Introduction to The Papuan languages of Timor, Alor and Pantar. Volume III

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Introduction to *The Papuan languages of Timor, Alor and Pantar. Volume III.*

Antoinette Schapper

1. Overview

Documentary and descriptive work on Timor-Alor-Pantar (TAP) languages has proceeded at a rapid pace in the last 15 years. The publication of the volumes of TAP sketches by Pacific Linguistics has enabled the large volume of work on these languages to be brought together in a comprehensive and comparable way. In this third volume, five new descriptions of TAP languages are presented. Taken together with the handful of reference grammars (see Section 3), these volumes have achieved descriptive coverage of around 90% of modern-day TAP languages. This now makes the Papuan languages of Timor, Alor and Pantar among the best described non-Austronesian language families of Melanesia.

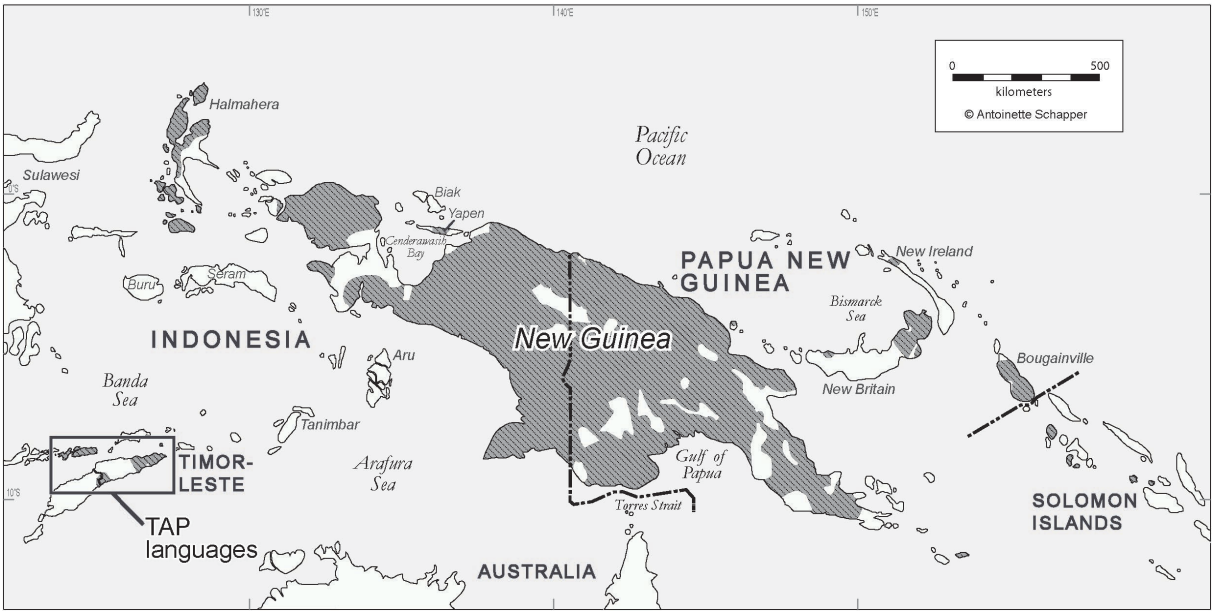
Given the amount of work still being carried out on TAP languages even today, any work that attempts to summarize the field is bound to be in need of updating within a short time. In the introductions to the first and second volumes of TAP sketches (Schapper 2014a, 2017a), I provided an overview of the history of the study of the family and a brief survey of the state-of-the-art from typological and historical perspectives. In the introduction to this, the third volume of TAP sketch grammars, I provide that background but also present some inevitable updates to the understanding of TAP languages offered by the most recent work.

This chapter is structured as follows. Section 2 presents the TAP languages, their locations and the number of speakers. Section 3 sketches the history of the study of TAP languages and highlights some recent contributions. Section 4 outlines some of the latest research into the history of the TAP languages. Section 5 summarizes some main points in the typology of the family. Section 6 overviews the chapters in the present volume.

2. The language scene

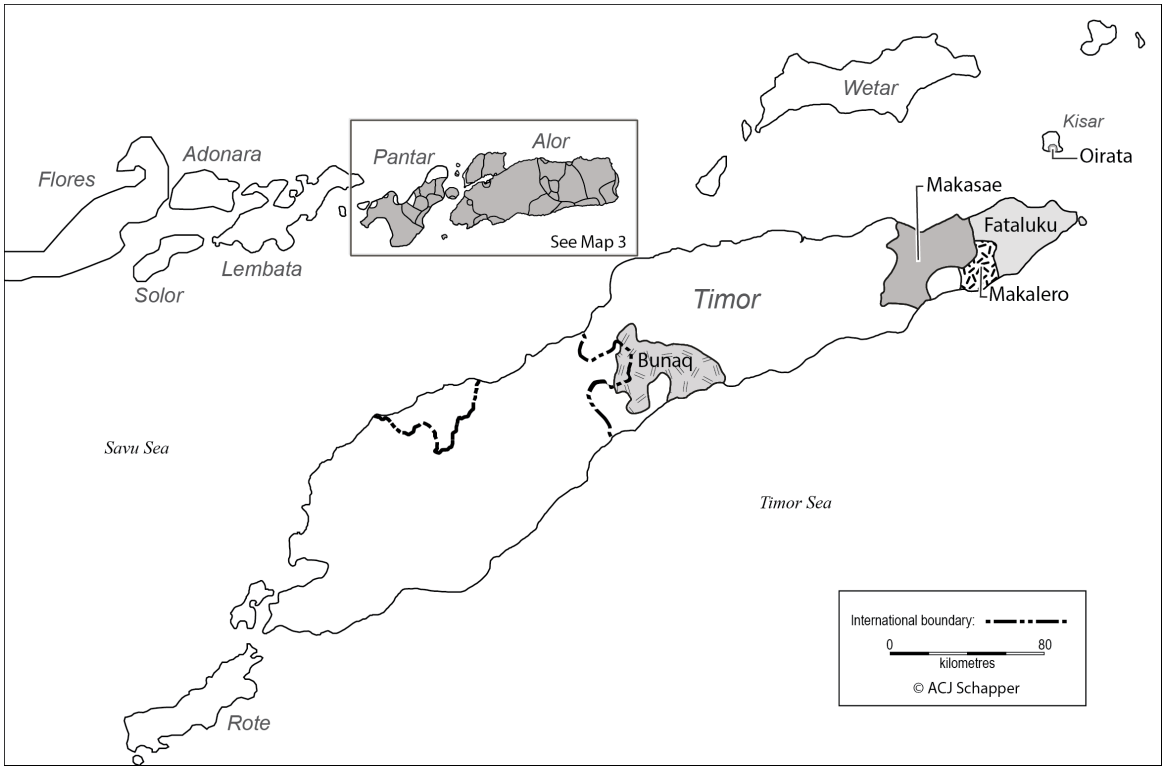
The term "Papuan" is used to designate any language that is found in the area of New Guinea that does not belong to the Austronesian or Australian language families. Papuan languages do not form a single genealogical entity, but comprise anywhere between 30 and 60 distinct languages families, depending on the individual researcher's perspective. Lying some eight hundred kilometers from the New Guinea mainland as the crow flies, Timor-Alor-Pantar languages are the most westerly of the Papuan languages (Map 1). Their great distance from New Guinea means that the TAP languages could be regarded as the most outlying of all the Papuan "outliers", that is, Papuan languages that are not spoken on New Guinea.[1]

[1] The western tip of Pantar island where Western Pantar is spoken is more than 1100km from the closest point of the New Guinea coast. The eastern-most TAP language, Oirata, is 780km from the New Guinea coast. The eastern-most Papuan languages, Savosavo and Lavukaleve, are 992km and 908km to the nearest coast of New Guinea.



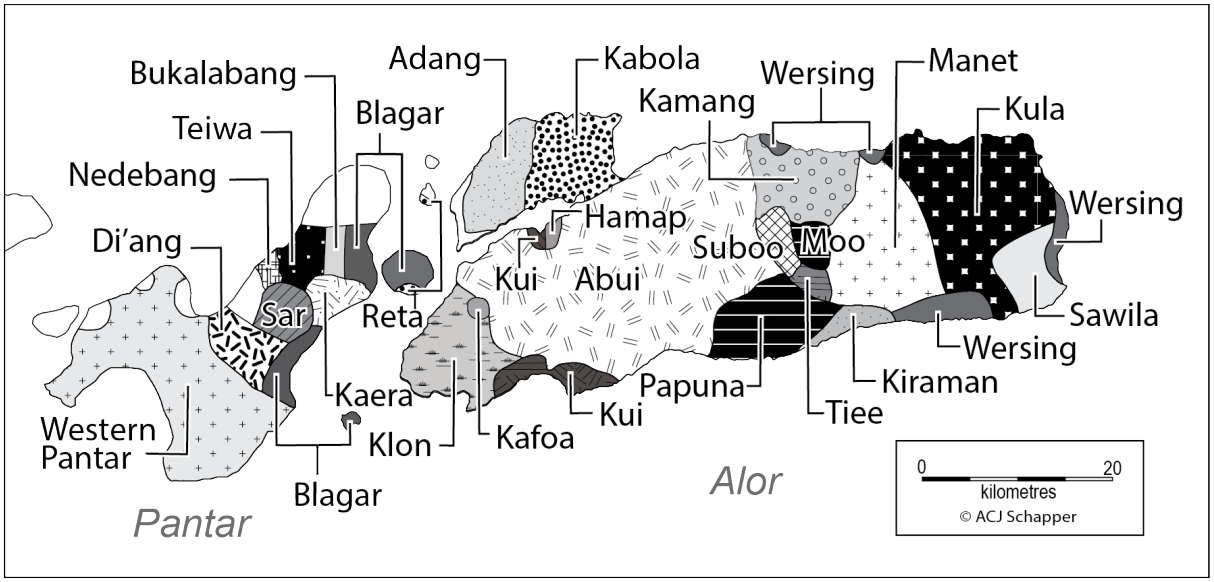
Map 1: The extent of Papuan languages on and around New Guinea

The TAP family comprises 25-30 languages spoken by an estimated 300,000 people in south-eastern Indonesia and Timor-Leste (East Timor). Members of the family dominate on the islands of the Alor archipelago, consisting of Alor, Pantar and numerous small islands in the straits in between. Other members are found interspersed among Austronesian languages on the islands of Timor and Kisar (Map 2). On Timor, there are four TAP languages: Bunaq straddling the border between Indonesian West Timor and independent East Timor, and Makasae, Makalero and Fataluku occupying a contiguous region at the eastern tip of the island. Close by to the north, again in Indonesia, Oirata is a TAP language spoken on Kisar, an island dominated by the Austronesian language, Meher.



Map 2: The extent of the Timor-Alor-Pantar family

The greatest concentration of TAP languages is in the Alor archipelago. On current counts, there are nine TAP languages on Pantar and in the Pantar Straits and 16 on Alor (Map 3). The maps of these languages are constantly evolving as the linguistic geography of the islands becomes more apparent, not only with better surveys but also with in-depth studies. For example, previously unlabeled languages have in the last few years been identified on Pantar island: Bukalabang (also known as Kroku or Modebur), spoken in a handful of upland villages in northeastern Pantar, has recently been recognized as a distinct language on the basis of recordings made by Hein Steinhauer in the 1970s (see Steinhauer 1995, this volume), but still lacks its own ISO-639 code. There may be more still on Pantar: Amos Sir (pers. comm.) says that another language, Luul, was once spoken in the Sar area, but is now largely lost (see also Sir and Klamer 2018).



