither have a full two-set pronominal system (with Ribun having only one pronoun with two sets, and Bekati having none). Banyaduq is the first language discussed in this dissertation to have any pronoun that has three sets, but this is restricted to just the 1st singular.

3.2.2.1.2 Evidence for one type of undergoer voice

Banyaduq and Bekati follow Ribun in having only one type of undergoer voice. While the undergoer voice is marked by *leq* in Ribun, it is marked by *katn* in Banyaduq and Bekati. I will begin by discussing the actor voice in both languages in 3.2.2.1.2.1, followed by a description of the *katn*-marked undergoer voice in 3.2.2.1.2.2.

3.2.2.1.2.1 Actor voice

Banyaduq and Bekati, like other so many other languages spoken in Indonesia, have syntactically transitive verbs in the actor voice that occur with a nasal prefix *N-*. A variety of verbs in the actor voice are provided below for both languages. These include the transitive verbs *read, tie, kill,* and *plant* (among others) as well as the ditransitive verb *send*.

AV IN BANYADUQ

(457) Ikin **m-aca** buku ya.
1SG.I AV-read book this
'I read this book'

(458) Sino-ko **n-irim** pangkuman kaq Ponti.
mother-1SG.II AV-send food to Pontianak
'My mother sends food to Pontianak'

(459) Diri **m-ura** bunga kaq taman.
1PL.INCL.I AV-plant flower in field
'We plant flowers in the field'

(460) Imu **ng-angis** siap.
2SG.I AV-kill chicken
'You killed a chicken'

(461) Daqari dako **n-angko** pade.
male that AV-steal rice
'The boy stole rice'

(462) Aneq dako **m-ati** sapatu.
child that AV-buy shoe
'The child buys shoes'

AV IN BEKATI

(463) Ku **n-angkap** keranjang kitn.
2SG.I AV-take basket 1SG.I
'You took my basket'

(464) Ku **m-uka** pintu doh.
2SG.I AV-open door that
'You opened the door'

(465) Samaq kitn **m-ati** buku dia.
father 1SG.I AV-buy book this
'My father is buying this book'

(466) Nyum **m-butn** perau doh.
3SG.I AV-tie boat that
'S/he ties the boat'

(467) Ku **ny-antaq** kayu jeq baye.
2SG.I AV-cut wood with knife
'You are cutting the wood with a knife'

Like Ribun, it is difficult to determine the bare forms of the verbs in either Banyaduq or Bekati. Part of this is because the nasal prefix is used in the undergoer voice (which will be discussed in the next

section), but additionally because the nasal prefix is so frequently used that there is no clear method of elicting bare verbs. Attempts to do so often resulted in speakers noting that bare forms of verbs are not words at all (this happened, for instance, with **buka* for *muka* 'open' in Bekati).

3.2.2.1.2.2 Undergoer voice with ka(t)n

Both Banyaduq and Bekati mark the undergoer voice in the same way: with *ka(t)n*. In Banyduq, there is no preploded nasal (pronounced *kan).* In Bekati, there is a preploded nasal (*katn*). Additionally, the undergoer voice in both languages exhibits a change in word order, to UAV. The marker *katn* precedes both the agent and the verb. An example of an undergoer-oriented construction in both languages is given below in (468-469).

	U		**A**	**V**	
(468)	Siap	kan	mu	ng-angis.	*Banyaduq*
	chicken	UV	2SG.II	AV-kill	
	'A chicken was killed by you'				
(469)	Buku	katn	nyum	n-ulis.	*Bekati*
	book	UV	3SG.I	AV-write	
	'The book was written by him/her'				

On the surface, this undergoer voice shares many similarities with the object voice in Indonesian. The UAV word order is reminiscent of the object voice, and this is extended when temporal/aspectual markers like *giq* and *aqpei* are added. In the following, *giq*, the marker of progressive aspect, (Banyaduq) and *atiq*, a future tense marker, (Bekati) precede the UV marker, agent, and verb:

(470)	Buku	dako	**giq**	kan	kin	n-ulis.
	book	that	PROG	UV	1SG.III	AV-write
	'The book is being written by me'					
(471)	Buah	doh	**atiq**	katn	kitn	ny-ataq.
	fruit	that	FUT	UV	1SG.I	AV-cut
	'The fruit will be cut by me'					

However, the undergoer voice in these languages diverges from the object voice in Indonesian in several ways. One, while the agent in both of (468-469) above is a pronoun, like object voice, full DP agents are possible as well.

(470) Ramin dia kan samaq-ko bangun. *Banyaduq*
house this UV father-1SG.II build
'This house was built by my father'

(471) Ramin dia katn samaq kitn bula. *Bekati*
house this UV father 1SG.I build
'This house was built by my father'

Additionally, agents can be omitted entirely, which is disallowed in the object voice. When this occurs, *ka(t)n* is in a preverbal position.

(472) Dokter-eq[50] nah kan n-abah. *Banyaduq*
doctor-DET PFT UV AV-call
'The doctor was not called'

(473) Bangku katn n-indang. *Bekati*
chair UV AV-kick
'The chair was kicked'

The undergoer voice in Banyaduq and Bekati seems most similar to the undergoer voice in Ribun, instead of the object voice in Indonesian. Even between Banyaduq and Bekati, however, some features and specifics vary.

I will begin with a discussion of specific features in Banyaduq. One feature unique to undergoer voice in Banyaduq is the form of the pronominal agent. Consider the examples below in (474-476).

(474) Ramin dako kan **mu** n-ancur. *Banyaduq*
house that UV 2SG.II AV-destroy
'The house was destroyed by you'

(475) Bunga kan **eq** m-ura.
flower UV 3SG.II AV-plant
'Flowers are planted by him/her'

(476) Ikatn dako kan **kin** ny-uman.
fish that UV 1SG.III AV-eat
'The fish is eaten by me'

[50] While homophonous with the 3rd singular Set II pronoun, this is a determiner.

In (474) and (475), the agent occurs in its Set II form. In (476), however, when the agent is the 1st singular, the pronoun does not occur in its Set II form; rather, it occurs in what I earlier described as a Set III form (recall that the Set II form of the 1st singular is *ko*). The pattern seen in (474-475) is not unexpected, as Malayic languages like Ahe utilize the Set II pronominal form in the undergoer voice as well. What is seen for the 1st singular, however, does not follow this pattern. It should be noted that using the Set I pronoun with *kan* is ungrammatical.

(477) *Kayu kan eneq m-insaq.
wood UV 3SG.I AV-bring
'Wood is brought by him/her'

This changes when *kan* is omitted. In Banyaduq, the UV marker can be omitted, but if it is, then the pronoun must occur in its Set I form.

(478) Perahu dako eneq n-ingoq.
boat that 3SG.I AV-tie
'The boat was tied by him/her'

(479) Buah dako naq ikin ny-utuq.
fruit that FUT 1SG.I AV-cut
'The fruit will be cut by me'

This does not seem to occur very frequently, however; in fact, it is most frequently seen when aspectual/temporal markers (like *naq*, future tense, in (478) above) occur. Using a Set II pronoun without *kan* is not possible in the undergoer voice. It either results in an imperative reading, when used with a 2nd singular pronoun (seen in (480)), or results in ungrammaticality, if done when an imperative reading isn't possible (in other words, with any other agent other than 2nd person). This is seen in (481).

(480) Siap mu ng-angis.
chicken 2SG.II AV-kill
'(You) Kill the chicken' *#The chicken was killed by you*

(481) *Cendela dako kin m-uka.
window that 1SG.III AV-open
'The window was closed by me'

Additionally, there are two contexts in which *kan* is not optional: when there is no agent, as in (482), or when the agent is a plural pronoun, as in (483).

(482a) Pangkuman naq kan n-irim kaq Ponti.
food FUT UV AV-send to Pontianak
'Food will be sent to Pontianak'

(482b) *Pangkuman naq n-irim kaq Ponti.
food FUT AV-send to Pontianak
'Food will be sent to Pontianak'

(483a) Bunga kan diri m-ura.
flower UV 1PL.INCLI AV-plant
'Flowers are planted by us'

(483b) *Bunga diri m-ura.
flower 1PL.INCLI AV-plant
'Flowers are planted by us'

With the singular pronouns, when *kan* is omitted, Set I forms must be used. This is not possible with the plural pronoun *diri* as it does not have a Set II form. This could account for why (483b) is ungrammatical.

Another important feature of undergoer voice in Banyaduq is its fixed word order. It does not seem possible to move the agent into a postverbal position.

(484a) Perahu dako kan eq n-inoq.
boat that UV 3SG.II AV-tie
'The boat is tied by him/her'

(484b) *Perahu dako kan n-ingoq eneq[51].
boat that UV AV-tie 3SG.I
'The boat is tied by him/her'

It was noted that some Malayic languages, like Ahe, allow agents to move between a pre- and postverbal position. The ungrammaticality of (484b) suggests this is not possible in Banyaduq.

I now turn to Bekati. Unlike Banyaduq, Bekati does not have a pronominal system that differs by syntactic position. Because of this, the form of the pronoun is always the Set I form. A few more examples of this are given below in (485-488).

[51] A speaker's exact note about this sentence was that, "A boat can't tie a person" so this position seemingly is reserved for direct objects.

(485) Buku katn nyum n-ulis.
book UV 3SG.I AV-write
'The book is written by him/her'

(486) Bunga katn adep m-oru kaq taman.
flower UV 1PL.INCL.I AV-plant in field
'Flowers are planted in the field by us'

(487) Siap katn ku ny-amis.
chicken UV 2SG.I AV-kill
'The chicken was killed by you'

(488) Dari dia atiq katn adep m-uriq.
pig this FUT UV 1PL.INCLI AV-skin
'This pig will be skinned by us'

However, Bekati has slightly more freedom in word order than Banyaduq does. This occurs tangently with another feature noted in some other languages in this dissertation: the ability to 'copy' the UV marker. This can be seen in (489-490).

(489) Makanan atiq **ka**-n-irim keq Ponti **katn** sinu kitn.
food FUT UV-AV-send to Ponti GEN mother 1SG.I
'Food will be sent to Pontianak by my mother'

(490) Kayu **katn** n-antaq pakai baye **katn** ku.
wood UV AV-cut with knife GEN 1SG.I
'Wood is being cut with a knife by me'

In (489), the UV marker is not only copied, but occurs in a shortened form preverbally. In (490), the UV marker occurs twice in its full form. In both, it occurs once preverbally, and once preceding the agent that is postverbal. This looks quite similar to the system found in Ahe and Balangin discussed in Section 3.1. Note that this occurs when an adjunct intervenes between the agent and the verb.

3.2.2.1.2.3 Other passive constructions

3.2.2.1.2.3.1 The 'accidental' passive[52]

Banyaduq and Bekati additionally have an 'accidental' passive like the Malayic languages described in Section 3.1. This is marked by *ta-* in Banyaduq, and *te-* in Bekati. Some examples of these constructions in both Banyaduq and Bekati are provided below in ().

(491) Nakap dia ikin **ta**-rupaq. *Banyaduq*
morning this 1SG.I ACCID-wake.up
'This morning I (accidentally) woke up'

(492) Padahu dako **ta**-tangkop.
boat that ACCID-capsize
'The boat was (accidentally) capsized'

(493) Pintu dako **ta**-buka kaq angin.
door that ACCID-open by wind
'The door was (accidentally) opened by the wind'

(494) Perau doh **te**-baliq. *Bekati*
boat that ACCID-capize
'The boat was (accidentally) capsized'

(495) Pinto doh **te**-buka.
door that ACCID-open
'The door was (accidentally) opened'

These constructions, similarly to their counterparts in Malayic languages, have *ta-/te-* attaching to a verb that occurs without its nasal prefix. In Banyaduq at least, these can additionally occur with an agent, like in (493) with *kaq angin* 'by the wind'. One particularly important observation about this construction is that it is one of the only constructions in which the verb occurs without a nasal prefix. Note that all the verbs above, while prefixed by the accidental marker *te-/ta-*, do not have a nasal prefix.

[52] There was not a section for the 'accidental' passive for Ribun, as there is currently no evidence of such a construction in that language.

3.2.2.1.3 The nasal prefix in undergoer voice

Following Ribun and Kendayan-Salako languages, Banyaduq and Bekati both allow the nasal prefix in undergoer-oriented constructions. Some more examples of this are given below in (496-502).

(496) Ikan kan mu **n**-ele kaq sungi. *Banyaduq*
fish UV 2SG.II AV-see in river
'Fish are seen in the river by you'

(497) Anaq damaho-ko kan kin **m**-ankaq.
child female-1SG.II UV 1SG.III AV-look.for
'My daughter is searched for by me'

(498) Cendela dako kan **m**-uka.
window that UV AV-open
'The window is opened'

(499) Buku dako giq kan kin **n**-ulis.
book that PROG UV 1SG.III AV-write
'The book is being written by me'

(500) Bangku katn **m**-indang. *Bekati*
chair UV AV-kick
'The chair was kicked'

(501) Buku katn nyum **n**-ulis.
book UV 3SG.II AV-write
'The book was written by him/her'

(502) Bunga katn adep **m**-oru kaq taman.
flower UV 1PL.INCL.I AV-plant in field
'We plant flowers in the field'

The two languages do show some differences in terms of this co-occurrence, however. I will begin with a discussion of this feature in Banyaduq.

In Banyaduq, there does not seem to be a restriction on the use of the nasal prefix in the undergoer voice. We might expect, given the pattern seen in Kendayan-Salako languages, that the nasal prefix can only occur with completed actions. This, however, does not seem to be the case in Banyaduq. The nasal prefix occurs with the future marker *naq*, as seen in (503-505).

(503) Buku dako naq kan kin n-ulis.
book that FUT UV 1SG.III AV-write
'The book will be written by me'

(504) Buah dako naq kin n-utuq.
fruit that FUT 1SG.III AV-cut
'The fruit will be cut by me'

(505) Uweq dia naq kan diri m-uriq.
pig this FUT UV 1PL.INCL.I AV-skin
'The pig will be skinned by us'

In fact, removing the nasal prefix from (503) causes the sentence to be ungrammatical:

(506) *Buku dako naq kan kin tulis.
book that FUT UV 1SG.III write
'The book will be written by me'

The nasal prefix does additionally occur in completed actions as well. It co-occurs with *ngah*, perfect aspect, in (507) and (508) below. It additionally occurs without any temporal/aspectual markers, as seen in (496-498) above, and with *giq*, progressive aspect, as in (499) above.

(507) Ikan ngah bisa kin n-angkap.
fish PFT can 1SG.III AV-catch
'Fish could be caught'

(508) Dokter-eq ngah kan diri n-abah.
doctor-DET PFT UV 1PL.INCLI AV-call
'The doctor was called by us'

In sentences where the verbs appear to have a nasal prefix, like (498) with *muka*, it does not seem possible to remove the nasal prefix. Any attempt to do so resorts in ungrammaticality. This occurs regardless if *kan* occurs or not, as exemplified in (509-510) below.

(509) *Cendela dako kan buka.
window that UV AV-open
'The window is opened'

(510) *Cendela dako buka.
window that AV-open
'The window is opened'

This seems to suggest that Banyaduq does not follow the pattern in Kendayan-Salako languages. The nasal prefix does not carry any aspecual information like in languages like Ahe.

In Bekati, there is evidence that the nasal prefix does not always occur in undergoer constructions. For example, there is no nasal prefix in (511) below, when there is sentential negation. This is additionally found in (512), when the modal *bisa* 'can' occurs.

(511) Buku tiq katn kitn baca.
book NEG UV 1SG.I read
'The book was not read by me'

(512) Langong doh bisa katn buka.
window that can UV open
'The window can be opened'

These are non-completed actions, so these could be evidence that Bekati only utilizes the nasal prefix in completed actions like other languages of Borneo. However, the nasal prefix can occur with the future tense marker *atiq*, as seen in (513-514) below.

(513) Buah doh atiq katn kitn ny-ataq.
fruit that FUT UV 1SG.I AV-cut
'The fruit will be cut by me'

(514) Makanan atiq ka-n-irim keq Ponti katn sinu kitn.
food FUT UV-AV-send in Ponti UV mother 1SG.I
'Food will be sent to Pontianak by my mother'

Additionally, the nasal prefix can occur with negation and the progressive marker *giq*.

(515) Bunga giq katn m-oru kaq taman.
flower PROG UV AV-plant in field
'Flowers are being planted in the field'

(516) Perau doh atiq katn kitn m-ari.
boat that NEG UV 1SG.I AV-capsize
'The boat was not capsized by me'

Furthermore, sometimes it is not possible to drop the nasal prefix. For (517a) below, the variant without a nasal prefix in (517b) was deemed ungrammatical.

(517a) Pintu doh katn ku m-uka.
door that UV 2SG.I AV-open
'The door was opened by you'

(517b) *Pintu doh katn ku buka.
door that UV 2SG.I open
'The door was opened by you'

It is therefore not clear what the pattern in Bekati is, in regards to the nasal prefix. It does seem slightly more restricted than Banyaduq, but the constraints on if and when the nasal prefix cannot occur are not clear.

3.2.2.2 Beaye and Ba'aje

This subsection is dedicated to describing the voice system of two additional Land Dayak languages, Beaye and Ba'aje. I will begin with a discussion of basic syntactic features of these languages, including word order and their pronominal systems in Section 3.2.2.2.1. I then turn to a discussion of key features of voice in both languages, with an emphasis on a) evidence of one type of undergoer voice, marked a few different ways in the two languages, and b) the nasal prefix occurring in the undergoer voice.

3.2.2.2.1 Basic syntactic features of Beaye and Ba'aje

3.2.2.2.1.1 Word order and tense/aspect marking

Following the three Land Dayak languages already discussed, Beaye and Ba'aje use canonical SVO word order in declarative sentences. This is exemplified for both languages in (518-519) below.

	S	**V**	**O**		
(518)	Belayuqu	n-awoq	uda	bunga.	*Beaye*
	3PL.I	AV-pick	many	flower	
	'They picked many flowers'				
(519)	Kedn	m-iri	baju.		*Ba'aje*
	1SG.I	AV-buy	shirt		
	'I buy a shirt'				

Sentences like (518-519) can be interpreted as past, present, or future depending on context. Additionally, both languages can utilize a variety of markers for this function. These include aspectual markers like *dah* (Beaye) and *mus* (Ba'aje), perfect aspect, and tense markers like *ya*, which seems to indicate non-completed actions[53].

PERFECTIVE ASPECT

(520) Kedn **dah** n-ulis buku. *Beaye*
1SG.I PFT AV-write book
'I wrote a book'

(521) Kedn **mus** n-ulis buku. *Ba'aje*
1SG.I PFT AV-write book
'I wrote a book'

NON-COMPLETED ACTION

(522) Kedn **ya** n-uteq buaq yen. *Beaye*
1SG.I NONCOMP AV-cut fruit that
'I will cut the fruit'

(523) Kedn **ya** n-eteq buah yen. *Ba'aje*
1SG.I NONCOMP AV-cut fruit that
'I will cut the fruit'

Temporal adverbs can additionally be used, without any dedicated tense marker, to indicate the tense of a sentence. These include *jaletn* and *jalep* 'tomorrow', and maruhi and *minarai* 'yesterday' and are exemplified in (524-527) below.

(524) Kedn bejoget **jaletn**. *Beaye*
1SG.I dance tomorrow
'I will dance tomorrow'

[53] The exact semantic function of *ya* is unclear. This marker is additionally used in progressive contexts, like (1):

(1) Yuqu ya m-aliq kapal yen. *Beaye*
3SG.I NONCOMP AV-tie boat that
'S/he is tying the boat'

For this reason, I am labelling *ya* as a marker of an incomplete action. Furthermore, *sedang* was frequently given in Ba'aje for the progressive aspect. This is likely due to elicitation bias, perhaps to fill a gap (i.e., there is no dedicated progressive marker in Ba'aje). Further research needs to provide more clarity on exact function of *ya*, however.

(525) Kedn manoq **maruhi**.
1SG.I fall yesterday
'I fell yesterday'

(526) Kedn joget **jalep**. *Ba'aje*
1SG.I dance tomorrow
'I will dance tomorrow'

(527) Kedn kina **minarai**.
1SG.I fall yesterday
'I fell yesterday'

Like other Land Dayak languages, Beaye and Ba'aje does not morphologically mark tense or aspect, and instead uses the strategies described above.

3.2.2.2.1.2 Pronominal systems

This last section on basic syntactic features of these two Land Dayak languages will cover their pronominal systems. I begin with a summary of the system in both languages in Table 25 below.

		NOM (I)	ACC (I)	GEN (II)
BEAYE	1SG	kedn	kedn	kedn
	2SG	ko	ko	ko
	3SG	yuq(u)	yuqu	yuq
	1PL.INCL	adep	adep	adep
	1PL.EXCL	kanaq	kanaq	kanaq
	3PL	belayuqu	belayuqu	belayuq
BA'AJE	1SG	kedn	kedn	kedn
	2SG	ko	ko	ko
	3SG	yuq	yuq	yuq
	1PL.INCL	nyaq	nyaq	nyaq
	1PL.EXCL	nam	nam	nam
	3PL	belayuq	belayuq	belayuq

Table 25. A summary of personal pronouns in Beaye and Ba'aje

Beaye and Ba'aje have quite similar pronominal systems. Most important is the fact that neither language has more than one set of pronouns.

I now turn to specifics of the pronominal system in Beaye. Table 26 summarizes this.

	NOM (I)	ACC (I)	GEN (II)
1SG	kedn	kedn	kedn
2SG	ko	ko	ko
3SG	yuq(u)	yuqu	yuq
1PL.INCL	adep	adep	adep
1PL.EXCL	kanaq	kanaq	kanaq
3PL	belayuqu	belayuqu	belayuq

Table 26. Personal pronouns in Beaye

As shown in Table 10, most pronouns in Beaye do not have more than one set of pronouns. This is true of the 1st singular, which uses the form *kedn* regardless of syntactic position. This is is shown in (528-531) below.

1ST PERSON SINGULAR: ONE SET

(528) **Kedn** ny-arah dadup kaq polisi.
1SG.I AV-surrender REFL to police
'I surrendered myself to the police'

(529) Ko n-inget **kedn**.
2SG.I AV-see 1SG.I
'You see me'

(530) Tolong te-m-iyu kaq **kedn** pisi yen.
please IMP-AV-give to 1SG.I knife that
'Please give me that knife'

(531) Apaq **kedn** m-uat dio han.
father 1SG.I AV-build house this
'My father is building this house'

In all four different case-marked positions above – nominative, accusative, oblique, and genitive – the same form of the 1st singular pronoun is used. This is additionally true of the 2nd singular, as seen in (532-534).

2ND PERSON SINGULAR: ONE SET

(532) **Ko** ng-kumis siap.
2SG.I AV-kill chicken
'You killed a chicken'

(533) Kedn n-inget **ko**.
1SG.I AV-see 2SG.I
'I see you'

(534) Asi ginang **ko**?
what name 2SG.I
'What is your name?

The 1st plural follows this pattern as well, as can be seen in (538-539).

1ST PERSON PLURAL: ONE SET

(535) **Adep** cumpaq bunga baru kaq muwan.
1PL.INCL.I find flower new by river
'We find new flowers by the river'

(536) Adep n-inget **adep** kedadep.
1PL.INCLI AV-see 1PL.INCL.I REFL
'We see ourselves'

The 3rd person pronouns are perhaps the only pronouns that may have a Set II pronoun. In the genitive case-marked position, the pronoun occurs in a slightly shortened form. For the 3rd singular, this is *yuq*. For the 3rd plural, this is *belayuq*.

3RD PERSON SINGULAR: POTENTIAL TWO SETS

(537) **Yuqu** manoq pinga yen.
3SG.I fall cup that
'S/he dropped the cup'

(538) Kedn n-ajo **yuqu**.
1SG.I AV-look.for 3SG.I
'I looked for him/her'

(539) Narai yen ng-kumis siap **yuq**.
man that AV-kill chicken 3SG.II
'The man kills his chicken'

3RD PERSON PLURAL: POTENTIAL TWO SETS

(540) **Belayuqu** m-orop bunga yen.
3PL.I AV-plant flower that
'They plant the flowers'

(541) Nangot-nangot yen n-inget **belayuq** kedadup.
child-RED that AV-see 3PL.II REFL
'The children see themselves'

There is currently no evidence that the full pronoun, either *yuqu* or *belayuqu*, can be used for (539) or (541). However, the shortened form can additionally be used in other positions, such as a nominative case-marked position, as in (542).

(542) Yuq m-abatn kayu.
3SG.I AV-bring wood
'S/he brings wood'

Because of this, it may be premature to call this shortened form a Set II form; we would expect that a Set II form would be limited to only one position, and this is not the case.

I now turn to Ba'aje. Table 27 summarizes the pronominal system found in this language.

	NOM (I)	ACC (I)	GEN (II)
1SG	kedn	kedn	kedn
2SG	ko	ko	ko
3SG	yuq	yuq	yuq
1PL.INCL	nyaq	nyaq	nyaq
1PL.EXCL	nam	nam	nam
3PL	belayuq	belayuq	belayuq

Table 27. Personal pronouns in Ba'aje

Ba'aje patterns similarly to Beaye in its pronominal system. The crucial difference is that the 3rd person pronouns do not seem to have any variant that could potentially be a Set II form. All pronouns in Ba'aje hve only one set. (543-545) below show this for the 1st singular, and the 2nd singular is shown in (546-548).

1ST PERSON SINGULAR: ONE SET

(543) **Kedn** lupa tentang yuq.
1SG.I forget about 3SG.I
'I forgot about him/her'

(544) Ko n-inget **kedn**.
2SG.I AV-see 1SG.I
'You see me'

(545) Apaq **kedn** minoq seorang dokter.
father 1SG.I PST COP doctor
'My father used to be a doctor'

2ND PERSON SINGULAR: ONE SET

(546) **Ko** n-ancur dio ya.
2SG.I AV-destroy house that
'You destroyed the house'

(547) Kedn n-inget **ko**.
1SG.I AV-see 2SG.I
'I see you'

(548) Asi ginang **ko**?
what name 2SG.I
'What is your name?'

Unlike Beaye, the 3rd singular pronoun shows no shortened variants. In all positions, it occurs as *yuq*. This is shown in (549-551) below.

3RD PERSON SINGULAR: ONE SET

(549) **Yuq** m-urut bunga tiep ano.
3SG.I AV-plant flower every day
'S/he plants flowers every day'

(550) Kedn lupa **yuq**.
1SG.I forget 3SG.I
'I forgot him/her'

(551) Yuq n-ureq surat kaq omo **yuq**.
3SG.I AV-send letter to grandfather 3SG.I
'S/he sends a letter to his/her grandfather'

Lastly, this pattern hold for the plural pronouns as well. Both the 1st plural and the 3rd plural only have one set of pronouns, regardless of syntactic position. The 1st plural is shown in (552-553), and the 3rd plural is shown in (554-555).

1ST PERSON PLURAL: ONE SET

(552) **Nyaq** m-urup bunga yen.
1PL.INCL.I AV-plant flower that
'We plant flowers'

(553) Nyaq n-inget **nyaq** kededu.
1PL.INCLI AV-see 1PL.INCL.I REFL
'We see ourselves'

3RD PERSON PLURAL: ONE SET

(554) **Belayuq** m-etiq uda bunga.
3PL.I AV-pick many flower
'They picked many flowers'

(555) Anaq nangoq yen n-inget **belayuq** kededu.
child that AV-see 3PL.I REFL
'The children see themselves'

Ba'aje, then, shows a slightly reduced system from Beaye. Both languages, however, show some similarities to Ribun and Bekati in having either a) mainly only one set of pronouns, with a few exceptions, or b) only one set of pronouns.

3.2.2.2.2 Evidence of one type of undergoer voice

Beaye and Ba'aje follow the other three Land Dayak languages in this section in having only one type of undergoer voice. In Beaye and Ba'aje, the undergoer voice is marked by a few different markers. I will begin by discussing the actor voice in both languages in 3.2.2.2.2.1, followed by a description of the marked undergoer voice in 3.2.2.2.2.2.

3.2.2.2.2.1 Actor voice

Following the eight other languages described in this dissertation, Beaye and Ba'aje have syntactically transitive verbs in the actor voice that occur with a nasal prefix *N-*. A variety of verbs in the actor voice are provided below for both languages. These include the transitive verbs *read, pay, kill,* and *call* (among others) as well as the ditransitive verb *send*.

AV IN BEAYE

(556) Kedn **m-aca** buku han.
1SG.I AV-read book this
'I am reading this book'

(557) Kedn **m-ayar** narai yen duwu-polo rupiah.
1SG.I AV-pay man that two-ten rupiah
'I paid the man twenty rupiah'

(558) Apaq kedn **m-uat** dio han.
fahter 1SG.I AV-build house this
'My father builds this house'

(559) Mama kedn **n-angtuq** makanan keq Melio.
mother 1SG.I AV-send food to Meliau
'My mother sends food to Meliau'

(560) Adep **m-urop** bunga kaq taman.
1PL.INCLI AV-plant flower in field
'We plant flowers in the field'

(561) Kedn **m-uke** cendela yen.
1SG.I AV-open window that
'I open the window'

AV IN BA'AJE

(562) Apaq kedn **m-uet** dio han.
father 1SG.I AV-build house this
'My father builds this house'

(563) Kedn **n-eteq** buah yen.
1SG.I AV-cut fruit that
'I am cutting the fruit'

(564) Ko **ng-obus** siap.
2SG.I AV-kill chicken
'You killed a chicken'

(565) Nam **m-ebaq** dokter.
1PL.EXCL.I AV-call doctor
'We call a doctor'

(566) Nangot yen **m-iri** sepatu.
child that AV-buy shoe
'The child buys shoes'

Like Ribun, Banyaduq, and Bekati, it is somewhat more difficult to determine the bare forms of the verbs in (556-566). This seems to be a trend found in Land Dayak languages. This will be discussed more in Section 3.3.

3.2.2.2.2.2 Undergoer voice

Both Beaye and Ba'aje use a preverbal marker to indicate undergoer voice. However, there is some variety in the preverbal marker used. Beaye uses *kunaq/kuniq* as well as *ta-*, while Ba'aje uses *kanaq.* Both these languages additionally mark the undergoer voice with a change in word order. Both languages show some flexibility in word order, as they allow both UAV and UVA. This is exemplified for the two languages below in (567-571).

	U			**A**	**V**			
(567)	Dio	han	kunaq	ko	n-oro.			*Beaye*
	house	this	UV	2SG.I	AV-destroy			
	'This house was destroyed by you'							
(568)	Buah	yen	kanaq	kedin	n-utuq.			*Ba'aje*
	fruit	that	UV	1SG.I	AV-cut			
	'The fruit is cut by me'							
	U				**V**	**A**		
(569)	Buaq	yen	ya		ta-n-eteq	kuniq	kedn.	*Beaye*
	fruit	that	NONCOMP		NONCOMP-AV-cut	GEN	1SG.I	
	'The fruit will be cut by me'							
(570)	Pade	yen	kuniq		n-angko	narai	yen.	
	rice	that	UV		AV-steal	man	that	
	'The rice was stolen by the man'							

(571)	Keranjang	kedn	kanaq	n-ao	ko.	*Ba'aje*
	basket	1SG.I	UV	AV-take	2SG.I	
	'My basket was taken by you'					

The Beaye sentence in (567) utilizes UAV word order with *kunaq*, while both (569) and (570) utilize UVA word order, once with *te-* (569), and once with *kuniq* (570). These differing constructions will be described in more detail in Sections 3.2.2.2.2.2.1 and 3.2.2.2.2.2.2. (568) shows UAV order in Ba'aje and (571) shows UVA order.

The rest of this section will describe other features of the undergoer voice in Ba'aje. Undergoer voice in Ba'aje can additionally occur without an agent, as in (572), or with a full DP agent, in (573).

