

East Nusantara as a linguistic area¹

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In this paper we consider how Eastern Indonesia may be treated as a linguistic area. We propose five defining linguistic features and we discuss their occurrence in some 40 Austronesian (AN) and non-Austronesian (NAN) languages of South Sulawesi, Flores, Sumba, Timor, Alor and Pantar, the Moluccas, Halmahera, the Bird's Head, and the Cenderawasih Bay. We propose that of these five areal features, three originally Papuan features have diffused into the Austronesian languages, while two Austronesian features have diffused into the Papuan languages. These Papuan features are: (1) possessor-possesum order in adnominal possession, (2) overt marking of the distinction alienable vs. inalienable possession, and (3) clause-final negation. While these features are not generally found in Austronesian, we will demonstrate that they occur in many Austronesian languages in East Nusantara and around the Bird's Head, as well as in the Papuan languages of this area. The Austronesian features are: (4) SVO as primary constituent order, and (5) an inclusive/exclusive opposition in the pronominal paradigm. These features are not found in Papuan languages in general, yet they are attested in both the Papuan and the Austronesian languages of East Nusantara, as we will demonstrate. Although the features do not all converge on the same isoglosses, together they define a linguistic area: East Nusantara. This area has Halmahera and the Bird's Head as its core, and radiates outwards to include the Moluccas and Alor/Pantar first, followed by the island Timor.

1. Introduction

Languages can be linguistic isolates, but they are seldom spoken in splendid isolation. Most groups of people have or have had extensive contact with speakers of different languages. Multilingualism is the norm rather than the exception and when groups migrate,

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mingle and split up, it is not surprising to find this reflected in the languages. Languages may change spontaneously or they may die entirely by themselves, but it is now a widely accepted view (Dixon, 1997) that the foremost source of language change and language death is through contact with other languages. In the description of spontaneous changes and inventions, genealogical relations between languages are of crucial importance but in contact-induced change we must also know how speakers of possibly unrelated languages interacted, and where they interacted. An area of interaction may be described as a linguistic area. Evidence of a shared history is used to delineate an area. Cultural commonalities between groups, state formation, or genealogical affiliation between languages are all evidence of historical links between groups, either directly or indirectly, for instance, through a common coloniser or in a chain relationship so that one group is in contact with two other groups that are not in contact with each other. Bio-genetic evidence linking groups may also be used. Groups of bio-genetically related people may be traced, and the area may be defined by migration patterns.²

But the notion of a linguistic area may also be approached from the ‘linguistics’ end as any area that is the focus of linguistic interest. The area may then be defined purely in topographical or geographical terms by stipulating a set of coordinates. Such a characterisation of an area may be relevant for, say, biologists studying linguistic diversity, or for linguists working on languages for which genealogical classification is highly problematic. In addition, an area can be defined on the basis of evidence from the languages themselves. For instance, a single area could be one in which a contact language is shared, in which a particular linguistic feature occurs, or in which the languages are typologically similar, even when they are genealogically unrelated. This is the more familiar approach in linguistics: “The term *linguistic area* refers to a geographical area in which, due to borrowing and language contact, languages of a region come to share certain structural features” (Campbell 1998: 299–300).

Typically, the various possible ways to delineate a linguistic area reinforce each other: linguists’ attention may be drawn to one particular feature, and this leads them to mark off a particular area based on geographical or topographical cues in which to look for other similarities. Generally speaking, any area defined on the basis of linguistic characteristics presupposes a shared history and contact between the speakers and the languages. In this paper we have defined the area East Nusantara, comprising of the easternmost part of insular South East Asia and Western New Guinea (cf. section 2.1 below), primarily on

2. Genetic affiliation of peoples can, of course, by no means be conflated with genealogical affiliation of languages. In particular in the part of the world that we are interested in, it is very much an open question whether speakers of Austronesian or Papuan languages show differences in their genetic make-up. It is quite likely that intermarriage may have blurred the genetic differences between groups, or that language shift and language contact have led to a situation in which Austronesian languages are spoken by Papuan people. A simple example of this situation is of course the post-colonial world, in which Spanish is spoken by Argentineans of various descents, Dutch by African and Indian groups in Surinam, or English in India.

the basis of a number of linguistic features that co-occur in genealogically distinct languages in this area but not generally outside it. We then examined possible foundations for contact induced change in a shared history, where evidence for genealogical relations between languages was weak or absent.