Map 3: The Alor-Pantar languages

The changing numbers of languages on Alor and Pantar reflect, at least in part, the problem of determining what constitutes a separate language in this complex linguistic environment. Mutual intelligibility is typically difficult to distinguish from passive bilingualism. For example, Teiwa and Sar are only partially mutually intelligible (Amos Sir pers. comm.), but there is disagreement about whether they are distinct languages: Sir and Klamer (2018) see them as distinct languages, while Sanubarianto (2018) argues Sar is but an aberrant dialect of Teiwa. A different example is presented by Teiwa and Nedebang, two clearly distinct languages: while Nedebang is not normally understood by Teiwa speakers (Amos Sir pers. comm.), most Nedebang speakers understand Teiwa, as its larger neighboring language (Karel Lamma pers. comm.). Consequently, the independent language status of these four languages may not be equally justified, but capturing the exact relationships between them is not easily done without targeted socio-linguistic and dialectal study. Similarly, in central Alor, the languages of Kamang, Suboo, Moo, Tiee and Manet are closely related and together form the North-Central Alor language area (Schapper and Manimau 2011). Speakers typically claim partial passive competence in one or more of the other group's speech. Still the differences between them are not superficial: details of the segmental phonology and morphology (such as in the number and functions of agreement paradigms) appear to warrant each of them being regarded as an independent language (compare, for instance, Schapper 2014b on Kamang and Han 2015 on Suboo).

Contributing to the problem of what constitutes a distinct language is the lack of unique glottonyms that are widely recognized and accepted for Alor-Pantar (AP) languages. A language may be referred to by the name of the village where it is spoken or the geographical location of its speakers: for instance, the Wersing language is often designated locally as *Bol*, though this is a general label that is used by speakers of montane Alor languages (e.g., Kamang, Kula etc.) in reference to any coastal group, while Wersing speakers themselves tend to refer to their language as *Bahasa Kolana* 'the language of Kolana', *Bahasa Pureman* 'the language of Pureman' etc. after their respective villages of origin. In other cases, a language may be designated simply as *our language*, as is the case with Blagar (Steinhauer 2014) or Teiwa (Klamer 2010). Alternatively, a language may be referred to with the name of

the clan or lineage group that speaks it; for instance, Lamma, a name used by Stokhof (1975) and Nitbani et al. (2001), is a single clan within the larger West Pantar language area (Holton 2014), or Tanglapui, used by Stokhof (1975) and Donohue (1996), is the name of one of four Kula-speaking clans (Wellfelt 2016: 76-78). A common pattern on Pantar is to use the name of the royal lineage group (Indonesian *suku raja*) as the name for the language spoken by the whole group: many of the remaining Nedebang speakers prefer their language to be referred to as *Klamu*, the name for the royal lineage, rather than Nedebang (Schapper this volume), the name of the group's origin village which has been adopted in the linguistic literature since Stokhof (1975).

The TAP languages spoken on Timor do not typically have the same issues with glottonyms and language differentiation. In general, there appears to be a widely accepted name for each language, and this is usually recognized both by speakers themselves as well as others outside the speech community. Individual dialect groups often have a distinct name for themselves and their language, but still identify with the wider cover label when used. For instance, the name Gai′ is used by the Bunaq communities between Bobonaro and Maliana in reference to themselves, but they still identify with the wider Bunaq-speaking group. In some cases where a language community is mixed with speakers of another language, exonyms are adopted. For example, Bunaq speakers in southern Belu have adopted the name Marae, borrowed from neighboring Tetun speakers, as a term of self-reference; Bunaq speakers from other regions tend to reject Marae as a name with derogatory connotations (Schapper 2010: 4). The main issue for language names in Timor stems from the fact that we know very little about the full extent of dialect variation in the TAP languages spoken there and the widespread acceptance and adoption of language names may obscure diversity. For instance, there appear to be several intermediate language varieties between Makasae and Makalero. Most notable is a variety named Sa′ani that is spoken around Luro.[2] It is not clear whether this variety is closer to Makasae or Makalero, or whether it is different enough from both to be considered a separate language. Similar questions may be asked of divergent dialects of Bunaq and Fataluku.

There is also a sharp divide between the TAP languages on Timor and those of Alor, Pantar and Kisar in terms of the size of speech communities. The Timor languages are by far the largest in the family: Bunaq, Fataluku and Makasae together make up 70% of TAP speakers. Oirata is reported to have around 1,500 speakers (Nazarudin 2015). Among the Alor-Pantar languages, speech communities vary greatly in size. On Pantar, Sar reportedly only has a handful of speakers (Amos Sir pers. comm.), while Nedebang may have as few as 200 speakers (Schapper this volume); at the same time, Western Pantar is one of the larger AP languages with around 10,000 speakers. With an estimated 16,000 speakers in the central western region of Alor, Abui is the largest language of the group, though it seems likely that there is more than one language taken in under what has been labeled Abui.[3] Other languages are listed in sources such as Ethnologue as varying in size from 500 to as many as 7,000 speakers. However, these figures in many instances appear to represent not actual speaker

[2] Juliette Huber (pers. comm.) notes that Sa′ani speakers themselves seem to be adamant that their language is distinct.

[3] One language that has recently been carved out the Abui area as being distinct is Papuna (sometimes also know as Fafuna). See Map in Schapper and Manimau (2011), where Papuna first appears.

numbers, but rather population numbers for villages where a language would normally have been spoken in the past.

The uncertainty around speaker numbers reflects the rapid progress of language shift being experienced by most speech communities in the region of eastern Indonesia. A notable exception is to be found among the TAP languages of Timor, which are vigorous and still very widely learnt by children in villages. Even the smallest of these languages, Makalero, is consistently acquired by children growing up in the speech communities (Juliette Huber pers. comm.). Elsewhere, the typical situation in villages may be broadly characterized as follows: speakers of the grandparent generation still use the local language regularly amongst themselves, but are also fluent in Malay/Indonesian; their adult children typically have a wide-ranging knowledge of the local language, although many are chiefly passive in their competence, preferring Malay/Indonesian with their peers and children; members of the grandchild generation only occasionally acquire the local language and most have only a very limited knowledge of it. Thus, the crucial turning point for these languages seems to have occurred with the current grandparent generation, coinciding with the large gains made in the implementation of universal primary school education in Indonesia in the 1950s and 1960s. At this time, children across much of eastern Indonesia entered school as monolingual speakers of their local language. But once there they report strict enforcement of the policy of Indonesian as the language of the new Indonesian nation, with children being beaten by teachers for speaking their native language (see, e.g., an account of this in Masnun 2013). From this time on the shift away from local languages has continued unabated, with the consequence that many of the TAP languages are likely to die out in the next 20 years. The creeping influence of Malay/Indonesian is also felt in speech communities where child acquisition of local languages is still the norm: Abui, perhaps the most vibrant of the Alor-Pantar languages, is undergoing significant intergenerational changes due to increasing dominance of Malay amongst the youngest speakers (Saad et al. 2019, Saad 2020).

While the outlook presented here may be bleak, there is perhaps also some reason for optimism. As we shall see in the following section, linguistic research on TAP languages has been extraordinarily intense. The presence of linguists in many speech communities appears to have brought about awareness of the increasing loss of local language traditions. Katubi (pers. comm.) relates that his documentation work with the Kui spurred the community to develop ways of using the materials to stimulate use of Kui and introduce it into their two local schools. Similarly, Amos Sir (pers. comm.) reports that following visits by teams of linguists to their villages over several years, Teiwa elders began a push to use Teiwa with younger members of the community.

3. Past and present studies in TAP linguistics

The earliest known fieldwork study of a TAP language was carried out by the German linguist and anthropologist Wilhelm Müller-Wismar in 1914. As part of a wider expedition to the southern Moluccas, Müller-Wismar spent several months amongst a group he called the Voirata (cf., Josselin de Jong's Oirata, Nazarudin's Woirata), the Papuan-speaking group on Kisar island. There he collected around 100 pages of fieldnotes including glossed texts in the language. These valuable materials, now held in the archive of the Museum am Rothenbaum – Kulturen und Künste der Welt, in Hamburg, never saw publication due to the untimely death of Müller-Wismar in 1916 in an internment camp in Malang, Java.

The first publications with TAP language data were the short wordlists in Anonymous (1914) and in Vatter (1932), but these did not note the languages' Papuan character. It was Josselin de Jong's (1937) ground-breaking monograph on the Oirata language that first observed in print the presence of Papuan languages in the region.[4] Nicolspeyer (1940) published the first glossed texts of a TAP language and hinted at the Papuan character of the Abui language. This was followed by Capell's (1943) identification of Bunaq and Makasae on Timor as Papuan. The Papuan classification of the Alor-Pantar languages lagged behind: they were still marked as Austronesian in Salzner's (1960) *Sprachenatlas des Indopazifischen Raumes*, but by the time of Wurm and Hattori's (1982) monumental *Language atlas of the Pacific area* all were given as Papuan (following Stokhof 1975; see below).

Detailed work on the TAP languages began only after World War II. António de Almeida, head of the Portuguese Missão Antropológica de Timor, collected word lists and elicited sentences in most languages of the Portuguese-held part of Timor between 1953 and 1975 (partly published as Almeida 1994). Alfonso Nácher, a priest at the Missão Salesiana in Fuiloro, gives his name to a dictionary of Fataluku compiled in the period between 1955 and 1968 (published as Nacher 2003, 2004, and then again as Nacher 2012). Louis Berthe started field work on Bunaq in what is today Indonesian West Timor between 1957 and 1959 and published a range of anthropological linguistic materials (Berthe 1959, 1963, 1972). Berthe returned to Timor between 1966 and 1967 leading a multi-disciplinary team, with Henri Campagnolo, who produced the first in-depth grammatical description of Fataluku (Campagnolo 1973), and Claudine Friedberg, who studied ethno-linguistic classification of plants amongst the Bunaq (1970, 1972, 1974, 1979, 1990).

On Alor and Pantar, linguistic documentation took off in the 1970s. A better view of the Pantar languages was gained with the word lists in Watuseke (1973) and the fieldwork completed by James Fox (n.d.) between 1972 and 1973. Extensive fieldwork was carried out by Wim Stokhof and Hein Steinhauer as part of a project funded by the Netherlands Foundation for the Advancement of Tropical Research (see Steinhauer and Stokhof's 1976 project report). Out of this project, first came Stokhof's (1975) 'Preliminary notes', containing 34 item wordlists taken from a range of locations across the Alor-Pantar languages. Stokhof's fieldwork was concentrated in Alor and later resulted in a significant body of materials on Kamang under the name Woisika (Stokhof 1977, 1978, 1979, 1982, 1983), as well as short texts in Abui (Stokhof 1984) and Kabola (Stokhof 1987). Steinhauer's fieldwork concentrated on Blagar, working chiefly on the Dolabang dialect of Pura Island (Steinhauer 1977, 1991, 1993, 1999, 2010, 2014), but also collected materials on the Bukalabang dialect on Pantar (Steinhauer 1995, this volume).

No work is known to have been carried out on TAP languages in the 1980s. The 1990s saw the Indonesian national Pusat Pembinaan dan Pengembangan Bahasa (Centre for Language Development and Cultivation, later renamed Pusat Bahasa 'Center for Language')[5] conducted research on a range of TAP languages. The center's fieldwork resulted in a general survey on the languages of Timor (Sudiartha et al. 1994), sketches of Bunaq (Sawardo et al.

[4] Josselin de Jong also corresponded with Cora Du Bois, who conducted fieldwork with the Abui people in Alor in the 1930s. He observed in these private letters that Abui also appeared to be a Papuan language.

[5] Subsequent to these publications, this institution was rebranded Badan Pengembangan dan Pembinaan Bahasa.

1996) and of Makasae (Sudiartha et al. 1998), as well as survey word lists of the languages of Alor (Martis et al. 2000) and a problematic sketch of Lamma (Nitbani et al. 2001). Other than these a few studies appeared: Donohue (1996, 1997) on Kula, Wersing and Kui, and Marques (1990) with a primer of Makasae.