(572)	Man	ya	kanaq	n-irim	kaq	Ponti.
	food	NONCOMP	UV	AV-send	to	Pontianak
	'Food will be sent to Pontianak'					

(573)	Dio	han	kanaq	m-ueq	oleh	apaq	kedin.
	house	this	UV	AV-build	by	father	1SG.I
	'This house was built by the father'						

Full DP agents are not restricted by their position in relation to the verb. They can appear postverbally, as in (573) above, but can additionally occur preverbally, like in (574) below.

(574)	Pintu	yen	kanaq	anaq nangot	m-uka.
	door	that	UV	child	AV-open
	'The door is opened by the child'				

The sentence in (573) shows another feature of the undergoer voice in Ba'aje: the optionality of the inclusion of *oleh*. While (571) shows that postverbal agents can occur without *oleh*, they can additionally occur with *oleh*. Some additional examples of this are given in (575-576).

(575)	Dokter	mus	kanaq	m-uwah	oleh	nyaq.
	doctor	PFT	UV	AV-call	by	1PL.INCL.I
	'The doctor was called by us'					

(576)	Buku	yen	kanaq	n-ulis	oleh	kedn.
	book	that	UV	AV-write	by	1SG.I
	'The book is written by me'					

There does appear to be some relationship between *kanaq* and *oleh*. Eliminating *kanaq* but retaining *oleh* results in ungrammaticality:

(577) *Bunga m-urop oleh ko.
flower AV-plant by 2SG.I
'Flowers are planted by you'

It seems that *kanaq* can only be omitted if the agent occurs in a preverbal position. This is seen in (578).

(578) Ikat yen kedn man.
fish that 1SG.I eat
'Fish are eaten by me'

Pronominal agents in the undergoer voice occur in their Set I form, as Ba'aje does not have additional forms of pronouns.

3.2.2.2.2.2.1 Undergoer voice with kunaq/kuniq

The following two subsections serve to describe two different ways of marking the undergoer voice in Beaye. This section focuses on marking undergoer voice with *kunaq/kuniq*[54]. As noted in the previous section, undergoer-oriented constructions marked with *kunaq* can have either UVA or UAV word order. Like in Ba'aje, agents are optional (579), and can occur as full DPs (580).

(579) Nasi kunaq m-ung.
rice UV AV-eat
'Rice was eaten'

(580) Pade yen kuniq n-angko narai yen.
rice that UV AV-steal man that
'The rice was stolen by the man'

Another feature of the undergoer voice is 'doubling' of the UV marker, as seen in a few other languages (Ribun, Ahe, and Balangin). *Kunaq* can be doubled in Beaye, occurring both preverbally and prior to a postverbal agent. A few examples of this are given below in (581-583).

[54] A note on *kunaq* vs *kuniq*: there does not seem to be any distinction between these two forms, regardless of tense, aspect, or person of the agent. At this point, I am calling these allomorphs. These can additionally be shortened to *naq* and *niq*.

(581) Siap **kuniq** ng-kumus **kunaq** ko.
chicken UV AV-kill GEN 2SG.I
'The chicken was killed by you'

(582) Bunga **kunaq** m-orop **kuniq** kedin.
flower UV AV-plant GEN 1SG.I
'Flowers are planted by me'

(583) Bunga baru **kuniq** n-amput kaq muwan **kunaq** adep.
flower new UV AV-find by river GEN 1PL.INCL.I
'New flowers are found by the river by us'

The second *kunaq* is largely optional. Without an overt agent, this second marker does not occur (as it always precedes the agent), but in (583) it is required as the agent is separated from the verb by an adjunct. Agents can occur pre- or postverbal without a second *kunaq*, as evidenced by (580). What is not possible, however, is to omit the first *kunaq* and only retain the second:

(584) *Dio han m-uat kunaq apaq kedin.
house that AV-build GEN father 1SG.I
'The house was built by my father'

Aspectual and temporal markers in undergoer voice must occur prior to *kunaq*. This is shown in (585-586) with *ya*, a marker of non-completion, in (585) and with *dah*, the perfect marker, in (586).

(585) Bunga ya kunaq m-orop kaq taman.
flower NONCOMP UV AV-plant in field
'Flowers are being planted in the field'

(586) Dokter dah kuniq n-aru.
doctor PFT UV AV-call
'The doctor was called'

Recall that Beaye has one pronoun that potentially has two sets of forms: the 3rd singular. In the undergoer voice, the 3rd singular can occur in its Set I form, *yuqu*, as evidenced by (587) below.

(587) Bunga naq m-urop kunaq yuqu.
flower UV AV-plant GEN 3SG.I
'Flowers are planted by him/her'

There is, then, no evidence that pronouns in the undergoer voice occur in anything other than a Set I form.

3.2.2.2.2.2.2 Undergoer voice with ta-

The undergoer voice in Beaye can additionally be marked by the prefix *ta-*. This prefix attaches to verbs, and it seems that agents must occur postverbally (in contrast with *kunaq*, which can have either word order). A few examples are given in (588-589).

(588) Nasi ya **ta**-m-asaq mama kedin.
rice NONCOMP NONCOMP-AV-cook mother 1SG.I
'Rice is being cooked by my mother'

(589) Jendela yen **ta**-m-uke yuqu.
window that NONCOMP -AV-open 3SG.I
'The window is opened by him'

Moving the agent to the preverbal position results in ungrammaticality, as evidenced by (590).

(590) *Emeq han ya adep ta-m-uriq.
pig that NONCOMP 3PL NONCOMP -AV-skin
'The pig will be skinned by them'

It is curious that Beaye would have two different markers of undergoer voice. While neither *ta-* nor *kunaq* are allowed in actor voice constructions, it seems that the role of *ta-* may go beyond just marking undergoer voice. One crucial feature of *ta-* is that it cannot co-occur with the perfective marker *dah*. This is exemplified by the ungrammaticality of (591-592).

(591) *Buku yen dah ta-n-ulis kedin.
book that PROG NONCOMP -AV-write 1SG.I
'The book has already been written by me'

(592) *Jendela yen dah NONCOMP-m-uke yuqu.
window that PFT TA-AV-open 3SG.I
'The window has already been opened by him'

In contrast, *ta-* readily co-occurs with a marker of noncompletion, *ya*, and *bisa* 'can'; this can been seen in (593-594).

(593) Jendela yen ya ta-m-uke belayuqu.
windowthat NONCOMP NONCOMP AV-open 3PL.I
'The window will be opened by them'

(594) Buku yen bisa ta-n-ulis kedin.
book that can NONCOMP-AV-write 1SG.I
'The book can be written by me'

This suggests that *ta-* additionally encodes some temporal information; *ta-* can only be used to indicate non-completed actions, which accounts for its ungrammaticality with *dah*, which can only be used to indicate a completed action. This is not dissimilar to the system in Kendayan-Salako languages, except that this is not the function of the nasal prefix (as it is in those languages), but the function of an additional, undergoer-oriented-specific prefix. It is additionally important to note that this restriction does not apply to *kunaq*; *kunaq* occurs in both completed and non-completed actions.

Another interesting feature of *ta-* is that it can co-occur with *kunaq*. A few examples of this are given in (595-596) below.

(595) Perau yen ya **ta**-m-aliq **kunaq** kedin.
boat that NONCOMP NONCOMP-AV-capsize GEN 1SG.I
'The boat was being capsized by me'

(596) Buku yen ya **ta**-n-ulis **kuniq** kedin.
book that NONCOMP NONCOMP AV-write GEN 1SG.I
'The book will be writen by me'

When these co-occur, *kunaq* precedes the agent, which is postverbal. *Ta-* prefixes to the verb as it normally does. This looks similar to when *kunaq* is doubled, as described in the previous section, but instead of *kunaq* occurring twice, *ta-* occurs prevebally instead. This suggests that the second *kunaq* can only occur if some UV marker occurs preverbally – whether it is *kunaq* or *ta-*.

3.2.2.2.3 The nasal prefix in undergoer voice

The last feature of the undergoer voice I will be discussing is the occurrence of the nasal prefix. It is likely clear from the myriad of examples given in the section above that the nasal prefix can occur in the undergoer voice in both Beaye and Ba'aje. A few more examples are given below in ().

(597) Anaq ona kedin kuniq kedin **n**-ajo. *Beaye*
child female 1SG.I UV 1SG.I AV-look.for
'My daughter is being looked for by me'

(598) Ikatn kunaq ko **n**-inget kaq muwan.
fish UV 2SG.I AV-see in river
'Fish are seen in the river by you'

(599) Perau yen kanaq **n**-obeq oleh yuq. *Ba'aje*
boat that UV AV-tie by 3SG.I
'The boat is tied by him/her'

(600) Pintu yen kanaq **m**-uka.
door that UV AV-open
'The door is opened'

Note that, in Beaye, the nasal prefix can occur with both *kunaq* (as in (597-598)) and with *ta-* (in all the examples in the section above). The nasal prefix virtually always occurs in the undergoer voice, in both languages. Unlike Kendayan-Salako languages, this does not seem to be associated with any certain tense or aspect. Given that Beaye has *ta-*, which I have suggested is used to indicate non-completed actions, it would be surprising to find that the nasal prefix has this same function.

Speakers of both Beaye and Ba'aje generally accept bare forms of verbs in these constructions (such as *buka* for (600)), but they are rarely (if ever) given without prompting. This suggests that while allowed, it is uncommon for verbs in the undergoer voice to occur without the nasal prefix.

3.2.4 Patterns in Land Dayak languages

Before concluding this section, I would like to summarize some key findings presented here. Table 28 below offers this summary.

	FEATURES OF THE UNDERGOER VOICE					
	VOICE MARKING	**WORD ORDER**	**OPTIONAL AGENT?**	**NASAL PREFIX?**	**FORM OF THE AGENT**	**AGENT CAN MOVE?**
RIBUN	*leq*	UAV	✓	✓	Set I	✓
BANYADUQ	*kan*	UAV	✓	✓	Set II / III (1ST)	*
BEKATI	*katn*	UAV	✓	✓	Set I	*
BEAYE	*kunaq*	UAV	✓	✓	Set I	✓
BA'AJE	*kanaq*	UAV	✓	✓	Set I	✓

Table 28. A summary of the undergoer voice in Land Dayak languages

While Land Dayak languages follow Malayic languages in having only two voices (actor and undergoer), these languages significantly differ in having only one type of undergoer voice. Table 28 shows that the undergoer voice in Land Dayak languages seems to share features with both types of undergoer voice in Malayic languages (instead of distinctly patterning like one type). For instance, while the word order in the Land Dayak undergoer voice is Undergoer-Agent-Verb, like the bare undergoer voice in Malayic, agents are additionally optional, which is unique to the *di-* passive in Malayic languages.

I now discuss some of these crucial findings in more detail, noting how Land Dayak languages are distinct from Malayic languages.

PATTERN #1 OF LAND DAYAK LANGUAGES:

Land Dayak languages only have one type of undergoer voice.

Malayic languages, both those discussed in this dissertation as well as those that are more well-studied, have been argued to have two different types of undergoer voice: descriptively, I have used the terms '*di-* undergoer voice' and 'bare undergoer voice', but below I argue that this can be analyzed as the *canonical passive* and the *object voice*, as has been argued for Indonesian and Malay. Land Dayak languages only show evidence of one type of undergoer voice; in terms of analysis, this would mean that voice in Land Dayak languages cannot have the same analysis as Malayic languages.

This is strengthened by the fact that the undergoer voice in Land Dayak languages shares features of both the canonical passive and the object voice. Analyses proposed for either of these, then, cannot account for the undergoer voice in Land Dayak languages. Rather, a new analysis must be posited.

PATTERN #2 OF LAND DAYAK LANGUAGES:

The nasal prefix in Land Dayak languages occurs more frequently than in Malayic languages.

The nasal prefix, which has been argued to be a voice morpheme in Malayic languages, has a larger distribution in Land Dayak languages. It not only is allowed in the undergoer voice, but it does not share the same temporal restrictions that are seen in Kendayan-Salako languages. Furthermore, it is difficult to elicit bare forms of verbs at all in Land Dayak languages, suggesting the nasal prefix is rather unrestricted in these languages in comparison to Malayic languages.

PATTERN #3 OF LAND DAYAK LANGUAGES:

Land Dayak languages do not share a single voice morpheme.

One key pattern of Malayic languages was the use of *di-* to mark one type of undergoer voice (with the obvious exception of Ope). Ross (2005) has even used this as a diagnostic to determine which languages belong to the Malayic subgroup. Land Dayak languages, on the other hand, do not all use one voice morpheme; in fact, among the five languages discussed here, there is no repetition in the form of the voice morpheme (although there are significant similarities between Banyaduq and Bekati, and Beaye and Ba'aje, perhaps suggesting that these languages are closer related).

3.3 Towards an analysis of voice in languages of West Kalimantan

This section is dedicated towards accounting for the descriptive patterns elucidated above in a Minimalist framework. Due to certain gaps in the data, as well as the already large scope of this dissertation, this is meant to be preliminary analysis which will be built upon in my own future work, as well as serve as a starting point for others working on syntactic analysis specifically in languages of Borneo, but additionally in Austronesian languages in general.

I begin in Section 3.3.1 with a brief review of relevant analyses of voice in Indonesian-type languages. This includes a summary of the basic system and the role the nasal prefix plays. It additionally includes summaries of specific analyses that utilize a phase-based approach. I then turn to a review of some major relevant analyses in Philippine-type languages, although the literature on this is vast and I do not include every relevant work.

I then turn to my own preliminary analysis of voice in the ten languages of West Kalimantan included in this dissertation. I begin with patterns found in both Malayic and Land Dayak languages in Section 3.3.3, and the subsections within focus on significant differences both between the two subgroups, as well as within the subgroups themselves.

3.3.1 Previous analyses of Indonesian-type languages

This subsection discusses several current analyses of voice proposed for Indonesian-type languages. I largely focus on analyses of *meN-*, the nasal prefix, but include some work on *di-* as well. I additionally include a few works that do not necessarily offer a formal analysis but include important relevant observations about *meN-* in related languages.

Much of the work on voice in languages of Indonesia stem from an attempt to account for the extraction details (i.e., the 'subjects-only' restriction). As the nasal prefix is not permitted in object extraction in several languages of Indonesia, many scholars have posited a correlation between the occurrence of this 'actor voice' morpheme and this extraction restriction. Because of this, several of the works discussed in this section have significant overlap with Chapter 4.

Furthermore, it should be noted that the majority of previous formal work has been conducted on the most standard dialects of languages spoken in Western Indonesia[55], primarily Standard Indonesian and Malay, with some work on other majority languages like Javanese and Madurese. Most of the previous work discussed below, then, will focus on these most commonly studied languages.

I begin with a general summary of the voice system and the nasal prefix; this section is to discuss

[55] It is generally thought that the voice system in Western Indonesian languages differs from that which is found in Eastern Indonesian languages.

the general consensus on certain facts of Indonesian-type voice systems without going into specific analyses. I then turn to more specific analyses from Aldridge (2008), Cole et al (2008), and Sato (2012).

3.3.1.1 A summary of voice and the nasal prefix

3.3.1.1.1 Active, passive, and object voice

Languages of Western Indonesia share a number of characteristics in terms of voice. One, active voice is marked by the presence of a nasal prefix *meN-* (or, in smaller dialects, *N-*). Two, there is a type of undergoer voice in these languages that is marked by the verbal prefix *di-* (Sneddon 1996; Voskuil 2000). This construction is often referred to as the 'canonical passive' (also called the Passive Type One), as it resembles passives found in Indo-European languages. Namely, the canonical passive demotes the agent to an oblique, which is located in a prepositional phrase headed by 'by' (in Indonesian, this is *oleh*) (Chung 1976; Sneddon 1996). These two constructions are demonstrated in (601) and (602), respectively.

ACTIVE VOICE

(601) Ali mem-baca buku itu. *Indonesian*
Ali AV-read book that
'Ali reads the book'

THE CANONICAL PASSIVE

(602) Buku itu di-baca oleh Ali.
book that UV-read by Ali
'The book was read by Ali'

However, there is a third construction found in these languages. This construction is a type of undergoer voice where the verb occurs in its bare form. This construction has been referred to as object preposing (Chung 1976), Passive Type Two, and object voice. I use the term object voice to refer this type of construction within this dissertation. An example of this is provided in (603) below.

OBJECT VOICE

(603) Buku itu saya baca.
book that 1SG.I read
'The book, I read' or 'I read the book'[56]

[56] There is not direct translation into English for sentences in the object voice. I therefore will use the active voice in English in translations.

Important distinctions between the object voice and the canonical passive are mainly centered on the status of the agent. One, agents in the object voice are not demoted, but rather retain their argument status. This has been argued for through the use of several diagnostics, including binding, pronominal copy, and quantifier float (Arka and Manning 1998). Because of this, the agent is not optional in the object voice, but is in the canonical passive. Two, agents in the object voice are restricted: they cannot be full DPs. They typically are pronouns, but occasionally can occur as proper nouns as well.

The active voice – object voice alternation (where one is marked, and the other is not, and neither results in the demotion of any arguments) has led some scholars to refer to this voice system as 'symmetrical' (Arka 2002). However, others claim that this voice system is actually composed of three voices (active, passive, and object) (MacDonald and Darjowidjojo 1967; Cole et al 2008). What is clear is that both the passive and the object voice are undergoer-oriented constructions. Any analysis of such a voice system, then, must account for all three types of constructions.

3.3.1.1.2 The function of the nasal prefix

There have been a multitude of analyses offered for the function of the nasal prefix. The most common analysis, as has been previously mentioned, is that it functions as marker of active voice. This has been proposed by Sneddon (1996), Voskuil (2000), Son and Cole (2004), and Nomoto and Shoho (2007). Specifically, in his grammar of Indonesian, Sneddon states that "active transitive verbs have the prefix *meN-*" (1996: 246).

However, scholars have noted over the years that *meN-*, while present in active transitive sentences, additionally has features that are not consistent with a voice marker. This has led to a myriad of alternative analyses for this nasal prefix. This includes categorizing it as simply a marker of transitivity (Chung 1976; Cole and Hermon 1998), an agentive marker (Wouk 1989; Cumming 1991; Gil 2002; Englebretson 2003), either a marker of case (Guilfoyle et al 1992) or a recipient of case (Voskuil 1993), an agreement marker (Willett 1993; Cole et al 2008), and as having aspectual properties (Soh and Nomoto 2015). This has left the status of its function as somewhat constroversial.

While the exact function of the nasal prefix is unclear, there are a few observations that are generally agreed upon. One, it is clear that *meN-* occurs in active transitive clauses, and for languages like Standard Indonesian and Malay, it is disallowed in passive clauses. Two, *meN-* blocks DP movement over it. This has been proposed and investigated by Saddy (1991), Soh (1998), Cole and Hermon (1998), and Nomoto (2008), and is largely the catalyst behind proposing that languages like Standard Indonesian and Malay have the 'subjects-only' restriction (and therefore display extraction asymmetries).

3.3.1.2 Phase-based approaches to voice

One popular recent approach to voice in languages of Western Indonesia is to frame it within Phase Theory (Chomsky 2000, 2001, 2004). This has been proposed to account for the feature of the nasal prefix that blocks DP movement. I discuss specifics of four of these theories below, but these all share a few features. One, *meN-* is an active voice marker that is located in either *v* or Voice. Two, they all utilize object shift to account for the observable extraction restrictions.

Before turning to specific works, I would like to detail the specifics of Phase Theory and Multiple Spell-Out (Chomsky 2000). In this theory, the derivation takes place cyclically, by phase. Phases are, minimally, the CP and vP. The phase edge (the head and its specifiers) serves as an 'escape hatch' for this cyclic movement. Any element that is moving phase to phase must first stop at the phase edge, where it remains accessible to the higher phase until that phase is spelled out. To not stop at the phase edge would be a violation of the Phase Impenetrability Condition (PIC) (Chomsky 2004).

Movement within the Minimalist Program is feature-driven. This requires that phase heads carry the appropriate feature to trigger movement to its edge. Examples of features that trigger movement are EPP features or strong features (movement of a DP, for example, could be triggered by a strong D feature).

I now discuss each paper in turn, in order to describe the specific details of each analysis.

3.3.1.2.1 Aldridge (2008)

Aldridge's analysis aims to treat Indonesian-type languages like Philippine-type languages in terms of extraction. She offers first an analysis of Tagalog, which she then extends to Indonesian. As previously noted, this analysis relies on a phase-based approach. To be specific, she proposes that the nasal prefix *meN-*, which is located in *v*, lacks an EPP feature. This prevents an object from moving to the edge of the vP phase (thus 'blocking' DP movement over the nasal prefix).

To expand upon this, Aldridge offers different flavors of *v*, which are summarized in (604) below.

(604) v_{ACT}: [*u*Case:Acc] feature to value with a DP in its c-command domain
No [D*] feature

v_{PASS}:

v_{ERG}: Inherent case to assign to external argument
[D*] feature to draw the internal argument DP to the vP phase edge

T_{FIN}: [*u*Case:Nom] feature to value with a DP in its c-command domain
[D*] feature to draw the subject to [Spec,TP] (Aldridge 2008: 34)

I will begin with her analysis of active voice. The active voice *v* values the case feature on the direct object within its c-command domain but lacks a strong D feature so the direct object remains in its base-generated position. The external argument is base-generated in its specifier, which is targeted by the strong D feature in T. This triggers movement of the external argument to the spec,TP, where it receives [NOM] case. In subject extraction contexts, like subject *wh*-questions, the *wh*-word occurs in this specifier position and thus can move up to spec,CP.

For the canonical passive (with *di-*), Aldridge assumes that passive vPs (and unaccusatives vPs) are weak phases, and therefore the VP-internal argument can be extracted (by the EPP feature on T) without violating the PIC. It can then be targeted by the [wh] probe on C to move to spec,CP. Aldridge additionally follows Cole and Hermon (2005) in assuming that the agent is an adjunct adjoined to the VP.

The analysis offered for the canonical passive does not extend to the object voice. For those constructions, Aldridge claims that they are actually active and transitive, as the agent retains its status as an argument. Crucially, she follows Arka and Manning (1998), Cartier (1979), Hopper (1983), and Vehaar (1988) in treating object voice constructions as transitive ergative constructions. This ergative *v* has an external argument merged into its specifier and carries an EPP feature, which triggers movement of the internal argument to its outer specifier. The internal argument is then accessible to the probe on T and can move to spec,TP.

The most crucial component of Aldridge's analysis is that Indonesian has remnants of ergative syntax, despite being a nominative-accusative language. She claims that this is due to *meN-* historically being an antipassive marker that has been reanalyzed as a transitive marker. As an antipassive, it could not carry an EPP feature, and it has retained this feature through its reanalysis.

3.3.1.2.2 Cole et al (2008)

Cole, Hermon, and Yanti additionally propose a phase-based approach, but the specifics differ. They treat the absence of *meN-* in object extraction contexts as an agreement phenomenon. Additionally, instead of assuming that vP is a phase, they assume that VoiceP is the phase, and *meN-* occupies Voice.

Cole et al's analysis introduces a morphological uniqueness requirement. Any nominal that moves through the phase edge of spec,Voice requires morphological agreement with the Voice head. The uniqueness requirement prevents more than one nominal from moving into the edge, so only a single DP (the one triggering movement) can move to the edge. This leaves only one nominal accessible to the EPP feature on T.

The agreement requirement is formally introduced as the Voice Agreement Hypothesis (VAH). This has two requirements: one, the Voice head has to agree with +N arguments that occur in its specifier. In other words, Voice morphologically reflects the position from which extraction has taken place. The

nasal prefix *meN-* only occurs when the external argument is extracted. A null prefix only occurs when the internal argument is extracted. The second requirement is the Case Conflict Constraint (CCC). The CCC prevents the extraction of other constituents which have conflicting case (or thematic role). The voice marker cannot bear conflicting features regarding case.

In the case of the canonical passive, the agent is optional and not an argument, so Cole et al analyze it as not generating as the spec,vP (as is the case in English and other non-Philippine-type languages).

Cole et al's analysis shares the idea of a phase-based approach, but additionally utilizes a strict morphological requirement to account for the absence and presence of *meN-*. This analysis further accounts for why adjuncts can be freely extracted with the presence of the nasal prefix, as they do not carry conflicting features and thus can pass through the phase edge.

3.3.1.2.3 Sato (2012)

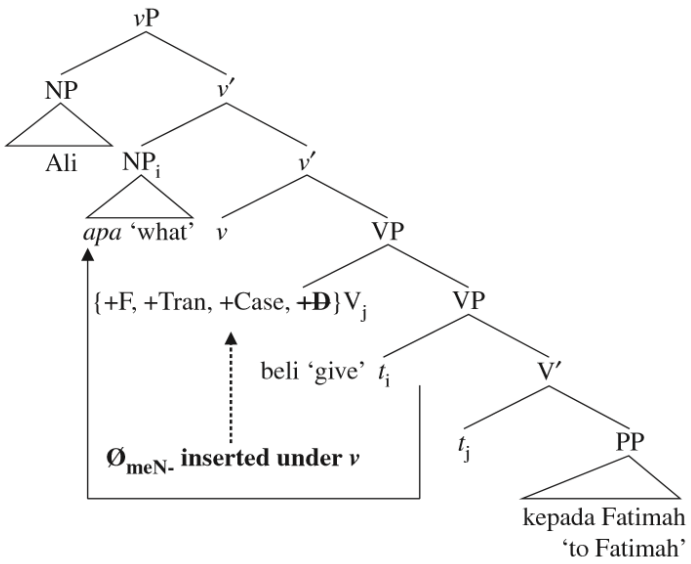
Sato's analysis shares the phase-based approach but utilizes some features of Distributed Morphology (Halle and Marantz 1993). He proposes that the deletion of the nasal prefix is a failure of Vocabulary Insertion. Like Aldridge, he also assume different flavors of *v: v** has an external argument (in other words, is phasal), *v* does not (is not phasal). This is following Chomsky (2000; 2001; 2004) in assuming that only transitive and experiencer verbs constitute a phasal *v*. Unaccusative and passive verbs do not constitute a phasal *v*.

Agents are merged into the specifier of vP (the phase edge). In object extraction contexts, the direct object undergoes "tucking-in" movement (Richards 1997) into the inner specifier of vP, in order to be accessible to the higher phase. The movement is triggered by the need to delete the uninterpretable D-feature of the phase head. This prevents *meN-* from being inserted, given the Vocabulary Insertion rules below in (605).

(605) i. *meN-* ← → [*v* __ [+D]] (specific case)
ii. $Ø_{meN-}$ ← → [*v* __ […]] (elsewhere case) (Sato 2012: 17)

When there is no D-feature on *v* (as it has been deleted by the movement of the internal argument), only the elsewhere case can be inserted, which is the null morpheme. This prevents the nasal prefix from occurring in object extraction contexts. This is exemplified in (606) below.

(606)



(Sato 2012: 15)

When the internal argument does not "tuck-in", *v* keeps the D-feature and therefore uses the specific case, or (605i). This is what happens in subject extraction, which is why the nasal prefix occurs in those constructions.

3.3.1.3 Some comments on the nasal prefix

3.3.1.3.1 meN- vs N-: Kaswanti Purwo (1986), Wallace (1977), Wouk (2004)

In this section I briefly summarize three works that focus on the functions of varied forms of the nasal prefix. I begin with Kaswanti Purwo (1986), which discusses the absence versus presence of *meN-* in Indonesian, with a focus on the role of *meN-*. In contrast, Wallace (1977) discusses functions associated with *N-* in Betawi and Jakarta Malay, again noting the alternation between the absence of presence of it on verbs. I end on Wouk (2004), one of the only papers I know of that discusses the differences between *meN-* and *N-* in the same language (Spoken Jakarta Indonesian).

In Kaswanti Purwo's paper from 1986, he discusses the presence and absence of *meN-* in Indonesian; he describes the alternation as partly aspectual and partly pragmatic. He describes *meN-* as being associated with telicity and duration, but additionally associated with the pragmatic property of narration. He also concludes that *meN-* is lower in transitivty than *di-*. On the other hand, he describes the absence of *meN-* as atelic and punctual, as well as associated with a performative pragmatic function.

Wallace (1977) discusses the functions of *N-*; again, the focus is on the presence or absence of this nasal prefix. He reports that *N-* is associated with absence of non-referentiality of a goal, habituality, duration, and non-indicative mood. This suggests that *N-* is associated with lower transitivity, which is the

same finding for *meN-* by Kaswanti Purwo.

Wouk (2004), discusses the differences between the two morphemes in the previously discussed works, but in the same language: Spoken Jakarta Indonesian. Wouk's work focuses on discourse transitivity between the two prefixes, using Hopper and Thompson's (1980) framework. Her finding in general is that the usage of these two prefixes represents "minor variation within a low transitivity AT framework"; in other words, both are associated with low transitivity, but with minimal differences. For instance, she notes that *N-* co-occurs with less arguments than *meN-*, and *meN-* co-occurs with auxiliaries more frequently. Wouk finds that a typical *meN-* clause has: an auxiliary, an explicit actor, and an explicit but non-referential patient. A typical *N-* clause, on the other hand, has: no auxiliary, no overt arguments, and a recoverable, identifiable patient.

3.3.1.3.2 In Indonesian/Malay dialects: Gil (2002)

This section discusses Gil's 2002 work on verbal prefixes in a variety of Indonesian/Malay dialects. Gil notes that many smaller varieties of Indonesian and Malay either do not have a nasal prefix at all, or only have *N-* (instead of *meN-*). What this results in is a system of an unmarked actor voice, with a marked undergoer voice (with *di-*).

Instead of analyzing *N-* as an actor morpheme, he analyzes it as marking the existence of an actor, with a function of adding specificity of meaning in Riau Indonesian (with an extension to Jakarta Indonesian). He notes that *N-* can occur with a patient preceding it, not just an actor. He analyzes *di-*, traditionally analyzed as a undergoer voice morpheme, as marking the existence of a patient. The morpheme *di-* can either introduce the patient or add emphasis to a patient introduced in previous discourse.

Gil additionally talks about Kuala Lampur Malay, as it has both *meN-* and *N-*. While Gil remains agnostic on whether Kuala Lampur Malay actually has two nasal prefixes, he does note that *meN-* occurs more readily in low transitivity clauses; specifically, it occurs more frequently in subordinate clauses, in habitual clauses, in durative clauses, and in the absence of an overt patient. This resembles the findings of Wouk and Kaswanti Purwo, as described above.

3.3.1.3.3 As an aspect marker: Soh and Nomoto (2015)

Recent work by Soh and Nomoto (2011; 2015) has proposed that the nasal prefix goes beyond a voice marker due to its role in degree achievement sentences. Specifically, they argue that the presence of the nasal prefix constrains the interpretation of degree achievement sentences so that they can only have an atelic interpretation. This effect is not found in non-degree achievement sentences. This finding leads Soh and Nomoto to analyze *meN-* as *v* (a light verb) that merges with a VP that describes eventualities with

stages (this is following the analyses of *meN-* as *v* from Aldridge 2008; Sato 2012 as described above).

This is obviously of interest in this dissertation, as there is evidence that the nasal prefix found in some languages of West Kalimantan displays aspectual features. This is seen in the Kendayan-Salako languages Ahe, Banana, and Balangin.

3.3.2 Previous analyses of Philippine-type languages

I now turn to previous analyses of Philippine-type languages. I begin with a summary of characteristics of voice in these languages. I then pivot to a summary of an ergative-type analysis for these languages, and how this is unable to account for Indonesian-type languages.

I focus on specifics of phase-based approaches, as I did for Indonesian-type languages, but as I have largely reviewed this approach, I include only Rackowski and Richards (2005), who originally offered such an analysis for Tagalog. I then pivot to a more recent analysis which focuses on Case-licensing as a crucial mechanism, from Erlewine, Levin, and van Urk (2020).