Our hypothesis is that certain Austronesian languages in East Nusantara have absorbed Papuan features as the result of a shift process (Thomason 2001: 143). It is very likely that in various places the original ‘Papuan speaking’ populations were confronted with smaller but more powerful groups of ‘Austronesian speaking’ invaders. The indigenous peoples learned the Austronesian language imperfectly, keeping some of their ‘Papuan routines.’ Through intermarriage the two groups merged over time to become one homogeneous population, speaking the new variety of the Austronesian language including some Papuanisms. Such a scenario may account for the linguistic situation on those islands in the Moluccas where today only Austronesian languages are spoken, such as Buru and Banda.

At the same time, there are also instances where it is likely that Austronesian speakers incorporated Papuan features into their language as a result of contact with non-Austronesian speakers. An example is Alorese, the only indigenous Austronesian language spoken on Alor and Pantar, which has adopted some features from the various mutually related non-Austronesian languages that surround it. Alor and Pantar are examples of regions outside Papua where non-Austronesian speaking populations persevered. This is also the case in Central Timor and North Halmahera where the people speaking non-Austronesian languages came to be surrounded by speakers of Austronesian languages. Some of the non-Austronesian languages adopted Austronesian features, such as the morphological distinction between inclusive and exclusive first person plural, and SVO constituent order.

These contact scenarios have interesting implications for our understanding of this linguistic area, because they may explain certain striking typological features found in the languages of Eastern Indonesia in particular. Himmelmann (2005: 112ff) proposes two major typological groups on the basis of his typological research into the non-Oceanic Austronesian languages: ‘symmetrical voice’ languages and ‘preposed possessor’³ languages. Table 1 contrasts seven features on which these two language types differ. The ‘symmetrical voice’ languages include the Philippine-type languages and western Indonesian-type languages, while the ‘preposed possessor languages’ include the Austronesian languages of Timor, the Moluccas and West Papua as well as the Malay varieties spoken in this area. In other words, the latter group coincides roughly with the languages of the area discussed in the present paper.

3. The preposed-possessor criterion refers to the most common or unmarked order found in possessive constructions. This means that it is not a requirement that all possessive constructions in a preposed possessor language show the order possessor-possessum, and conversely, in non-preposed possessor languages a possessor-possessum order may be allowed as well.

Table 1. Two major typological groups in the non-Oceanic Austronesian languages (from Himmelmann, 2005)

Symmetrical voice languages	Preposed possessor languages
symmetrical voice alternations	no or asymmetrical voice alternations
postposed possessor in adnominal constructions	preposed possessor in adnominal constructions
no morphosyntactic distinction between alienably/inalienably possessed items	morphosyntactic distinction between alienably/inalienably possessed items
person marking only sporadically attested	person marking prefixes or proclitics for S/A arguments
numerals/quantifiers precede head	numerals/quantifiers follow head
negators in pre-predicate position	clause-final negators
V-initial or SVX	V-second or –final

In section 4 below we argue that at least three of the characteristics of the ‘preposed possessor’ language type are, in fact, the result of diffusion from the non-Austronesian languages in the area. The features discussed are the preposed possessor pattern itself (sections 4.1.2 and 4.1.3), the morphosyntactic distinction between alienably/inalienably possessed items (section 4.1.1), and the presence of clause final, or post predicate, negators (section 4.2). Primary constituent order is discussed in 3.1 as a property of East Nusantara languages that has diffused from Austronesian into Papuan, just like the inclusive/exclusive distinction discussed in section 3.2. Of the other features, the absence of symmetrical voice alternations and the presence of person marking on the verb constitute an independent development, while noun phrase internal order is again an unrelated feature.⁴ However, before we turn to a discussion of the linguistic features, we first present a geographical outline of the East Nusantara area, as well as a description of what is known about its common history, followed by a sketch of the linguistic situation in the area (section 2.3).