The turn of the century saw a huge boom in TAP linguistics, with a surge in descriptive work by a suite of linguists from around the world. Within little over a decade, modern grammatical descriptions were produced for over half a dozen TAP languages: Haan's (2001) Adang grammar, Huber's (2005) short Makasae grammar (later published as Huber 2008), Kratochvíl's (2007) Abui grammar, Baird's (2008) Klon grammar, Schapper's (2010) Bunaq grammar, Klamer's (2010) Teiwa grammar, Huber's (2011) Makalero grammar, and Correia's (2011) Makasae grammar. Additional materials and several monograph-length treatments of particular topics have also appeared for these TAP languages as well as others. Most significant are: for Abui, an introductory dictionary (Kratochvíl and Delpada 2008a) and texts (Kratochvíl and Delpada 2008b); for Bunaq, a short dictionary (Bele 2009); for Fataluku, a monolingual dictionary (Valentim 2002), a sketch (Hull 2005a), primer materials and texts (Valentim 2001a, 2001b, 2004a, 2004b); for Kamang, an introductory dictionary (Schapper and Manimau 2011); for Makalero, a short dictionary (Pinto 2004) and a primer (Pinto 2007); for Makasae, Masters theses on space (Brotherson 2003) genres (Carr 2004) and phonology (Fogaça 2011), a sketch (Hull 2005b), and two short dictionaries (Ximenes and Menezes 2002, Hull and Correira 2006); for Oirata, a sketch with Josselin de Jong's (1937) text glossed (Faust 2005), and a historical phonological treatment (Mandala 2010); for Teiwa, an extended word list (Klamer and Sir 2011); for Western Pantar, an introductory dictionary (Holton and Lamma Koly 2008).

Since this first wave, the flow of work has not eased. In particular, theses at a range of degree levels continue to be produced on TAP languages. Between 2015 and 2020 alone, no fewer than 12 theses on TAP topics were brought to completion: on the morphosyntax of Suboo (Han 2015) and of Makasae (Fogaça 2015), on the grammaticalization of serial verbs in AP languages (Willemsen 2015), on Fataluku phonology (Heston 2015), on socio-linguistics in the Fataluku-speaking region (Savio 2016), on Abui phonology and phonetics (Delpada 2016), on oral traditions in Alor (Wellfelt 2016), on place reference in Kula (Williams 2016), on Kabola dialects (De Falco 2017), on dance and language maintenance amongst the Kui (Katubi 2017), on object prefixing in Kui among others (Windschuttel 2019), and language change in Abui (Saad 2020). Publications of significant descriptive materials include Klamer (2014), Schapper (2014c, 2017b, this volume), Kratochvíl, Bantara, and Malaikosa (2014) and Steinhauer and Gomang (2016), not to mention numerous articles published in various journals and collections.

An increasingly prominent contribution to the field of TAP linguistics is being made by scholars from Indonesia. Since 2012, the Lembaga Ilmu Pengetahuan Indonesia 'Indonesian Institute of Sciences', or LIPI, has engaged in documenting endangered Papuan languages across the archipelago, including smaller languages belonging to the TAP family. This work has resulted in materials for at least four TAP languages:[6] for Oirata, a film (Masnun 2013), a

[6] This documentation built on a pilot project conducted by LIPI on Hamap, a TAP language spoken in western Alor. Publications from this initial work include Katubi et al. (2004), Kleden-Probonegoro, Katubi & Tondo (2005), Kleden-Probonegoro, Katubi & Tondo (2007), Kleden-Probonegoro (2008).

dictionary (Nazarudin 2013), several article-length treatments (Nazarudin 2015, van Engelenhoven and Nazarudin 2016), as well as a thesis focusing on contact with Austronesian languages (Nazarudin in preparation); for Kafoa, several treatments of language as cultural heritage (Santosa 2012, Humaedi et al. 2013, Humaedi et al. 2014, Patji 2014), a film (Humaedi et al. 2013), and a short dictionary (Widhyasmaramurti 2013), and; for Kui, a sociolinguistic study (Katubi and Thung Ju Lan 2014) and a dictionary (Katubi, Ju Lan and Akoli 2013). Historical linguistic contributions have been made by Ino (2013) and Mandala (2010), both theses produced at Udayana University in Denpasar.

At the same time, archival materials on TAP languages are becoming available online. The Endangered Language Archive (ELAR) has digital collections for Kula (Williams 2017b), the Bunaq oral literature genre *zapal* (Schapper 2019) and a small collection of miscellaneous materials for three Alor-Pantar languages (Baird 2004). The Pacific and Regional Archive for Digital Sources in Endangered Cultures (PARADISEC) has deposits for several west Alor languages (Baird 2015a, 2015b, 2015c) and for Western Pantar (Holton 2012). Materials for numerous TAP languages are found in The Language Archive including in the collections of Huber (2013), Klamer et al. (2015) and Klamer et al. (2019). Whilst all these collections are made by and for linguists, there are also archival collections including TAP language materials by researchers from other fields. The archive of Cora Du Bois at Harvard University (Du Bois 1983-1987) contains the earliest texts and description of an Alor language, but unluckily no recordings.[7] The archival collections of music, song and ritual speech amongst the Bunaq made in the 1950s, 1960s and 1970s by Claudine Friedberg (2015) and Louis Berthe (2015a, 2015b) together represent an unparalleled record of dying verbal arts in the region. Ros Dunlop's collection of music from Timor-Leste (Dunlop 2010) also includes performances by Bunaq, Fataluku and Makasae groups.[8]

4. Historical linguistics of the TAP family

The availability of reliable descriptive data for many TAP languages means that the application of historical linguistic methods is now increasingly possible. Much careful reconstructive work needs to be done and many critical questions of TAP prehistory remain unanswered.

4.1. Internal relationships

For a long time, many scholars assumed from the geographical proximity of the TAP languages that they must be related. However, it was only recently, with the publication of Schapper, Huber and van Engelenhoven (2014), that we have the first proof of the relatedness of the TAP languages using the comparative method.

According to our current state of knowledge, there are three primary subgroups of the TAP family: the Alor-Pantar (AP) subgroup, the Eastern Timor subgroup and Bunaq (Figure 1). Schapper, Huber and van Engelenhoven (2014) assumed two primary subgroups, namely Proto-Timor (Bunaq and Eastern Timor languages) and Proto-Alor-Pantar (PAP), because

[7] Du Bois took a recording device with her to Alor on her pioneering fieldwork from 1938 to 1939, but she was never able to get it functioning in the field.

[8] More recently, Philip Yampolski has been documenting musical genres, particularly amongst the Fataluku. This work is expected to be archived in time.

they were comparing the results of separate reconstructive work on the Timor languages on the one hand (Schapper, Huber and van Engelenhoven 2012), and on the AP languages on the other (Holton et al. 2012). However, Bunaq shares no known innovations with either Eastern Timor or Alor-Pantar languages, and must be regarded as its own primary subgroup.

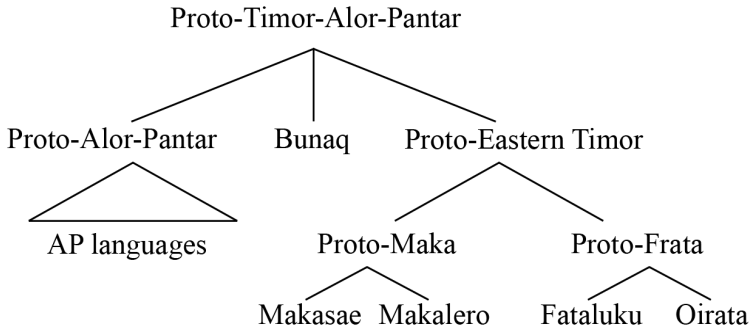


Figure 1: Tree diagram of Timor-Alor-Pantar languages

Whilst the internal constituency of the Eastern Timor subgroup is already clear (Schapper, Huber and van Engelenhoven 2012), the internal relationships of the languages in the AP subgroup still remain to be worked out. Given that it has proved difficult to identify innovations that consistently define anything but the lowest-level subgroups, it seems likely that rather than having a tree-like structure, the AP languages form a linkage (Ross 1988). It is thus perhaps better to represent AP languages with a wave-diagram, such as the provisional one based on ongoing work (Schapper in prep.) given in Figure 2. The thickness of the lines in the figure represents the closeness of the relationship. Colored lines are discussed below.

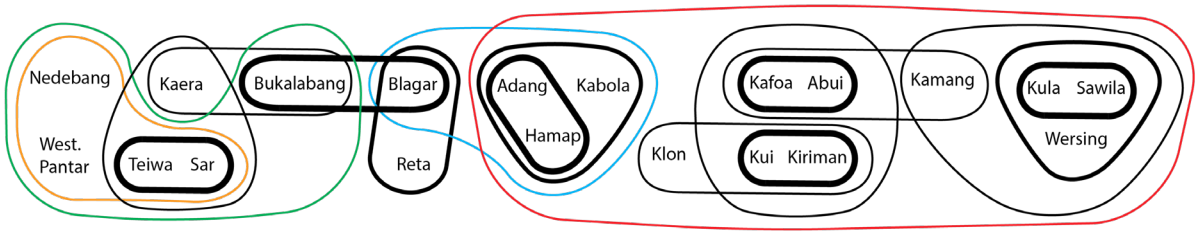


Figure 2: Tentative wave diagram of the relationships of Alor-Pantar languages

While the complex phonological history of the AP languages still needs careful dissection, we can illustrate some of the overlapping groupings in Figure 2 using morphological evidence. For instance, the grouping of all Alor languages together (marked by the red line in Figure 2) is supported by an irregular innovation in morphology: Alor languages share the irregular change of *d > *t in the Proto-TAP (PTAP) morpheme *do/ 'LOW' > PAP *do > pAlor *to. This morpheme is part of a paradigm of deictics encoding three elevationals. At the same time, the innovation whereby PTAP *ga- '3SG' and *gi- '3PL' become *ʔa- '3SG' and *ʔi- '3PL' characterizes Blagar and the languages of the Bird's Head,[9] a grouping marked by the blue line in Figure 2.

[9] The Bird's Head of Alor (where Adang and Kabola are spoken) is not to be confused with the much larger and better-known Bird's Head of New Guinea.

Similarly, all Pantar languages with the exception of Kaera can be grouped together on the basis that they display the irregular loss of *d from the PTAP reflexive prefix *da- '3SG.REFL' and *di- '3PL.REFL' and instead have reflexes of *a- '3SG.REFL' and *i- '3PL.REFL', marked by the green line in Figure 2. Within this group, West Pantar, Nedebang, Teiwa and Sar share a further innovation that sees PTAP *a- '2SG' and *i- '2SG' become *ha- '2SG' and *hi- '2PL' (part of a larger sound that sees vowel-initial roots appended with *h), marked by an orange line in Figure 2. It is impossible on empirical grounds to tell whether Bukalabang never participated in this change or whether its predecessor underwent *h addition on vowel-initial roots but this was later dropped.

Much work remains to be done to clarify the relationships of TAP languages to one another. Future work will hopefully also shed light on the grammatical structure of PTAP and on the processes of diversification that have led to the many morpho-syntactic differences in the family (cf. Section 5 on the typological divides in the family particularly in the area of morphology).

4.2. External relationships

Since 1975, Timor-Alor-Pantar languages have been repeatedly connected with the Trans-New Guinea (TNG) family, a large and essentially putative language family spanning the full length of the island of New Guinea (Pawley 2005). Wurm, Voorhoeve and McElhanon (1975) were the first to assert this affiliation, albeit with the caveat that the TAP languages contained strong substratum elements.[10] The association between TAP and distant languages classified as TNG on the New Guinea mainland has persisted on two grounds: (i) apparent lexical similarities between TAP and TNG subgroups (Pawley 2001, 2012, Kratochvíl 2007: 6-11), and (ii) resemblances in the form and structure of pronominal paradigms, particularly in western New Guinea (Ross 2005).[11]

Multiple authors have made comparisons of particular TNG groups in New Guinea with TAP languages. On the basis of lexicon, Stokhof (1975) suggested a relationship between Alor-Pantar languages and languages of the South Bird's Head of New Guinea, which had just been classified as TNG by Voorhoeve (1975). Hull (2004) looked for a TAP relationship to other Papuan languages using the available wordlists for the languages of West Bomberai, South Bird's Head, Mor and Tanahmerah. Although unsystematic in his comparison and with no attempt to establish sound correspondences, Hull observed particular lexical similarities between TAP and the West Bomberai languages but refrained from making a classification, concluding: "All that can be said with any certainty is that the matches [to Timor Papuan

[10] This is also suggested by the study using an admixture model by Reesink, Singer and Dunn (2009). In this, TAP languages do not cluster with Trans-New Guinea, but fall within a separate cluster, containing the Papuan languages of the Bird's Head and the Bismarck archipelago as well as Austronesian languages of eastern Indonesia. This suggests that TAP languages are the result of millennia long interaction of non-TNG Papuan and Austronesian speakers.