3.3.2.1 A summary of voice

3.3.2.1.1 Characteristics of voice in Philippine-type languages

There has been a vast amount of work on voice in Philippine-type languages. I utilize the summary of this work from Erlewine, Levin, and van Urk (2017) as it serves as a nice overview.

Erlewine, Levin, and van Urk identify four key characteristics of the Philippine-type voice system. These are outlined below in (607).

(607) CHARACTERISTICS OF AN AUSTRONESIAN-TYPE VOICE SYSTEM[57]

a. A privileged argument: One argument is designated the "pivot," and is realized in a particular morphological form and/or structural position, regardless of its original grammatical function.

b. Articulated voice morphology: Morphology on the verb varies with the choice of pivot, including options for taking certain oblique arguments as pivots.

c. Extraction restriction: A'-extraction (*wh*-movement, relativization, topicalization, etc.) is limited to the pivot argument.

[57] Erlewine, Levin, and van Urk describe these as properties of an 'Austronesian-type' system, instead of a Philippine-type system. However, they note that not all Austronesian-type languages have all four of these properties. Those languages that do not share all these properties are Indonesian-type languages, whereas Philippine-type languages do.

d. Marking of non-pivot subjects: Non-pivot subjects are morphologically marked, often coinciding with the form of possessors (i.e. genitive case).

(Erlewine, Levin, and van Urk 2017: 4)

These features are exemplified in Squliq Atayal, data which these authors repeat from Liu (2004).

(608a) **M**-aniq qulih qu' *Tali'.* *Subject Voice*
SV-eat fish QU Tali
'Tali eats fish'

(608b) Niq-**un** na' Tali' qu' *qulih* *qasa.* *Object Voice*
eat-OV GEN Tali QU fish that
'Tali ate the fish'

(608c) Niq-**an** na' Tali' qulih qu' *ngasal* *qasa.* *Locative Voice*
eat-LV GEN Tali fish QU house that
'Tali eats fish in that house'

(608d) S-qaniq na' Tali' qulih qu' *qway.* *Instrumental Voice*
IV-eat GEN Tali fish QU chopsticks
'Tali eats fish with chopsticks' (Erlewine, Levin, and van Urk 2017: 1)

The Squliq Atayal data exemplifies the characteristics outlined in (607) above; I outline this in (609) below.

(609) a. A priviledged argument: the pivot in Squliq Atayal is italicized in the examples above. The pivot occurs in the same structural position each time (in the sentence-final position), and it morphologically marked with *qu'*.

b. Articulated voice morphology: morphology on the verb varies dependent upon which argument is the pivot. The morphology in Squliq Atayal is bolded above. Each morpheme represents what argument is privileged: *m-* for the subject, *-un* for the object, *-an* for a locative oblique, and *s-* for an instrumental oblique.

c. Extraction restriction: while not shown in the examples above, any type of A'-movement in Squliq Atayal is limited to the pivot.

d. Marking of non-pivot subjects: in (608) above, the marker *na'*, which is the genitive case marker, marks the subject when it is not the pivot.

Squliq Atayal additionally shows another property commonly found in Philippine-type languages: a voice system with four or five voices. Note that this is a significant difference from Indonesian-type languages, which only have two or three (depending on whether you analyze the canonical passive and the object voice as two separate voices or not). Recall, however, that in Section 1.4.2, I noted that many syntactic descriptions of languages spoke in Borneo have identified these languages as having four or five voices, like seen in established Philippine-type languages.

3.3.2.2 The ergative hypothesis

A popular theory prior to the 90s was to analyze Philippine-type languages as ergative (both morphologically and syntactically) (DeGuzman 1976; Payne 1982; Gerdts 1983; Cooreman et al 1984). This theory has largely continued in current discourse as a result of work by Aldridge (2004; 2008). I outline the basic premise of this hypothesis below.

Voice morphology, under the ergative hypothesis, is a marker of a verb's syntactic transitivity. The pivot carries absolutive case, while subjects in any voice that does not priviledge the subject are ergative arguments. In subject voice, the clause is intransitive (an antipassive). In the object voice, on the other hand, the clause is analyzed as a transitive clause. In voices that priviledge adjuncts, these are analyzed as applicatives.

This hypothesis accounts for the extraction restriction by positing that only absolutive arguments can be A'-extracted. This is cross-linguisically common; many morphologically ergative languages have this type of extraction restriction (Manning 1994).

I discussed in the previous section the work of Aldridge (2008), which utilizes aspects of this ergative analysis to account for the voice system of Indonesian. Within that same work, Aldridge outlines this analysis for Tagalog as well (drawing from her 2004 work). This type of analysis has additionally been proposed for Malagasy (Paul and Travis 2006).

3.3.2.3 Phase-based approach to voice (Rackowski and Richards 2005)

In the previous section (Section 3.3.1), I discussed several phase-based approaches to voice in Indonesian-type languages. These were largely inspired by such an approach for the Philippine-type language Tagalog, which was proposed by Rackowski and Richards (2005). There are notable similarities between the original analysis described here and the Indonesian-type analyses outlined above. The crucial component is the usage of Phase Theory to account for extraction and morphology in these languages. I outline Rackowski and Richards analysis of Tagalog below.

The Tagalog facts are similar to the Squliq Atayal as demonstrated above, as it has all the properties of a Philippine-type language as summarized by Erlewine, Levin, and van Urk (2017).

Consider the data in (610) below. The verbal morphology that indicates which argument is the pivot has been bolded, and the pivot itself is italicized.

(610a) B-**um**-ili *ang bata* ng tela sa palengke para sa nanay. *Subj*
-NOM.ASP-buy ANG child CS cloth DAT market for DAT mother
'*The child* bought cloth at the market for Mother'

(610b) B-in-ili-**Ø** ng bata *ang tela* sa palengke para sa nanay. *Obj*
-ASP-buy-**ACC** CS child ANG cloth DAT market for DAT mother
'The child bought *the cloth* at the market for Mother'

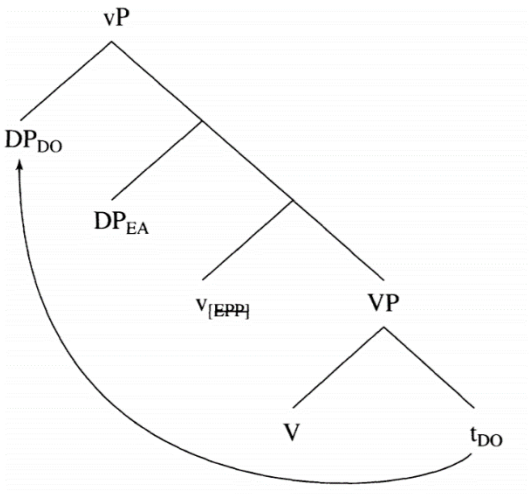
(610c) B-in-ilh-**an** ng bata ng tela *ang palengke* para sa nanay. *Loc*
-ASP-buy-**DAT** CS child CS cloth ANG market for DAT Mother
'The child bought (the) cloth *at the market* for Mother'

(610d) **I**-b-in-ili ng bata ng tela sa palengke *ang nanay*. *Bene*
OBL-ASP-buy CS child CS cloth DAT market ANG mother
'The child bought (the) cloth at the market *for Mother*'

Pivots are additionally marked by *ang*, which can be seen in (610a-d) above. Note that non-pivots do not take *ang*, and non-pivot subjects are marked by *ng* instead.

To account for these characteristics, Rackowski and Richards' main argument is that certain arguments in Tagalog undergo 'object shift'; the priviledged argument has entered into an Agree relation with *v*, which forces it to raise to edge of the phase. This triggers case agreement morphology on the verb. This is schematized in (611).

(611)



(Rackowski and Richards 2005: 8)

This is following Chomsky (2001), who argues that object shift occurs as a result of an EPP-feature on *v* that is present only when it has an effect on the semantic outcome. The edge of the vP is associated with a specific interpretation, which results in any argument moving to that position getting a specific interpretation. This accounts for why all pivots are specific in Tagalog.

Object shift in Tagalog is subject to locality restrictions. The authors account for this by claiming that the different focus constructions in (610) actually have a different underlying argument structure. Examples of this include applicative constructions. Only the highest internal argument may undergo object shift, and differing underlying structures allows this to occur. In cases where the subject is the pivot, *v* does not bear a feature to trigger object shift, and the external argument controls the morphology (as it is the highest argument).

3.3.2.4 Strict adjacency and licensing (Erlewine, Levin, and van Urk 2017, 2020)

Recent work by Erlewine, Levin, and van Urk (2017, 2020) proposes a case-based approach to voice in both Philippine- and Indonesian-type languages. They argue that there are two parameters of nominal case licensing for non-pivot core arguments: the accusative parameter, and the last resort parameter. I repeat their definitions of these parameters below in (612) and (613).

(612) ACCUSATIVE PARAMETER
The language does or does not have structural accusative case.

(613) LAST-RESORT LICENSING PARAMETER
If a DP lacks a source for structural licensing, it can be licensed…
a. under linear adjacency wih the verb; or
b. by insertion of a case marker (genitive)

Their core proposal is that these two parameters can account the variation seen within Austronesian languages (critically, between Philippine-type and Indonesian-type languages). They do incorporate the main idea of the phase-based approach outlined above, that the pivot exists at the phase edge of the vP, making it the only argument accessible to higher phases.

This proposal takes the idea from Marantz (1991) that nominals have a range of licensing mechanisms available to them. These include licensing structurally through Agree, licensing by adjacency (Baker 1988, amother others), and prepositional/oblique case-insertion as a rescue strategy (Stowell 1981, among others). The two strategies outlined in (612-613) are those that are available in an Austronesian voice system. In their proposal, the pivot always receives nominative case from a higher functional head (like T) while the the other core argument uses some combination of the strategies in (612-613).

3.3.3 Considering an analysis of voice in Malayic and Land Dayak languages

Now that I have noted a few influential relevant proposals of voice in both Indonesian-type and Philippine-type languages, I now turn to proposing my own analysis of voice in the languages of this dissertation. Given the patterns seen in Malayic and Land Dayak languages, it is clear that these languages do not fit perfectly into any of the analyses outlined above. This is largely due to the fact that these languages seem to have features that fit with both Indonesian- and Philippine-type languages. However, unlike languages of Northern Borneo, Malayic and Land Dayak languages do not have a voice system that has four or five different voices (a feature more correlated with Philippine-type languages). This suggests these languages are more Indonesian-type. This puts these languages in a unique position within the discourse on voice systems. I attempt to account for this 'transitionary' status of these languages with an analysis that emphasizes Indonesian-type versus Philippine-type features.

I begin with Malayic languages, as their voice system is the most similar to more well-studied languages, and they more clearly fall into Indonesian-type territory. In Section 3.3.3.1, I outline an analysis of the basic voice system I am proposing, with more details (some more language-specific) in the following subsections.

I then turn to Land Dayak languages, where I discuss similarities and differences between these languages and Malayic languages. In Section 3.3.3.2, I outline an analysis for these languages, again discussing microvariation within the system between Land Dayak languages.

3.3.3.1 Summary of voice in Malayic languages[58]

I begin with Malayic languages in general. All five of the Malayic languages described in this dissertation crucially have one feature in common: the number of voices. I argue that Malayic languages spoken in West Kalimantan, like more well-studied Malayic languages, have a three 'voice' system of active, object, and the canonical passive. I follow the analyses of Indonesian and Malay above in treating the nasal prefix as a voice marker of the active and *di-* as a marker of the passive. The object voice uses the verb in its bare form, with no voice morphology.

Malayic languages of West Kalimantan, however, have a number of characteristics not found in other Indonesian-type languages, and these must be taken into account. The first characteristic that I will account for is the two nasal prefixes (*me-* and *N-*) in Desa. I argue that the extraction facts discussed earlier are evidence that Desa does indeed have two separate nasal prefixes, each with its own function.

The second characteristic I discuss is the 'doubling' of the voice marker found in Kendayan-

[58] My use of the term 'Malayic' here is meant to represent the Malayic languages spoken in West Kalimantan, not all Malayic languages.

Salako languages. I argue that the second *di-* is not a voice marker but a genitive case marker, either inserted as a last resort when strict adjacency between the verb and the non-pivot agent is interrupted, or used to assign genitive case directly.

The third characteristic I account for is specific to Kendayan-Salako languages. It was noted earlier (and by Adelaar 2002; 2005) that languages of the Kendayan-Salako subgroup allow the nasal prefix to occur in the undergoer voice in order to mark completion. I argue that the nasal prefix in the undergoer voice is not functioning as a voice marker, but rather as an aspectual marker.

3.3.3.1.1 Three 'voices': Active, passive, and object

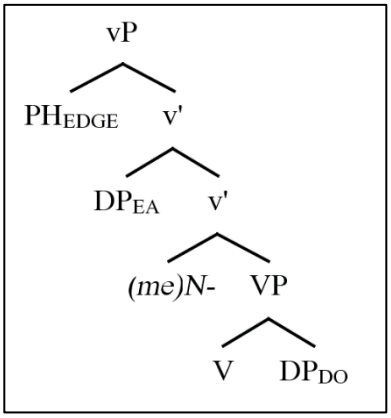
Malayic languages outside of Borneo have been argued to have an active, passive, and object voice. It is not surprising, then, that Malayic languages in Borneo would have a similar system.

3.3.3.1.1.1 Active voice

Let us begin with the active voice. I propose that, like in many other languages of Indonesia, the nasal prefix serves a voice and transitivity marker in the active. However, I argue that this is not its function, but rather a byproduct of other syntactic functions. Recall that previous authors have differed in the location of this prefix: it either occurs in *v* (Aldridge 2008; Nomoto 2008) or Voice (Cole et al 2008). I argue that the underlying structure is reflected in the morphology. If there is only one nasal prefix, as in Indonesian, Malay, Banana, Balangin, Ahe, and Ope, there is only one higher verbal projection: vP. If there are two nasal prefixes, as in Desa, there is a split-Voice projection instead (Pylkkänen 2002; Harley 2017), as it reflects the need for two sites to 'host' the two nasal prefixes. In the next section, I go into the details of Desa. Here, I discuss the other four languages.

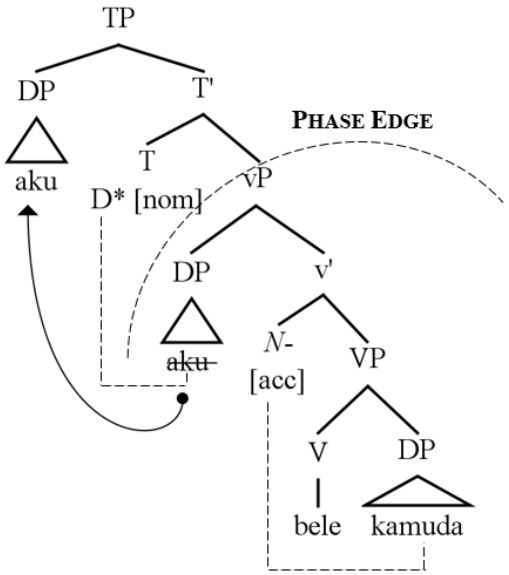
Ahe, Banana, Balangin, and Ope all have the structure schematized in (614). I argue that this structure is additionally the same in Standard Indonesian, as the voice facts are very similar.

(614)



The nasal prefix is located in *v*, and in its specifier is the external argument. The nasal prefix has two functions: one of voice, and one of assigning accusative case. The internal argument, needing case, receives accusative case from *N-* through the operation of Agree. The external argument, needing case, is targeted by the probe on T (an EPP feature) which can target the external argument as it is located at the edge of the vP phase (and thus accessible to the higher phase, which has the TP). The external argument moves to the spec,TP and receives nominative case. This is exemplified in Ahe in (615) below.

(615) Aku n-ele kamuda.
1SG AV-see child
'I see the child'



I am proposing that the nasal prefix *N-* has two functions: one, to introduce the external argument (one of agency and volition), and two, to assign accusative case to the direct object. These functions have been proposed by some scholars in the past (Guilfoyle et al 1992; Son and Cole 2004), but not together. Its role as a voice marker, then, is simply a byproduct of these two syntactic functions. In other words, its function is not to indicate voice, but rather it indicates voice as a result of these two functions.

Evidence for the nasal prefix having both of these functions comes from intransitives. The difference between unergatives and unaccusatives in terms of analysis is generally attributed to where the subject is base-generated. In unergatives, subjects are base-generated as Agents (external arguments). In contrast, subjects in unaccusatives are base-generated as Themes (internal arguments) of verbs. Unaccusative verbs, then, do not introduce an external argument. This lends itself to a few predictions: if the nasal prefix only introduced the external argument, but did not assign accusative case, we would predict that the nasal prefix would freely occur on unergatives, but not unaccusatives. If the nasal prefix has both of the functions described above, we would predict that it would not occur on intransitives, regardless of whether they are unaccusative or unergative.

At first glance, it would appear that only the first prediction is borne out. Consider the data from Desa in Table 29 below.

UNERGATIVES	UNACCUSATIVES
be-kejar ‘run’	jetu ‘fall’ (*ny-etu)
be-jalan ‘walk’	detang ‘come’ (*n-etang)
be-nyani ‘sing’	tumbuh ‘grow’ (*n-umbuh)
be-nafas ‘take a breath’	tidoq ‘sleep’ (*n-idoq)
be-diri ‘stand’	roboh ‘collapse’ (*ny-oboh)

Table 29. Unergative and unaccusative verbs in Desa

It should be noted that Desa has two unergative verbs that seemingly have a nasal prefix: *nari* ‘to dance’, and *nangis* ‘to cry’. However, it is far more common for unergatives to take a different prefix: *be-*. There is currently no evidence that unaccusative verbs can take a nasal prefix in an intransitive construction. This seems to suggest that the nasal prefix only has one of the functions I described above: introducing the external argument. It cannot assign accusative case, as intransitives by definition do not have an internal argument.

However, while *be-* seems quite productive in unergatives, *N-* is not. The two verbs ‘to dance’ and ‘to cry’ are the only unergative verbs in which I have found the nasal prefix to occur. There could be a number of explanations for this. One potential explanation is that these verbs are borrowed from Standard Indonesian (*menari* ‘to dance’ and *menangis* ‘to cry’) and have therefore retained the nasal prefix from the borrowing process. This would indicate that *N-* has been lexicalized and therefore is not being productively used as it does in Desa. Two, it could be the case that these verbs have an implicit internal argument. One might say that you dance a dance, and cry tears. The nasal prefix, then, is actually assigning accusative case to an implicit object. It is not implausible to assume that either of these could account for why the nasal prefix is allowed on a few unergatives. Furthermore, I believe that a case could be made that *be-*, which only occurs on unergatives, introduces the external argument but does not assign accusative case.

There is further evidence of this. Some unaccusatives can take the nasal prefix, but this results in the addition of a causative meaning.

(616a) Inya jetu. *Desa*
3SG.I fall
‘S/he falls’

(616b) Inya **ny**-etu pinang yen.
3SG.I N-fall cup that
‘S/he drops the cup’

(617a) Aku tidoq.
1SG.I sleep
'I sleep'

(617b) Aku tauq **n**-idoq onaq bijaq yen.
1SG.I can N-sleep child that
'I can put the children to sleep'

As an intransitive in (616a) and (617a), the verb occurs in its bare form. When the nasal prefix is added in (616b) and (617b), the subject becomes an agent (thus base-generating as an external argument), and an internal argument is added as the theme (thus allowing the nasal prefix to assign accusative case).

Analyzing *N-* as having specific syntactic functions as I have done here has multiple benefits over simplying analyzing it as a 'voice' marker. What exactly is a voice marker? How does that translate to a function within the syntax? Furthermore, it has been noted that the nasal prefix differs significantly from voice markers cross-linguistically. My analysis does not rely on its status as a voice marker, but rather attritubes this status as falling out from other syntactic facts.

3.3.3.1.1.1.1 Two nasal prefixes: Variation in Desa

My analysis of Desa is slightly different. As I noted earlier, Desa shows evidence of having two nasal prefixes. This evidence comes from object extraction contexts. Recall that, in object extraction contexts, the full nasal prefix *meN-* is disallowed, but *N-* is allowed. I have repeated this pattern in (618a-b) below.

(618a) Opai yang inya **m**-oli? *Desa*
what COMP 3SG.I N-buy
'What did s/he buy?

(618b) *Opai yang inya **mem**-boli?
what COMP 3SG.I MEN-buy
'What did s/he buy?

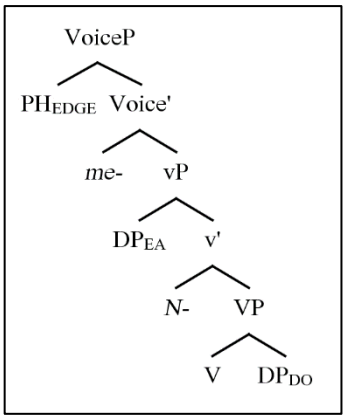
This distinction is crucial. In some languages, like Standard Indonesian (SI), the nasal prefix is shortened in casual speech. However, these two 'versions' of the nasal prefix behave the same in extraction contexts. Namely, they are disallowed in object extraction contexts. Futhermore, there are languages which have been noted to only utilize *N-* (instead of a full nasal prefix). One such language is Jakarta Indonesian (JI). Crucially, however, *N-* in Jakarta Indonesian behaves like *meN-* in Standard Indonesian: it is disallowed in object extraction contexts. This is shown in (619-620) below for both languages.

(619) *Apa$_i$ yang Fera **mem**-beli? *SI*
what COMP Fera AV-buy
'What did Fera buy?'its

(620) *Apa$_i$ yang anak itu **nge**-baca? *JI*
what COMP child that N-read
'What is the child reading?' (Tjung 2006: 22a)

In Jakarta Indonesian, *N-* is analogous to *meN-* in Standard Indonesian. This cannot be the case for *N-* in Desa, as it is allowed in object extraction contexts (as in (618a)). Instead, I argue, based on these extraction facts, that Desa has two nasal prefixes: *me-* and *N-*. I further claim that these two prefixes reflect a differing underlying structure from the one I posited above for the four other Malayic languages, as Desa must have a split-Voice projection (Pylkkänen 2002; Harley 2017), and have the structure provided below in (621).

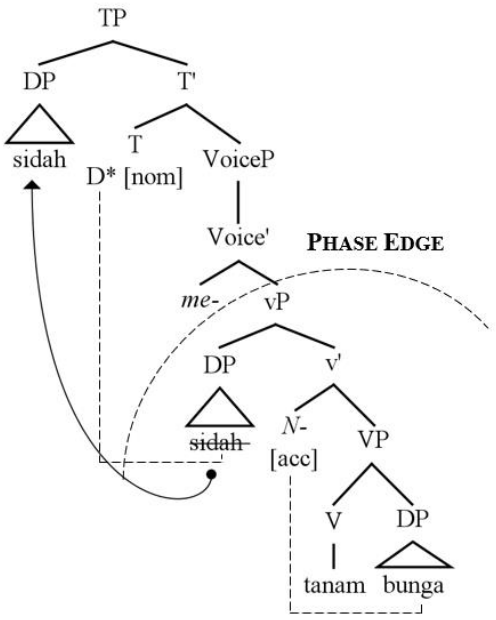
(621)



Unlike Ahe, Banana, Balangin, and Ope, which only have a vP, Desa has a higher projection of VoiceP. This underlying structure is reflected in the morphology: *me-* is purely an active voice marker, and *N-* introduces the external argument and assigns accusative case. What this implicates is that Desa has an active voice marker, while the voice marking abilitiy of *N-* in the other four languages simply falls out from its functions.

I provide a derivation of an active clause in Desa below in (622).

(622) Sidah me-n-anam bunga.
3PL.I ME-N-plant flower
'They plant flowers in the field'



A few crucial components to this analysis: one, the phase edge is still the vP. I follow Chomsky (2000, 2001, 2004) in assuming that a weak phase is one without a specifier. This would mean that VoiceP is a weak phase, allowing T to probe past it to the edge of the vP, where the external argument is. This allows the external argument to raise to spec,TP even with an additional projection. Two, the optionality of *me-* in active voice clauses is easily explained as *me-* does not play a role in introducing the external argument or assigning accusative case. These functions are attributed to *N-*, which always occurs in active sentences. Three, I propose that *me-* subcategorizes for a vP that is headed by *N-*, thus accounting for why *me-* never occurs without *N-* (but *N-* does not occur without *me-*).

This analysis has a further implication for the other four Malayic languages. An analysis of Desa having a dedicated voice marker in *me-* implies that the other four do not have this dedicated voice marker. Instead, Ahe, Banana, Balangin, and Ope have an overt realization of *v* that serves two important syntactic functions, but these languages lack a voice marker, which is reflected in its structure in not having a VoiceP.

Analyzing *N-* in Desa as having the same functions of *N-* in the other four Malayic languages follows from the same evidence. I noted that Desa intransitives lack a nasal prefix in the last section.

3.3.3.1.1.2 Passive voice

I now turn to an analysis of the passive voice. In four of the languages being discussed, the passive voice is marked by the prefix *di-*. In one (Ope), the passive voice is marked by *kona*. Despite these differences

in marker, the analysis for all five is largely the same. I discuss any significant differences in Section 3.3.3.1.2.

As described in the literature review in Section 3.3.1.1.1, *di*-passives in Indonesian are generally analyzed as demoting agents from argument status to an adjunct. I argue that this is additionally true in Ahe, Banana, Balangin, Ope, and Desa. Two of these languages, Banana and Desa, are the most similar to Indonesian, so I will begin with them. In Indonesian, non-pivot agents in *di*-passives occur in a prepositional phrase headed by *oleh* 'by'. This is identical in Desa, as exemplified by (623).

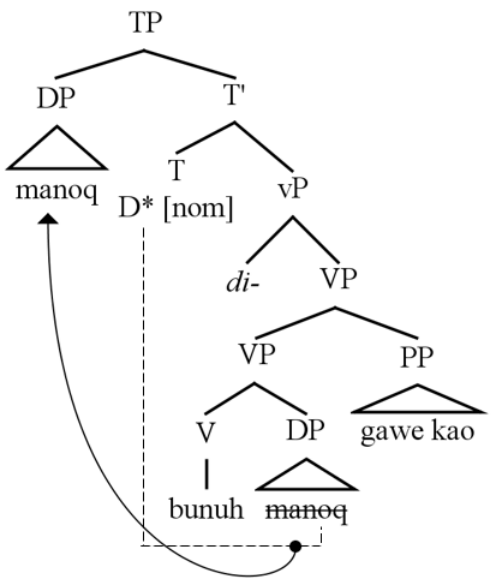
(623)	Perau	yen	di-ikaq	oleh	inya.	*Desa*
	boat	that	PV-tie	by	3SG.I	
	'The boat is tied by him/her'					

In Banana, while *oleh* is not used, the structure is identical. Instead of *oleh*, Banana uses *gawe*, which additionally is a prepositional head.

(624)	Manoq	di-bunuh	gawe	kao.	*Banana*
	chicken	PV-kill	by	2SG.I	
	'The chicken will be killed by you'				

I follow many previous authors in their analysis of *di*-passives in Indonesian (such as Cole and Hermon 2005; Aldridge 2008). The prefix *di*- occurs in *v*, but does not introduce an external argument nor does it carry accusative case. These functions exclusively lie with the nasal prefix. It has been argued that phases that do not have a specifier are weak phases (Chomsky 2000, 2001, 2004). This allows T to probe all the way to the internal argument, forcing it to move to spec,TP, and assigning it nominative case. The agent, as it has been demoted to an adjunct, adjoins to the VP. A derivation of (624) is given below in (625).

(625)



This same derivation also applies to the (618), a passive construction in Desa. Treating the agent as an oblique accounts for the fact that agents are optional in the passive voice in all five languages. It also accounts for why the agent can move into different surface positions with the clause.

The other three languages, Ahe, Balangin, and Ope, differ slighly and thus require a variation of this analysis. Recall that Balangin and Ope have postverbal agents, but these agents are not preceded by a preposition.

(626) Buku ntu **di-**baca aku. *Balangin*
book this UV-read 1SG.I
'This book is read by me'

(627) Tayaq aku **kona** alap iko. *Ope*
basket 1SG.I UV take 2SG.I
'My basket was taken by you'

I argue that, in these two languages, the underlying structure is roughly the same. Agents are still obliques, but lack an overt marker. Instead, strict adjacency between the verb and the agent allows the agent to occur without any overt marker. If this strict adjacency is broken, this is no longer possible. In Ope, for instance, an intervening adjunct between the verb and the agent results in ungrammaticality with the intended meaning given below in (628).

(628) Bumbu kona taroh keq dalap inya. *Ope*
spices UV put in basket 3SG.I
'Spices are put in his/her basket' *NOT 'Spices are put into the basket by him/her'*

The sentence in (628) can only be interpreted with *inya* as a genitive marker, not as agent. I argue that this is a result of interrupting the adjacency between the verb and the agent. Balangin functions similarly; when an adjunct intervenes between the verb and agent, adjacency is broken. Unlike Ope, however, Balangin 'saves' this, by inserting *di-* prior to the agent.

(629) Makanan naq di-kirim keq Ponti di uma-ku. *Balangin*
food FUT UV-send to Pontianak by mother-1SG.II
'Food will be sent to Pontianak by my mother'

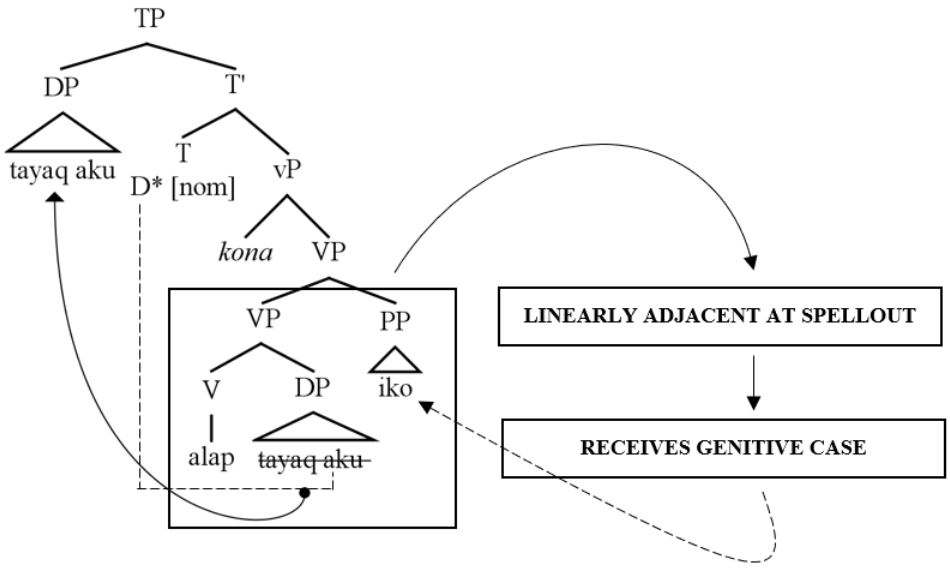
I analyze Balangin and Ope as having the same structure in (625) with one exception: the agent can occur without any overt oblique/prepostional marking as long as strict adjacency is adhered to. Non-pivot agents, then, are case-licensed by adjacency. This has been argued for Balinese (Levin 2015; Erlewine, Levin, and van Urk 2020). When this is adjacency is broken, a language may have an option to 'save' it (Balangin), or it may not (Ope). Balangin uses last-resort case insertion to 'save' the agent from not receiving the case it needs. This is done by inserting *di-*, which assigns genitive case. This argument is strengthened when we consider what set the pronoun occurs in when this happens:

(630) Bunga di-tanam keq taman di-ku.
flower UV-plant in field GEN.1SG.II
'Flowers are planted in the field by me'

The agent in (630) occurs in its Set II pronoun, which is additionally used for genitive constructions. The last-resort case insertion forces the pronoun to occur in its genitive form, as it has received genitive case from *di-*.