2. East Nusantara

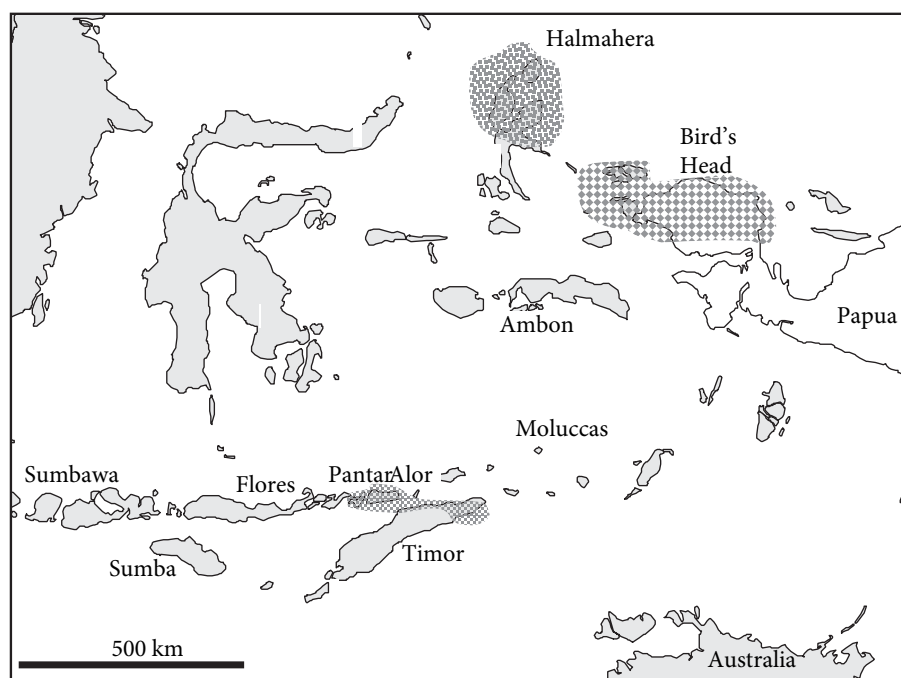
In this section, we first give a geographical outline of the area that we have labelled ‘East Nusantara’ (2.1). This is followed by a description of its common history and the origins of language contact (2.2). In section 2.3, we describe the overall linguistic

4. We have not investigated in detail these other features, but we know that asymmetrical voice alternations generally do not occur in the Papuan languages of the area. However, person marking on the verb and the placement of numerals/quantifiers after the noun are commonly found, so that diffusion from Papuan languages may account for their presence in the Austronesian languages.

situation of East Nusantara, and discuss the general features of the Austronesian and Papuan language families spoken in this area.

2.1 Geographical outline

The area of interest for the purposes of this paper we have labelled 'East Nusantara'. 'Nusantara' is Malay for 'islands in between', i.e., the Indo-Malaysian archipelago. East Nusantara comprises the islands of eastern Indonesia and East Timor: Halmahera, the Moluccas, Flores, Sumba, Sumbawa, Timor and Alor and Pantar. The Bird's Head of Papua belongs, strictly speaking, to mainland New Guinea and not to Nusantara (see **Map 1). However, in this paper it is considered part of the linguistic area East Nusantara.



Map 1. The East Nusantara area. Papuan languages are spoken in Papua and the marked areas, Austronesian languages elsewhere.

At the outset we emphasise that the boundaries of the area are by no means clear-cut. There is clear evidence that the inhabitants of East Nusantara travelled to places outside the area, and there are genealogical relations between languages of this area and languages outside it. Especially parts of Sulawesi and New Guinea, not included at present, may have to be incorporated later. The geographical and historical centre of East Nusantara is the Moluccas, including Halmahera.