[11] A relationship between West Papuan and TAP has also been claimed in the literature (e.g., Anceaux 1973, Capell 1975), but this has been largely abandoned (see Holton & Robinson 2014 for the latest consideration). The absence of even tentative lexical links between TAP and these languages combined with improbable pronominal relationships has proved the TAP-West Papuan affiliation to be of little substance. The typological features which are similar in TAP and West Papuan are frequently also found in Austronesian languages in the region, pointing to shared substrate(s) in the region and/or widespread diffusion of features.

languages] are much more common with the Onin-Bomberai zone [i.e., West Bomberai languages] than with the South Bird's Head" (Hull 2004: 52). Recently, both Holton and Robinson (2014, building on Holton and Robinson 2014) and Cottet (2015) have echoed Hull's observations, but without significant addition of data.

Today the TAP languages are considered with reasonable certainty to be related to the West Bomberai languages. Usher and Schapper (2020) demonstrate this link and name the group the Greater West Bomberai family. Building on earlier work reconstructing relevant subgroups (Usher and Schapper 2018, Schapper, Huber and van Engelenhoven 2012, 2014), they present a reconstruction of Proto-Greater West Bomberai (PGWB) lexemes and pronominal paradigms, based on a set of largely regular sound correspondences built up subgroup by subgroup. Using these correspondences, they identify around 50 secure PGWB etymologies. Furthermore, they explain some of the apparent oddities in the relationships between Timor-Alor-Pantar and West Bomberai pronominal paradigms that had confounded earlier scholars (e.g., the unexplained "flip" between 2nd and 3rd person forms in PTAP suggested in Holton and Robinson 2014: 163).

Although grammatical description of West Bomberai languages is, at this stage, quite limited, there is some morphological evidence which appears to reinforce the relationship with the TAP languages. For example, there may be a reconstructible plural verbal subject number suffix (Schapper forthcoming). PTAP *-Vr is evidenced in the Eastern Timor languages of the TAP family such as Oirata *-er* (see examples in Section 5.2). Kalamang appears to have a cognate plural-marking suffix *-r* that appears on two verbs: *melelu* 'sit', *melelu-r* 'sit-PL', and *na* 'eat/drink', *na-r* 'eat/drink-PL' (Eline Visser pers. comm.).

A dual suffix *-ile 'DU' which attached to free pronominal bases may also be reconstructible to PGWB. Reflexes of the dual have fossilized on variable pronominal bases, indicating that originally *-ile could be added to different pronouns to mark dual number. Reflexes are evidenced in two primary subgroups of GWB: Kalamang (Visser 2016) and TAP languages (Table 1). Within TAP, *-ile is reflected in two subgroups of the TAP languages: in Bunaq and in AP languages in the west of Alor-Straits region.[12]

Table 1: Dual pronouns reflecting dual PGWB *-ile in pronominal paradigms

Kalamang	1EXCL	*in**ier***	Bunaq	1EXCL	*ne**li***
	1INCL	***pier***		1INCL	*i**li***
	2	***kier***		2	***eli***
	3	***mier***		3	*hala**li***

[12] The PGWB form *-ile has undergone several changes that require explanation. In Kalamang, we observe metathesis of the liquid and vowel resulting in *-ier*. This is consistent with a wider trend in Kalamang in which consonantal final word shapes appear to be preferred, for instance, through final vowel deletion or consonant-vowel metathesis. In Bunaq the form of the dual suffix is *-li*, suggesting that a vowel flip may have occurred in PTAP to give rise to the dual form *-eli. Even though reflexes in Alor-Pantar languages suggest at first glance the reconstruction of the dual as PAP *-le, the *i vowel in *-eli is required to explain the appearance of Klon high mid-vowel phoneme /e/ (as opposed to /ɛ/). In Klon /e/ only occurs in a handful of lexical items and it originates in the assimilation of final *i, e.g., Klon *med* < PAP *medi 'take'; Klon *weri* < PAP *weri 'tooth' (as opposed to Klon /ɛ/ which is a straightforward reflex of PAP *e, e.g., Klon *-lɛb* < PAP *-lebur 'tongue').

Blagar	1EXCL	*no**le***	Klon	1EXCL	*ng**le*** ~ *n**le***
	1INCL	*po**le***		1INCL	*p**le***
	2	*o**le***		2	*eg**le***
	3	*ʔo**le***		3	*g**le*** ~ *e**le***
Kafoa	1EXCL	*nij**el***	Kui	1INCL	*pa**lɛ*** ~ *pi**lɛ***
	1INCL	*p**el***		1EXCL	*ɲi**lɛ***
	2	*j**el***		2	*ja**lɛ***
	3	*d**el***		3	*a**lɛ***

Comparison of verbal prefixes in the West Bomberai language Iha and PTAP is also promising (Table 2), with a regular relationship between forms in 1st and 2nd person persons of the respective paradigms: Iha *n* regularly corresponds to PTAP *n, while Iha initial *k* regularly corresponds to zero in PTAP (Usher and Schapper 2020). Iha has lost the number distinction in its prefixes and has apparently retained reflexes of the original plural forms.

Table 2: Verbal agreement prefixes in Iha and PTAP

	Iha	PTAP	
	(West Bomberai)	SG	PL
1EXCL	*ni-*	*na-	*ni-
2	*ki-*	*a-	*i-
3	Ø	*ga-	*gi-

In addition to the lexical and free pronominal evidence brought by Usher and Schapper (2020), such morphological links would seem to make a convincing case for the Greater West Bomberai family, and perhaps eventually convincingly to the TNG family, with which both have been linked at one time or another.

4.3. Interactions with Austronesian languages

The position of the TAP languages in Island Southeast Asia means that they have had a different history from that of many mainland New Guinea Papuan languages. In particular, they have been in close contact with Austronesian languages for at least 3,000 years and this has wrought many mutual changes on the languages that have only begun to be explored by linguists recently.

The nature and extent of influence of Austronesian languages on TAP languages varies depending on the local contact situations between individual clusters of TAP languages and the proximate Austronesian languages. As is to be expected from geography, the TAP languages of Timor show the most influence from Austronesian languages. Bunaq, surrounded on all sides by Austronesian languages, shows the most extensive changes. Though it has retained the head-final, head-marking syntax typical of its family, Bunaq has developed in isolation from the other TAP languages and has many unique characteristics that can only be explained by historical processes of contact and adaptation with its Austronesian neighbors (Schapper 2011a, 2011b). Bunaq has been a recipient of a very large number of Austronesian loans, most obviously from Tetun, but also Kemak and Mambae and other, as yet unidentified, Austronesian sources.

Among the Eastern Timor languages, Austronesian lexical influence is also rife. Huber and Schapper (2019) show that borrowing indicates a multi-layered history of interaction with

different groups speaking Austronesian languages at different time depths. Numerous Austronesian etyma are reconstructible to Proto-Eastern Timor (PET), but cannot be attributed to any of the current Austronesian neighbors or their immediate ancestors. For example, PET *batan 'trunk' is a borrowing of a reflex of Proto-Malayo-Polynesian (PMP) *bataŋ 'trunk', but all neighboring subgroups of Austronesian languages display PMP *b > w (e.g., Waima′a *wata* 'trunk') and are therefore not plausible candidates as the source of the borrowing. The complex history of Austronesian borrowing in Eastern Timor is particularly apparent through the many borrowing doublets, two reflexes of the ultimately same ancestral word acquired through different historical routes, to be found in the languages. That is, even in closely related Eastern Timor languages, we often find that Austronesian borrowings have different sources in Proto-Maka and Proto-Frata (see Figure 1). For example, both Proto-Maka *aha 'mango' and Proto-Frata *paia 'mango' both look to be borrowings of reflexes of PMP *pahuq 'mango'. The former appears to be sourced from Proto-Kisar-Luang *aha 'mango' (reflected, e.g., in Luang as *aha*), since no Austronesian languages in Timor show appropriate forms (e.g., Waima'a *ahu* 'mango'). Yet, the borrowing event must be some time ago, because the modern Maka languages and Kisar-Luang are not currently in contact. The source of Proto-Fataluku-Oirata *paia 'mango', however, is unknown as no neighboring Austronesian language seems to reflect a similar form. Huber and Schapper (2019) observe that the sheer number of Austronesian borrowings with no plausible source indicates that successive waves of Austronesian migration, whose languages are no longer extant, have left their mark on the Eastern Timor languages.

In the Alor and Pantar languages, Austronesian influence is overall more limited, but still apparent. Schapper and Wellfelt (2018) point to numerous Austronesian borrowings found across Alor that have regular sound correspondences and were likely borrowed into an early stage. As in Eastern Timor, these borrowings appear to go back to different unknown Austronesian sources. This is, for example, indicated by the different shapes with which PMP *b appears in Alor languages. Compare the following examples: PMP *b is borrowed as Proto-Alor *b in *buku (1), but as Proto-Alor *w in *wari (2).

(1) Wersing *(-sese)buk* 'knee'; Sawila *buko ~ buka* 'senior, major', *(aja)buko* 'big toe, thumb'; Kamang *buk* 'mountain, hill', *(-taŋ) buk* 'elbow', *(-waː) buk* 'chin'; Abui *buku* 'earth', *(-bala) buku* 'knee'; Kafoa *buku* 'hill, mountain', *-buku* 'knee, throat', *(-tam) buku* 'elbow' < PMP *buku 'node (as in bamboo or sugarcane); joint; knuckle; knot in wood; knot in string or rope'

(2) Wersing *-wari* 'return, go back'; Sawila *-waːri*; Kamang *-waːi*; Abui *-wai*; Klon *-war*; Kafoa *wai*; Kui *-wari* < PMP *balik 'reverse, turn around'

At the same time, Schapper and Wellfelt (2018) demonstrate the existence of many recent loan words in Alor originating in the Austronesian languages of Timor and of Sulawesi, both islands with which Alor groups are known to have had kinship and trading relations in the historical period (Wellfelt 2016). Little work has been done on the history of the languages of Pantar and so, at this stage, many fewer borrowings from Austronesian languages have been identified there.

Whether TAP languages have had an influence, either through contact or substrate, on Austronesian languages is yet to be systematically studied. Donohue and Schapper (2008) argue that the indirect-direct possessive contrast in Austronesian languages possibly originated through contact with PTAP (or antecedents thereof) which had the same contrast in

possession. Klamer (forthcoming) makes a similar suggestion, positing that the morphologically reduced nature of the Austronesian language Alorese is the result of TAP language speakers on Pantar switching to speaking the Austronesian language. Edwards (2016) carries out a bottom-up reconstruction of the Austronesian language Uab Meto in western Timor which reveals that a large amount of the Uab Meto lexicon is from a non-Austronesian source, with TAP languages as a possible source.

While these studies all present a picture of Austronesian languages replacing TAP languages, Austronesian languages can in some places also be shown to have lost ground to the TAP languages. The study of place name etymologies in Timor reveals that at least two members of the family, Bunaq and Makasae, have significantly expanded in the early modern or immediately premodern period to take over areas previously occupied by speakers of neighboring Austronesian languages (Schapper 2011a; Huber, Schapper and van Engelenhoven 2015). The mechanisms that have allowed the Papuan groups in Timor to turn the tables and successfully expand and assimilate established Austronesian peoples remain to be investigated.

5. Typological overview

5.1. Phonology

The most common vowel system in the TAP family is a simple inventory of five cardinal vowels, with the appearance of a length distinction varying throughout the family. Five cardinal vowel systems with no length distinction are found in disparate TAP languages including West Pantar, Wersing and Bunaq. Five cardinal vowel systems with a robust length distinction for all qualities of vowel are common across the AP languages, including Nedebang, Teiwa, Kaera, Abui and Kamang. Five cardinal vowel systems in which long vowels are only marginal are found in Blagar, Makalero and Fataluku.