Ope, on the other hand, does not have the option for last-resort case licensing. When strict adjacency is broken, the result in ungrammatical, as the agent is missing case. I provide a derivation for Ope sentence in (627) in (632) below.

(632)



(632) is additionally the derivation for Balangin when adjacency is met. If the segment in (632) is not linearly adjacent at Spellout, *di-* is inserted as a last-resort instead.

Neither licensing by adjacency nor last resort case-insertion are completely novel ideas for voice in Austronesian languages. I noted that Levin (2015) proposed licensing by adjacency for the voice system found in Balinese. Many authors have proposed a last-resort case-insertion analysis for non-pivot arguments cross-linguistically (Stowell 1981; Halpert 2012; Imanishi 2014; Van Urk 2015), and Erlewine, Levin, and van Urk (2020) propose such an analysis for Nanwang Puyuma, another Austronesian language. It would be not surprising, then, that these West Kalimantan languages would utilize a similar strategy.

The last language to consider is Ahe. Recall that Ahe patterns similarly but always requires the second *di-* to mark the non-pivot agent, regardless if adjacency is met.

(633) Jandela koa di-buka di-nyu. *Ahe*
window that UV-open GEN-2SG.II
'The window is opened by you'

Similarly to Balangin, the agent occurs in its Set II pronoun, which is additionally used for the genitive in Ahe. I argue that Ahe also licenses the case on the agent through last-resort genitive case-licensing. The difference between Ahe and Balangin is that Ahe does not have the strategy of strict adjacency to license case. Instead, it utilizes just one strategy, last-resort licensing, while Balangin has two. Ahe, then, has the

same underlying structure as the other four languages, but utilizes a different strategy for licensing the non-pivot agent.

I summarize the patterns seen in the passive voice in the five Malayic languages in Table () below. Importantly, all five languages assign case on pivots and non-pivot themes the same. For pivots, all five languages have T probe down to find the highest argument accessible (in active voice, the external argument, and for the passive, the internal argument) which then licenses the pivot with nominative case. For non-pivot themes, these DPs receive case from the nasal prefix in *v*, which has accusative case. These languages differ only in how they license non-pivot agents.

	LICENSING OF NON-PIVOT AGENTS
DESA	[gen] case from P
BANANA	[gen] case from P
OPE	adjacency
BALANGIN	adjacency / last-resort [gen] insertion
AHE	last-resort [gen] insertion

Table 30. Distribution of licensing non-pivot agents in Malayic languages

Interestingly, the variation in licensing is not restricted to subgrouping. Banana and Desa utilize the same strategy yet only one is a Kendayan-Salako language. Furthermore, Desa and Banana are most similar to Indonesian.

3.3.3.1.1.3 Object voice

These five Malayic languages additionally have a third voice construction: the object voice. It has been noted that several other Indonesian-type languages have an object voice, beginning with Chung's (1976) paper on this construction in Indonesian. I argue that these five Malayic languages additionally have this construction, with many of the same features as the same phenomenon in related languages. A few examples have been repeated below in (643-635).

(634) Baras koa diri m-ali. *Ahe*
rice that 1PL.I AV-buy
'Some rice is bought by us'

(635) Buku ikau beca. *Desa*
book 1SG.I read
'The book is read by you'

The object voice, as noted earlier, is characterized by a few different features. One, unlike the passive voice, agents are obligatory in the object voice. Two, agents in the object voice are preverbal, instead of

postverbal. Three, the object voice, unlike the active and the passive, does not have a dedicated marker that occurs on the verb.

There are two features of the object voice in more well-studied languages that are not reflected in these five Malayic languages. These both involve the status of the non-pivot agent. One, Indonesian restricts what type of agent can occur in the object voice. Agents can only be pronouns (Chung 1976). This is not true in at least four of these five languages. Desa, Ahe, Banana, and Balangin allow full DPs as agents as well as pronouns[59]. This may be the case in Ope, but there is currently not enough evidence for this. Two, agents in the object voice in Indonesian occur in their genitive form. For Banana, Balangin, and Desa, this is not the case. Agents occur in their Set I pronouns, instead of their Set II pronouns (which are used in the genitive). Ahe uses a Set II pronoun in the object voice only for the 1st singular. Ope may additionally have this restriction, but again, due to a lack of evidence it is currently not clear.

The object voice has received significant attention within the literature due to some of its unique features. A few analyses have analyzed the external argument as receiving ergative case (Aldridge 2008; Legate 2014). However, since most of the languages that have the object voice are not ergative-absolutive languages, this idea has received some criticism. This is partially due to the observation that ergative languages tend to be verb-peripheral (Trask 1979; Mahajan 1994; 1997; Comrie 2008). If Indonesian (and the languages discussed here) were ergative, it would be unexpected that they would have SVO word order. However, Chung (2008) argues convincingly that Indonesian is indeed an SVO language. This makes an ergative analysis difficult to support.

For this reason, I leave an analysis of the object voice for future research. What is clear is that these five Malayic languages have this construction, with a few variations from other more well-studied languages. An analysis of the object voice in Indonesian, then, should be extended to these languages of West Kalimantan. Other than the observations about the status of the agent, these languages do not provide any novel contributions to the discussion of the object voice in general, and therefore is beyond the scope of this dissertation.

3.3.3.1.2 The nasal prefix in the undergoer voice

There is one notable feature that I have not yet accounted for, which is unique to Kendayan-Salako languages. I am referring to the usage of the nasal prefix in both types of undergoer voice. I repeat this phenomenon in both the passive and the object voice below in (636-37).

[59] Recent work by Nomoto (2020) has shown that allowing full DPs is actually quite common in languages of Indonesia.

(636) Padi di-**n**-aliq (gawe) nang laki na. *Banana*
rice PV-NONCOMP-steal by person male that
'The rice is stolen by a boy'

(637) Karusi koa dah kamuda koa **n**-ipaq. *Ahe*
chair that PST child that NONCOMP-kick
'The chair was kicked by the child'

Descriptively, Adelaar (2002, 2005) noted that the nasal prefix can only occur in the undergoer voice if the action being described has already been completed. In other words, any non-completed actions must occur without the nasal prefix. I noted earlier that this holds in Ahe, Banana, and Balangin as well. We can see this restriction by adding tense/aspect markers (or, in the case of Ahe, the future marker *-qa*) and attempting to include the nasal prefix. I have done so below in (638) for Ahe, and (639) in Banana.

(638a) Awutn-ku **di-bari-qa** buku. *Ahe*
friend-1SG.II PV-give-FUT book
'My friend will be given a book'

(638b) *Awutn-ku **di-m-ari-qa** buku.
friend-1SG.II PV-AV-give-FUT book
'My friend will be given a book'

(639a) Makanan mau **di-kirim** kaq Maliau. *Banana*
food FUT PV-send to Meliau
'Food will be sent to Meliau'

(639b) *Makanan mau **di-n-irim** kaq Maliau.
food FUT PV-NONCOMP-send to Meliau
'Food will be sent to Meliau'

These examples, along with observations from Adelaar (2002, 2005) in Salako, make a strong case for the nasal prefix in Kendayan-Salako languages being treated as an aspectual marker. However, this aspectual marker is only present in the undergoer voice, as the nasal prefix occurs without restriction in the active voice.

There are a few reasons to believe this is a separate morpheme from the nasal prefix present in the active voice. One, languages like Indonesian, Malay, and Desa restrict the nasal prefix from occurring in any undergoer-oriented construction. This has been used as an argument for the nasal prefix as an active voice marker. Two, my analysis of the nasal prefix and *di-* has them occupying the same position in the

structure (in *v*), with *N*- serving two vital syntactic functions: to introduce the external argument, and to assign accusative case to the internal argument. This analysis predicts that the nasal prefix cannot occur in the undergoer voice, both in terms of occupying the position of *di*-, and also in having functions specific to an active construction. Three, at least based on current evidence, there is no reason to believe that the nasal prefix in the active voice has any aspectual features. It readily co-occurs with the future tense marker, and its usage is required in active sentences.

It is worth noting that recently some work has been done to show that the nasal prefix in Malay does have some aspectual features. I briefly discussed Soh and Nomoto's (2015) work on this earlier, noting that the nasal prefix only has an affect on aspect in degree achievement constructions, allowing only an atelic interpretation. This is not found in other constructions. While this is certainly of interest, and could apply in the cases of these languages as well, the type of semantic fieldwork that would test for such a specific interpretation has not yet been done. Furthermore, Soh and Nomoto's work focuses only on the active voice, as Malay does not allow the nasal prefix in the undergoer voice. For these reasons, I leave this idea aside for the moment, but there are some similarities between the analysis they posit, and the one I propose below.

I would like to tentatively propose that the nasal prefix that occurs in the undergoer voice is not the same active voice marker, despite being homophonous. Instead, *N*- in the undergoer voice denotes a situation that has both begun and been completed. I argue that this nasal prefix was not derived from PMP **maN*- (as argued for the active voice morpheme), but rather is a shortened form of a completive marker found in other languages of Borneo: *ni*-. Begak, for instance, has *ni*- that indicates completive aspect but only occurs in the undergoer voice (Goudswaard 2005). I claim that the nasal prefix found in Kendayan-Salako languages is the same morpheme as found in Begak, but shortened to *N*-. This explains its ability to co-occur in the undergoer voice, and additionally links a pattern seen in these languages to other languages of Borneo. I am not aware of any formal analyses offered for *ni*-. In a preliminary attempt to rectify this, I arge that, crucially, *N*- must be a marker of verbal aspect, not grammatical aspect. These is for two reasons.

One, *N*- can co-occur with other clear grammatical aspect markers, like *dah*, the perfect marker, in Ahe. Consider the example in (640) below.

(640)	Karusi	koa	dah	kamuda	koa	n-ipaq.	*Ahe*
	chair	that	PST	child	that	NONCOMP-kick	
	'The chair was kicked by the child'						

The construction in (640) is clearly an object voice construction. The nasal prefix co-occurs with a grammatical aspect marker *dah*. This marker occurs higher in the structure, above the non-pivot agent. If

the nasal prefix were a grammatical aspect marker, it would have to occur higher than the agent, as *dah* does in (640). Instead, it occurs on the verb, below the agent. It would be unexpected for one grammatical aspect marker to occur in a different position than all the rest. Negation also occurs in the same position as *dah*, crucially higher in the structure than the agent. Furthermore, if the nasal prefix had an imperfective/perfective function, we would not expect it to co-occur with another perfective marker.

This leads to the second reason. (640) shows that the nasal prefix occurs below the agent, but above the verb. Non-pivot agents in object voice are assumed to be an external argument, located in the spec,vP. Grammatical aspect, or 'outer' aspect, occurs higher in the structure, above the vP. It would be impossible to analyze *N-* as grammatical aspect, as it occurs within the vP.

For these reasons, I am analyzing *N-* in undergoer voices as a marker of verbal aspect. The difficulty arises when considering its function. Verbal aspect is generally equated with telicity, based on the distinction by Vendler (1967). Vendler argues for four different varieties of verb types: activities, accomplishments, states, and achievements. One possible analysis of *N-* is that it attaching it forces a telic interpretation, which is why it cannot co-occur with certain grammatical aspect markers.

There are a myriad of diagnostics that can be used to determine if *N-* is introducing a certain telicity to the construction. Unfortunately, these require more fieldwork and are thus unavailable as evidence at this time. Because of this, I leave this analysis as a preliminary idea at this point, with hopes to continue it once I am able to return to the field.

3.3.3.2 Summary of voice in Land Dayak languages

I now turn to Land Dayak languages. Like Malayic languages, all five Land Dayak languages have one feature in common: the number of voices. However, this contrasts with the Malayic voice system described above. While Malayic languages have active, passive, and object voice, Land Dayak languages do not. I argue that Land Dayak languages have only two voices, active and undergoer I use the term 'undergoer' instead of 'passive' or 'object' to reflect the fact that Land Dayak languages do not have the canonical passive or the object voice as found in Malayic languages, but rather have a combination of the two.

In my analysis, I argue that while Land Dayak language has an active voice that is marked by a nasal prefix *N-*. However, this *N-* is syntactically impoverished compared to the nasal prefix in Malayic languages.

I further argue that the undergoer voice in Land Dayak, as the only type of undergoer voice, shows features of the canonical passive found in Malayic languages as well as features of the object voice found in Malayic languages.

3.3.3.2.1 Two 'voices': Active and undergoer

3.3.3.2.1.1 Active voice

For Malayic languages, I argued that the nasal prefix *N-* served two roles in active sentences. As a result of having these two functions, it only occurred in the active voice, thus serving as an indicator of active voice. One option is to extend this analyis to Land Dayak languages, as data provided in this dissertation has already shown numerous verbs with what appears to be a nasal prefix. In this section, however, I argue that this is not the correct analysis; instead, I argue that Land Dayak languages does have a nasal prefix, but it only has one function: to introduce the external argument.

An initial glance shows that most verbs in Land Dayak languages begin with a nasal in the active voice. Consider the following active voice sentences from a few Land Dayak languages.

(641) Omo m-aco buku. *Ribun*
2SG.1 AV-read book
'You read a book'

(642) Diri m-ura bunga kaq taman. *Banyaduq*
1PL.I AV-plant flower in field
'We plant flowers in the field'

(643) Belayuqu n-awoq uda bunga. *Beaye*
3PL.I AV-pick many flower
'They picked many flowers'

Each of the verbs in the constructions in (641-43) begin with a nasal. This looks quite similar to the pattern seen in Malayic languages. However, Land Dayak languages frequently allow the nasal prefix to occur in an undergoer-oriented voice; this is true of all five Land Dayak languages discussed here. Consider the following examples in (), all of which are in the object voice.

(644) Ikan kan mu **n**-ele kaq sungi. *Banyaduq*
fish UV 2SG.II AV-see in river
'Fish are seen in the river by you'

(645) Dio han kunaq ko **n**-oro. *Beaye*
house this UV 2SG.I AV-destroy
'This house was destroyed by you'

(646) Obiyon koyuv leq nahi han **n**-igang. *Ribun*
many wood UV man that AV-hold
'A lot of wood is held by that man'

In each of the sentences above, the nasal prefix occurs, despite these being undergoer-oriented constructions. Again, this pattern is not novel; we saw in the last section that Kendayan-Salako languages allow the nasal prefix in both types of undergoer voice, which I analyzed as an aspectual morpheme. However, Land Dayak languages crucially lack the aspectual distinctions that characterize the aspectual *N-* in Kendayan-Salako languages.

This is apparent from the ability of the nasal prefix to co-occur with a myriad of different aspectual markers in all five languages. I have provided a few examples from a few languages below.

FUTURE TENSE

(647) Odiya haq leq omo n-ulong. *Ribun*
3.I FUT UV 2SG.I AV-help
'S/he will be helped by you'

(648) Buah dako naq kin n-utuq. *Banyaduq*
fruit that FUT 1SG.III AV-cut
'The fruit will be cut by me'

(649) Buah doh atiq katn kitn ny-ataq. *Bekati*
fruit that FUT UV 1SG.I AV-cut
'The fruit will be cut by me'

PERFECTIVE ASPECT

(650) Ikan ngah bisa kin n-angkap. *Banyaduq*
fish PFT can 1SG.III AV-catch
'Fish could be caught'

(651) Dokter dah kuniq n-aru. *Beaye*
doctor PFT UV AV-call
'The doctor was called'

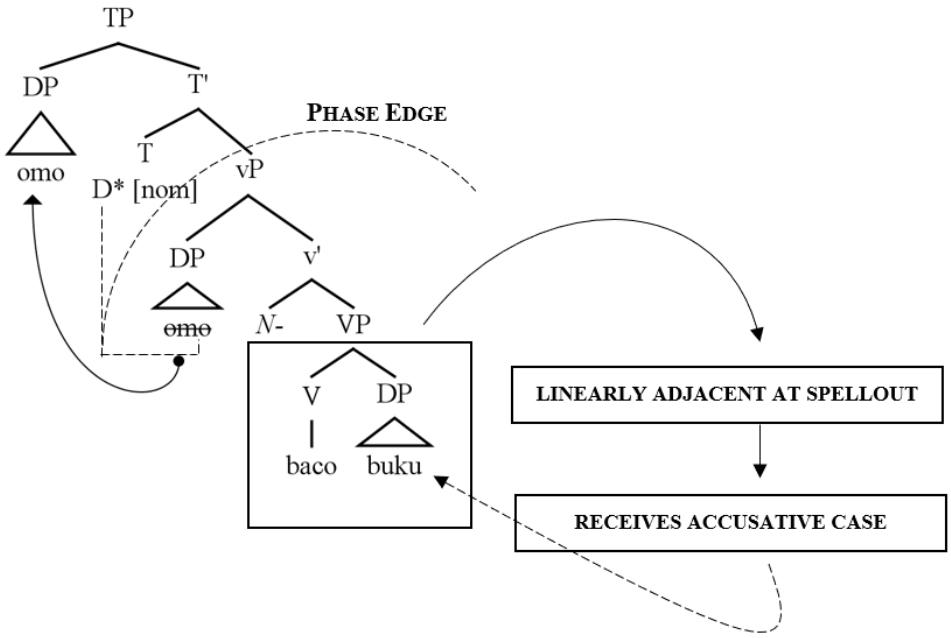
(647-49) show the nasal prefix co-occurring with future tense markers in three languages. This is unexpected if the nasal prefix carried the same function as I argued it does in Kendayan-Salako languages. It additionally can occur with perfective markers, as in (650-51). In fact, there are no patterned restrictions on the distribution of the nasal prefix in any of the five languages discussed here. This

suggests that the nasal prefix here is not the same as the one discussed in Kendayan-Salako languages.

I use these facts to suggest that Land Dayak languages only have one nasal prefix (unlike Kendayan-Salako languages, but like Desa and Ope), but this morpheme only has one of the functions that I discussed in the active voice in Malayic languages. Instead of introducing the external argument and assigning accusative case, this nasal prefix only introduces the external argument. This case-licensing feature has been divorced from the prefix, and instead I argue that non-pivot themes receive case under adjacency. The underlying structure is similar to the four Malayic languages that only have one nasal prefix, in that the highest verbal projection is a vP.

I provide a derivation of the Ribun sentence in (641) below in (652).

(652)



Like in Malayic languages, the pivot receives case from T, which probes down and forces movement of the pivot to its spec. The pivot DP then receives nominative case. The external argument is introduced by the nasal prefix in *v* (as its specifier). Since this nasal prefix is not able to license case, the internal argument still needs to be assigned case. I argue, like I did for non-pivot agents in Malayic languages, that case is assigned under adjacency. One argument in favor of this analysis is the ability for it work with an undergoer voice analysis as well. I discuss this in the next section.

Another argument for this analysis comes from the frequency of the nasal prefix in nearly all constructions. I noted in the description section of this chapter that it is unusual for verbs to occur without the nasal prefix, even in constructions where it might be expected. There is, however, one construction in

which the nasal prefix cannot occur: the accidental passive. Consider the following constructions in (653-655).

(653) Padahu dako **ta**-tangkop. *Banyaduq*
boat that ACCID-capsize
'The boat was (accidentally) capsized'

(654) Perau doh **te**-baliq. *Bekati*
boat that ACCID-capize
'The boat was (accidentally) capsized'

(655) Pinto doh **te**-buka.
door that ACCID-open
'The door was (accidentally) opened'

In Banyaduq and Bekati, there is an undergoer-oriented construction that never occurs with the nasal prefix. In this construction, a separate morpheme is used, *ta-/te-*. However, we have already seen that both of these languages generally allow the nasal prefix in regular undergoer-oriented constructions. It seems unusual that this particular construction would not allow it to occur on the verb. This is explained through my analysis: accidental passives differ from other passives as the action was unintentionally done, without volition. If *N-* is associated with introducing the agent, and these types of constructions do not have a true agent, the nasal prefix would be disallowed. My analysis, then, explains the lack of nasal prefix in accidental passives, while explaining its presence in other undergoer-oriented constructions which do have an agent.

3.3.3.2.1.2 Undergoer voice

I now turn the undergoer voice in Land Dayak languages. This undergoer-oriented construction shares features from the canonical passive and the Malayic object voice, which is why I do not use either of those terms to label this voice.

Recall that this undergoer-oriented construction in Land Dayak languages reflects the same word order as the object voice in Malayic languages: UAV. Some examples of this are provided below in (656).

(656) Buah han leq oko m-iyo. *Ribun*
fruit that UV 1SG.I AV-cut
'The fruit is cut by me'

(657) Ramin dia kan samaq-ko bangun. *Banyaduq*
house this UV father-1SG.II build
'This house was built by my father'

(658) Dio han kunaq ko n-oro. *Beaye*
house this UV 2SG.I AV-destroy
'This house was destroyed by you'

Unlike the Malayic object voice (and more like the passive voice), agents can be full DPs (as in (657) above) and can also be omitted completely in all five languages, as in (659-660) below.

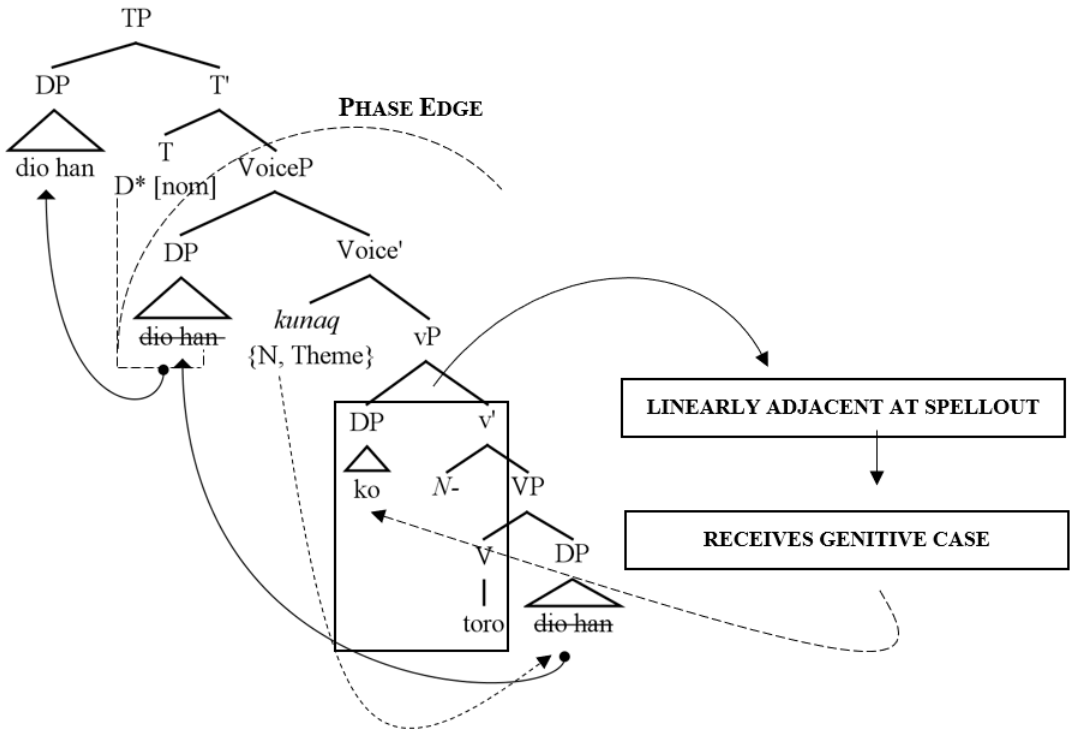
(659) Nasi kunaq m-ung. *Beaye*
rice UV AV-eat
'Rice was eaten'

(660) Ikan leq n-tilai tiq ahutn. *Ribun*
fish UV AV-see in river
'Fish are seen in the river'

These facts suggest that the undergoer voice in Land Dayak languages does not fit into either of the two undergoer-oriented constructions in Malayic languages, but rather represents a new type of undergoer voice, not found in Malayic languages (but sharing some features). All of these features must be accounted for in an analysis of this voice.

The analysis I proopose here follows the other analyses I have posited in that it focuses on how case is licensed to the the non-pivot agent. Like Malayic languages, the pivot receives case from T, but this pivot (the internal argument) must be accessible to T. I follow Cole et al (2008) for Indonesian in assuming that voice morphology targets DPs based upon phi-features. While Cole et al argue that *meN-* must agree in features in terms of case, they note that this could be formulated in terms of thematic roles instead. I argue that the voice marker in these five languages have this restriction, but they must agree with the extracted DP in terms of thematic roles. Crucially, it only agrees with an extracted nominal that bears the Theme role. I have provided a derivation of the Beaye construction in (658) in (661) below.

(661)



There are several components to this analysis. Note that the phase is no longer the vP, but the VoiceP, as it is the highest verbal projection. The internal argument is targeted by *kunaq* as it carries the Theme thematic role. If the external argument moved instead, the two would not agree in features, as it carries the Agent thematic role. This accounts for why the internal argument moves to the spec,VoiceP (and the edge of the phase) instead of the external argument (which is clearly more local). Cole et al utilize this analysis for the same reason in Indonesian, as the external argument in located higher, and thus would be targeted under an unspecified probe-goal relation. This step is crucial, as it makes the internal argument accessible to the higher phase and T, which allows it to move to the spec,TP to receive case.

A second component is how the non-pivot agent gets licensed. I argue that this DP is licensed through adjacency, as I did for Ope and Balangin. The primary evidence in support of this is the fact that in several Land Dayak languages the non-pivot agent can occur either before or after the verb, as seen in (662-63).

(662)	Pade	yen	kuniq	n-angko	narai	yen.	*Beaye*
	rice	that	UV	AV-steal	man	that	
	'The rice was stolen by the man'						

(663) Keranjang kedn kanaq n-ao ko. *Ba'aje*
basket 1SG.I UV AV-take 2SG.I
'My basket was taken by you'

It would be difficult to account for why the agent can occur postverbally if it were licensed in the structure itself. Instead, I argue that this happens post-Spellout, when the DP requires case-licensing.

There is further evidence for this analysis. Recall that some Kendayan-Salako languages (Ahe and Balangin) 'double' the voice marker. This occurs in two Land Dayak languages: Ribun and Beaye. This can be seen in (664-665) below.

(664) Bungo leq m-uhuv leq mimoq. *Ribun*
flower UV AV-plant UV 1PL.EXCL.I
'Flowers were planted by us'

(665) Bunga baru kuniq n-amput kaq muwan kunaq adep. *Beaye*
flower new UV AV-find by river UV 1PL.INCL.I
'New flowers are found by the river by us'

This pattern is identical to what was seen in Ahe and Balangin. I argued that this was an instance of last-resort genitive insertion; in Ahe, this occurs as the only strategy of licensing the agent, but for Balangin, this only occurred when adjacency is broken. Crucially, both Beaye and Ribun require the second marker if an adjunct intervenes, suggesting that these languages pattern like Balangin. However, it is additionally possible to use the second marker even if there is strict adjacency. I suggest that both strategies, licensing by adjacency and last-resort genitive insertion are available in Ribun and Beaye, thus explaining why constructions like (664) are possible, but so are constructions like (662). This analysis, then, benefits from using the same principles in both Malayic and Land Dayak languages, with slight variation.

A third component is that genitive case is assigned. Banyaduq provides evidence of this, as I noted in the description of Banyaduq that non-pivot agents must occur in their Set II form (which is additionally used for the genitive).

(666a) Bunga kan **eq** m-ura. *Banyaduq*
flower UV 3SG.II AV-plant
'Flowers are planted by him/her'

(666b) *Bunga kan **eneq** m-ura. *Banyaduq*
flower UV 3SG.I AV-plant
'Flowers are planted by him/her'

This is reminiscent of Ahe, which also required Set II pronouns in the passive voice. None of the other languages have pronominal systems with multiple sets, so Banyaduq is the only language in which we can find evidence of this.

One last component is the optionality of the agent. In Malayic languages, the canonical passive has optional agents, which has been accounted for by analyzing them as adjuncts instead of arguments. In the object voice, agents are obligatory, so they have been analyzed as agents. What about agents in this Land Dayak undergoer voice? They are optional, like the passive, but occur in the preverbal position, like in the object voice. Furthermore, the nasal prefix is used in the undergoer voice, and I have analyzed this prefix as introducing an external argument.

I argue that the inclusion of the nasal prefix is precisely why the agent can be excluded. The nasal prefix introduces an external argument which can be null when it is not the pivot. This can be stated more formally as only being possible the the vP is headed by a higher VoiceP projection. This prevents null agents in active voice constructions, where no VoiceP is present. A benefit of this analysis is that it builds a contrast with the accidental passive, which I discussed in the section above. The accidental passive can be 'accidental' precisely because it is missing the nasal prefix, which denotes volition. These passives cannot be interpreted as accidental, and even without an overt agent, they still denote a volitional action.

This analysis differs from what was offered for the nasal prefix in the Kendayan-Salako undergoer voice. Given that the nasal prefix in Land Dayak languages does not seem to have any aspectual restrictions, it would be difficult to analyze them as the same. There is further evidence in support of this separate analysis: recall that Beaye had an additional undergoer voice morpheme *te-*. This prefix has a restricted distribution in terms of tense and aspect (it only occurs with the future tense), suggesting that it can be analyzed as a marker of internal aspect. This *te-* can additionally co-occur with the nasal prefix. If the nasal prefix were analyzed as a marker of completion in Land Dayak languages, its ability to co-occur with a marker of non-completion would be contradictory. If *te-* marks non-completion, *N-* cannot mark completion in the same construction.

CHAPTER 4: A'-MOVEMENT

This chapter delves into the second focal point of this dissertation: A'-movement. The first part of this chapter is dedicated to describing two types of A'-movement – *wh*-questions and relative clauses[60] – in these ten languages, discussing typological patterns both within their respective subgroups and in general. The second part of this chapter then focuses on analyzing these patterns, with an emphasis on whether or not these languages display the 'subjects-only' restriction, and how we can account for these patterns within a Minimalist framework.

The description portion of this chapter is in Sections 4.1 and 4.2, with 4.1 describing Malayic languages, and 4.2 describing Land Dayak languages. These sections are divided much like the description sections in Chapter 3. Section 4.3 briefly discusses modern approaches to extraction in related languages, and I offer my analyses in Section 4.4.

4.1 A'-movement in Malayic languages

This section describes A'-movement in the five Malayic languages. Subsections are divided by subgroup. Within each subsection, I start with *wh*-movement (and the types of strategies each language uses) and follow with relative clauses. I begin with Kendayan-Salako languages in Section 4.1.1. Section 4.1.2 focuses on non-Kendayan-Salako languages, Desa and Ahe.

4.1.1 Kendayan-Salako: Ahe, Banana, Balangin

There are three languages that are included in this section: Ahe, Banana, and Balangin. For basic syntactic details and an overview of voice in these languages, see Section 3.1.1. While I discuss a variety of questions, I focus on two features: one, usage of at least two different *wh*-strategies (in-situ and fronting), and two, the role of voice morphology in extraction.

4.1.1.1 Wh-questions

This section is divided by type of *wh*-question. I discuss subject, object, and adjunct questions in all three languages.

4.1.1.1 Subject questions

Subject questions are those that seek a specific answer about the subject of a sentence. Subject *wh*-questions in Ahe, Banana, and Balangin share several features. In all three languages, the question word /

[60] I had hoped to include toplicalization and focus movement as well, but due to the already large scope of this dissertation, I ultimately decided not to. I hope to pursue this in future work.

interrogative pronoun *saye* (Ahe) or *sape* (Banana/Balangin) occurs most frequently in the sentence-initial position, followed by a complementizer *nang*. This is similar to the pattern we see in other languages of Indonesia, like Indonesian. A few examples of this in all three languages are given below in (667-68).

(667) **Saye** (ke)[61] **nang** n-ele sapi? *Ahe*
who Q COMP AV-see cow
'Who sees a cow?'

(668) **Saye** **nang** n-arap karanjang-ku?
who COMP AV-take basket-1SG.II
'Who took my basket?'

(669) **Saye** **nang** m-uka toko koa?
who COMP AV-open store that
'Who opens the store?'