2.2 History

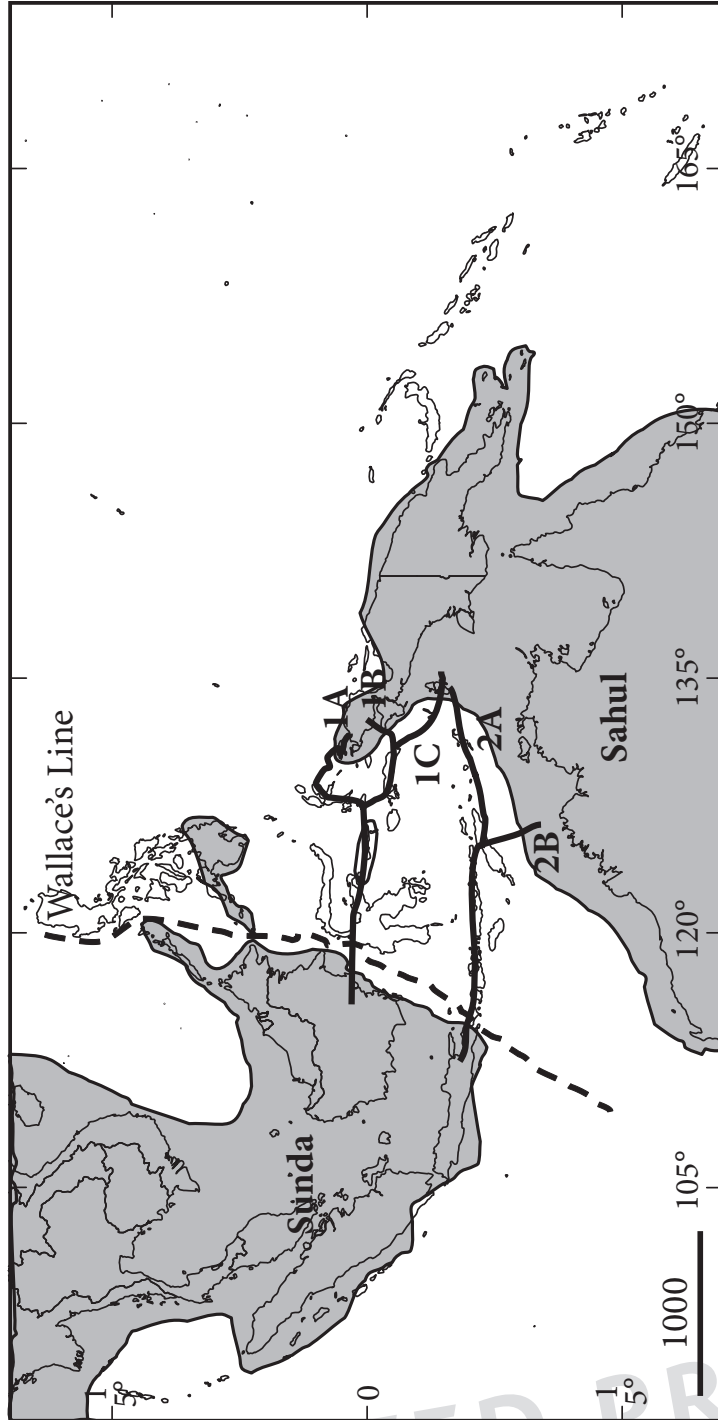
2.2.1 *Early migrations*

During the Pleistocene period, which lasted until approximately 9,000 BC, the landmasses of Australia and New Guinea were joined in a single continent called Sahul (see Map 2). Although the date for initial occupation of Sahul is still unresolved (Veth et al. 1998:162), it is generally agreed that the first human occupation was not later than 40,000 B.P., but possibly going back 50,000 years ago. These early colonists from Southeast Asia must have had the boat (or raft) technology that enabled them to cross the deep-water channels of the so-called Wallace line (and other channels) to reach the Moluccan islands and New Guinea, and eventually to travel as far as the Bismarck Archipelago and the Solomon Islands. The archaeological record contains dates of human settlement at various locations of more than 30,000 ago from some Moluccan islands (i.e., Halmahera and Morotai; Bellwood 1998) and 26,000 years from the Bird's Head Peninsula (Pasveer 2003). It seems reasonable to assume, therefore, that ancestors of present-day speakers of Papuan languages had been present in the East Nusantara region for many millennia before the Austronesians arrived.