The greatest diversity in vowel systems is found in West Alor-Straits languages where (often marginally) contrastive heights of mid-vowels, phonemic central vowels, and length distinctions for only some vowel phonemes sporadically appear. Table 3 sets out the variety of these systems. The other region with unusual features in their vowel systems is East Alor Montane (Table 4). Sawila notably has the front-rounded vowel /y, y:/ contrasting with five short and long cardinal vowels, while Kula has two short central vowel phonemes contrasting with five cardinal vowels of regular length.

Table 3: West Alor-Straits vowel systems

Adang	Klon	Kafoa
i u	i i: u u:	i i: u u:
e o	e o o:	ʊ ʊ: o
ɛ ɔ	ɛ ɛ: ə ɔ	ɛ ɛ: ɔ:
a	a a:	a a:

Kui	Reta
i i: u u:	i i: u u:
e o o:	e: o:
ɛ ɛ:	ɛ ɔ
a a:	a a:

Table 4: East Alor Montane vowel systems

Sawila	Kula
i iː y yː u uː	i ɪ̆ u
ɛ ɛː o oː	ɛ ɐ̆ o
a aː	a

In most TAP languages, surface diphthongs are underlyingly sequences of vowels. The exception is Bunaq, which has three phonemic diphthongs that contrast with sequences of the same vowels, as illustrated with the following minimal pairs:

Bunaq minimal pairs for diphthongs versus vowel sequences

(3) a. /sa͡i/ [saj] 'exit' ≠ /sai/ [saʲi] 'be amused'
b. /te͡i/ [tej] 'dance' ≠ /tei/ [teʲi] 'stare at'
c. /po͡i/ [poj] 'choice' ≠ /loi/ [loʷi] 'good'

Inventories of consonant phonemes in TAP languages vary considerably, but are typically moderately small with an average of 13-16 consonant phonemes. Makalero has the smallest consonant inventory with only 11 phonemes (Table 5). Together with Fataluku (van Engelenhoven and Huber this volume), it stands out in the family in lacking straightforward voicing distinctions in the plosives (of native words). The discrepancy in place of articulation of /t/ and /d/ in Makalero is also found in Blagar, which has /t̪/ and /d/.

Table 5: Makalero consonant phonemes

	BILABIAL	LABIO-DENTAL	ALVEOLAR	POST-ALVEOLAR	VELAR	GLOTTAL
PLOSIVE	p		t	d	k	ʔ
FRICATIVE		f	s			
NASAL	m		n			
TRILL			r			
LATERAL			l			

By far the largest consonant inventories in the family are found in Pantar. They are characterized by more elaborate fricative inventories and frequent phonemic gemination. The most elaborate is that of Nedebang, which has 21 singleton consonant phonemes over seven different places of articulation and 14 geminate consonant phonemes (Schapper this volume). Nedebang is followed by West Pantar with 16 singleton consonant phonemes plus 10 geminate consonant phonemes, and Teiwa with 20 (only non-geminate) consonant phonemes.

While there is little variation in the family for phonemes such as liquids /r/ and /l/ or nasals /m/ and /n/, the number of fricatives, affricates and places of plosive and nasal articulations varies widely. All languages have /s/, including those with just one fricative phoneme such as Sawila, Wersing, Kula and Kui. The second most common fricative is /h/, but in languages with just two fricative phonemes its appearance is intermittent: /s/ and /h/ are the only fricatives in West Pantar and Klon, but Makalero has /s/ and /f/, Kamang /s/ and /ɸ/, Kaera /s/ and /x/ (in each, the glottal fricative features as a marginal phoneme or an allophone of another phoneme). In languages with three or more fricatives, /s/ and /h/ are always present, while the identity of the other fricative(s) varies from language to language: for

instance, Bunaq /s/, /h/, /z/, Makasae, Kafoa, Adang, Abui /s/, /h/, /f/, and Blagar /s/, /h/, /v/, /z/. Affricate phonemes occur sporadically throughout the family, but frequently have only marginal phonemic status: one affricative /ʦ/ in several Fataluku dialects and Bunaq (both also have [ʤ ~ ʣ] as allophones of /z/), marginal /b͡v/ and /ʤ/ in Reta, Kula and Kui, and /ʦ/ and /ʤ/, both marginal, in Adang. Similarly, sporadic is the appearance of /q/ in Abui, Teiwa and Nedebang, /v/ in Teiwa, Blagar and Fataluku, and weakly phonemic /ɲ/ in Kui, Adang and Wersing.

Some consonant segments show regional patterning. Glottal stop is universally present in the phoneme inventories of Timor languages, although several authors have commented on its 'weakness' (Huber 2017: 274 for Makalero; Huber 2008: 5 and Hajek and Tilman 2001: 178 for Makasae, possibly also Correia 2011: 53; Heston 2015: 109-110 for Central Fataluku). The glottal stop is only sporadically found as a phoneme in Alor-Pantar, mostly in the Bird's Head, Straits and most prominently in Pantar. Velar nasals are absent in Timor languages, as is consistent with the surrounding Austronesian languages, but are frequently present in AP, though they often have dubious phonemic status (e.g., West Pantar, Kaera) or are clear allophones of /n/ (e.g., Wersing). The appearance of /ʈ/ in Oirata is under the influence of the neighboring Austronesian language, which also has the retroflex. Implosive /ɓ/ is found in the Straits languages Blagar and Reta and may be the result of influence of Austronesian languages further to the east where implosives are common. The velar fricative /x/ is limited to three languages of north-eastern Pantar, Bukalabang, Kaera and Nedebang, while /ħ/ is only found in Teiwa. Consonant phonemes limited to just one member of the family are the marginal phonemes /β/, /kʷ/ and /gʷ/ in Kula, /θ/ and /c/ in Nedebang, and /ʎ/ in Kui.

In TAP languages monosyllabic and disyllabic roots are most common, with polysyllabic words typically being limited to borrowings, historical compounds or (reduplicative) onomatopoeias. Across the family the most common syllable structures are (C)V and (C)VC, frequently with restrictions on the consonants permitted in codas. For example, in Bunaq, the only consonants able to appear in codas are voiceless obstruents, /n/, the two liquids and the glottal stop phoneme. Similarly, Makalero and Makasae exclude the following consonants from word-final position: /p, d, f, m/ (Huber 2017: 279-280). In most TAP languages, consonant clusters are limited, even across syllable boundaries. Whilst almost unknown in Timor languages, many AP languages (including Teiwa, West Pantar and Kula) allow clusters of an obstruent followed by a liquid in word initial onsets. Languages such as Klon, Kui and Wersing allow more types of underlying consonant clusters, but have surface processes of vowel epenthesis to break them up. Unusual features are the extensive appearance of echo vowels in Wersing to avoid final codas and in Makasae-Makalero on phrase-final words, and the productive morphophonemic process of high vowel metathesis found Bunaq and Wersing to maintain a CV structure in certain affixation environments.

There are also noticeable differences in preferred word shapes across TAP languages. Surface forms of words in Fataluku and Oirata overwhelmingly end in an open syllable. By contrast, in Klon, a language of Alor, there are few words that end in a vowel. Historical reconstruction shows that dropping historical final vowels, consonant-vowel metathesis and glottal stop paragoge have variously been applied to create consonant-final roots in Klon (4). Similar changes to consonant final-word shapes can be shown to have occurred independently in Teiwa.

Consonant final root creation in Klon

(4) a. Final vowel dropping
ap ‘walk’ < PAP *ˈapa ‘walk’
luk ‘bow’ < PAP *ˈluku ‘bend, bow’
mot ‘back’ < PAP *ˈmota ‘back’
naŋ ‘not’ < PAP *ˈnaŋa ‘not’

b. Consonant-vowel metathesis
puin ‘hold’ < PAP *puˈni ‘hold’
muin ‘nose’ < PAP *muˈni ‘smell, nose’
moːn ‘snake’ < pre-Klon *muan < PAP *muˈna ‘snake’
daːr ‘verse’ < pre-Klon *daar < PAP *daˈra ‘song’

c. Final glottal stop prosthesis
adaʔ ‘fire’ < PAP *ˈada ‘fire, firewood’
ɛtɛʔ ‘tree’ < PAP *aˈte ‘tree’
nɛʔ ‘name’ < PAP *ne ‘name’
weʔ ‘blood’ < PAP *we ‘blood’

A range of stress systems are found in TAP languages, but most descriptions only treat suprasegmentals perfunctorily (exceptions are Heston 2015 and Delpada 2016). Timor languages have non-phonemic stress systems: Bunaq has regular penultimate stress, while Eastern Timor languages such as Fataluku and Makalero have stress systems based on right-aligned moraic trochees. AP languages have both non-phonemic and weakly phonemic stress systems. Blagar and Wersing have stress systems with regular penultimate stress, while Kaera has regular final stress. Phonemic stress systems bearing low functional loads are found widely in AP languages, including Nedebang, Teiwa, Kamang, and Sawila. The most common pattern among these is for stress to regularly fall on heavy syllables, but where a disyllabic word consists only of light syllables stress is lexicalized and may fall on the first or second syllable of the root. Schapper (2017c) argues that such a system of stress was ancestral in the AP languages and its regularization into a penultimate stress system led to the emergence of phonemic geminates in West Pantar and Nedebang. Tone is found in only two TAP languages. A pitch-accent system is reported for one dialect of Fataluku (Stoel 2007; van Engelenhoven and Huber this volume), but is not known in other Fataluku dialects. Abui has been described as a low-density lexical tone language, in which tone is associated only with certain syllables and tone minimal pairs are relatively sparse (Delpada 2016).

5.2. Morphology

Morphological profiles show variation across the family in the extent, locus and type of morphology. Much TAP morphology is unproductive, in many cases having fossilized and fused with original roots. In order to make the connections between morphological patterns in TAP languages clearer, this discussion will make some recourse to historical arguments.

Verbal agreement morphology in the AP languages and in Bunaq is entirely prefixing, whereas Eastern Timor languages have traces of both prefixing and suffixing agreement morphology. Within the AP subgroup, there is significant variation in the number of agreement paradigms: Pantar and the Pantar Straits languages have either one (e.g., Bukalabang, Steinhauer this volume) or two paradigms of agreement prefixes (e.g., Nedebang, Schapper this volume); West Alor languages typically have three paradigms with different vowels characterizing each (e.g., Adang, Table 6); Central Alor languages have

similar but more elaborate systems, for example, with seven agreement paradigms in Kamang (Table 7), see also Saad on Abui (this volume); East Alor languages have one main paradigm and one (e.g., Sawila, Table 8) or two (e.g., Wersing, Table 9) marginal paradigms that are found with a few verbs.

Table 6: Adang agreement prefixes

	I	II	III
1SG	*na-*	*nɛ-*	*nɔ-*
2SG	*a-*	*ɛ-*	*ɔ-*
3	*ʔa-*	*ʔɛ-*	*ʔɔ-*
1PL.EXCL	*ni-*	*niɛ-*	*niɔ-*
1PL.INCL	*pi-*	*piɛ-*	*piɔ-*
2PL	*i-*	*iɛ-*	*iɔ-*

Table 7: Kamang agreement prefixes

	I	II	III	IV	V	VI	VII
1SG	*na-*	*ne-*	*no-*	*neː-*	*noː-*	*nao-*	*neʔ-*
2SG	*a-*	*e-*	*o-*	*eː-*	*oː-*	*ao-*	*eʔ-*
3	*ga-*	*ge-*	*wo-*	*geː-*	*woː-*	*gao-*	*geʔ-*
1PL.EXCL	*ni-*	*ni-*	*nio-*	*niː-*	*nioː-*	*nioː-*	*niʔ-*
1PL.INCL	*si-*	*si-*	*sio-*	*siː-*	*sioː-*	*sioː-*	*siʔ-*
2PL	*i-*	*i-*	*io-*	*iː-*	*ioː-*	*ioː-*	*iʔ-*

Table 8: Sawila agreement prefixes

	I	II
1SG	*na-*	*ni-*
2SG	*a-*	*e-*
3	*ga-*	*gi-*
1PL.EXCL	*ni(j)-*	*ni(j)-*
1PL.INCL	*i-*	*i-*
2PL	*ji-*	*ji-*

Table 9: Wersing agreement prefixes

	I	II	III
1SG	*n-*	*na-*	*ne-*
2SG	*a-*	*a-*	*e-*
3	*g-*	*ga-*	*ge-*
1PL.EXCL	*ɲ-*	*ni-*	*ni-*
1PL.INCL	*t-*	*ta-*	*te-*
2PL	*j-*	*ji-*	*ji-*

Bunaq has a single paradigm of prefixes, but without the number distinction typical of AP languages. Makalero has a cognate third person agreement prefix *k-* that appears on a small number of verbs, and that is clearly fossilized on several Makasae roots. A remnant of prefixal agreement is also present in Fataluku, which prefixes a vowel *V-* to verbs where a referent is the anaphorically retrievable object of a restricted set of verbs.