(670) **Sape** **nang** n-angoq perau na? *Banana*
who COMP AV-tie boat that
'Who tied the boat?'

(671) **Sape** **nang** n-angkap keranjang-ku?
who COMP AV-take basket-1SG.II
'Who took my basket?'

(672) **Sape** **nang** m-abah kayu na?
who COMP AV-bring wood that
'Who is bringing the wood?'

(673) **Sape** **nang** be-suman[62]? *Balangin*
who COMP BE-cook
'Who is cooking?'

(674) **Sape** **nang** m-unuh mandoq nan?
who COMP AV-kill chicken that
'Who killed the chicken?'

[61] This question marker occurs in polar questions as well.
[62] The use of a non-nasal prefixed verb here is due to the lack of an object. If the question, for example, were *Who is cooking chicken?*, the verb would occur as *nyuman*. This is further evidence of the role of the nasal prefix in these languages; without a direct object, *N-* does not occur.

(675) **Sape** **nang** ng-rusaq rumah nan?
who COMP AV-destroy house that
'Who destroyed the house?'

(676) **Sape** **nang** n-anam bunga tiep ari?
who COMP AV-plant flower every day
'Who plants flowers every day?'

Ahe additionally optionally allows *ke*, a question marker, in subject questions as well (as seen in (667)). There is no evidence that this occurs in either Banana or Balangin. This *ke*, howeer, is always optional.

These three languages additionally allow the *wh*-word to be right-dislocated[63]. When this occurs, however, the complementizer *nang* must still occur sentence-initially. This is shown in (677-79).

(677) **Nang** n-ele sapi koa **saye**? *Ahe*
COMP AV-see cow that who
'Who sees a cow?'

(678) **Nang** n-angkap keranjang-ku **sape**? *Banana*
COMP AV-take basket-1SG.II who
'Who took my basket?'

(679) **Nang** m-unuh mandoq nan **sape**? *Balangin*
COMP AV-kill chicken that who
'Who killed the chicken?'

It is not possible, for example, to have *nang* right-dislocated as well, as evidenced by the ungrammaticality of (680) below.

(680) *N-angkap keranjang-ku sape nang? *Banana*
AV-take basket-1SG.II who COMP
'Who took my basket?'

Each of these languages additionally utilizes the nasal prefix in subject questions. Note how all the examples given above have the nasal prefix. In Balangin, it seems possible to omit the nasal prefix, but only if some question element (either the *wh*-word or the complementizer) occurs in the sentence-position. This is shown in (681).

[63] I use this term as a descriptor rather than as an analysis. I leave an analysis of these types of constructions for future work.

(681) Nang bunuh mandoq nan sape? *Balangin*
COMP kill chicken that who
'Who killed the chicken?'

If, for example, there is no complementizer and *sape* is right-dislocated, the nasal prefix must occur on the verb. This is shown in the contrasting pair below; with the nasal prefix, it is grammatical, as in (682). Without the nasal prefix, it is not, as in (683).

(682) M-unuh mandoq nan sape?
AV-kill chicken that who
'Who killed the chicken?'

(683) *Bunuh mandoq nan sape?
kill chicken that who
'Who killed the chicken?'

Other languages seem to disprefer the omission of the nasal prefix in these questions altogether. This is true of Ahe, where, even if question material occurs in the sentence-initial position, it is still ungrammatical to omit the nasal prefix. This is shown in (684).

(684) *Saye nang buka toko koa? *Ahe*
who COMP open store that
'Who opens the store?'

It should be noted that right-dislocating the *wh*-word is not a frequent strategy. All three of these languages heavily use the fronting strategy of the *wh*-word plus the complementizer in subject questions.

Regarding the analysis offered in the last chapter, these three languages seem to almost exclusively allow subject extraction out of the active voice. The ungrammaticality of (684) shows that verbs must be prefixed with a nasal prefix. While this could potentially be analyzed as the completive nasal prefix that occurs in Kendayan-Salako languages, I argue that it is not. The word order in these questions is reflective of the active voice, and the inability of losing the nasal prefix suggests that this cannot be the object voice. Furthermore, any attempt to extract subjects from the canonical passive results in ungrammaticality. I discuss this in more detail in Section 4.3.

4.1.1.2 Object questions

I now turn to object questions. These questions seek a specific answer about the object of a sentence. Object questions, like subject questions, frequently occur with the *wh*-word occurring in the sentence-initial postion. This is indicative of movement out of its base-generated position. Additionally, these

fronted *wh*-words often occur with the complementizer *nang*. A few examples from each language are given below in (686-91).

(685) **Ahe** (ke) **nang** kamuda koa n-ele? *Ahe*
what Q COMP child that AV-see
'What does the child see?'

(686) **Ahe** **nang** diri buka?
what COMP 1PL.INCLI open
'What did we open?'

(687) **Ahe** kao m-abah?
what 2SG.I AV-bring
'What did you bring?'

(688) **Ape** **nang** kao m-unuh? *Banana*
what COMP 2SG.I AV-kill
'What did you kill?

(689) **Ape** **nang** kao n-ancur nan?
what COMP 2SG.I AV-destroy that
'What did you destroy?'

(690) **Ape** **nang** kao bunuh? *Balangin*
what COMP 2SG.I kill
'What did you kill?'

(691) **Ape** **nang** kao ng-rusaq?
what COMP 2SG.I AV-destroy
'What did you destroy?'

Again, Ahe object questions can additionally use the question marker *ke*, as in (686), but this is not a requirement, like in (687). An additional feature (seen in Banana) is the usage of a determiner in place of the moved *wh*-word, as in (689). The determiner *nan* occurs postverbally in (689), but is not required in all object questions.

All three languages additionally utilize a second strategy, *wh*-in-situ. The *wh*-word occurs in its base-generated position, after the verb. A few examples are given below in (692-95).

(692) Kamuda koa n-ele **ahe**? *Ahe*
child that AV-see what
'What does the child see?'

(693) Kao m-abah **ahe**?
2SG.I AV-bring what
'What did you bring?'

(694) Amaq-ku m-ali **ape**? *Banana*
father-1SG.I AV-buy what
'What did my father buy?'

(695) Kao ng-rusaq **ape**? *Balangin*
2SG.I AV-destroy what
'What did you destroy?'

While a similar pattern existed in subject questions, in object questions the complementizer does not have to occur at all. It can, however, occur in the sentence-intial position, as seen in (696-99).

(696) Nang mulai jam tujuh alatn ahe ke? *Ahe*
COMP begin hour seven morning what Q
'What begins at 7am?

(697) Nang kao m-abah ahe?
COMP 2SG.I AV-bring what
'What did you bring?'

(698) Nang amaq-ku m-ali ape? *Banana*
COMP father-1SG.I AV-buy what
'What did my father buy?'

(699) Nang kao ng-rusaq ape? *Balangin*
COMP 2SG.I AV-destroy what
'What did you destroy?'

The Ahe sentence in (696) additionally shows the question marker *ke* can occur when the *wh*-word is in-situ. There does seem to be a restriction in in-situ object questions, however, in regards to the voice morphology. Consider the pair of Ahe sentences below in (700).

(700a) Nang kao babah ahe? *Ahe*
COMP 2SG.I bring what
'What did you bring?'

(700b) *Kao babah ahe?
2SG.I bring what
'What did you bring?'

In (700a), it is acceptable to leave off the nasal prefix from the verb. This contrasts with (697) above, where the nasal prefix is used. If the nasal prefix is omitted, however, *nang* must occur, as evidenced by the ungrammaticality of (700b). Balangin shows this same restriction; consider (701), which is the same *wh*-question as (699) above but without the nasal prefix and *nang*.

(701) *Kao rusaq ape? *Balangin*
2SG.I destroy what
'What did you destroy?'

Without the nasal prefix, (701) is ungrammatical. What this seems to indicate, then, is that *nang*-headed questions do have movement occurring; when movement occurs, the nasal prefix cannot occur. Without *nang*, no movement has occurred and therefore the question must occur in the active voice (with a nasal prefix). I refrain from a full analysis of these *nang*-headed questions for now, but an initial analysis could be that *wh*-words undergo covert movement in these constructions.

Object questions also have a restriction on the location of *nang*, like subject questions. *Nang* cannot occur after a base-generated *wh*-word, as evidenced by (702).

(702) *Ya m-ali ape nang? *Banana*
3SG.I AV-buy what COMP
'What did s/he buy?

Object questions can additionally occur in the *di*-marked undergoer voice. (703-5) below shows examples of this in all three languages.

(703) Ahe nang nanaq di-babah? *Ahe*
what COMP NEG.can UV-bring
'What cannot be brought?'

(704) Ape nang di-n-angkap gawe kao? *Banana*
what COMP PV-NONCOMP-catch by 2SG.I
'What was caught by you?'

(705) Ape nang di-ng-rusaq kau? *Balangin*
what COMP PV-NONCOMP-destroy what
'What was destroyed by you?'

While possible, using this type of voice in object questions does not seem to occur frequently. It also appears to be more restricted; for instance, it is not possible to use the *di*-undergoer voice if the *wh*-word remains in-situ without *nang*. Consider the following pair of sentences in Balangin.

(706a) Nang di-ng-rusaq kau ape? *Balangin*
COMP PV-NONCOMP-destroy 2SG.I what
'What is destroyed by you?'

(706b) *Di-ng-rusaq kau ape?
PV-NONCOMP-destroy 2SG.I what
'What is destroyed by you?'

Without some fronted elemented (either the entire *wh*-word plus complementizer or just *nang* itself), it is not possible for the question to occur in the *di*-undergoer voice.

Descriptively, there are a few important generalizations here. One, object questions in these languages do allow the nasal prefix. What is not clear is whether this nasal prefix is the active voice morpheme or the completive nasal prefix. The question in (704) shows that the completive nasals prefix is allowed with *di-*. The question then is, what is the underlying structure of a question like (685)? Is this an active voice construction, thus showing that these languages do not have the 'subjects-only' restriction? Or is the underlying structure in the object voice, with the completive nasal prefix occurring on the verb? I offer my analysis in Section 4.3. Two, there is clear evidence that object questions can occur in the canonical passive, which contrasts with subject questions. Three, there appear to be 'true' in-situ questions, where the *wh*-word has not undergone any movement (the examples in (692-695)). However, there are also questions that look like the *wh*-word is in-situ, but occur with *nang* sentence-initially. These two types of constructions differ in what voice morphology is required; importantly, 'true' in-situ questions require the active voice, but those with *nang* do not. This suggests that some type of movement is happening in questions with a sentence-initial *nang.*

4.1.1.3 Adjunct questions

This last section describes adjunct questions in these three Kendayan-Salako languages. Adjunct questions seek specific information in regards to the location, time, or reason for a sentence. Like both subject and object questions, adjunct *wh*-words often occur sentence-initially. I will begin with Ahe. Ahe

has a few adjunct *wh*-words, like *kaq mulai* ‘when’, *kaq maiq* ‘where’, and *nehe* ‘why’[64]. Both ‘when’ and ‘where’ seem to combine with a preposition which is *kaq* in both cases. The preposition *kaq* is used for a variety of locative functions in Ahe. It can be either ‘to’ or ‘from’ with *maiq* ‘where’. It is less clear what the exact function of it is with *mulai* for ‘when’. These are used in context below in (707-9).

(707) **Kaq** **mulai** (ke) sakola mulai? *Ahe*
to when Q school begin
‘When does school begin?’

(708) **Kaq** **maiq** pasar?
to where market
‘Where is the market?’

(709) **Nehe** kao baiq tidur?
why 2SG.I NEG.can sleep
‘Why aren’t you sleeping?’

In Banana, some examples of adjunct *wh*-words are *kaq mane* ‘where’ and *mile* ‘when’. These are provided below in (710-12).

(710) **Kaq** **mane** kao n-angkap ari na? *Banana*
from where 2SG.I AV-catch day this
‘Where did you catch fish today?’

(711) **Mile** kao n-angkap ikatn?
when 2SG.I AV-catch fish
‘When did you catch fish?’

(712) **Mile** nang laki n-aliq padi?
when person male AV-steal rice
‘When did the boy steal the rice?’

Balangin uses *kaq mane* ‘where’ and *mila* ‘when’ in adjunct questions.

(713) **Kaq** **mane** kao n-angkaq ikat ari ntu? *Balangin*
from where 2SG.I AV-catch fish day this
‘Where did you catch fish today?’

[64] This is not suggesting that Ahe lacks other adjunct words, but rather, in the interest of space, I will not discuss every adjunct *wh*-word in each language in this dissertation.

(714) **Kaq** **mane** iya m-ali baju ntu?
from where 3SG.I AV-buy shirt this
'Where did s/he buy this shirt?'

(715) **Mila** kao n-angkaq ikat?
when 2SG.I AV-catch fish
'When did you catch fish?'

One clear difference between adjunct and subject/object questions is the usage of the complementizer. Adjunct questions do not use the complementizer *nang*, which is required in subject questions, and frequently used in object questions. This pattern is found in other languages of Indonesia as well.

Additionally, like subject and object *wh*-words, adjunct *wh*-words can occur in additional positions within the question. It is not uncommon, for instance, for the *wh*-word to occur sentence-finally in adjunct questions. This occurs in all three languages, as evidenced in (716-19) below.

(716) Kao m-abah makanan koa **kaq** **maiq**? *Ahe*
2SG.I AV-bring food that to where
'Where are you bringing food?'

(717) Kao n-angkap ari na **kaq** **mane**? *Banana*
2SG.I AV-catch day this from where
'Where did you catch fish today?'

(718) Kao n-angkap ikatn **mile**?
2SG.I AV-catch fish when
'When did you catch fish?'

(719) Kao n-angkaq ikat ari ntu **kaq** **mana**? *Balangin*
2SG.I AV-catch fish day this from where
'Where did you catch fish today?'

Adjunct questions contrast with object questions in the use of voice morphology. Verbs in adjunct questions allow the addition of the nasal prefix, regardless of the position of the *wh*-word. The Ahe question (720a) below shows a fronted *wh*-word with the verb *babah* that has been prefixed with *N*-. When removed, the question becomes ungrammatical, as in (720b). This is true also when the *wh*-word occurs in the sentence-final position, as shown in (720c). This is additionally shown in Balangin in (721).

(720a) Kaq maiq kao m-abah makanan koa? *Ahe*
to where 2SG.I AV-bring food that
'Where are you bringing food?'

(720b) *Kaq maiq kao babah makanan koa?
to where 2SG.I bring food that
'Where are you bringing food?'

(720c) *Kao babah makanan koa kaq maiq?
2SG.I bring food that to where
'Where are you bringing food?

(721a) *Kaq mane iya bali baju ntu? *Balangin*
from where 3SG.I buy shirt this
'Where did you buy this shirt?'

(721b) *Iya bali baju ntu kaq mane?
3SG.I buy shirt this from where
'Where did you buy this shirt?'

However, the ungrammatical examples above do not indicate that adjunct questions must be in the active voice, only that the nasal prefix is possible if the question is in the active voice. This is because the ungrammatical questions in (720b,c) and (721b) do not have the correct word order to be in the object voice. Adjunct questions, then, at the very least, do not show evidence of any voice restrictions.

Before ending this section on *wh*-questions, I offer a summary of the descriptive findings here in terms of voice morphology. This is given below in Table 31.

	SUBJECT Q			**OBJECT Q**			**ADJUNCT Q**		
	AV	**PV**	**OV**	**AV**	**PV**	**OV**	**AV**	**PV**	**OV**
AHE	✓	*	*	?	✓	✓	✓	---	---
BANANA	✓	*	*	?	✓	✓	✓	---	---
BALANGIN	✓	*	*	?	✓	✓	✓	---	---

Table 31. The interaction of voice morphology and extraction in Kendayan-Salako questions

The question marks in Table 31 are of the most interest here. I noted earlier that is is unclear from the data provided here what the underlying structure of object questions are. I will answer this question in Section 4.3. I should also note that I have no evidence for the usage of other voices in adjunct questions. This is simply a gap in the data, but I predict that both are possible.

4.1.1.2 Relative clauses

I now move onto a second type of A'-movement, relative clauses. I discuss subject, object, and oblique relative clauses in the following subsections.

4.1.1.2.1 Subject relative clauses

Relative clauses refer to noun phrases that incorporate a clause inside of them in order to introduce additional information about the head noun. This section describes subject relative clauses, where the noun is coindexed with a gap in the subject position within the embedded clause. Examples of subject relative clauses in Ahe are given below in (722-24). The entire relative clause, including the head noun, has been bolded.

(722) Tulong bareq kaq aku **isuq nang n-ataq buah**. *Ahe*
please give to 1SG.I knife COMP AV-cut fruit
'Please give me the knife that cuts fruit'

(723) **Nang laki koa nang n-ual niyo** ampus kaq hilir.
person male that COMP AV-sell coconut live downstream
'The man who sells coconuts lives downstream'

(724) **Uratn koa nang n-aqap nasi dari kamuda-kamuda** ampus
person that COMP AV-take rice from child-RED live

kaq Pontianak.
in Pontianak
'The person that takes rice from children lives in Pontianak'

Subject relative clauses in all three languages share a few characteristics; one, the embedded clause is introduced by the complementizer *nang*. This can be seen in Ahe above, and in the Banana examples below in (725-27).

(725) **Urang nang ny-aru dokter** be-rumpes. *Banana*
person COMP AV-call doctor BE-leave
'The person who called the doctor left'

(726) **Nang bini nang n-anam padi** mau be-baliq.
person female COMP AV-plant rice FUT BE-return
'The woman who planted rice will return'

(727) Aku n-ele **nang laki nang mau m-abah kayu.**
1SG.I AV-see person male COMP FUT AV-bring wood
'I see the man who will be bringing wood'

This is additionally true in Balangin, which can be seen in (728-30) below.

(728) Aku m-ayar **urat nang n-ukan uma-ku.** *Balangin*
1SG.I AV-pay person COMP AV-build house-1SG.II
'I paid the person who built my house'

(729) Bere kaq aku **isu nang ntu m-alu buah.**
give to 1SG.I knife COMP this AV-cut fruit
'Please give me the knife that cuts fruit'

(730) Aku n-ele **nang laki nang naq m-abah kayu**.
1SG.I AV-see person male COMP FUT AV-bringwood
'I see the man who will be bringing wood'

Another feature of subject relative clauses in these languages is the usage of the nasal prefix. Each of the transitive verbs in the relative clauses above has been prefixed with a nasal prefix. Removing the nasal prefix, and having the verb occur in its bare form, results in ungrammaticality. This can be seen in (731-32).

(731) *Tulong bareq kaq aku isuq nang tataq buah. *Ahe*
please give to 1SG.I knife COMP cut fruit
'Please give me the knife that cuts fruit'

(732) *Aku n-ele nang laki nang naq babah kayu. *Balangin*
1SG.I AV-see person male COMP FUT bring wood
'I see the man who will be bringing wood'

This patterns like subject questions as discussed above. A generalization, then, is that subject extraction in Kendayan-Salako languages require the active voice.

4.1.1.2.2 Object relative clauses

Object relative clauses are those in which the head noun is coindexed with a gap in the object position of the embedded clause. These constructions, like subject relative clauses, use the complementizer *nang* after the head noun to introduce the embedded clause. A few examples of object relative clauses in Ahe are provided below in (733-35).

(733) Aku suka **buku** **nang** **apaq-ku** **m-ali**. *Ahe*
1SG.I like book COMP father-1SG.I AV-buy
'I like the book that my father bought'

(734) **Nasi** **nang** **iya** **n-aqap** **dari** **kamuda-kamuda** warna kuning.
rice COMP 3SG.I AV-take from child-RED color yellow
'The rice that s/he took from the children is yellow'

(735) Tolong m-akaq **buah** **nang** **aku** **n-ataq**.
please AV-eat fruit COMP 1SG.I AV-cut
'Please eat the fruit that I cut'

Banana object relative clauses also use *nang*, as exemplified in (736-38).

(736) **Dokter** **nang** **kami** **ny-aru** atang cepaq. *Banana*
doctor COMP 1PL.EXCL.I AV-call come fast
'The doctor that we called came quickly'

(737) **Padi** **nang** **mama-ku** **n-anam** cepaq tumuh.
rice COMP mother-1SG.I AV-plant fast grow
'The rice my mother planted is growing fast'

(738) Aku suka **buku** **nang** **amaq-ku** **m-ali.**
1SG.I like book COMP father-1SG.I AV-buy
'I like the book that my father bought'

And lastly, we see *nang* used in Balangin object relative clauses as well. This is shown in (739-41).

(739) **Dokter** **nang** **ura kitu** **ny-aru** ataq capan. *Balangin*
doctor COMP 1PL.INCL.I AV-call come fast
'The doctor that we called came quickly'

(740) Tolong babah untuq ku **kayu** **nang** **kao** **m-abah.**
please bring for 1SG.I wood COMP 2SG.I AV-bring
'Please bring me the wood that you brought'

(741) **Tali** **nang** **udah** **aku** **ny-abun** **kaq** **perau** nan kuan.
rope COMP PFT 1SG.I AV-tie to boat that strong
'The rope that I tied to the boat is strong'

There is at least some evidence that *nang* can be omitted, although this does not seem to be a frequent occurrence.

(742) Tolong pakatn buah na aku n-ataq ya. *Banana*
please eat fruit that 1SG.I AV-cut that
'Please eat the fruit that I cut'

The examples above all show that the nasal prefix can occur on the embedded verb in all three languages. This is perhaps unexpected, given the 'subjects-only' restriction: use of the nasal prefix is generally considered an indicator that passivization has not occurred within the embedded clause. But recall that these Kendayan-Salako languages allow the nasal prefix to co-occur in both types of undergoer voices. This, then, leaves us with the same question found when discussing object questions. This will be discussed more in Section 4.4.

Contrasting with subject relative clauses is the ability to use a bare verb instead. This is possible in all three languages as well, as evidenced by (743-45).

(743) Karanjang nang kao taqap koa empu aku. *Ahe*
basket COMP 2SG.I take that belong 1SG.I
'The basket that you took is mine'

(744) Padi nang mama-ku tanam cepaq tumuh. *Banana*
rice COMP mother-1SG.I plant fast grow
'The rice my mother planted is growing fast'

(745) Padi nang umaq-ku tanam tumu capan. *Balangin*
rice COMP mother-1SG.I plant grow fast
'The rice that my mother plants grows fast'

It is additionally possible for embedded clauses to occur in the more overtly marked undergoer, with *di-*. Evidence of this is provided in each language in (746-48).

(746) Nasi nang di-n-aqap dari kamuda-kamuda warna kuning. *Ahe*
rice COMP PV-NONCOMP-take from child-RED color yellow
'The rice that was taken from the children is yellow'

(747) Rumah nang di-m-uat apaq-ku ayaq. *Banana*
house COMP PV-NONCOMP-build father-1SG.I big
'The house my father built is large'

(748) Uma nang di-gawei apaq-ku lebih ayu. *Balangin*
house COMP PV-build father-1SG.I more big
'The house that my father builds is larger'

While object relative clauses share some similarities with subject relative clauses, they allow more variety in the voice of the embedded clause.

4.1.1.2.3 Oblique relative clauses

The last type of relative clause I will discuss are those that relativize obliques. In Ahe, obliques can be relativized using *dari maiq* 'from where', as evidenced by (749).

(749) Nan adalah **kampong dari maiq aku berasal**. *Ahe*
this COP village from where 1SG.I BE-origin
'This is the village that I come from'

There is currently no evidence of whether or not this is clear in Banana and Balangin. When attempting to elicit an oblique relative clause[65], the strategy used in both languages is to promote the oblique to an argument position, as in (750-51) below.

(750) Aku n-ilang **iso nang mau n-ataq buah na.** *Banana*
1SG.I AV-lost knife COMP FUT AV-cut fruit that
'I lost the knife with which I will cut the fruit'

(751) Aku n-ilang **iso nang ntu m-ala buah nan.** *Balangin*
1SG.I AV-lost knife COMP this AV-cut fruit that
'I lost the knife with which I will cut the fruit'

This could suggest that direct oblique relativization is not possible in these languages, but this is too little of evidence to make that claim at this time.

Before moving on to the last two Malayic languages, I would like to summarize the extraction findings in Kendayan-Salako languages. Both types of A'-movement suggest the same pattern: subject extraction requires the active voice, but object extraction is more variable in allowing at least one, if not two, types of undergoer voice. The remaining question is whether object extraction is possible out of the active voice. This is summarized in Table 32.

[65] In Indonesian, which was used for elicitation, this is done through the use of the suffix *-kan* on the main clause verb. At least from the examples provided here, there is no such analog (used for oblique relativization) in Banana and Balangin.

	SUBJECT Q			OBJECT Q			SUBJECT RC			OBJECT RC		
	AV	PV	OV	AV	PV	OV	AV	PV	OV	AV	PV	OV
AHE	✓	*	*	?	✓	✓	✓	*	*	?	✓	✓
BANANA	✓	*	*	?	✓	✓	✓	*	*	?	✓	✓
BALANGIN	✓	*	*	?	✓	✓	✓	*	*	?	✓	✓

Table 32. Subject-object extraction and voice morphology in Kendayan-Salako languages

4.1.2 Other Malayic: Desa, Ope

There are two languages that are included in this section: Desa and Ope. For basic syntactic details and an overview of voice in these languages, see Section 3.1.2. While I discuss a variety of questions, I focus on two features: one, usage of at least two different *wh*-strategies (in-situ and fronting), and two, the role of voice morphology in extraction.

4.1.2.1 Wh-questions

This section is divided by type of *wh*-question. I discuss subject, object, and adjunct questions in the two languages, Desa and Ope.

4.1.2.1.1 Subject questions

Since Desa and Ope are not grouped together within an actual subgroup, I will discuss these two separately. I will begin with Desa. Subject questions in Desa utilize the interrogative pronoun *sopai*, which generally occurs sentence-initially, followed by the complementizer *yang.* Examples of this is given in (752-55).

(752) **Sopai** **yang** m-ensaq malam to? *Desa*
who COMP AV-cook night this
'Who is cooking tonight?'

(753) **Sopai** **yang** m-eca buku to?
who COMP AV-read book this
'Who is reading this book?'

(754) **Sopai** **yang** tau n-ain pokot kayu yen?
who COMP can AV-climb tree that
'Who can climb the tree?

(755) **Sopai** **yang** m-ali buku?
who COMP AV-buy book
'Who is buying a book?'

The complementizer *yang* appears to be obligatory; there is no evidence that it can be omitted in a well-formed subject question if the *wh*-word occurs sentence-initially. Like Kendayan-Salako languages, however, there is an additional strategy that can be used to form subject questions: right dislocation. The *wh*-word can occur sentence-finally, with *yang* still in the sentence-initial postion. This is exemplified in (756-57) below.

(756) **Yang** n-ikeq perau yen **sopai**?
COMP AV-tie boat that who
'Who tied the boat?'

(757) **Yang** m-ali buku **sopai**?
COMP AV-buy book who
'Who is buying a book?'

In this strategy, *yang* can be omitted; consider (758).

(758) N-ikeq perau yen **sopai**?
AV-tie boat that who
'Who tied the boat?'

There is an important morphological feature of these questions as well. Recall that Desa has evidence of two distinct nasal prefixes. The examples in (752-58) all use just *N*-, but it is additionaly possible to use *me*- in subject questions as well:

(759) Sopai yang me-n-ikeq perau yen?
who COMP AV-tie boat that
'Who tied the boat?'

(760) Sopai yang me-ng-ambeq ageng-ku?
who COMP AV-take basket-1SG.II
'Who took my basket?

However, when using the right dislocation strategy, the morphology is more restricted. The *N*- prefix is possible in all strategies: fronted, right dislocated with *yang*, and right dislocated without *yang*. This is not true of *me*-. It is possible to use *me*- when the *wh*-word is fronted, as in the two examples in (759-60)

above, and it is additionally possible with *yang* in this sentence-initial position. This can be seen in (761-62).

(761) Yang me-n-ikeq perau yen sopai?
COMP AV-tie boat that who
'Who tied the boat?'

(762) Yang me-m-ali buku sopai?
COMP AV-buy book who
'Who is buying a book?'

What is not possible is the usage of *me-* when *sopai* occurs right dislocated without *yang*. This results in ungrammaticality, as seen in (763).

(763) *Me-n-ikaq perau yen sopai?
AV-tie boat that who
'Who tied the boat?'

Only *N-* can occur in this positon. This is further evidence of distinction I discussed in Chapter 3. Furthermore, the facts above suggest that *me-* is only allowed when no movement has occurred, while *N-* is less restricted and is allowed regardless if movement has occurred or not.

I now turn to Ope. The interrogative pronoun used in Ope subject questions is *sope* and is followed by the complementizer *nang* when fronted. This is the most common strategy for these types of questions. A few examples are given in (764-67).

(764) **Sope** **nang** be-suman malap to? *Ope*
who COMP BE-cook night this
'Who is cooking tonight?'

(765) **Sope** **nang** n-ebeq perau ya?
who COMP AV-tie boat that
'Who tied the boat?'

(766) **Sope** **nang** m-ele ikaq kaq sungai?
who COMP AV-see fish in river
'Who sees fish in the river?'

(767) **Sope** **nang** m-aieq kayu?
who COMP AV-bring wood
'Who is bringing the wood?'

In Ope, *nang* is not optional. Omitting the complementizer from any of the above constructions results in ungrammaticality.

Ope patterns like Desa in having another *wh*-strategy where *sope* can be right-dislocated with *nang* occurring in the sentence-initial position. While this does not seem to be a frequent strategy in either language, it is possible. A few grammatical constructions are provided in (768-69) below.

(768) **Nang** m-aieq kaye **sope**?
COMP AV-bring wood who
'Who is bringing the wood?'

(769) **Nang** n-aroh bumbu keq dalap tayaq **sope**?
COMP AV-put spices into basket who
'Who put spices into the basket?'

Interestingly, while it is possible to omit *nang* in constructions like (770), this changes the intended meaning. The question below, for example, cannot mean 'who is bringing wood?' (the meaning if *sope* or *nang* occurred in the sentence-initial position) but rather must be intrepreted as a possessive question.

(770) M-aieq kayu sope?
AV-bring wood who
'This wood that was brought, whose is it?' *#Who is bringing wood?*

This suggests that *nang* plays a crucial role in differentiating whether a question that utilizes *sope* can be interpreted as possessive or not in Ope.

Note that all the examples of Ope subject questions above utilize a verb prefixed with the nasal prefix. This suggests that, like Desa, subjects must be extracted from the active voice. There is no evidence that subjects can be extracted from either the canonical passive or the object voice.

4.1.2.1.2 Object questions

As I did in the previous section, I will discuss object questions in Desa and Ope separately. I begin with Desa, which uses the interrogative pronoun *opai* in these types of questions. As in subject questions, the most common strategey for tehse questions is to front the *wh*-word to the sentence-initial position, which is followed by the complementizer *yang*. A few examples are provided below in (771-74).

(771) **Opai** **yang** onoq yen boli? *Desa*
what COMP child that buy
'What did the child buy?'

(772) **Opai** **yang** inya cintai?
what COMP 3SG.I love
'What does s/he love?'

(773) **Opai** **yang** kame kirim keq Ali?
what COMP 1PL.EXCL.I send to Ali
'What did we send to Ali?'

(774) **Opai** **yang** kitu taroh di delam ageng?
what COMP 1SG.INCL.I put into basket
'What did we put into the basket?'

One crucial observation from the examples above is lack of a nasal prefix on the verbs. Examples that additionally contain an aspectual marker make it clear that these are in the bare undergoer voice. Aspectual markers like *tongah,* the progressive marker, below precede the agent instead of the verb, which is the pattern seen in the bare undergoer voice. It is ungrammatical to have canonical actor voice order, as in (775).

(775a) Opai yang tongah ikau beca yen?
what COMP PROG 2SG.I read that
'What are you reading?'