Agreement on verbs for number is limited to the Eastern Timor languages. Suppletive roots for subject number are found with a handful of intransitive verbs in all Eastern Timor languages (e.g., for 'sit.SG/PL': Oirata *mire* / *rua*, Fataluku *mire* / *cuare*, Makalero *mit* / *diar*, Makasae *mi* / *diar*). While verbal number in Makalero and Makasae is limited to such suppletive forms, verbal number agreement in Frata languages on verbs is much more widespread and consistently associated with a suffix *-Vre* in the plural. In Fataluku verbal marking of plural number is limited to plural intransitive subjects (van Engelenhoven and Huber this volume). In Oirata, however, both intransitive and transitive plural subjects show agreement on the verb, as in:

Oirata (Josselin de Jong 1937)

(5) Singular intransitive subject

a. *Naaje pa!*
swim IMP
'Swim (SG)!'

Plural intransitive subject

b. *Naaje-**re** pa!*
swim-PL IMP
'Swim (PL)!'

Singular transitive subject

c. *Ue in-asi.*
3SG 1PL.EXCL-see
'He sees us.'

Plural transitive subject

d. *ite in-asi-**ere**.*
2PL 1PL.EXCL-see-PL
'You (PL) see us.'

In the Timor languages, many verbs display a range of irregular root mutations triggered by prefixation; such mutations are noticeably absent in Alor-Pantar languages. In Bunaq, mutations in verb roots are unpredictable and typically involve the duplication of a segment or a segment's deletion, as illustrated in Table 10.

Table 10: Examples of Bunaq irregular verb root mutation under prefixation

	Unprefixed form	3rd person prefixed form
'split'	*bagal*	*gagabal*
'gather'	*binun*	*gibibun*
'wash'	*ili*	*gigili*
'tell'	*pilaʔ*	*gipiala*
'steal'	*bini*	*gibi*
'beat'	*tuʔu*	*gutuʔ*
'stretch'	*mene*	*gemen*
'clear'	*naman*	*gaman*
'cover'	*bolok*	*gobok*
'break'	*pili*	*gipi*

Eastern Timor languages also have a set of verbs which display initial consonant mutations. The consonant mutation is triggered when a verb occurs chiefly with a locative prefix and goes back to the assimilation of the earlier locative *n- prefix (Schapper forthcoming). For example, Oirata has two patterns of initial consonant mutations: *t* > *-r* (e.g., *tipare* 'run, flee' > *ura-**ripare*** 'go back, run back'), and *p* > *-h*, (e.g., *pai* 'make, do' > *ura-**hai*** 'open, uncover', lit. do back). The original *n- prefix can still be observed on vowel-initial verbs, e.g., Oirata *asi* 'see, look' > *ura-**nasi*** 'look back'.

Verbal inflections other than agreement are unknown in Bunaq and Eastern Timor, but appear sporadically in AP languages. A verbal realis suffix *-an* is found in Teiwa. Aspectual morphology is the most common form of non-agreement verbal inflection. Aspectual prefixes *a-* 'INCP' and *i-* 'PROG' are found in West Pantar, while the other AP languages with aspectual inflection have suffixes. Blagar and Bukalabang *-t*[13] and Kaera *-i* 'PFV', *-(i)t* 'IPFV' are aspectual suffixes which only occur on verbs in a non-final clausal position; Kaera also has a suffix *-aŋ* 'CONT' which can occur on verbs irrespective of clausal position. In Alor languages aspectual suffixes are optional and are hosted on the final verb of a clause. Kamang has three aspectual suffixes *-si* 'IPFV', *-ma* 'PFV' and *-ta* 'STAT', the last of which is of only limited

[13] Note that according to Steinhauer (2014: 205-209) aspectual marking is only one of a range of functions of Blagar *-t*.

productivity; Kui and Kiraman, two closely related languages, have aspectual suffixes *-i* 'PFV' and *-a* 'IPFV'. Cognates of these are found in Abui, but they are somewhat lexicalized, patterning differently depending on the lexical identity of the verb (Saad this volume).

Inflections for phrasal position are also found in several languages. Kaera inflections for phrasal position are found on certain verbs and numerals: on the clause level, *-o* 'FIN' occurs on a verb/numeral in clause-final position; within the NP, *-o* 'FIN' occurs on a verb/numeral in NP-final position, while *-i* 'NFIN' marks a verb/numeral in a non-final position in the NP. In the East Alor Montane languages Sawila and Kula, alternations in word shape depending on phrasal position are found not only on verbs, but also on nouns and to a lesser extent on post-verbal grammatical morphemes such as negators. Phrase-finally, words which show the alternation end in a vowel; non-finally, they end in a consonant. The Sawila and Kula word alternations for final phrasal position can historically be attributed to an inflectional suffix only in part. For words with an historical open syllable finally, non-final forms show loss of the final vowel, while phrase-final forms retain the vowel. For words with a historical closed syllable finally, final forms have a vowel *-a* added, while non-final forms retain the historical closed syllable. New work on Wersing (since Schapper and Hendery 2014) has revealed that metathesis of final high vowels is used to create a similar final/non-final distinction. As in Sawila and Kula, non-final forms are consonant-final with [+high vowel]C# (6a), but vowel-final with C[+high vowel]# (6b).

Wersing (Schapper fieldnotes)

(6) Consonant-final form

a. *Ne-tamu* *ong* ***areing****=te!*
1SG.POSS-grandparent carry bury=PRIOR
'Take grandmother off to be buried!'

Vowel-final form

b. *Ne-tamu* *mlenya* ***areni****.*
1SG.POSS-grandparent yesterday bury
'Grandmother was buried yesterday.'

Nominal inflection is limited in TAP languages. Prefixes for possessor are the only nominal inflections found across the whole family. In TAP languages of Timor, Pantar and the Straits, there is typically only one paradigm of possessive prefixes. In Bunaq (illustrated in 7) and many languages of Pantar and the Straits, these prefixes are identical to the agreement prefixes on verbs and occur on the so-called inalienably possessed class of nouns, a lexically determined subset of nouns that must always occur with a possessor prefix (7a); alienably possessed nouns can occur without a possessor but where this is marked it is with a free possessive marker (7b). By contrast, Makalero (8) has a single paradigm of prefixes to mark all possessors. Nouns differ in that, while alienable nouns are only optionally marked with the possessor prefix, inalienable ones are obligatorily marked by it (or in a compound, compare *ki-raka* '3SG.POSS-finger' and *tana-raka* 'hand-finger'). Alor languages typically have two paradigms of agreement prefixes, one for inalienably possessed nouns and one for alienable possessed nouns. This is illustrated with Kamang in (9).

Bunaq (Schapper fieldnotes)

(7) a. Inalienably (directly) possessed
g-up
3-tongue
'his/her/their tongue'

b. Alienably (indirectly) possessed
gie *deu*
3.POSS house
'his/her/their house'

Makalero (Huber pers. comm.)

(8) a. Obligatorily possessed
ki-ifil
3-tongue
'his/her/their tongue'

b. Optionally possessed
ki-lopu
3-house
'his/her/their house'

Kamang (Schapper fieldnotes)

(9) a. Inalienably possessed
***w**-opui*
3-tongue
'his/her/their tongue'

b. Alienably possessed
***ge**-kadii*
3.POSS-house
'his/her/their house'

What is less often clearly articulated in grammatical descriptions of TAP languages, is that languages frequently have an intermediate class between alienably and inalienably possessed nouns. Many languages have a set of nouns which are like inalienably possessed nouns in that they must occur with a possessor, but take the possessive prefixes of an alienably possessed noun. For instance, Kamang *waa* 'egg' is one such noun: Like an alienably possessed noun, the possessor can be expressed using the *ge-* prefix in the 3rd person (10a). Alternatively, the noun can occur in a possessive compound with another noun expressing the possessor (10b). But simply omitting a possessor is not permissible (10c).

Kamang (Schapper fieldnotes)

(10) a. *ge-**waa***
3.POSS-egg
'his/her/their egg'

b. *sibe* ***waa***
chicken egg
'chicken egg'

c. **waa*
egg

The only other nominal inflections found in the TAP languages are plural suffixes, albeit with a very limited appearance. Eastern Timor languages each have lexically specified classes of nouns denoting humans that take a plural suffix. Plural marking is not obligatory in plural reference in these languages, but it is frequent on this class of human nouns. Examples of members of this special plural marked class are given for Oirata in Table 11. The Oirata plural suffix *-ra* has the allomorph *-a* that appears on nouns which end with a final /r/, as can be seen on the form *tuhur*. There is also an irregular plural form *namirara* derived from *namirai*. Makalero also has a range of plural suffixes: *-ra:* on a restricted set of kin nouns, *-la:* for plurality on non-kin nouns and *-ara* for associative plurality. The only known plural affix outside of Eastern Timor is Kamang *-le:* marking associative plurality.[14]

Table 11: Examples of the Oirata restricted plural marked class

	SG	PL
'younger brother'	*noo*	*noo**ra***
'elder brother'	*kaka*	*kaka**ra***
'sister'	*leren*	*leren**ra***
'friend'	*hele*	*hele**ra***
'child'	*moto*	*moto**ra***
'daughter'	*moto tuhur*	*moto**ra** tuhur**a***
'son'	*moto nami*†	*moto**ra** nami**ra***
'husband'	*nami**rai*** †	*nami**rara***

† *nami* as an independent noun means 'man'.

[14] Note that the Kamang suffix is not related to the Eastern Timor suffix, but rather is a reflex of the PTAP dual suffix *-ile, discussed in Section 4.2.

Derivational morphology is most developed in Eastern Timor languages, but is found scattered in various forms with limited productivity throughout the family. Fataluku and Oirata have highly frequent word class marking suffixes, *-n* 'NMLZ' and *-e* 'VBLZ'. Suffixes deriving nouns from verbs are found in the Eastern Timor languages (Makalero *-ini* and *-r*, and Fataluku *-(n)ana*) and in the Pantar-Straits languages (Blagar, Bukalabang, Reta *-(na)ŋ*). Multiple languages in the family also show traces of a final *-k deriving verbs from nouns or transitive verbs from intransitive verbs, but the number of tokens in each language is small. For example, in Kamang just two instances are known (*pida* 'hole' and *pida-k* 'bury', *tapu* 'be intoxicating' and *tapu-k* 'intoxicate'), while Makalero has around a dozen (e.g., *huri* 'brush (n)' and *huri-ʔ* 'brush (v)', *lafu* 'life' and *lafu-ʔ* '(a)live'). A causative suffix *-(na)ŋ* can be added to many intransitive verbs in Blagar, Bukalabang and Kaera. Prefixes marking cause and intentionality are found in Straits-Western Alor languages: Blagar *V-*, Bukalabang *a-*/*V-*, Adang *a-*, Kui *a-*.

Whilst lacking in many languages (e.g., West Pantar, Kaera, Blagar, Abui and Bunaq), applicatives are perhaps the most widespread form of derivational morphology in the family. Makasae has the applicative-like prefixes *mi-*, *ne-* and *ge-* that have lexicalized relationships with the verbs they occur on (Correia 2011: 219-225). Reflexes of PTAP *medi 'take' marking T arguments (Klamer and Schapper 2012) have become applicatives fused onto the 'give' verb in some TAP languages, e.g., Nedebang (Schapper this volume), Reta (Willemsen this volume) and Makalero (Huber 2011: 207, 406-407). A general applicative prefix PAP *un- is reflected in Teiwa *un-* and in most West Alor languages (Adang, Klon, Kafoa, Kui *u-*). Grammaticalization of postpositions and argument adding serial verbs into applicative prefixes has taken place widely in Alor languages. For example, applicative prefixes from PAP *mia 'be in' are Klon, Kafoa, Kui, Kamang, Wersing and Kula *mi-*; applicative prefixes from PAP *le 'be on' are Kui *la-*, Sawila *li-*, and Kula and Wersing *le-*. Much more extensive applicativization processes can be found in Eastern Timor languages, with historical incorporation of preverbal elements into the verb phrase resulting in dozens of applicative prefixes. Because these processes in Eastern Timor languages have largely replaced the typical TAP verb serializations in the encoding of complex events, this phenomenon is discussed in Section 5.4.

5.3. Word order

All TAP languages have SV/APV and postpositions, word order features that set them apart from the SV/AVP and prepositions of their Austronesian neighbors. There are, however, differences, often geographical, in the details of word order patterns in TAP languages that make them less uniform than they superficially appear. A few examples of the word order differences in TAP are discussed here.

Whilst all TAP languages have P before the verb, the extent to which the verb must occur in the final clausal position differs considerably. Eastern Timor languages are strictly verb-final, with free clausal negators and free aspectual markers consistently occurring preverbally, even when multiple such elements occur. This is illustrated in (11) on the basis of Fataluku.

Fataluku verbal finalness (Heston 2015)

(11) a. Negator – Verb
Kuca ***akam*** *nawar-e.*
horse NEG know-VBLZ
'The horse didn't know.'

b. Aspectual particle – Verb
Ipar ***hai*** *nemer-e.*
dog ASP first-VBLZ
'The dog went first.'

c. Negator – Aspectual particle – Verb
Ana ***akam*** ***hai*** *fuleh-e.*
1SG.SBJ NEG ASP return-VBLZ
'I won't come back.'

At the other extreme, Bunaq, in central Timor, permits a great many elements to follow the verb, with strings of up to eight post-verbal elements encoding aspect, temporal duration, manner and polarity being observed. The simultaneous postverbal appearance of the negator and aspectual particles in Bunaq is illustrated in (12).

Bunaq verbal non-finalness (Schapper fieldnotes)

(12) a. Verb – Negator – Aspectual particle
Inel *masak* ***ni?*** ***ta?***.
rain big NEG ASP
'It hasn't rained a lot yet.'

b. Verb – Adverb – Aspectual particle – Aspectual particle
Inel ***teni*** ***gie*** ***oa***.
rain again ASP ASP
'It's about to rain again.'

AP languages occupy the middle ground between Bunaq and the Eastern Timor languages. They typically only allow one free clausal element to occur after the verb and have strategies in place to maintain this. For instance, in Western Pantar, all negators occur after the verb, including the negative imperative marker *gayang* (13a) and the negative polarity incompletive aspect marker *yadda* 'not yet' (13b). However, when these co-occur in the same clause *yadda* gets bumped to a preverbal position (13c).

Western Pantar post-verbal position (Holton 2014)

(13) a. Verb – Negator
Horaŋ ***gajaŋ***.
make.noise NEG.IMP
'Don't make noise.'

b. Verb – Aspectual particle
Naŋ *hori* ***yadda***.
1SG.ACT eat NEG.ASP
'I haven't eaten yet.'

c. Aspectual particle – Verb – Negator
Yadda *maijaŋ* ***gajaŋ***.
NEG.ASP place NEG.IMP
'Don't put them down yet.'

The limitation of the postverbal slot to a single element means that there is often a discrepancy in AP languages between the position of imperfective and perfective aspect markers. Wersing is typical in this respect: the perfective aspectual particle *kana* which cannot co-occur with the negator is postverbal (14a), while imperfective *de* which frequently combines with the negator to express 'not yet' is preverbal (14b), even when no negator appears postverbally (14c).

Wersing postverbal and preverbal aspectual particles (Schapper fieldnotes)

(14) a. Verb – Perfective
Ne-tamu *ga-paŋ* ***kana***.
1SG-grandparent 3-dead PFV
'My grandparents are already dead.'

b. Imperfective – Verb – Negator
Ne-tamu ***de*** *ga-paŋ* ***nauŋ***.
1SG-grandparent IPFV 3-dead NEG
'My grandparents aren't dead yet.'

c. Imperfective – Verb
Ne-tamu ***de*** *go-ko.*
1SG-grandparent IPFV 3-stay
'My grandparents are still alive.'

In the vast majority of TAP languages, standard negation is post-verbal. The exceptions are the Eastern Timor languages (as illustrated above in (11) with Fataluku) and the Alor language Kafoa. Whilst most TAP languages have distinct negators for declarative and imperative clauses, Kafoa uses the same negator (compare 15a and 15b).

Kafoa negation

(15) a. Declarative: Negator – Verb
Ne *bilau* *na* ***ka*** *karai, ...*
1SG food 1SG NEG eat
'I won't eat the food, ...'

b. Imperative: Negator – Verb
Ka *naŋ-karai, ...*
NEG 1SG-eat
'Don't eat me, ...' (Baird 2017)

Kafoa preverbal negation in declaratives appears to be due to expanding an original imperative negator to cover negation in standard clauses. Whilst imperative negators are frequently in the same postverbal position as standard negators (e.g., in Kamang and Wersing in 16), sporadically TAP languages have post-verbal standard negation, but preverbal negative imperatives. Preverbal negative imperatives are illustrated for Bunaq and Blagar (17).

Postverbal imperative negator

(16) a. Kamang
Ala *gobalee* *posan-si* ***gee****!*
2SG.SPEC too arrogant-IPFV NEG
'Don't you be so arrogant!' (Schapper 2014b)

b. Wersing
A-soroŋ ***siniŋ****.*
2SG-angry NEG
'Don't be angry.' (Schapper and Hendery 2014)

Preverbal imperative negator

(17) a. Bunaq
Hani *holon!*
NEG cry
'Don't cry!' (Schapper 2010)

b. Blagar
Ana ***ʔake*** *naiŋ* *bue.*
2SG.SBJ NEG 1SG.OBJ hit
'Don't hit me.' (Steinhauer 2014)

The original postverbal position of negation in Kafoa can still be observed in an optional double negation construction in which postverbal *ke* co-occurs with the preverbal *ka* (18).

Kafoa optional double negation

(18) ***Ka*** *nan* ***ke****.*
NEG thing NEG
'It's nothing.' (Baird 2017)

Elsewhere in the family optional double negation involves an emphatic preverbal negator being used alongside the standard postverbal negator. This is found in Bunaq (19a), in Alor languages such as Kamang (19b), but is not attested in Abui, East Alor, Pantar and the Straits.

Optional double negation: preverbal negator reinforces postverbal negator

(19) a. Bunaq
I ***ozol*** *minaʔ* *sael* *g-utu* ***niʔ****.*
1PL.INCL NEG oil pig 3-COM NEG
'We don't (cook) with pig's oil.' (Schapper 2010)

b. Kamang
Bei *auh* *ga-tak-si* ***na:****.*
NEG deer 3.PAT-see-IPFV NEG
'There was no deer in sight.' (Schapper fieldnotes)

Another example of differences in verb finalness between TAP languages can be observed in ditransitive clauses, albeit with much less variation in the family. Just as PV is consistent in transitive clauses, the same word order of ditransitive clauses is found across the TAP languages, with only a single exception. The common TAP 'give' construction has free

(pro)nominal elements for both R (recipient argument of the giving) and T (gift which is given) in preverbal position, as in:[15]

Common TAP 'give' clause word order

(20) a. Kui

		T		R	R-V
O:l	*omo*	*doi*	*gala*	*na-ma:*	*g-ei.*
child	DEM	money	?	1SG-father	3-give

'That child gave money to my father.' (Windschuttel and Shiohara 2017)

b. Makasae

	T		R	V
Markus	*ira*	*ma*	*ani*	*gini.*
Markus	water	OBL	1SG	give

'Markus gave me water.' (Huber 2008)

Bunaq is the only language which deviates from the common TAP word order, placing the T argument after the 'give' verb (21). This crosslinguistically unusual word order is the result of the Bunaq 'give' construction arising out of a non-verbal predicative possessive construction. That is, the Bunaq the 'give' verb *-ege* is not originally a verb at all, but rather is a reflex of PTAP possessive pronoun root *-ege 'POSS' (Schapper in prep.).

Bunaq 'give' clause word order

(21)

	R	R-V	T
Neto	*Markus*	*g-ege*	*paʔol.*
1SG	Markus	3AN-give	corn

'I gave Markus corn.' (Schapper 2010)

Within the NP, word order differences are again minimal in the broadest terms: N ATTR,[16] N DEM/ART, N NUM and GEN N word orders are consistently found across the whole family. Differences are, however, observable in the details of individual constructions, notably possessives and deictic elements other than demonstratives

In most TAP languages adnominal possession is GEN N, that is, the possessor noun precedes the possessed noun. The possessive relation is variously marked by a free or bound possessive marker, as in:

GEN N

(22) a. Nedebang (Schapper this volume)

Karel	*gei*	*se:*
Karel	3SG.POSS	house

'Karel's house'

b. Kiraman (Schapper fieldnotes)

ol	*ge-kui*
child	3SG.POSS-dog

'the child's dog'

[15] The R argument is co-indexed by a prefix on the verb in all languages except Makasae and Fataluku, while the encoding of T varies widely across the TAP languages. See Klamer and Schapper (2012) for a detailed treatment of the variation in 'give' constructions in the family.

[16] The label "attribute" is used here rather than "adjective" because many TAP languages lack a distinct class of adjectives. Relative clauses are also often absent.

In Timor languages, however, both GEN N and N GEN orders exist. The GEN N is the most common order and the N GEN order is an alternative. Where N GEN occurs, the whole possessive phrase is postposed to the possessed nominal, not simply the possessor nominal. This is illustrated for Bunaq (23). The semantic conditions under which a possessor can be postposed depend on the language.

Bunaq (Schapper fieldnotes)

(23) a. GEN N
mone *gie* *tais*
man 3.POSS cloth
'a man's cloth'

b. N GEN
tais *mone* *gie*
cloth man 3.POSS
'cloth of a man'

This alternative order is an areal feature. Many Austronesian languages of eastern and central Timor and nearby islands (for instance, Kemak, Tetun, Naueti, Leti) similarly have GEN N as the basic possessive word order and N GEN as an alternative word order that is available in particular semantic, pragmatic and phonological contexts.

Deictic elements such as locationals,[17] demonstratives and articles within the NP in the cast majority of TAP languages follow the head noun. For instance:

N Deictic/DEM/ART

(24) a. Adang (Haan 2001)
bel *mɔŋ* *hɛmɔ*
dog LEVEL DEM.LEVEL
'that dog over there'

b. Abui (Schapper fieldnotes)
fu *do* *nu*
areca.nut DEM ART
'that areca nut'

b. Makalero (Huber 2011)
sefar=e:
dog=ART
'the dog'

Sporadically, we find exceptions to the noun-initial NP order. For example, in Bunaq, there is an NP slot for locationals indicating elevation that precedes the head noun (25a), but this can also be postposed to a position between the head and a determiner, if any (25b).

Bunaq (Schapper 2010)

(25) a. ***esen*** *lolo* *ba*
HIGH mountain DEF
'the mountain up there'

[17] Locationals denote a location which acts as the ground for the referent of the NP head as figure. See Schapper (2014d) and Schapper (2010: 95-97) for a discussion of different types of locationals in TAP languages.

b. *lolo* ***esen*** *ba*
mountain HIGH DEF
'the mountain up there'

Many more features of word order variation in TAP languages await closer consideration. Some are discussed in Section 5.4 in relation to the ordering of verbs in serializations.

5.4. Serial verb constructions and complex predications

Serial verb constructions are present in all TAP languages, but the type of serial verb constructions found and the degree to which they are available differ across the family. The most notable division is that, compared to Bunaq and AP languages, Eastern Timor languages have few serial verb constructions, preferring complex predications created by way of incorporation to encode events captured with serialization in other TAP languages.