(775b) *Opai yang ikau tongah beca yen?
what COMP 2SG.I PROG read that
'What are you reading?'

While verbs commonly occur in their bare form in object *wh*-questions, there is evidence that one of Desa's nasal prefixes can occur in these constructions as well. Consider the constructions in (776-77) below.

(776) Opai yang onoq biyat yen tau masaq?
what COMP child small that can cook
'What can the child cook?'

(777) Opai yang onoq yen m-oli?
what COMP child that AV-buy
'What did the child buy?'

(777) above has the verb *moli*, which has thre bare form *boli*. I include (776) as well, as it shows that the modal *tau* occurs preverbally instead of preceding the agent. The verb *masaq* likely has lexicalized its nasal prefix (as we see that it can take the *di-* prefix which cannot co-occur with the nasal prefix).

The usage of *me-*, however, is not possible in object questions. Attempting to prefix the two nasal prefixes results in ungrammaticality, as seen in (778).

(778) *Opai yang onoq yen me-m-oli?
what COMP child that AV-buy
'What did the child buy?'

Object questions in Desa can additionally occur in the *di-* undergoer voice, as seen below in (779-80).

(779) Opai yang di-masaq oleh onoq biyat yen?
what COMP PV-cook by child small that
'What was cooked by the child?'

(780) Opai di-m-ansaq onoq biyat malam to?
what PV-N-cook child small night this
'What is cooked by the child tonight?'

Desa has an additional strategy for object questions: leaving the *wh*-word in situ. Like Kendayan-Salako languages, these often occur with *yang* in the sentence-initial position. Verbs can occur either in the bare form or prefixed with *N-* with this strategy, but like fronting above, cannot occur with *me-*.

(781) **Yang** inya cintai **opai**?
COMP 3SG.I love what
'What does s/he love?'

(782) **Yang** inya n-ambeq **opai** niti onaq-onaq?
COMP 3SG.I AV-take what from child-RED
'What did s/he take from the child?

(783) *Yang inya men-cintai opai?
COMP 3SG.I AV-love what
'What does s/he love?'

This fronted *yang* is optional and can be omitted. When this occurs, both nasal prefixes are possible. Evidence of this can be seen below in (784-5).

(784) Inya men-cintai **opai**?
3SG.I AV-love what
'What does s/he love?'

(785) Inya n-ambeq **opai** niti onaq-onaq?
3SG.I AV-take what from child-RED
'What did s/he take from the child?

The distribution of the two nasal prefixes suggest that they are linked to movement (specifically, whether anything has been fronted or not). This will be explored more in Section 4.4.

I now turn to Ope object questions. Following the other four languages already described, Ope frequently uses a fronting strategy in these questions. The *wh*-word *ope* is fronted and then followed by the complementizer *nang*. A few examples of this are given below in (786-89).

(786) **Ope** **nang** inya suman? *Ope*
what COMP 3SG.I cook
'What does s/he cook?'

(787) **Ope** **nang** aku donga?
what COMP 1SG.I hear
'What do I hear?'

(788) **Ope** **nang** laki ya m-ijaq?
what COMP man that AV-hold
'What is the man holding?'

(789) **Ope** **nang** apaq aku boli?
what COMP father 1SG.I buy
'What did my father buy?'

Ope additionally has an in-situ strategy for these questions, and like Desa, has the complementizer occur in the sentence-initial position. This is exemplified below in (790).

(790) **Nang** apaq aku boli **ope**?
COMP father 1SG.I buy what
'What did my father buy?'

It is additionally possible to omit the complementizer, as seen in (791).

(791) Apaq aku m-oli **ope**?
father 1SG.I AV-buy what
'What did my father buy?'

The role of voice morphology is where Ope contrasts significantly with both Desa and the Kendayan-Salako languages outlined above. One similarity, however, is that the nasal prefix can occur both with or without *nang* when in-situ. This is shown in (792). Furthermore, while the bare verb occurs frequently when *ope* is fronted, it is disallowed when in-situ. This is shown in (793).

(792) Nang apaq aku m-oli ope?
COMP father 1SG.I AV-buy what
'What did my father buy?'

(793) *Apaq aku boli ope?
father 1SG.I buy what
'What did my father buy?'

Where Ope diverges is when the nasal prefix occurs when the *wh*-word has been fronted. The occurrence of the nasal prefix is dependent upon two factors: one, the tense and aspect of the question, and two, the status of the agent.

I will begin with the first factor. Displaying a pattern that is similar to Kendayan-Salako languages, Ope allows the nasal prefix with certain aspectual and temporal makers, but rejects it with others. This is exemplified by the constructions below, and is further reinforced by comments made by consultants themselves. Speakers note that *tongah*, the progressive marker, cannot co-occur with the nasal prefix as "they mean the same thing". (794a) and (794b) below then have identical meanings. Additionally, the nasal prefix can occur with the perfective marker *dah*, as in (795), but cannot occur with *daq*, which indicates future tense, as in (796).

(794a) Ope nang tongah inya gao?
what COMP PROG 3SG.I look.for
'What is s/he looking for?'

(794b) Ope nang inya ng-ao?
what COMP 3SG.I AV-look.for
'What is s/he looking for?'

(795) Ope nang dah inya ng-ao?
what COMP PFT 3SG.I AV-look.for
'What was s/he looking for?'

(796) *Ope nang daq inya ng-ao?
what COMP FUT 3SG.I AV.look.for
'What will s/he look for?'

However, this is not the only factor that determines whether or not the nasal prefix can occur. The status of the agent, specifically, the person, also plays a role. Agents that include the speaker, like 1st person singular and 1st person plural inclusive, occur without the nasal prefix. Agents that do not include the second, such as 2nd and 3rd person, occur with the nasal prefix. This is additionally reinforced by comments by speakers[66].

(797) Ope nang manaq taroh keq dalap tayaq?
what COMP 1PL.INCL.I put into basket
'What did we put in the basket?'

(798) *Ope nang manaq n-aroh keq dalap tayaq?
what COMP 1PL.INCL.I AV-put into basket
'What did we put in the basket?'

(799) Ope nang inya n-aroh keq dalap tayaq?
what COMP 3SG.I AV-put into basket
'What did we put in the basket?'

It seems that, in at least some circumstances, this requirement will trump the other. With *manaq*, the 1st person inclusive plural, only the non-prefixed form of the verb 'hold' could be used below, regardless of the tense/aspect of the question.

(800a) Ope nang dah manaq pijaq?
what COMP PFT 1PL.INCL.I hold
'What were we holding?'

(800b) *Ope nang dah manaq m-ijaq?
what COMP PFT 1PL.INCL.I hold
'What were we holding?'

[66] An example of such a comment is: "Oh, you can say that [with the nasal prefix] if it is a different person".

Ope has a few other distinct features in its questions. One is the usage of the word *laba* ‘thing’. Almost any object question can use *laba* following the *wh*-word, translated to ‘what thing’. An example of this is provided below in (801).

(801) Ope laba nang inya m-ijaq?
what thing COMP 3SG.I AV-hold
‘What (thing) is s/he holding?’

The word *laba* can be used with the in-situ strategy as well, but can only occur fronted with *nang*, not following *ope* in its base-generated position. This is shown by the contrasting grammaticality of the two examples below in (802a-b).

(802a) Laba nang inya suman ope?
thing COMP 3SG.I cook what
‘What (thing) does s/he cook?’

(802b) *Nang inya suman ope laba?
COMP 3SG.I cook what thing
‘What (thing) does s/he cook?’

Lastly, there is an additional morpheme that sometimes appears in these questions: the suffix *-a*, which attaches to the verb. A set of three sentences with the same meaning are given below. The question can be asked with the bare form of the verb. If the nasal prefix is added, it is only grammatical if *-a* is additionally used.

(803) Ope nang iko alap?
what COMP 2SG.I take
‘What did you take?’

(804) Ope nang iko ny-alap-a?
what COMP 2SG.I AV-take
‘What are you taking?’

(805) *Ope nang iko ny-alap?
what COMP 2SG.I AV-take
‘What did you take?’

This seems similar to the ‘projective’ found in other ‘Malayic Dayak’ languages.

The Ope data discussed here raises numerous questions. It is unfortunate that I will not be able to answer most of these questions in this dissertation, due to a significant gap in data. I noted earlier in Chapter 3 that Ope allows the nasal prefix in the object voice. However, I do not have enough examples of declarative sentences in the object voice to determine whether the findings noted above (in regards to the distribution of the nasal prefix) is restricted only to questions, or if these additionally occur in non-questioning contexts. This is an important question that I hope to answer once I can return to the field to collect more object voice data. If declarative object voice constructions share the findings noted above, a potential analysis is to analyze the nasal prefix like I did for Kendayan-Salako languages: as an aspectual marker that can only occur in the undergoer voice. However, if these findings are restricted to questions, this would not fit with what I argued for Kendayan-Salako languages and would be quite surprising. It might suggest that Ope has some sort of *wh*-agreement, as argued for Chamorro (Chung 1994).

4.1.2.1.3 Adjunct questions

The last type of questions I will be discussing is adjunct questions. Again, I will begin with Desa. Desa uses several different *wh*-words in adjunct questions, such as *oni* 'where', *bila* 'when', and *nopai* 'why'. A few examples are provided below in (806-9).

(806) **Di** **oni** ikau n-angkap ikan ari to? *Desa*
from where 2SG.I AV-catch fish day this
'Where did you catch fish today?'

(807) **Di** **oni** kitu n-aroh sayoq-sayoq-an?
to where 1SG.INCL.I AV-put vegetables-RED
'Where did we put the vegetables?'

(808) **Bila** lelaki yen ny-uri padi?
when male that AV-steal rice
'When did the boy steal rice?

(809) **Nopai** ikau me-n-hancur-kan rumah yen?
why 2SG.I AV-destroy-CAUS house that
'Why did you destroy the house?'

Like subject and object questions, these *wh*-words occur frequently in the sentence-initial position. However, it is also possible for them to occur in the sentence-final position, as seen below.

(810) Ikau n-angkap ikan ari to **di** **oni**?
2SG.I AV-catch fish day this from where
'Where did you catch fish today?'

(811) Lelaki yen ny-uri padi **bila**?
male that AV-steal rice when
'When did the boy steal rice?

(812) Ikau me-n-hancur-kan rumah yen **nopai**?
2SG.I AV-destroy-CAUS house that why
'Why did you destroy the house?'

Unlike subject and object questions, the use of the complementizer *yang* is disallowed. Attempting to include one after the *wh*-word arises in ungrammaticality, as in (813).

(813) *Di oni yang inya m-ali beju to?
from where COMP 3SG.I AV-buy shirt this
'Where did s/he buy this shirt?'

Additionally, while object questions show a restricted use in regards to Desa's two nasal prefixes, adjunct questions do not. The examples above in (806-810) show the usage of *N-*, and the examples below show that *me-* is additionally allowed in these questions, regardless of the position of the *wh*-word.

(814) Di oni inya me-m-ali beju to?
from where 3SG.I AV-buy shirt this
'Where did s/he buy this shirt?'

(815) Inya me-m-ali beju to di oni?
3SG.I AV-buy shirt this from where
'Where did s/he buy this shirt?'

Ope adjunct questions pattern similarly. Adjunct *wh*-words in Ope include *domi* 'where', *bila* 'when', and *nope* 'why'. These often occur in the sentence-initial position. Some examples are provided below in (816-19).

(816) **Domi** iko n-akap ikaq ari to?
where 2SG.I AV-catch fish day this
'Where did you catch fish today?'

(817) **Bila** iko n-akap ikaq ya?
when 2SG.I AV-catch fish that
'When did you catch fish?'

(818) **Bila** laki ya m-aliq padi ya?
when male that AV-steal rice that
'When did the boy steal rice?'

(819) **Nope** iko n-anco dango ya?
why 2SG.I AV-destroy house that
'Why did you destroy the house?'

Like Desa, these *wh*-words can occur sentence-finally as well. Examples of this are in (820-22).

(820) Laki ya m-aliq padi ya **bila**?
male that AV-steal rice that when
'When did the boy steal rice?'

(821) Iko n-anco dango ya **nope**?
2SG.I AV-destroy house that why
'Why did you destroy the house?'

(822) Manaq n-aroq bala layoq ati **keq** **domi**?
1PL.INCL. AV-put many vegeatable earlier in where
'Where did we put many vegetables?'

Unlike object questions, which have certain restrictions on the usage of the nasal prefix, these adjunct questions readily allow the nasal prefix, suggesting that these occur in the active voice.

Ope and Desa thus share some similarites in terms of extraction with Kendayan-Salako languages. Subject questions require extraction out of the active voice, while object questions seem more variable. Both additionally raise questions about whether objects can be extracted out of active voice, but for different reasons. Ope patterns like Kendayan-Salako languages in allowing the nasal prefix in the object voice. Desa, on the other hand, represents a particularly interesting case, as Desa has two nasal prefixes, only one of which is allowed in object extraction contexts. I summarize the patterns found in these languages in Table 33 below.

	SUBJECT Q			OBJECT Q			ADJUNCT Q		
	AV	**PV**	**OV**	**AV**	**PV**	**OV**	**AV**	**PV**	**OV**
DESA	*me-* ✓ *N-* ✓	*	*	*me-* * *N-* ✓	✓	✓	*me-* ✓ *N-* ✓	---	---
OPE	✓	*	*	?	✓	✓	✓	---	---

Table 33. The interaction of voice morphology and extraction in Ope and Desa questions

4.1.2.2 Relative clauses

The next three subsections follow on describing three types of relative clauses in Desa and Ope: subject, object, and oblique.

4.1.2.2.1 Subject relative clauses

I begin with subject relative clauses, and like the previous section, I will discuss Desa and Ope one at a time. Subject relative clauses in Desa use the complementizer *yang* to introduce the embedded clause. Some examples are provided below.

(823) **Betina yang tongah m-ali beju to** tingi. *Desa*
woman COMP PROG AV-buy shirt this tall
'The woman who is buying this shirt is tall'

(824) **Betina yang n-anam padi** mau pulakng.
woman COMP AV-plant rice FUT go.home
'The woman who planted rice will go home'

(825) Aku me-liet **lelaki yang n-ikeq tali yen**.
1SG.I AV-see man COMP AV-tie rope that
'I see the man who ties the rope'

(826) Aku m-ayer **urang yang tongah m-bangun rumah-ku.**
1SG.I AV-pay person COMP PROG AV-build house-1SG.I
'I paid the person who built my house'

The constructions above utilize the *N-* nasal prefix, but it is additionally possible to use *me-*, as evidenced by the examples below in (827-28).

(827) Urang yang me-ny-apah dokter berangkat.
person COMP AV-call doctor leave
'The person who called the doctor left'

(828) Betina yang men-cintai omboq-ku diem di ulu.
woman COMP AV-love older.brother-1SG.I live downriver
'The woman who loves my older brother lives downriver'

Ope subject relative clauses are similar, except that the complementizer in Ope is *nang*. Some examples are provided below in (829-831).

(829) **Urang nang n-oro dokto** berangkat. *Ope*
person COMP AV-call doctor leave
'The person who called the doctor left'

(830) Aku m-bayar **uraq nang tongah m-uwan dango aku.**
1SG.I AV-pay person COMP PROG AV-build house 1SG.I
'I paid the person who built my house'

(831) **Betina nang m-ali baju ya** tingi.
woman COMJP AV-buy shirt that tall
'The woman who is buying the shirt is tall'

We thus see subject relative clauses in Ope and Desa patterning like subject questions: both types of A'-movement require extraction out of the active voice. Furthermore, Desa allows both nasal prefixes in both types of subject extraction.

4.1.2.2.2 Object relative clauses

Object relative clauses in Desa also use the complementizer *yang* to introduce the embedded clause. Some examples are provided below in (833-35).

(832) Tolong makan **buah yang aku tungkong**. *Desa*
please eat fruit COMP 1SG.I cut
'Please eat the fruit that I cut'

(833) **Beju yang inya bali sumare** telalu cocek.
shirt COMP 3SG.I buy yesterday too small
'The shirt that s/he bought yesterday is too small'

(834) **Padi yang umaq-ku tanam** tumbuh sangat copat.
rice COMP mother-1SG.I plant grow very fast
'The rice that my mother planted is growing fast'

(835) Aku suka **buku** **to yang** **opaq-ku** **bali**.
1SG.I live book this COMP father-1SG.I buy
'I like this book that my father bought'

In subject relative clauses, both nasal prefixes were possible in the embedded clause. This is not the case in object relative clauses. In the examples above, the verbs within the embedded clauses are all in their (non-prefixed) bare form. This is the most frequently found pattern. However, it is grammatical to affix the verb with *N-*, as can be seen below in (836-37).

(836) Ageng yang ikau ng-ambeq yen ampuq aku.
basket COMP 2SG.I AV-take that belong 1SG.I
'The basket that you took is mine'

(837) Tali yang aku n-ikeq keq perau yen kuat.
rope COMP 1SG.I AV-tie to boat that strong
'The rope that I tied to the boat is strong'

However, these do contrast with subject relative clauses in regards to the nasal prefix *me-*. This prefix is not possible in these types of relative clauses, as exemplified in (838) below.

(838) *Ageng yang ikau me-ng-ambeq yen ampuq aku.
basket COMP 2SG.I AV-take that belong 1SG.I
'The basket that you took is mine'

The examples in (832-35) that use a bare verb are likely cases of the bare undergoer voice. The *di-* undergoer voice is also possible; this is shown in (839-40).

(839) Rumah yang di-bangun opaq-ku lebih bosar.
house COMP PV-build father-1SG.I more big
'The house built by my father is bigger'

(840) Ageng yang di-ambeq oleh ikau yen ampuq aku.
basket COMP PV-take by 2SG.I that belong 1SG.I
'The basket that you took is mine'

Object relative clauses in Ope pattern similarly and use the complementizer *nang*, like subject relative clauses. A few examples are provided below in (841-43).

(841) **Tali** **nang** **aku** **kobeq** **keq** **perou** ya togoh. *Ope*
rope COMP 1SG.I tie to boat that strong
'The rope that I tied to the boat is strong'

(842) Laki ya ny-coba n-akup **ikat** **nang** **tau aku** **bele kaqsungai**.
male that AV-try AV-catch fish COMP can 1SG.I see in river
'The man tried to catch the fish that I saw in the river'

(843) **Tayaq** **nang** **iko** **alap** **ya** empu d'aku.
basket COMP 2SG.I take that belong to-1SG.I
'The basket that you took is mine'

Recall that object *wh*-questions in Ope had some restrictions on the use of the nasal prefix. This seems to be true in these relative clauses as well. A few examples are provided below. In the pair of (844a) and (844b), the nasal prefix is gramamtical in the non-negated version of the sentence, but not possible in the negated.

(844a) Tayaq nang iko ny-alap ya empu d'aku.
basket COMP 2SG.I AV-take that belong to-1SG.I
'The basket that you took is mine'

(844b) *Tayaq nang naq iko ny-alap ya empu d'aku.
basket COMP NEG 2SG.I AV-take that belong to-1SG.I
'The basket that you did not take is mine'

This suggests a connection between tense/aspect and the nasal prefix that was additionally identified in questions. Furthermore, there is evidence that the status of the agent is a factor as well. One of the verbs that was identified as showing this pattern in questions, *piyaq* 'to hold', shows the same pattern here. With the pronominal agent *manaq*, the 1st person inclusive pronoun, it is not possible for the nasal prefix to be affixed to the verb. Instead, the verb must occur bare. This is shown with the pair in (845a-b). With a 3rd person agent, however, using the nasal prefix is possible, as seen in (845c).

(845a) Aku m-ele kayu nang manaq pijaq.
1SG.I AV-see wood COMP 1PL.INCL.I hold
'I see the wood that you are holding'

(845b) *Aku m-ele kayu nang manaq m-ijaq.
1SG.I AV-see wood COMP 1PL.INCL.I AV-hold
'I see the wood that we are holding'

(845c) Aku m-ele kayu nang inya m-ijaq.
1SG.I AV-see wood COMP 3SG.I AV-hold
'I see the wood that s/he is holding'

For both questions and relative clauses, it is not entirely clear if this is verb-specific or not. The pattern is not the same for every instance of the nasal prefix. This raises the same questions as noted when discussing object questions.

Again, we see that both types of A'-movement have the same pattern for the two languages. Desa disallows *me-* but allows *N-* in both object questions and relative clauses. Ope allows the nasal prefix but it is unclear whether this is active voice or if is the object voice.

4.1.2.2.3 Oblique relative clauses

This last subsection is dedicated to oblique relative clauses. There is currently only a small amount of evidnece on these in both languages, which are provided below in (846-47).

(846) Aku ni-losi **lading yen yang** **mau** **n-ungkong** **buah yen.** *Desa*
1SG.I AV-lose knife that COMP FUT AV-cut fruit that
'I lost the knife with which I will cut fruit'

(847) Aku n-ilang **lading ya nang** **daq** **n-ota** **buah** **ya.** *Ope*
1SG.I AV-lose knife that COMP FUT AV-cut fruit that
'I lost the knife with which I will cut fruit'

At least from this very minimal set of data, it is not clear if obliques can be directly relativized or not. Both of the examples above instead promote the head noun to an argument position. However, more data is needed to determine if this is the only strategy or not.

I summarize the subject-object extraction details in regards to voice morphology below in Table 34 for both languages.

	SUBJECT Q			**OBJECT Q**			**SUBJECT RC**			**OBJECT RC**		
	AV	**PV**	**OV**	**AV**	**PV**	**OV**	**AV**	**PV**	**OV**	**AV**	**PV**	**OV**
DESA	*me-* ✓ *N-* ✓	*	*	*me-* * *N-* ✓	✓	✓	*me-* ✓ *N-* ✓	*	*	*me-* * *N-* ✓	✓	✓
OPE	✓	*	*	?	✓	✓	✓	*	*	?	✓	✓

Table 34. Subject-object extraction and voice morphology in Desa and Ope

Any analysis of extraction in these languages must account for the morphological differences in Table 34, which I discuss in Section 4.3.

4.2 A'-movement in Land Dayak languages

This section describes A'-movement in the five Land Dayak languages. Subsections are divided by subgroup. Within each subsection, I start with *wh*-movement (and the types of stratregies each language uses) and follow with relative clauses. I begin Southern Land Dayak languages in Section 4.2.1. Section 4.2.2 focuses on Benyadu-Bekati' languages in 4.2.2.1, and Beaye and Ba'aje in 4.2.2.2.

4.2.1 Southern Land Dayak: Ribun

There is only one language included in this section: Ribun. For basic syntactic details and an overview of voice in Ribun, see Section 3.2.1. While I discuss a variety of questions, I focus on two features: one, usage of at least two different *wh*-strategies (in-situ and fronting), and two, the role of voice morphology in extraction.

4.2.1.1 Wh-questions

This section is divided by type of *wh*-question. I discuss subject, object, and adjunct questions in all three languages.

4.2.1.1.1 Subject questions

Subject questions in Ribun most frequently occur with the interrogative pronoun *ose* in the sentence-initial position followed by one of two options: either a) *ndeq*̩, a complementizer, or b) *keq*, a question marker. These can also co-occur. (848) shows the usage of the complementizer, (849) shows the usage of the question marker, and (850-1) shows both together.

(848) **Ose** **ndeq** ng-osoq nohing to?
who COMP AV-cook night this
'Who is cooking tonight?'

(849) **Ose** **keq** n-tilai ikan di ohuwang?
who Q AV-see fish in river?
'Who sees fish in the river?

(850) **Ose** **keq** **ndeq** haq n-isi ohuq han?
who Q COMP NONCOMP AV-tie boat that
'Who will tie the boat?'

(851) **Ose** **keq** **ndeq** m-iyu tajong oko?
who Q COMP AV-take basket 1SG.I
'Who takes my basket?'

When the two co-occur, the question marker precedes the complementizer. It seems that one of these is required at all times in subject questions.

Like the five Malayic languages discussed in the last section, Ribun additionally allows the interrogative pronoun to right-dislocate. This is possible both with the complementizer *ndeq* in the sentence-initial position (as in (852-3)), and without (as in (854)).

(852) **Ndeq** ng-osoq nohing to **ose**?
COMP AV-cook night this who
'Who is cooking tonight?'

(853) **Ndeq** poga onaq sade han **ose** **keq**?
COMP look.for child small that who Q
'Who is looking for the child?'

(854) M-ihis baju ntu **ose** **keq**?
AV-buy shirt this who Q
'Who is buying a shirt?'

Additionally, the question marker *keq* can occur after the interrogative pronoun, but it is not required, as seen by the grammaticality of (855). While the question marker can occur in this position, the complementizer cannot:

(855) *Ng-osoq nohingto ose deq?
AV-cook night this who COMP
'Who is cooking tonight?'

Many of the sentences above has what appears to be a nasal prefix. However, it should be noted that this is not a requirement for subject questions, as the verb 'look for' occurs in its bare form *poga* in these types of constructions. An example of this is provided below in (856).

(856) Ose keq poga anoq niyu oko?
who Q look.for child female 1SG.I
'Who is looking for my daughter?'

This is not frequent, however. I noted in Chapter 3 that Ribun has a few verbs that seemingly can occur without the nasal prefix. The distribution of this is not clear, as seems to be restricted to a very small set of verbs. It seems that the lack of the nasal prefix here is perhaps not a feature of subject questions, but a feature of the verb itself. The verb *poga* occurs without a nasal prefix in several contexts, including declarative active voice constructions. This suggests that (856) is likely still in the active voice, as other verbs must occur with the nasal prefix.

4.2.1.1.2 Object questions

Object questions in Ribun have some of the same features as subject questions. One, the most frequent strategy with these types of questions is to front the *wh*-word *one* to a sentence-initial position. Two, these question words often co-occur with the question marker *keq*. A few examples are provided below in (857-61).

(857) **One keq koyuv** haq omoq m-baco?
what Q thing NONCOMP 2SG.I AV-read
'What are you reading?

(858) **One koyuv** omo m-isi kaq oko?
what thing 2SG.I AV-give to 1SG.I
'What did you give to me?

(859) **One keq koyuv** omo n-tilai?
what Q thing 2SG.I AV-see
'What do you see?'

(860) **One koyuv** onoq sade ng-osoq?
what thing child small AV-cook
'What is the child cooking?'

(861) **One keq koyuv** mimoq cihing kone Ali?
what Q thing 1SG.INCL.I send to Ali
'What did we sent to Ali?'

There are also, however, some notable differences. One, the word *koyuv* 'thing' is frequently used in object questions, following either the *wh*-word or the *wh*-word plus the question marker. This same feature also occurs in Ope object questions, as discussed in the last section. In comparison to Ope, however, it is much more frequently used.

It is also possible to use the complementizer *ndeq*, but it is not required. When used, *ndeq* must

follow the *wh*-word, *koyuv*, and the question marker. This is seen below in the grammaticality of (862-64) and the ungrammaticality of (865).

(862) One koyuv ndeq leq apaq oko m-ihis?
what thing COMP UV father 1SG.I AV-buy
'What did my father buy?'

(863) One keq koyuv ndeq l'odiya n-isi?
what Q thing COMP UV-3SG.I AV-tie
'What did s/he tie?'

(864) One kaq koyuv ndeq njo mimoq buko?
what Q thing COMP NONCOMP 1PL.INCLI open
'What are we/will we open?'

(865) *One ndeq koyuv leq apaq oko m-ihis?
what COMP thing UV father 1SG.I AV-buy
'What did my father buy?'

Ribun additionally allows in-situ object questions. When this occurs, the *wh*-word occurs in its base-generated position and can be followed by the question marker or *koyuv*.

(866) Odi m-ihis **one**?
3SG.I AV-buy what
'What did s/he buy?'

(867) Onoq sade ng-osoq **one**?
child small AV-cook what
'What did the child cook?'

(868) Odi m-ihis **one kaq koyuv**?
3SG.I AV-buy what Q thing
'What did s/he buy?'

Neither the question marker nor *koyvu* can occur in the sentence-initial position without the *wh*-word. This is exemplified by (869-70) below.

(869) *Koyuv onoq sade ng-osoq one?
thing child small AV-cook what
'What is the child cooking?'

(870) *Kaq l'odi m-ihis one?
Q UV-3SG.I AV-buy what
'What did s/he buy?'

Several of the constructions above (like (857-61)) illustrate that object questions can occur in the actor voice. These questions can additionally occur in the undergoer voice with *leq*. This is shown above in (863), but additional examples are provided below in (871-72).

(871) One koyuv leq apaq oko m-ihis?
what thing UV father 1SG.I AV-buy
'What did my father buy?'

(872) One keq koyuv leq omo cinta?
what Q thing UV 2SG.I love
'What do you love?'

The examples provided without *leq* could be indicative of extraction out of the active voice, but recall that I noted in Chapter 3 that *leq* can be omitted in the undergoer voice as long as the word order UAV is strictly adhered to. Questions like (857-861), where there is no *leq*, could be examples of active voice, but could additionally be the undergoer voice with an omitted *leq.* This will be discussed more in-depth in Section 4.3.

4.2.1.1.3 Adjunct questions

Adjunct questions in Ribun utilize question words such as *noke* 'where', *none* 'why', and *ndah*' when. These occur in the sentence-initial position, like subject and object questions. This is exemplified for all three below in (873-76).

(873) Noke omo n-oki ikan ondu to?
where 2SG.I AV-catch fish day this
'Where did you catch fish today?'

(874) None nahi han n-angku podi?
why male that AV-steal rice
'Why did the man steal rice?'

(875) Ndah omo n-oki ikan?
when 2SG.I AV-catch fish
'When did you catch fish?'

(876) Ndah onyo nahi han n-angku podi?
when person male that AV-steal rice
'When did the man steal rice?'

Every other language discussed thus far has also allowed adjunct question words to occur in other parts of the sentence, like in the sentence-final position. Interestingly, in Ribun, this is not allowed for either *ndah* 'when' or *none* 'why'. Attempting to do so results in ungrammaticality, which is shown in (877-878).

(877) *Onyo nahi han n-angku podi ndah?
person male that AV-steal rice when
'When did the man steal rice?'

(878) *Nahi han n-angku podi none?
male that AV-steal rice where
'Why did the man steal rice?'

It is unclear why this restriction occurs. At least one clear generalization can be made about adjunct questions in Ribun: they all occur in the active voice.

4.2.1.2 Relative clauses

The next three subsections follow on describing two types of relative clauses in Ribun, subject and object. Due to a lack of data, there will be no section on oblique relative clauses.

4.2.1.2.1 Subject relative clauses

I begin with subject relative clauses in Ribun. Embedded clauses are introduced by the complementizer *ndeq*, as shown below in (879-81).

(879) **Nayu ndeq haq m-ihis boju han** dombah.
woman COMP NONCOMP AV-buy shirt that tall
'The woman who is buying this shirt is tall'

(880) **Onyo ndeq m-iyu dokter** jeh nohi.
person COMP AV-call doctor PFT leave
'The person who called the doctor left'

(881) **Nahi han ndeq poga siowa** jeh bongkat.
man that COMP look.for chicken PFT leave
'The man who is looking for the chicken left'

There is currently no evidence that the complementizer is optional in these constructions. Note that, like subject questions, both nasal prefixed verbs and bare verbs are possible in the embedded clause. (879-80) above both show a nasal prefixed verb, while (881) shows a bare verb. As I noted above, however, *poga* is one of the only verbs that can occur without the nasal prefix, perhaps suggesting that this is a verb-specific phenomenon.

4.2.1.2.2 Object relative clauses

Object relative clauses additionally use the complementizer *ndeq* to introduce the embedded clause, following the head noun. A few examples are provided below in (882-86).