Motion serialization is found in all subgroups of the TAP family in two structurally uniform forms: (i) motion-action serialization, involving an open choice of motion verb followed by a verb denoting an action following on from the motion (e.g., 'go work', 'walk reach X') and (ii) directional serialization, consisting of an open choice of verb denoting a dynamic event followed by a motion verb indicating the direction in which the event denoted by the preceding verb occurs (e.g., 'throw descend' = 'throw down', 'walk come' = 'arrive'). These types are found in Papuan and Austronesian languages across the whole of Eastern Indonesia and may perhaps be considered (near-)universal constructions in serializing languages. It is when we begin considering other kinds of serialization that the distinctiveness of the Eastern Timor languages becomes apparent.

Causative (26) and resultative (27) serializations are found in Bunaq and AP languages, but not Eastern Timor languages. Both encoding cause-effect relations, the two types of serialization are closely allied and share the same structure across languages: both involve iconic ordering of a transitive verb denoting an action followed by an intransitive verb denoting the state or event resulting from the action. The only difference between the two is that the transitive action verb in a causative serialization is limited to the causative verb, typically 'make', while in a resultative serialization the choice of this verb is open.

Causative serialization

(26) a. Bunaq (Schapper 2010)
Neto buku ***g-ini*** ***topol****.*
1SG book 3AN-CAUS fall
'I made the book fall down.'

b. Kula (Williams 2017a)
Aniŋ-jɐku ***gi-ape*** *ayɐmu.*
NFIN.person-two 3-make FIN.die
'The two of them killed it.' (lit. 'The two of them made it die.')

Resultative serialization

(27) a. Bunaq (Schapper 2010)
N-ol uen oto ***g-eze*** ***heser****.*
1EXCL-child one car 3AN-crush dead
'A car crushed one of my children dead.'

b. Western Pantar (Holton 2014)
A-ule ***pai*** ***hinna*** *kanna gaata.*
4SG-neck slice dead finish already
'They sliced his neck and killed him.' (lit. 'They sliced his neck dead')

Manner serializations are again found only in Bunaq and AP languages. This time, however, iconicity does not have a role in the ordering of serial verbs and we find different orderings of manner verbs in the languages, i.e., both manner verb – action verb and action verb – manner verb. In Bunaq, the different orderings of manner verb and action verbs have slightly different semantics. Compare the serializations in (28). Where the manner verb precedes the action verb, the quickness on the part of the agent in the act of eating is emphasized (28a). Where the manner verb follows the motion verb, emphasis is on the fact that the act of eating happened quickly (28b). Similar contrasts are described for Reta (Willemsen this volume) and Nedebang (Schapper this volume) and probably underlie the variation in orders in manner SVCs observed in TAP languages.

Bunaq manner serialization (Schapper 2010)

(28) a. Manner - Action
Neto ***laun*** *bai* ***a****.*
1SG quick thing eat
'I am quick at eating.'

b. Action - Manner
Neto bai ***a laun****.*
1SG thing eat quick
'I eat quickly.'

In Eastern Timor languages, verb serialization is not used to encode manner and result. Instead, incorporation of the result (29) and manner (30) verb into the preverbal slot is consistently used (see Huber 2017 for a detailed description of the behavior of this slot in Makasae-Makalero). In the examples of resultative incorporation in (29), the verbal complexes are transitive and take P arguments. By contrast, the incorporation of manner verbs in (30) results in intransitive verbal complexes and requires the movement of theme NPs into oblique phrase introduced by the verb 'take'.[18]

Resultative incorporation

(29) a. Makasae (Huber pers. comm.)
Gi bai ***guta-duri****.*
3SG pig kill-shoot:BOUND
'He shot the pig dead.'

b. Makalero (Huber pers. comm.)
Kiloo pai u ***k-umu-suri****.*
3SG pig one 3-dead-shoot:BOUND
'He shot a pig dead.'

[18] Note that a 'take' verb is not used in (29a) because the incorporated verb is transitive, making the verb complex as a whole transitive.

Manner incorporation

(30) a. Makasae (Correia 2011: 223)
Gi *fergu* *ere* *ma* ***neinei-base***.
3SG nail DEM take slow-hit
'He hit the nail slowly.'

b. Makalero (Huber pers. comm.)
Kiloo *seur* *mei=ni* ***nainai-dina***.
3SG meat take=CONJ slow-cook:BOUND
'He cooked the meat slowly.'

Causatives in Eastern Timor languages are also normally constructed by means of incorporation of the caused verb into the preverbal slot, as seen in (31). In Oirata, however, the incorporated causative construction (32a) apparently exists alongside a serialization construction (32b).

Causative incorporation

(31) a. Makalero (Huber 2017)
Kiloo *ni-lopu* *mei=ni* ***hare****-nini.*
3SG REFL-house take=CONJ clean-do:BOUND
'She is cleaning the house.'

b. Fataluku (van Engelenhoven and Huber this volume)
Tapa *e-m* ***kaparu****-pai.*
NEG.IMP ANAPH-take bad-do:BOUND
'Don't destroy it.' (lit. 'Don't bad-make it')

Oirata causatives (Nazarudin 2015)

(32) a. Causative incorporation
ira ***ar****-pai*
water hot-do
'heat water'

b. Causative serialization
pai ***titlene***
do dry
'dry (something)'

Makasae also appears to have a lot of alternate serial verbs and incorporation constructions. For example, comparison can be expressed in two ways: (i) the verb *litaka* 'pass, surpass' introduces the standard of comparison in serialization with a stative property verb such as *rau* 'good' (33a), or; (ii) the verbal prefix *lita-*, obviously related to the verb *litaka*, introduces the standard as the applied object of the stative property verb (33b).

Makasae (Correia 2011: 318)

(33) Serialized exceed comparative
a. *Fi* *welafu* *ehani* ***rau*** *fi* *boba* *laneʔe* *gi-geʔe* ***litaka***.
1PL.INCL life now good 1PL.INCL father PL 3SG-POSS EXCEED
'Our lives nowadays are better than our parents' lives.' (lit. Our lives now are good exceeding those of our parents).

Incorporated/prefixed exceed comparative

b. *Fi* *welafu* *ehani* *fi* *boba* *laneʔe* *gi-geʔe* ***lita-rau***.
1PL.INCL life now 1PL.INCL father PL 3SG-POSS EXCEED-good
'Our lives nowadays are better than our parents' lives.'

In contrast to Makasae and Oirata, Makalero and Fataluku have almost no verb serialization, with the verb 'to take' and directional serialization being the only forms of serialization still found in both languages (see Huber 2011: 203-204, van Engelenhoven 2010). It is notable that these two types of serialization are also found in Bukalabang, while other forms of multi-verb constructions involve the dependent marking suffix *-t* (Steinhauer this volume).

In sum, the reliance on serial verbs for encoding complex events is not absolute in TAP languages. In those languages where serialization is central, areal differences in the orderings of serial verbs without any clear iconic relationship and in the lexical verbs associated with certain serialization types are readily apparent. This section has provided a taster of just a few variations that are found in complex predications in TAP languages, but many more remain to be articulated by future research.

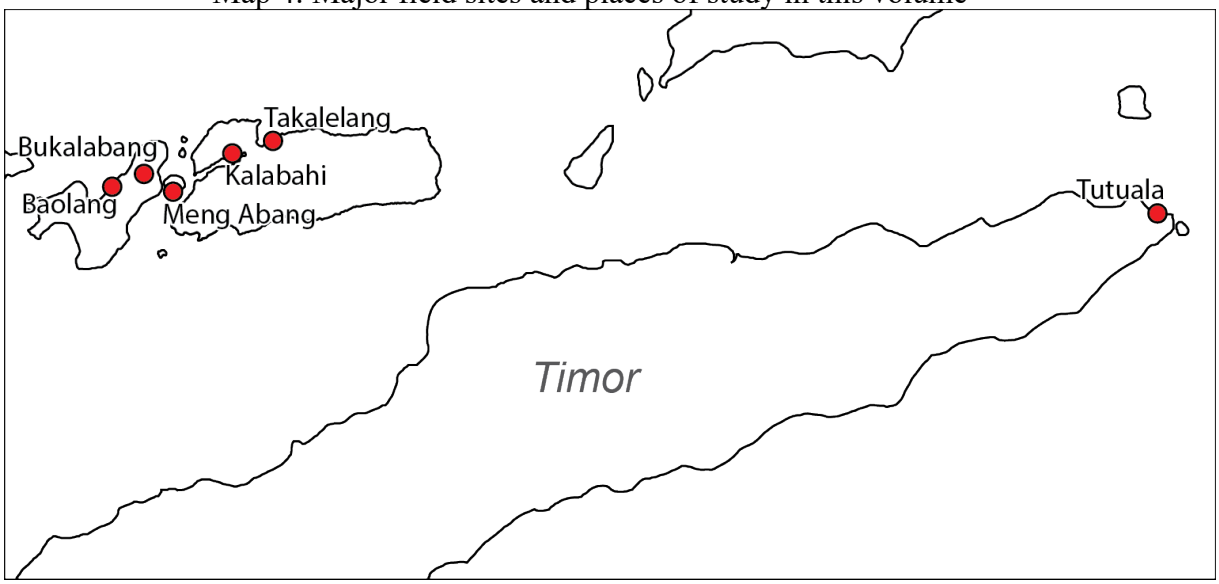
6. This book

The sketch chapters in this volume follow roughly the same format as found in Volume 1 and Volume 2. Each author provides descriptive information on the same essential topics, namely: phonology, clause structure, noun phrases, verbal morphology, in particular person-number prefixes, independent pronouns, serial verb constructions, and aspect marking. Readers with interests in diverse topics such as stress systems, reduplication, demonstratives and deixis, numeral systems, agreement and alignment, as well as verb serialization and more, will discover aspects of the TAP languages captivating and stimulating. TAP linguistics is a relatively new field and its terminology still shows flux (e.g., pronominal prefixes versus agreement prefixes). The largely parallel structures of chapters, however, allow the reader to directly compare phenomena between languages. Detailed tables of contents at the beginning of each chapter will also assist the reader in navigating quickly to treatments of desired topics. IPA has been used in the phonology sections of all sketches, but other sections use the individual orthographies of the different authors. Readers should keep in mind these potential differences.

This volume, Volume 3, presents new descriptions of five languages. Three previously undescribed languages of Pantar and the Straits are covered in the first three sketches: Nedebang (Schapper this volume) located on the west coast of Pantar, Bukalabang (Steinhauer this volume) in the central mountains of the northeast of the island, and Reta (Willemsen this volume) spoken chiefly in small settlements on two islands between Alor and Pantar. The Bukalabang chapter is a "salvage" sketch based on limited fieldwork in the 1970s; it is descriptively more limited than the other sketches, but is valuable for the unique data on Bukalabang it presents. The sketch of Abui (Saad this volume) is intended as a revision of the analysis presented in Kratochvíl (2007), giving primacy to synchronic morpho-syntactic behaviors in the segmentation of lexemes and the defining of categories. The final chapter (van Engelenhoven and Huber this volume) presents a sketch of the dialect of Fataluku spoken in Tutuala on the far eastern tip of Timor Island. Sketches are primarily based on original fieldwork. Map 4 presents the major fieldwork sites and places of study in

this volume cartographically: Baolang (Nedebang), Bukalabang (language of same name), Meng Abang (Reta), Takalelang (Abui) and Tutuala (Fataluku).

Map 4: Major field sites and places of study in this volume



As stated at the beginning of this introduction, the volumes of TAP sketches represent a significant advancement for descriptive Papuan linguistics. They provide an authoritative and comprehensive overview of the grammars of the TAP family. That said, almost all aspects of the TAP languages are still in need of analytic work. Investigations of phonetics, lexico-semantics, discourse and sociolinguistics remain all but non-existent in the TAP languages. These volumes will no doubt aid in the comparison of TAP with other Papuan languages, and contribute to the construction of a better picture of Island Southeast Asian and Melanesian prehistory.

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