(882) **Homing ndeq apaq oko m-onke** siong das.
house COMP father 1SG.I AV-build downriver
'The house that my faather built is downriver'

(883) Oko suko **buku ndeq apaq oko m-ihis**.
1SG.I like book COMP father 1SG.I AV-buy
'I like the book that my father bought'

(884) Han **homing ndeq apaq oko m-onki.**
this house COMP father 1SG.I AV-build
'This is house that my father built'

(885) Apaq oko tingpuang **koyu ndeq oko n-aku**.
father 1G.I cut.down tree COMP 1SG.I AV-climb
'My father cut down the tree that I climbed'

(886) **Buku ndeq oko ingin** mojo maha.
book COMP 1SG.I want too expensive
'The book that I want is too expensive'

However, the complementizer is not always required. The constructions above all appear to be in the actor voice. The embedded clause in object relative clauses can additionally occur in the *leq*-marked undergoer voice. When this occurs, *ndeq* is optional. It can co-occur, as in (887) below, but it can additionally be omitted, as in (888-91).

(887) Homing ndeq leq apaq oko m-onke siong das.
house COMP UV father 1SG.I AV-build downriver
'The house that my faather built is downriver'

(888) Tulong ndou buawi leq oko n-opuwi.
please eat food UV 1SG.I AV-cut
'Please eat the fruit that I cut'

(889) Dokter jeh leq mimoq m-iyu mondi nang picowag.
doctor PFT UV 1PL.INCLI AV-call leave with fast
'The doctor that we called quickly'

(890) Baju leq haq m-ihis odiya maha.
shirt UV NONCOMP AV-buy 3SG.I expensive
'The shirt that s/he is buying is expensive'

(891) Podi leq maq oko m-uhuv midi nang picowaq.
rice UV mother 1SG.I AV-plant grow with fast
'The rice that my mother planted is growing fast'

Object relative clauses in Ribun quite frequently occur with the embedded clause in the undergoer voice, but it is not clear if this is required. Like object questions, these constructions could be analyzed as active voice, but could potentially be analyzed as the undergoer voice without *leq*.

4.2.2 Benyadu-Bekati': Banyduq, Bekati, Beaye, Ba'aje

This next section is dedicated to describing A'-movement in four Benaydu-Bekati' languages. I have divided these into two subsections: the first, in Section 4.2.2.1, focuses on Banyaduq and Bekati, and the second, in Section 4.2.2.2, focuses on Beaye and Ba'aje.

4.2.2.1 Banyaduq and Bekati

Therea are two languages included in this section: Banyaduq and Bekati. For basic syntactic details and an overview of voice in both of these languages, see Section 3.2.2. While I discuss a variety of questions, I focus on two features: one, usage of at least two different *wh*-strategies (in-situ and fronting), and two, the role of voice morphology in extraction.

4.2.2.1.1 Wh-questions

This section is divided by type of *wh*-question. I discuss subject, object, and adjunct questions in these two languages.

4.2.2.1.1.1 Subject questions

I begin with subject questions. Both Banyaduq and Bekati use a *wh*-strategy in which the *wh*-word occurs in the sentence-intial position, followed by a complementizer. In Banyaduq, the interrogative pronoun is *asi*, and the complementizer is *daq*. In Bekati, the interrogative pronoun is *si*, and the complementizer is *deq*. Examples of subject questions in both languages are provided below in (892-99).

(892) **Asi daq** n-angoq? *Banyaduq*
who COMP AV-cook
'Who is cooking?'

(893) **Asi daq** n-ancur ramin dako?
who COMP AV-destroyhouse that
'Who destroyed the house?'

(894) **Asi daq** n-ingoq perau dako?
who COMP AV-tie boat that
'Who is tying the boat?'

(895) **Asi daq** n-angkap karanjang-ko?
who COMP AV-catch basket-1SG.II
'Who took my basket?'

(896) **Asi daq** giq m-insaq kayu?
who COMP PROG AV-bring wood
'Who is bringing wood?'

(897) **Si deq** m-uwa bunga setiap ano? *Bekati*
who COMP AV-plant flower every day
'Who plants flowers every day?'

(898) **Si deq** n-anuq?
who COMP AV-cook
'Who is cooking?'

(899) **Si deq** ny-amis siep doh?
who COMP AV-kill chicken this
'Who killed this chicken?'

In neither language were any of these questions provided without the complementizer, but speakers noted that it is still grammatical to eliminate it. This suggests that the complementizer is not typically omitted.

Both languages additionally allow a form of right-dislocation of the *wh*-word. When this occurs, the complementizer still occurs in the sentence-initial position. In Banyaduq, it was specified that a pause msut occur before *asi* when it occurs in this position. Some examples of this are provided below.

(900) **Daq** n-angis siap dako **asi**? *Banyaduq*
COMP AV-kill chicken that who
'Who killed the chicken?'

(901) **Daq** n-ancur ramin dako **asi**?
COMP AV-destroy house that who
'Who destroyed the house?'

(902) **Daq** m-ari baju dia **asi**?
COMP AV-buy shirt this who
'Who bought this shirt?'

(903) **Deq** ny-amis siep doh **si**? *Bekati*
COMP AV-kill chicken this who
'Who killed this chicken?'

In Bekati, omitting the complementizer from the sentence-initial position is still grammatical. In Banyaduq, this is marked, at the very least. Something like (904) below in Banyaduq was dispreferred, but (905) was slightly more acceptable.

(904) #N-angis siap dako asi?
AV-kill chicken that who
'Who killed the chicken?'

(905) N-ancur ramin dako asi?
AV-destroy house that who
'Who destroyed the house?'

Subject questions with the *wh*-word right-dislocated seem to occur significantly less frequently than a sentence-initial *wh*-word. Without the sentence-initial complementizer, they seem to be even more marked.

As noted in the other six languages discussed thus far, subject questions in Banyaduq and Bekati

only allow extraction out of the active voice. There is no evidence that extraction of subjects is possible out of the undergoer voice.

4.2.2.1.1.2 Object questions

Object questions in Banyaduq and Bekati both use the *wh*-word *jai*. The most common strategy in these questions is to front this *wh*-word to the sentence-initial position, where it is followed by a complementizer. Some examples of this in both languages are provided below in (906-11).

(906) **Jai daq** dako n-angoq? *Banyaduq*
what COMP child AV-cook
'What does the child cook?'

(907) **Jai daq** imu bisa n-angis?
what COMP 2SG.I can AV-kill
'What can you kill?'

(908) **Jai daq** eneq n-ingoq?
what COMP 3SG.II AV-tie
'What did s/he tie?'

(909) **Jai** **deq** katn nyam m-uwa setiap ano? *Bekati*
what COMP UV 3SG.I AV-plant every day
'What does s/he plant every day?'

(910) **Jai** **deq** katn anaq do n-anuq?
what COMP UV child that AV-cook
'What did the child cook?'

(911) **Jai** **deq** katn ku ny-amis?
what COMP UV 2SG.I AV-kill
'What did you kill?'

There is a clear difference between the Banyaduq and Bekati data given above. While the Banyaduq appers to be in actor voice, the Bekati is clearly in the undergoer voice (indicated by the inclusion of the marker *katn*). However, it seems that Banyaduq object questions can occur in either actor or undergoer voice. Consider the examples below in (912-17).

(912) Jai daq kan mu nanaq n-angis? *Banyaduq*
what COMP UV 2SG.II NEG AV-kill
'What didn't you kill?'

(913) Jai daq kan mu n-ancur?
what COMP UV 2SG.II AV-destroy
'What did you destroy?'

(914) Jai daq bisa kan m-ura kaq taman?
what COMP can UV AV-plant in field
'What can be planted in the field?'

(915) Jai daq kan mu m-angis?
what COMP UV 2SG.II AV-kill
'What did you kill?'

(916) Jai daq kan mu n-angkap?
what COMP UV 2SG.II AV-catch
'What did you take?'

(917) Jai daq kan eq m-insaq?
what COMP UV 3SG.II AV-bring
'What did s/he bring?'

All of the above show the hallmark characteristics of undergoer voice in Banyaduq: the inclusion of the marker *kan*, and the pronominal agent occurring in its Set II form. The examples before, in (906-8), without *kan*, must be in the actor voice as the pronominal agent occurs in its Set I form. If *kan* is omitted, the pronominal agent must occur in its Set II form.

This suggests that Banyaduq allows both actor and undergoer voice in object questions. Bekati, on the other hand, may not. It was noted that *katn* can be omitted, but this was never given in an original elicitation.

Both of these languages also allow the *wh*-word to remain in-situ in object questions. This can occur with the complementizer in the sentence-initial position, as in the examples below.

(918) **Daq** kan mu n-ancur **jai**? *Banyaduq*
COMP UV 2SG.I AV-destroy what
'What did you destroy?'

(919) **Daq** kan eq m-ari **jai**?
COMP UV 3SG.II AV-buy what
'What did s/he buy?'

(920) **Daq** kan mu n-ancur **jai**?
COMP UV 2SG.I AV-destroy what
'What did you destroy?'

(921) **Daq** kan eq m-ari **jai**?
COMP UV 3SG.II AV-buy what
'What did s/he buy?'

(922) **Deq** katn ku ny-amis **jai**? *Bekati*
COMP UV 2SG.I AV-kill what
'What did you kill?'

(923) **Deq** katn sama kitn m-ari **jai**?
COMP UV father 1SG.I AV-buy what
'What did my father buy?'

In Banyaduq, it is additionally possible to omit the complementizer, but only if the question occurs in the actor voice. Omitting the sentence-initial complementizer when in the undergoer voice results in ungrammaticality. This can be seen in the pair below in (924a-924b).

(924a) Mu n-ancur **jai**?
2SG.I AV-destroy what
'What did you destroy?'

(924b) *Kan mu n-ancur jai?
UV 2SG.I AV-destroy what
'What did you destroy?'

This is not true of Bekati. Since Bekati seems to only allow the undergoer voice in object questions, omitting the complementizer is ungrammatical. This is exemplified below in (925).

(925) *Katn ku ny-amis jai deq?
UV 2SG.I AV-kill what COMP
'What did you kill?'

Banyaduq and Bekati thus show minor but important distinctions in how object questions are formed. Banyaduq seems to reject the 'subjects-only' restriction, as noted by the observations above. Bekati, on the other hand, does not allow object extraction out of the active voice, as evidenced by the inclusion of the voice morpheme in all object questions.

4.2.2.1.1.2 Adjunct questions

The last type of questions to be discussed in this section are adjunct questions. A few *wh*-words used in adjunct questions are *kome* (Banyaduq) and *kumi* (Bekati) 'where', as well as *nina* 'when' (for both). These frequently occur, like other types of questions, in the sentence-initial position, as exemplified in the examples below.

(926) **Kome** mo n-angkap ikat ano dia? *Banyaduq*
where 2SG.I AV-catch fish day this
'Where did you catch fish today?'

(927) **Kome** eneq m-ari baju dia?
where 3SG.I AV-buy shirt this
'Where did s/he buy this shirt?'

(928) **Kome** baju dia kan eq m-ari?
where shirt this UV 3SG.II AV-buy
'Where did s/he buy this shirt?'

(929) **Nina** mo n-angkap ikat?
when 2SG.I AV-catch fish
'When did you catch fish?'

(930) **Nina** ari dako n-angko padi?
when child that AV-steal rice
'When did the boy steal rice?'

(931) **Kumi** nyum m-uwa bunga? *Bekati*
where 3SG.I AV-plant flower
'Where did s/he plant flowers?

(932) **Kumi** ku n-angkap catn anu dia?
where 2SG.I AV-catch fish day this
'Where did you catch fish today?'

(933) **Nina** nyum m-uwa bunga?
when 3SG.I AV-plant flower
'When did s/he plant flowers?'

(934) **Nina** ku n-ankap catn?
when 2SG.I AV-catch fish
'When did you catch fish?'

(935) **Nina** ari doh n-angku padi?
when child that AV-steal rice
'When did the child steal rice?'

One clear difference between this type of question and argument questions is the lack of a complementizer. Additionally, Bekati allows adjunct questions to use the actor voice, which was not found for object questions.

Some flexibility in the position of the adjunct *wh*-word is possible. In Bekati, both 'when' and 'where' can be moved within the question. The examples below show the *wh*-word occurring in the sentence-final position.

(936) Ku n-angkap catn anu dia **kumi**? *Bekati*
2SG.I AV-catch fish day this where
'Where did you catch fish today?'

(937) Ku n-ankap catn **nina**?
2SG.I AV-catch fish when
'When did you catch fish?'

Banyaduq is slightly more restricted. While 'where' is able to move within the construction, as evidenced by (938-39) below, 'when' may be more resistant. The question in (940) below was deemed grammatical, but another in (941) with *nina* in the sentence-final position was deemed ungrammatical.

(938) Mo n-angkap ikat ano dia kome?
2SG.I AV-catch fish day this where
'Where did you catch fish today?'

(939) Eneq m-ari baju dia kome?
3SG.I AV-buy shirt this where
'Where did s/he buy this shirt?'

(940) Mo n-angkap ikat nina?
2SG.I AV-catch fish when
'When did you catch fish?'

(941) *Ari dako n-angko padi nina?
child that AV-steal rice when
'When did the boy steal rice?'

The above examples indicate that adjunct questions occur in the active voice. This is due to the fact that none of the above questions include the undergoer voice morpheme, which is necessary in any undergoer voice construction. However, there is no negative evidence that this is not possible. The only clear generealization that can be made from this data is that adjunct questions allow extraction out of the active voice.

4.2.2.1.2 Relative clauses

This section is dedicated to the description of relative clauses in Banyaduq and Bekati. I focus mainly on subject and object relative clauses, with a brief preliminary look on oblique relative clauses in the last section.

4.2.2.1.2.1 Subject relative clauses

Subject relative clauses in Banyaduq and Bekati use a complementizer to introduce the embedded clause. In Banyaduq, this is *daq*; in Bekati, this is *deq*. The head noun is followed by the complementizer, which is then followed by the embedded clause. Examples of these types of relative clauses are provided below in both Bayanduq (924-44) and Bekati (945-7).

(942) Ikin m-ayar **soq** **daq** **m-bangun** **ramin-ko**. *Banyaduq*
1SG.I AV-pay man COMP AV-build house-1SG.I
'I paid the man who built my house'

(943) **Soq** **daq** **m-abah** **dokter** ano.
person COMP AV-call doctor leave
'The person who called the doctor left'

(944) **Damahu** **daq** **m-ura** **pade** naq utuq.
woman COMP AV-plant rice FUT come
'The woman who planted the rice will return'

(945) Kitn m-ayar **ayu deq m-bula ramin kitn**. *Bekati*
1SG.I AV-pay man COMP AV-build house 1SG.I
'I paid the man who built my house'

(946) Tulong m-ankatn kitn **ladinq deq ya ny-ataq buah**.
please AV-give 1SG.I knife COMP that AV-cut fruit
'Please give me the knife that cuts fruit'

(947) **Ayu deq n-atu dokter** ni-berangkaq.
person COMP AV-call doctor AV-leave
'The person who called the doctor left'

Note that in the above examples, in both Banyaduq and Bekati, the complementizer always appears. If the complementizer is at all optional, it is not commonly omitted.

There is additionally an interesting feature present in (946), one of the Bekati subject relative clauses. After the complementizer, there is an element that is occupying the gap position where the head noun has moved from. This looks like a resumptive of some sort and will be discussed more in Section 4.3. This is certainly not required, as (945) and (947) do not have such an element.

The above relative clause data patterns similarly to subject questions. Importantly, both types of subject A'-extraction must be out of the active voice in both Banyaduq and Bekati.

4.2.2.1.2.2 Object relative clauses

I now turn to object relative clauses in these two languages. Like subject realative clauses, head nouns in object relative clauses are followed by a complementizer, either *daq* (in Banyaduq) or *deq* (in Bekati). Some examples of these relative clauses in both languages are provided below in (948-53).

(948) No man **buah daq kin n-utuq**. *Banyaduq*
please eat fruit COMP 1SG.III AV-cut
'Please eat the fruit that I cut'

(949) **Dokter daq kan kayaq m-abah** utuq capat.
doctor COMP UV 1PL.INCLI. AV-call come fast
'The doctor that we called came quickly'

(950) **Pade daq kan sino-ko m-ura** capat mayai.
rice COMP UV mother-1SG.I AV-plant fast grow
'The rice that my mother planted is growing fast'

(951) **Ramin** **deq** **katn** **sama** **kitn** **bula** paling ahu. *Bekati*
house COMP UV father 1SG.I build more large
'The house that my father built is larger'

(952) Tulong man **buah** **deq** **katn** **kitn** **ny-ataq**.
please eat fruit COMP UV 1SG.I AV-cut
'Please eat the fruit that I cut'

(953) **Dokter** **deq** **katn** **kayaq** **n-atu** lajar toh.
doctor COMP UV 1PL.INCLI AV-call came fast
'The doctor that we called came quickly'

All of the relative clauses above are in the undergoer voice. This is clear from the presence of the voice marker *kan* and *katn*. (948) at first glance seems like a counterexample, but note that the pronominal agent is in its Set III form. This only occurs in the undergoer voice in Banyaduq. There are additional examples without a pronominal agent that do not have the undergoer voice marker, like (954) below.

(954) Ikin suka **buku** **dako** **daq** **sama-ko** **m-ari**. *Banyaduq*
1SG.I like book that COMP father-1SG.II AV-buy
'I like the book that my father bought'

(954), like some of the object questions discussed earlier, could be evidence that Banyaduq does allow object extraction out of the undergoer voice. I discuss this in detail in Section 4.3.

Additionally, Banyaduq shows some flexibility in word order within the embedded clause. While the examples in (948-50) above show the agent occurring preverbally, the construction below in (955) shows that the agent can additionally occur postverbally.

(955) **Ramin** **daq** **kan** **m-bangun** **samaq-ko** lebih aso.
house COMP UV AV-build father-1SG.I more large
'The house that my father built is larger'

Banyaduq and Bekati, then, show similar patterns in types of A'-movement in regards to voice. Bekati restricts object extraction to the undergoer voice, while there is at least preliminary evidence that Banyaduq may not.

4.2.2.1.2.3 Oblique relative clauses

The last construction I discuss is oblique relative clauses. I only have two examples of this, one in each language, which are provided below in (956-57).

(956) Ikin kadalang **baiq daq naq ya n-utuq buha dako**. *Banyaduq*
1SG.I lose knife COMP FUT that AV-cut fruit that
'I lost the knife with which I cut the fruit'

(957) Kitn kilang **lading deq aqpei katn m-iya ya ny-ataq buah doh.**
1SG.I lose knife COMP FUT UV AV-use that AV-cut fruit that
'I lost the knife with which I cut the fruit'
Bekati

A few preliminary observations from this minimal amount of data: one, both Banyaduq and Bekati use *ya* in the gap position, which was seen in an object relative clause in Bekati above. Two, Bekati adds an additional verb, *miya* 'to use' within the embedded clause. More data is necessary to determine if these observations are a pattern for oblique relative clauses or not.

4.2.2.2 Beaye and Ba'aje

I now turn to the last two Land Dayak languages in this section: Beaye and Ba'aje. For basic syntactic details and an overview of voice in both of these languages, see Section 3.2.3. While I discuss a variety of questions, I focus on two features: one, usage of at least two different *wh*-strategies (in-situ and fronting), and two, the role of voice morphology in extraction.

4.2.2.2.1 Wh-questions

This section is divided by type of *wh*-question. I discuss subject, object, and adjunct questions in these two languages.

4.2.2.2.1.1 Subject questions

I begin with subject questions. Like all the other languages discussed in this dissertation, Beaye and Ba'aje rely heavily on a fronting plus complementizer strategy for argument questions. In subject questions, the interrogative pronoun occurs in the sentence-initial position and is followed by a complementizer. In Beaye, the *wh*-word *asi* is followed by the complementizer *yang*. Ba'aje uses the same *wh*-word but the complementizer is *deq* instead. Interestingly, Beaye seems to follow Malayic languages, which typically use *yang*, while Ba'aje follows other Land Dayak languages Banyaduq and Bekati in using *deq* instead. A few examples of a typical subject question in both languages is given below in (958-64).

(958) **Asi** **yang** m-asaq? *Beaye*
who COMP AV-cook
'Who is cooking?'

(959) **Asi** **yang** ng-kumus siap yen?
who COMP AV-kill chicken that
'Who killed the chicken?'

(960) **Asi** **yang** m-oro dio yen?
who COMP AV-destory house that
'Who destroyed the house?'

(961) **Asi** **yang** ng-kebeq perau yen?
who COMP AV-tie boat that
'Who tied the boat?'

(962) **Asi** **deq** n-enuq? *Ba'aje*
who COMP AV-cook
'Who is cooking?'

(963) **Asi** **deq** ng-ubus siep yen?
who COMP AV-kill chicken that
'Who killed the chicken?'

(964) **Asi** **deq** n-eteq kayu?
who COMP AV-cut wood
'Who cut the wood?'

Additionally, the *wh*-word can occur sentence-finally. This is significantly less typical, but is possible. This can occur in both languages with the complementizer in the sentence-initial position, which again follows a pattern seen in other languages of West Kalimantan. This can be seen in (965-66) below.

(965) **Deq** ng-ubus siep yen **asi**? *Ba'aje*
COMP AV-kill chicken that who
'Who killed the chicken?'

(966) **Yang** m-oro dio yen **asi**? *Beaye*
COMP AV-destroy house that who
'Who destroyed the house?'

In Beaye, it is additionally possible to have the *wh*-word occur in this position without the complementizer. An example of this is in (967) below.

(967) M-iri baju han **asi**? *Beaye*
AV-buy shirt that who
'Who is buying the shirt?'

Importantly, subject questions in Beaye and Ba'aje show no evidence of allowing extraction out of any voice but the active voice.

4.2.2.2.1.2 Object questions

Object questions in Beaye and Ba'aje additionally utilize a *wh*-fronting strategy. Both these languages utilize the *wh*-word *ani* in object questions. When fronted, the *wh*-word is again followed by a complementizer. This is exemplified in (968-72) for Beaye and in (973-75) for Ba'aje.

(968) **Ani yang** kuniq nangoq yen m-asaq? *Beaye*
what COMP UV child that AV-cook
'What did the child cook?'

(969) **Ani yang** kuniq ko ng-kumus?
what COMP AV 2SG.I AV-kill
'What did you kill?'

(970) **Ani yang** kuniq yuqu ng-kebeq?
what COMP UV 3SG.I AV-tie
'What did s/he tie?'

(971) **Ani yang** panai kunaq m-orop kaq taman?
what COMP can UV AV-plant in flower
'What can be planted in the field?'

(972) **Ani yang** ko m-orop?
what COMP 2SG.I AV-plant
'What did you plant?'

(973) **Ani deq** kanaq nangoq yen n-enuq? *Ba'aje*
what COMP UV child that AV-cook
'What did the child cook?'

(974) **Ani deq** bisa kanaq m-urup kaq taman?
what COMP can UV AV-plant in field
'What can be planted in the field?'

(975) **Ani deq** kanaq ko ng-ubus?
what COMP UV 2SG.I AV-kill
'What did you kill?'

(976) **Ani deq** kanaq ko n-eteq?
what COMP UV 2SG.I AV-cut
'What did you cut?'

Leaving the *wh*-word in-situ is another strategy in object questions for both languages. Beaye and Ba'aje both have a strategy that leaves the *wh*-word in-situ with a complementizer in the sentence-initial position. This is exemplified in (977-78) below.

(977) **Yang** kuniq ko m-oro **ani**? *Beaye*
COMP UV 2SG.I AV-destroy what
'What did you plant?'

(978) **Deq** kanaq ko ng-ubus **ani**? *Ba'aje*
COMP UV 2SG.I AV-kill what
'What did you kill?'

Additionally, however, the complementizer can be omitted and the *wh*-word can occur on its own, as in (979-80) below.

(979) Ko ng-ubus **ani**? *Beaye*
2SG.I AV-kill what
'What did you kill?'

(980) Yuqu m-abutn **ani**? *Ba'aje*
3SG.I AV-bring what
'What did s/he bring?'

It is ungrammatical to have the complementer follow the *wh*-word when it occurs in-situ:

(981) *Kuniq ko m-oro ani yang? *Beaye*
UV 2SG.I AV-destroy what COMP
'What did you plant?'

Both Beaye and Ba'aje show some restrictions on voice morphology in object questions. When there is any fronted material, both languages require the construction to be in the undergoer voice. Attempting to use actor voice when either the *wh*-word and complementizer or just the *wh*-word have been fronted to the sentence-initial position results in ungrammaticality, as seen in (982-83).

(982) *Yang yuqu m-abutn ani? *Beaye*
COMP 3SG.I AV-bring what
'What did s/he bring?'

(983) *Ani deq ko ng-ubus? *Ba'aje*
what COMP 2SG.I AV-kill
'What did you kill?'

This contrasts with the in-situ examples in (979-80) above. The restriction on voice does not occur when the *wh*-word remains in-situ and actor voice is completely grammatical in both of these.

There is one last feature worth mentioning. In Beaye, when the question is in the future tense, the voice marker is replaced with *tetn*. Consider the example below in (984).

(984) Ani yang ya tetn m-aliq yuqu?
what COMP FUT UV AV-see 3SG.I
'What will s/he see?'

Recall that Beaye has two markers of undergoer voice, and with the future tense, the marker is typically *te-* instead of *kuniq*. The example above seems to evidence that this marker is additionally used in object questions as well, if the question is in the future tense. It is clear that this is replacing the voice marker as it is grammatical to replace it with *kuniq*, which is typically used. This is exemplified by (985) below.

(985) Ani yang ya kuniq m-aliq yuqu?
what COMP FUT UV AV-see 3SG.I
'What did s/he see?'

There is no evidence that *tetn* can be used in any other environment than the future tense. This suggests a direct correlation between *tetn* and non-completed actions.

4.2.2.2.1.3 Adjunct questions

The last type of question is adjunct questions. Adjunct questions in both languages contrast with the argument questions discussed above as adjunct *wh*-words do not co-occur with a complementizer. Most

commonly, these questions words, such as *kaqpei* ‘where’ (in both) and *kina* (Beaye) and *ina* (Ba’aje) occur in the sentence-initial position. Some examples of this are provided for both languages below.

(986) **Kaqpei** ko n-akap ikatn ari na? *Beaye*
where 2SG.I AV-catch fish day this
‘Where did you catch fish today?’

(987) **Kaqpei** juqu m-iri baju han?
where 3SG.I AV-buy shirt that
‘Where did s/he buy the shirt?’

(988) **Kina** ko n-akap ikatn?
when 2SG.I AV-catch fish
‘When did you catch fish?’

(989) **Kina** narai yen n-angko padi?
when man that AV-steal rice
‘When did the boy steal the rice?

(990) **Kaqpei** ko n-akap itkatn ano han? *Ba’aje*
where 2SG.I AV-catch fish day this
‘Where did you catch fish today?’

(991) **Kaqpei** yu m-iri baju yen?
where 3SG.I AV-buy shirt that
‘Where did s/he buy that shirt?’

(992) **Ina** ko n-akap ikatn?
when 2SG.I AV-catch fish
‘When did you catch fish?’

(993) **Ina** naraiyen n-angko pade?
when man that AV-steal rice?
‘When did the boy steal rice?’

These adjunct *wh*-words additionally have some flexibility in their placement, however, and can occur in other positions, such as sentence-finally. This pattern is possible in both languages, as exemplified in (994-997).

(994) Ko n-akap ikatn ari na **kaqpei**? *Beaye*
2SG.I AV-catch fish day this where
'Where did you catch fish today?'

(995) Ko n-akap ikatn **kina**?
2SG.I AV-catch fish when
'When did you catch fish?'

(996) Ko n-akap itkatn ano han **kapqpei**? *Ba'aje*
2SG.I AV-catch fish day this where
'Where did you catch fish today?'

(997) Ko n-akap ikatn **ina**?
2SG.I AV-catch fish when
'When did you catch fish?'

Importantly, adjunct questions allow extraction out of active voice, which is contrary to the pattern found in object questions. Unlike object questions, extraction of adjuncts is less restricted.

4.2.2.2.2 Relative clauses

This section is dedicated to the description of relative clauses in Beaye and Ba'aje. I focus mainly on subject and object relative clauses, with a brief preliminary look on oblique relative clauses in the last section.

4.2.2.2.2.1 Subject relative clauses

Subject relative clauses in both languages utilize the same complementizers that are used in the questions described above. In Beaye, this is *yang*; in Ba'aje, this is *deq*. These follow the head noun and precede the embedded clause. Examples in both languages are provided below in (998-1002).

(998) Kedin m-ayar **belanaq** **yang** **m-uat** **dio** **kedin**. *Beaye*
1SG.I AV-pay person COMP AV-build house 1SG.I
'I paid the man who built my house'

(999) Tolong te-miyu keq kedin **piso** **yang** **n-eteq** **buah.**
please IMP-give to 1SG.I knife COMP AV-cut fruit
'Please hand me the knife that cuts fruit'

(1000) Kedin n-ingoq **narai yang ya m-abutn kayu.**
1SG.I AV-see man COMP that AV-bring wood
'I see the man who brought wood'

(1001) Kedin m-ayar **mengsia deq m-ueq dio kedin**. *Ba'aje*
1SG.I AV-pay person COMP AV-build house 1SG.I
'I paid the man who built my house'

(1002) Kedin n-ingoq **mengusia deq m-iq kiyu.**
1SG.I AV-see person COMP AV-bring wood
'I see the man who brought the wood'

Beaye has evidence of the same pattern seen in Bekati of using *ya* in the gap position. This is seen in (1000) above. Like Bekati, it is not required but is possible.

Similarly to subject extraction in questions, there is no evidence that subjects can be extracted out of any voice other than the active voice.

4.2.2.2.2.2 Object relative clauses

Object relative clauses have the same structure as subject relative clauses. This is exemplified in both Beaye and Ba'aje in (1003-1011) below.

(1003) **Dio yang kuniq m-uat apaq kedin** sangat ayu. *Beaye*
house COMP UV AV-build father 1SG.I very large
'The house that my father built is larger'

(1004) Tolong te-man **buah yang kuniq kedin n-eteq.**
please IMP-eat fruit COMP UV 1SG.I AV-cut
'Please eat the fruit that I cut'

(1005) **Dokter niq kanaq n-aru** itung dengan cepat.
doctor UV 1PL.INCLI AV-call come with fast
'The doctor that we called came quickly'

(1006) **Pade yang kuniq mama kedin** m-orop udip nang cepat.
rice COMP UV mother 1SG.I AV-plant grow with fast
'The rice that my mother planted is growing fast'

(1007) Kedin suka **buku han yang kuniq amaq kedin m-iri.**
1SG.I like book that COMP UV father 1SG.I AV-buy
'I like the book that my father bought'

(1008) **Dio deq kanaq m-ueq apaq kedin** lebih ayu. *Ba'aje*
house COMP UV AV-build father 1SG.I more large
'The house that my father built is larger'

(1009) Tolong man **buah deq kanaq kedin n-eteq**.
please eat fruit COMP UV 1SG.I AV-cut
'Please eat the fruit that I cut'

(1010) **Dokter deq kanaq naq n-abeq** empus caputn.
doctor COMP UV 1PL.INCLI AV-call come fast
'The doctor that we called came quickly'

(1011) **Padi deq kanaq uma kedin m-urup** tumbu caputn.
rice COMP UV mother 1SG.I AV-plant grow fast
'The rice that my mother planted is growing fast'

Like object questions, object relative clauses in both languages occur in the undergoer voice. Note that in each of the constructions above, the embedded clause includes the undergoer voice marker *kuniq* (Beaye) or *kanaq* (Ba'aje). There is no evidence that extraction out of the active voice is possible.

4.2.2.2.2.3 Oblique relative clauses

The last type of construction to be discussed in this section is the oblique relative clause. Two examples of this construction are provided below in (1012-13).

(1012) Kedin ny-sasaq **pisau yang ya kedin n-uteq buah yen**. *Beaye*
1SG.I AV-lose knife COMP that 1SG.I AV-cut fruit that
'I lost the knife with which I cut the fruit'

(1013) Kedin meng-asuq **lading deq kanaq kedin m-enah nya n-eteq**
1SG.I AV-lose knife COMP UV 1SG.I AV-use that AV-cut
buah yen.
fruit that
'I lose the knife with which I cut the fruit' *Ba'aje*

Interestingly, these two languages mirror Banyaduq and Bekati as discussed in the last subsection. Beaye patterns like Banyaduq in using *ya* after the complementizer, and Ba'aje includes an additional verb within the embedded clause like Bekati. Again, however, significant more data from all these languages is necessary for a more in-depth description and analysis of oblique relative clauses.

I now summarize the findings of all five Land Dayak languages. This is done is Table 35.

	SUBJECT Q		OBJECT Q		SUBJECT RC		OBJECT RC	
	AV	UV	AV	UV	AV	UV	AV	UV
RIBUN	✓	*	?	✓	✓	*	?	✓
BANYADUQ	✓	*	✓	✓	✓	*	✓	✓
BEKATI	✓	*	*	✓	✓	*	*	✓
BEAYE	✓	*	*	✓	✓	*	*	✓
BA'AJE	✓	*	*	✓	✓	*	*	✓

Table 35. Subject-object extraction and voice morphology in Land Dayak languages

An interesting pattern emerges in Land Dayak languages, as exemplified by Table 35: not all Land Dayak languages behave the same in terms of extraction. There is clear evidence that Bekati, Beaye, and Ba'aje have the 'subjects-only' restriction as they do not allow object extraction out of the active voice. However, Banyaduq and Ribun do not necessarily follow this. Banyaduq has clear evidence of not having the 'subjects-only' restriction, while Ribun requires more investigation. I discuss all of this in the next section.

4.3 Towards an analysis of extraction in Malayic and Land Dayak languages

This section is dedicated towards accounting for the descriptive patterns elucidated above in a Minimalist framework. Due to certain gaps in the data, this is meant to be preliminary analysis which will be built upon in my own future work, as well as serve as a starting point for others working on syntactic analysis specifically in languages of Borneo, but additionally in Austronesian languages in general. Furthermore, it is clear there are a number of interesting features in both questions and relative clauses from the earlier description. For the purposes of this dissertation, however, I am limiting my discussion of the interaction of the voice system in terms of extraction asymmetries. I plan to continue work on A'-movement in general, using the descriptive facts I have outlined, in future work.

I begin in Section 4.4.1 with a review of previous work. Much of this will reference back to works I referred to in Section 3.3.1, as the analyses of extraction overlap significantly with voice.

I then turn to my own analysis, arguing that Malayic languages largely show extraction asymmetries, while Land Dayak languages do not. I discuss how a phase-based approach, like I used in my analysis of voice, accounts for the descriptive extraction details outlined earlier.

4.3.1 Previous analyses of extraction

It is often claimed that only the pivot can be A'-extracted in Austronesian languages. This was famously described as the 'subjects-only' restriction (Keenan and Comrie 1977). This has been argued for a multitude of Philippine-type languages (Kroeger 1991; Pual 1998; Reid and Liao 2004; Aldridge 2004; Rackowski and Richards 2005) as well as in Indonesian-type languages (Sneddon 1996; Davies 1998). However, there have additionally been dissenting opinions, particularly in Indonesian-type languages, that claim that direct object relativization is possible (Chung 1976 and Cole and Hermon 1998 for Indonesian; Cole, Jonczyk, and Lilley 1999). In Indonesian-type languages, at least, there is less consensus that this extraction restriction exists.

Analyses of this phenomenon often argue that, in order for objects to be extracted, they must first be promoted to subject status through A-movement. In Indonesian, it has been argued that object extraction only occurs on objects that have become subjects in the object voice. Consider the data below in (1014).

(1014a) Ali mem-beli buku. *Indonesian*
Ali AV-buy book
'Ali bought a book'

(1014b) *Apa yang Ali **mem**-beli?
what COMP Ali AV-buy
'What did Ali buy?'

(1014c) Apa yang Ali beli?
what COMP Ali buy
'What did Ali buy?'

Crucially, (1014b) is ungrammatical, as the question is in the active voce (signalled by the nasal prefix). To be grammatical, the object is promoted to subject status, as in (1014c). Verbs in the object voice occur in their bare, unprefixed form, which is why examples like (1014c) have been analyzed as object voice constructions. Note that it is additionally possible for objects to be extracted when the *di*-passive is used as well.

Morphology plays a critical role in analyses of extraction. In Section 3.3, I discuss multiple analyses that correlate the abiilty of the object to be extracted with the nasal prefix. Specifically, it has been argued that the nasal prefix 'blocks' DP movement over it, thus preventing objects to move out of the VP (thus making them inaccessible to extract) (Saddy 1991; Soh 1998; Cole and Hermon 1998). This has been reformulated recently to be a result of Phase Theory, as I discussed in thoroughly in Section

3.3.1. I refer the reader to return to the review done in this section to see how several scholars have proposed an analysis of this.

4.3.2 Extraction in Malayic and Land Dayak languages

Considering previous analyses of extraction, there are two particularly interesting questions to ask of Malayic and Land Dayak languages of West Kalimantan. One, I argued in the last section that Malayic and Land Dayak languages largely pattern with Indonesian-type languages. Do these languages show extraction asymmetries, as argued for Madurese and sometimes Indonesian? Or do they not? Two, can the phase-based approach to voice I offered in Chapter 3 be extended to account for any asymmetries that exist, considering how this analysis has been used for a variety of other Austronesian languages?

I discuss each of these questions in turn. Earlier in this chapter I offered a description of A'-movement in Malayic and Land Dayak languages. I now discuss whether I analyze these languages as showing extraction asymmetries or not. I begin with this in Malayic languages in Section 4.3.2.1 and turn to Land Dayak languages in 4.3.2.2.

Within these subsections, I then offer a formal analysis.

4.3.2.1 Asymmetries in Malayic languages

I have argued that Malayic languages show evidence of three 'voices': active, passive, and object. This mirrors the pattern seen in languages like Indonesian, where scholars have argued that object extraction is just subject extraction of the subject of an object voice clause. We might expect that these Malayic languages of West Kalimantan, then, would share this pattern. It is true that these languages can extract the subject of an object voice clause. This is exemplified in (1015-18) below.

(1015) Ahe nang diri buka? *Ahe*
what COMP 1PL.INCLI open
'What did we open?'

(1016) Ape nang kao bunuh? *Balangin*
what COMP 2SG.I kill
'What did you kill?'

(1017) Opai yang kame kirim keq Ali? *Desa*
what COMP 1PL.EXCL.I send to Ali
'What did we send to Ali?'

(1018) Ope nang inya suman? *Ope*
what COMP 3SG.I cook
'What does s/he cook?'

Each of the verbs in (1015-18) above occur without the nasal prefix. This certainly supports the idea that these languages have an extraction restriction on objects. However, Kendayan-Salako languages additionally allow the nasal prefix in object extraction contexts as well. Consider the data in (1019-21) below.

(1019) Ahe (ke) nang kamuda koa **n**-ele? *Ahe*
what Q COMP child that AV-see
'What does the child see?'

(1020) Ape nang kao **m**-unuh? *Banana*
what COMP 2SG.I AV-kill
'What did you kill?

(1021) Ape nang kao **ng**-rusaq? *Balangin*
what COMP 2SG.I AV-destroy
'What did you destroy?'

However, recall that Kendayan-Salako languages additionally allow the nasal prefix in the object voice. Thus, the examples in (1019-1021) are not evidence enough to claim that these languages allow direct object extraction, as these underlyingly could be in the active or the object voice. To determine that, one useful diagnostic is to look at word ordering in regards to aspectual markers. Aspectual markers in the object voice occur prior to the agent, whereas they occur after the agent in the active voice. This contrast is shown in Banana below, with (1022a) showing an active voice construction and (1022b) showing an object voice construction.

(1022a) Aku giq n-ulis buku. *Banana*
1SG.I PROG AV-write book
'I am writing a book'

(1022b) Buku nya giq aku n-ulis.
book that PROG 1SG.I AV-write
'The book is being written by me'

Word order of these markers, then, can be used to differentiate between the two voices in A'-movement constructions. This diagnostic shows that extraction of the object in active voice is in fact possible. This is exemplified in (1023-24) below.

(1023) Ape nang kamuda nya mau ny-uman? *Banana*
what COMP child that FUT AV-cook
'What will the child cook?'

(1024) Ape nang muda naq bisa ny-uman? *Balangin*
what COMP child that can AV-cook
'What can the child cook?'

If these were in the object voice, *mau* and *bisa* would crucially occur prior to the agent. The only possible analysis of (1023-24) is active. Constructions like this are not uncommon, either, suggesting that direct object extraction is a possible extraction strategy in Kendayan-Salako languages.

Desa differs from Kendayan-Salako languages in a few ways. Recall that I analyzed Desa a having two nasal prefixes, *me-* and *N-*, and that the evidence in support of this analysis came from object extraction contexts. While *N-* can occur in object extraction contexts, *me-* cannot. I analyzed *N-* as having specific syntactic functions, while *me-* was simply a voice morpheme, as a part of VoiceP. This makes a few predictions: one, the inability of *me-* to occur in object extraction, paired with my analysis of it as a voice marker, could indicate the Desa does have the 'subjects-only' extraction. However, while *N-* does not block A'-movement, it does block A-movement:

(1025a) Kayu inya bewaq. *Desa*
wood 3SG.I bring
'He brings wood'

(1025b) *Kayu inya m-ewaq. *Desa*
wood 3SG.I AV-bring
'He brings wood'

It has been argued that the nasal prefix in more well-studied languages blocks both A'-movement and A-movement (Cole and Hermon 1998; Nomoto 1998), and this applies to *me-* in Desa as well. Desa blocks A'-movement as it cannot occur in object extraction contexts, and it additionally is not allowed in the object voice. However, *N-* only blocks A'-movement. I noted earlier that most analyses of the 'subjects-only' restriction in Indonesian languages analyzes their underlying structure as an object voice

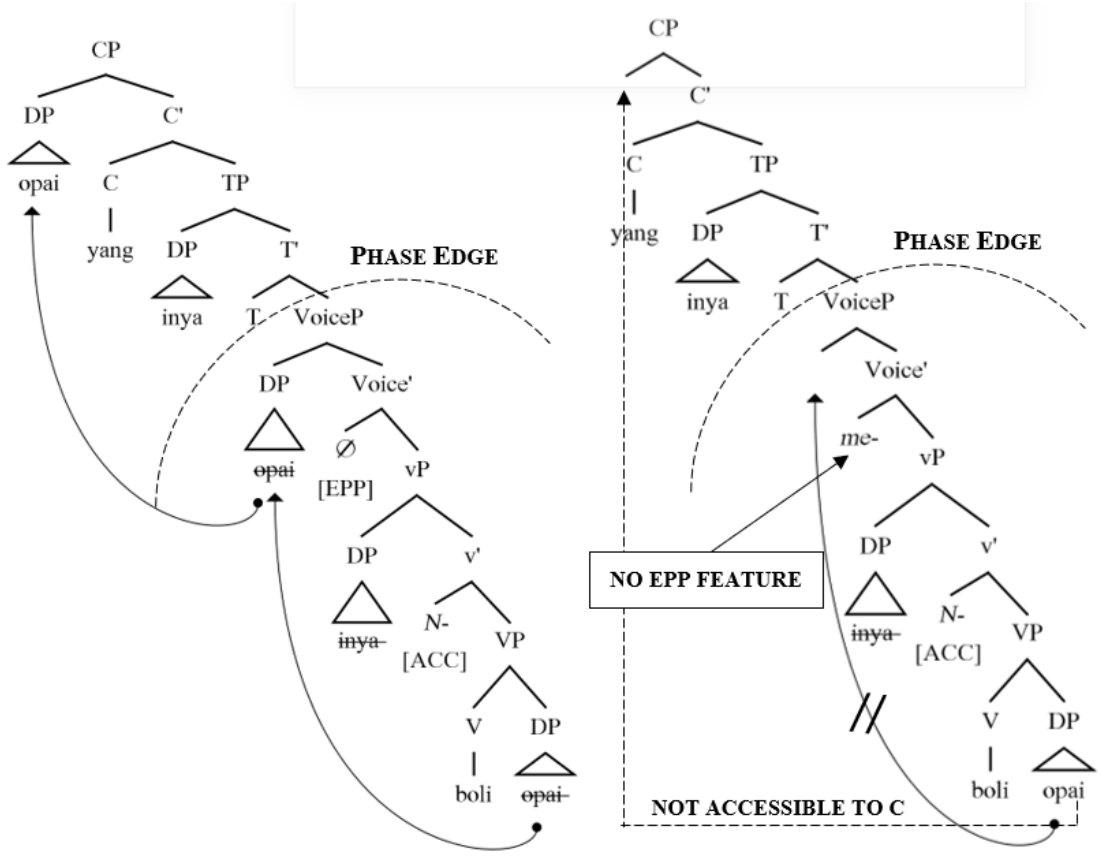
construction. This is not an option for at least some extraction sentences in Desa, like the following in (1026-27).

(1026) Opai yang sidah **ny**-ual?
what COMP 3PL.I N-sell
'What are they selling?'

(1027) Opai yang lelaki yen **m**-igang?
what COMP man that N-hold
'What is the man holding?'

The questions in (1026-27) cannot be analyzed as object voice constructions, as (1025b) has shown that *N-* cannot occur in the object voice. What I suggest is that, instead of appealing to a passivization analysis for Desa, extraction of the object is possible with *N-* as it does not have the blocking effects of *me-*. This is possible using the phase-based approach that Aldridge (2008) and Cole et al (2008 propose for Indonesian (refer back to Chapter 3 for a discussion of this). I illustrate this below in (1028).

(1028a) (1028b)



Questions like (1026-27) that occur with *N*- are possible because *N*- does not block movement of the internal argument into the spec,VoiceP. This is shown in (1028b). The voice prefix *me*- does block movement; this is shown in (1028a). The mechanism that derives this is an EPP feature (a D* feature) that crucially does not occur on *me*-, but does occur on the null morpheme that I am positing occurs when *me*- does not occur. The EPP feature on the null morpheme, following Cole et al (2008), must agree in phi-features with the extracted DP. This prevents the external argument from being targeted instead.

This crucially builds upon my analysis of voice in Chapter 3, where I argued for *N*- to have the functions of assigning accusative case and introducing the external argument. It further utilizes a contemporary phase-based approach to account for the inability of objects to extract over *me*-. Desa, however, still remains a unique case in the extraction discourse, as it shows a restriction over a particular morpheme, but cannot be analyzed as only allowing subject extraction. I refer the reader to Sommerlot (2020) for more discussion of this unique restriction.

The last Malayic language I discuss is Ope. Ope represents a particularly interesting case. Ope does allow the nasal prefix in object extraction contexts, as in (1029-30).

(1029) Ope nang laki ya m-ijaq? *Ope*
what COMP man that AV-hold
'What is the man holding?'

(1030) Ope nang inya m-aeiq?
what COMP 3SG.I AV-bring
'What did s/he bring?'

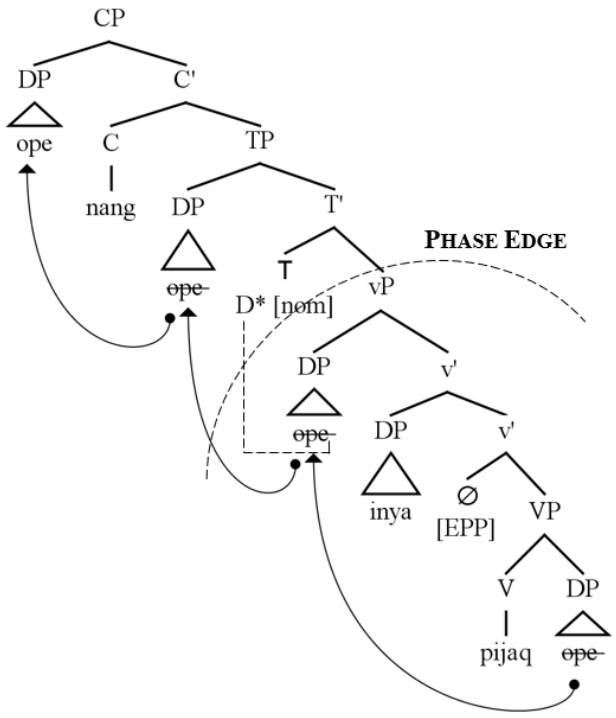
However, like Kendayan-Salako languages, Ope allows the nasal prefix in the object voice (but not the passive voice). Utilizing the same diagnostic as I did above for those languages, it seems that Ope object questions are in the object voice, not the active voice. This is exemplified in (1031) below.

(1031) Ope nang daq manaq ny-anoq?
what COMP FUT 1PL.INCL.I AV-lift
'What will we be lifting?'

(1031) shows the tense marker *daq* 'future' occurring prior to the agent, the position it occurs in in the object voice. There is no evidence that the nasal prefix can be used if any aspectual/tense marker occurs after the agent, suggesting that extraction is only possible in the object voice. The role of the nasal prefix in Ope, then, is likely similar to what is seen in Kendayan-Salako languages and therefore is located within the VP (instead of in *v*) in the object voice. I did not discuss this in Chapter 3 as the nasal prefix only occurs in the object voice and not the passive voice in Ope (in contrast to Kendayan-Salako languages, where it occurs in both), and I noted that I am leaving the question of how to analyze the object voice for future work.

I mentioned in my description of Ope, however, that the nasal prefix in these extraction contexts seems to be licensed dependent upon other factors, such as aspect or subject-verb agreement.This is very interesting, but is unfortunately beyond the scope of this dissertation. There is unfortunately currently not enough data to determine if this is limited to A'-movement, or occurs in the object voice generally (and if the same restrictions hold for both). The critical point at this juncture is that this nasal prefix still only occurs in the object voice in A'-movement constructions, despite these other factors. For now, I leave my analysis of Ope as showing the 'subjects-only' restriction, and thus utilizing a phase-based approach as argued for Indonesian. I illustrate this in (1032) below, leaving aside the details of how object voice is derived (and how the external argument receives case).

(1032)



The crucial assumptions here are one, a null morpheme present in the object voice allows movement of the internal argument to the spec,vP (the phase edge) thus making it accesible to T. This is A-movement. Then, C probes and finds this DP in spec,TP, moving it up to spec,CP. Two, like in my analysis of Desa, this null morpheme requires agreement with the phi-features of the extracted DP. This prevents the external argument from moving up instead.

Malayic languages thus represent three different variations of extraction: Ope, which has the subjects-only restriction, Desa, which has a restriction based on morphology that cannot be accounted for through a subjects-only restriction analysis, and Kendayan-Salako languages, which allow direct object extraction.

4.3.2.2 Asymmetries in Land Dayak languages

In Chapter 3 I argued that Land Dayak languages only have two ‘voices’: active and undergoer. This could potentially have an affect on extraction restrictions, as these languages do not have the same object voice structure that is so commonly found in object extraction contexts in more well-studied languages. One clear distinction is that we cannot attribute any potential extraction restriction to the presence or absence of the nasal prefix. This is because, as I argued in Chapter 3, the nasal prefix can (and often does) occur in undergoer voice. Several Land Dayak languages additionally allow the voice marker to be dropped and rely heavily on voice order to distinguish between the active and undergoer voice.

Let us begin with a few examples of object questions in these Land Dayak languages. The following show the usage of the undergoer voice in object questions.

(1033) One keq koyuv ndeq l'odiya n-isi? *Ribun*
what Q thing COMP UV-3SG.I AV-tie
'What did s/he tie?'

(1034) Jai daq kan mu n-ancur? *Banyaduq*
what COMP UV 2SG.II AV-destroy
'What did you destroy?'

(1035) Jai deq katn anaq do n-anuq? *Bekati*
what COMP UV child that AV-cook
'What did the child cook?'

(1036) Ani yang kuniq nangoq yen m-asaq? *Beaye*
what COMP UV child that AV-cook
'What did the child cook?'

(1037) Ani deq kanaq ko n-eteq? *Ba'aje*
what COMP UV 2SG.I AV-cut
'What did you cut?'

I begin with Beaye and Ba'aje, as they show a subjects-only restriction. In (1036-37) above, these two languages utillize the undergoer voice. This is required for these two languages. Attempting to eliminate the voice marker is not possible, as exemplified by (1038) below.

(1038) *Ani deq ko ng-ubus? *Ba'aje*
what COMP 2SG.I AV-kill
'What did you kill?'

While the pattern is similar to Malayic languages, the analysis cannot be the same, as analyses of Indoneian and Malay crucially rely on the nasal prefix 'blocking' the movement of the internal argument. It is still possible to utilize a phase-based approach, however; recall that in Chapter 3 I argued for a phase-based approach to the undergoer voice. This very straightforwardly can be applied here; in a question like (1036), A-movement (passivization) occurs first, and this allows the internal argument to be accessible to C for *wh*-movement. I refer the reader to Section 3.3.3.2.2 for a structure of this process.

In Ribun, I noted that the voice marker *leq* can be omitted in the undergoer voice. An example like (1039) below, then, could underlyingly be the active voice or the undergoer voice with *leq* omitted:

(1039) One koyuv omo m-isi kaq oko? *Ribun*
what thing 2SG.I AV-give to 1SG.I
'What did you give to me?

To determine which it is, I again turn the word order. Like the Malayic object voice, aspectual markes differ in word order between the active and undergoer voice in Land Dayak languages. This is exemplified in (1041-42) below. (1041) is an active voice construction, and (1042) is an undergoer voice construction.

(1041) Mimoq haq n-isiq tohis han.
1PL.INCL FUT AV-tie boat that
'We will tie the boat'

(1042) Duwiq jeh leq odi m-unjo.
money PFT UV 3.I AV-give
'Money was given by him'

Just like in Malayic languages, in active constructions like (1041), the aspectual marker follows the agent, but in the undergoer voice, like (1042), the aspectual marker precedes the agent. This, the, can be used as a diagnostic for differentiating voice in Land Dayak languages as well. Consider the constructions below.

(1043) One kaq koyuv ndeq njo mimoq buko?
what Q thing COMP NONCOMP 1PL.INCLI open
'What are we/will we open?

(1044) One keq koyuv haq omoq m-baco?
what Q thing NONCOMP 2SG.I AV-read
'What are you reading?

Both (1043-44) show the aspectual marker preceding the agent, despite not having an overt undergoer voice marker. This indicates that these are indeed undergoer voice constructions, not active voice. Ribun, then, follows Beaye and Ba'aje in showing the subjects-only restriction. As I offered the same analysis the undergoer voice in Ribun that I did for Beaye and Ba'aje, the extraction facts are already accounted for.

The last two languages to be discussed are Bekati and Banyaduq. The undergoer voice in Bekati does not seem to allow the voice marker to be omitted. This extends to object extraction contexts as well; the voice marker *katn* is always required in these contexts, suggesting that Bekati, like the three languages discussed above, shows the subjects-only restriction.

Banyaduq is the only language which seems to differ. Recall that Banyaduq has an additional feature that distinguishes the two voices: the agent. In the active voice, agents are in their Set I form. In the undergoer voice, however, the pronoun occurs in its Set II form. Consider the following questionsin (1045-47).

(1045) Jai daq dako n-angoq? *Banyaduq*
what COMP child AV-cook
'What does the child cook?'

(1046) Jai daq imu bisa n-angis?
what COMP 2SG.I can AV-kill
'What can you kill?'

(1047) Jai daq eneq n-ingoq?
what COMP 3SG.II AV-tie
'What did s/he tie?'

Even if we argued that *kan*, the voice marker, had simply been omitted from (1045-47), that would not explain why the pronouns in these examples all occur in their Set I form. Furthermore, (1046) shows a modal, *bisa*, occur after the agent, not prior. These two facts indicate that the above examples are in the active voice, not the undergoer voice.

This suggests that Banyaduq differs from the other four Land Dayak languages in allowing direct object extraction. These ten languages thus represent several different variations in terms of extraction. This is particularly interesting, as this 'subjects-only' restriction has been found in a large variety of other Austronesian language, and is often considered a staple feature of an Austronesian voice system. The facts discussed here suggest that this is too narrow of an analysis, and that the phenomenon of extraction in Austronesian languages is more diverse than originally thought. Furthermore, there is not clear-cut distinction between the two subgroups. We might expect Malayic languages, as they fall more into the Indonesian-type category, would be more likely to have the extraction restriction. I have shown that this is the not the case; rather, more Land Dayak languages show this restriction than Malayic languages.

I summarize the findings of A'-extraction in Table 36.

	SUBJECT EXTRACTION			OBJECT EXTRACTION		
	AV	**PV**	**OV/UV**	**AV**	**PV**	**OV/UV**
AHE	✓	*	*	✓	✓	✓
BANANA	✓	*	*	✓	✓	✓
BALANGIN	✓	*	*	✓	✓	✓
DESA	*me-* ✓ *N-* ✓	*	*	*me-* * *N-* ✓	✓	✓
OPE	✓	*	*	*	✓	✓
RIBUN	✓	---	*	*	---	✓
BANYADUQ	✓	---	*	✓	---	✓
BEKATI	✓	---	*	*	---	✓
BEAYE	✓	---	*	*	---	✓
BA'AJE	✓	---	*	*	---	✓

Table 36. Extraction (a)symmetries in all ten languages

There is an additional finding here: the idea that even asymmetric extraction cannot necessarily be accounted for by previous analyses of Malayic languages. Desa represents an entirely unique case in languages of Indonesia: while *me-* does block extraction, *N-* does not. However, *N-* does not A-movement, evidenced by its inability to occur in either type of undergoer voice. Extraction in Desa, then, cannot be accounted for by any analysis that assumes 'object shift', or passivization of an object first. This could have implications for analyses of more well-studied languages, where such as analysis has been popularized but has notable issues (as noted by Cole, Jonczyk, and Lilley 1999).

CHAPTER FIVE: CONCLUSION

This dissertation has attempted to bridge the gap between documentation and syntactic analysis in a few ways: a) by using data from all underdocumented, and several undocumented languages; b) by providing syntactically motivated description of ten different languages; and c) by using contemporary syntactic principles, Case licensing and Phase Theory, to explain microvariation found in the voice system of these ten languages. I approached this by focusing on five Malayic and five Land Dayak languages of West Kalimantan, and focusing on two relevant and currently debated topics: voice and A'-movement.

There are many significant findings of this dissertation that fall into a few different areas. I highlight these findings below.

TYPOLOGICAL FINDINGS

One clear typological finding of this dissertation is in the number of undergoer voice constructions between Malayic and Land Dayak languages. While Malayic languages have two types of undergoer voice – the canonical passive and the object voice – Land Dayak languages only have one. This pattern is based upon the ten languages discussed in this dissertation, so one remaining question is whether this can be extended to other languages within these subgroups. Unfortunately, Land Dayak languages are very understudied, and Malayic languages other than Malay and Indonesian are additionally understudied. For this reason, I hope that continued fieldwork in Borneo (and outside of Borneo, for Malayic languages outside of West Bornean Malayic) will contribute to our understanding of whether this is a true typological difference or not.

Additionally, it seems that previous work on Kendayan-Salako languages (Adelaar 2002, 2006; Ross 2005) and their unique feature of utilizing the nasal prefix in the undergoer voice has been accurate in attributing this to only languages of this subgroup. However, the case of Ope remains a question, as it may have a similar distribution but does not clearly fit into this subgroup. I hope future work will elucidate where Ope lies in terms of genetic relationships, as well as how the nasal prefix in the object voice is functioning.

I believe there are also significant findings in terms of negative typological features. I have noted that the 'subjects-only' restriction is not present in a few of the languages discussed here, but these languages are not all of one subgroup. Instead, there are three Malayic languages that lack this restriction, and one Land Dayak. Interestingly, all three Malayic languages that lack this restriction are additionally Kendayan-Salako languages. This may suggest that Kendayan-Salako languages lack this restriction, while other Malayic languages do not. However, having the 'subjects-only' restriction is not a feature of one subgroup (Malayic or Land Dayak) or the other.

The inclusion of Ope as a Malayic language also calls into question the usage of *di-* as a marker

of Malayic languages. Ope does not use *di-* in the canonical passive as is found in other Malayic languages. Ross (2005) has used *di-* as morphological evidence that a language is Malayic. If my (admittedly preliminary) analysis of Ope as Malayic is correct, then the *di-* morpheme cannot be used as evidence of Malayic languages. Given the remaining questions surrounding Ope, however, I leave a confirmation of this for future work.

ANALYTIC FINDINGS

There are additionally a number of analytic findings here that are significant. One clear finding of significance is the analyis of Desa as having two nasal prefixes. I have used this finding to suggest a difference in structure between Desa and other more well-studied Malayic languages. While the evidence in favor of Desa having two prefixes is clear, I think there remains many questions of whether my extended analysis for languages like Indonesian holds. In addition, this finding raises questions about the historical background of the nasal prefix in general. If my analysis is correct, did the PMP **maN-* split into two prefixes in Desa? Or is it the case that **maN-* was actually originally two prefixes that fused together in languages like Indonesian? I plan to pursue this in future work.

Another significant analysis I have offered here additionally involves the nasal prefix. I have claimed that the nasal prefix not a voice marker, but rather it appears to be one as a result of its syntactic functions. A benefit of this analysis is that it accounts for why previous scholars have struggled to account for its behavior: it does not act like a voice marker, because it is not one. While the evidence I have offered here is compelling, I would like to once again stress the preliminary nature of this analysis. More evidence is certainly necessary to confirm my analysis. I urge any reader who is interested and has questions about my analysis to contact me.

Furthermore, I have claimed that the nasal prefix in Land Dayak languages is syntactically impoverished compared to Malayic languages: it only introduces the external argument (but does not assign Case). A benefit of this analysis is it accounts for why the nasal prefix can occur in the undergoer voice in Land Dayak languages, but not in Malayic languages without assuming an entirely different structure. Instead, this microvariation falls out from a specific syntactic function that is missing in Land Dayak languages. Again, this is a preliminary analysis that I plan to pursue in future work.

One last important analysis that I have posited is the Kendayan-Salako completive *N-* as being distinct from the nasal prefix present in active voice. I have argued that this prefix comes from *ni-* which is found in other languages of Borneo and indicates completive aspect (Goudswaard 2005). While previous scholars have noted the existence of this morpheme, analyzing it as distinct from the ‘active’ voice morpheme is a unique take. I have not offered a full analysis as of yet, as it requires more fieldwork and specific diagnostics. I plan to pursue this in future work as well.

A signficant number of questions remain at this juncture. Due to the broad scope of this dissertation, it was not possible to account for every detail in each language. I choose to see this as a benefit, instead of a drawback; the description section of this dissertation, which hints at many of these questions, can serve as a resource for syntactic analysis in the future not only for me, but for other scholars in the field. I designed this dissertation to be a resource rather than a complete account of these ten languages. These questions include aspects of the voice system, but additionally a full analysis of *wh*-questions in general, as I chose to focus only on the extraction component of these. I outline a few future avenues of research based upon the work provided here in the paragraph below.

Future directions include a more fine-grained, detailed semantic analysis of the aspectual nasal prefix in Kendayan-Salako languages; an analysis of object voice for the Malayic languages discussed in this dissertation but additionally for other Malayic languages outside of Borneo; an analysis of *wh*-questions (specifically, are these clefts? Why can the complementizer occur fronted when the *wh*-word remains in-situ? How is the morphology affected when fronted versus in-situ?); and a more in-depth look into the pronominal systems of these languages. There is a plethora of work to be done on these topics.

I hope it is clear that these languages offer unique insights into voice and A'-movement. Much of syntactic theory is based upon more well-documented, widely spoken languages, but such work misses the important findings that exist in less studied languages of the world. It is my hope that this dissertation will serve not only as example of the importance of such work, but additionally serve as a resource for work to be conducted on related languages in the future.

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