Birdsell (1977) hypothesizes that Sahul was populated by at least three groups of different people at times that the sea levels allowed relative easy crossing of the water divisions between Sunda and Sahul. He outlines two main routes from Sunda to Sahul, with different branches near the terminal points indicated on Map 2:

- (1) a northern route from Kalimantan through Sulawesi with three final alternatives:
 - (1a) from Sula via Obi to Halmahera and across to Waigeo (one of the Raja Ampat islands) with a landing on the Bird's Head;
 - (1b) from Sula via Buru and Seram to Misool (southern island of the Raja Ampat) as part of the Sahul shelf;
 - (1c) as (1b), but from Seram in south-eastern direction via smaller islands, such as Kai, with a landing point at the Aru islands (as part of Sahul).
- (2) a southern route from Sunda shelf through Bali and the Lesser Sunda islands to Timor with two final alternatives:
 - (2a) from Timor/Roti via Leti and smaller islands to Tanimbar with a landing on Aru;
 - (2b) from Timor/Roti directly south to the Sahul shelf.

Birdsell suggests three migration waves, approximately 50,000, 20,000 and 15,000 years ago, respectively, which could have followed some or all of the proposed routes, with (1b) and (2b) being the most attractive at 50,000 and 20,000 years ago, due to the lowest calibrated sea levels. The first group of immigrants, Birdsell suggests, would have been relatives of the negrito people of the Andaman islands, the *Semang*, also referred to as *orang asli*, of present inland Malaysia, and the *Agta* of the Philippines. They are characterized as small in stature (pygmy-like) with tightly, spirally curled hair. The two later populations had a different phenotype, and are assumed to have



Map 2. Possible migration routes through Wallacea, after Birdsell, 1977

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absorbed, extirpated or driven away the first settlers, some of which presumably ended up in the northern region of Sahul, present-day New Guinea. To what extent Birdsell's hypothesis can be proven for the present-day Australian continent is a matter of further research. The scenarios that make up his proposal all include the possibility of ancient populations in Wallacea (that includes our East Nusantara area) with connections to Papuan populations in New Guinea.

The little human genetic information that is available for this area shows that there is indeed an old connection between Timor and Halmahera regions and the Papuan mainland New Guinea. For example, Capelli et al. (2001) report a study which included a population sample from the Bird's Head. Its results identified a haplogroup of the Y chromosome that is mainly restricted to Melanesia. Outside Melanesia it has a high frequency in Alor, which Capelli et al. (2001) relate to the presence of Papuan languages in the region of Timor and the smaller islands of Alor and Pantar. The same study (Capelli et al. 2001:435) also reports deep splits between mainland Southeast Asian, insular Southeast Asian, and Melanesian Y chromosomes – with Polynesians closely associated with the Melanesian clusters, suggesting that this split may have happened at 12,000 B.P. or earlier. Because this haplogroup is also found in Australia, it suggests a common ancestry for Australia and Melanesia. Kayser et al. (2003) found four haplogroups on the Y-chromosome that most likely arose in Melanesia, before the Austronesian expansion. They have a distribution of high frequencies in the Highlands of New Guinea, and three of them are also found in Nusa Tenggara and the Moluccas, with higher frequencies in Papuan speaking populations than in Austronesian speaking groups.

In addition to the evidence from archaeology and human genetic studies, there are indications from linguistic studies that the greater New Guinea area was populated by different waves of migration. Nichols (1992; 1997; 1998) used statistically significant distributions of typological features to trace origin and dispersal of the world's languages. Since the traditional comparative method cannot reach further back in time than approximately 6,000 years, or ten millennia at the most (Nichols 2003; Rankin 2003), to determine genealogical ties between languages, relatively stable typological features can be used as 'historical markers' (shared by languages either because of genealogical descent or because of diffusion) to trace some common history.

For Sahul, Nichols (1997: 159–160) distinguishes two main strata of languages that are claimed to have a common geographical origin with similar strata in other parts of the world: The South-East-Interior (SEI) languages exhibit markers of the earliest colonisers of Sahul, the North-West-Coastal (NWC) languages have markers of the later colonisers, as given in Table 2.

Table 2. Typical features of South-East-Interior and North-West-Coastal languages (after Nichols, 1997)

Earlier, SEI features	Later, NWC features
Dependent marking	Head marking
Ergative	Accusative; also stative-active, others

(Continued)

Table 2. Continued

Earlier, SEI features	Later, NWC features
Lower passive/causative ratio	Higher (more passives)
Higher complexity	Lower complexity
No PPs	PPs
Fewer noun classes	More noun classes
No numeral classifiers	Numeral classifiers (minority feature even where relatively common)
More singular/plural neutralization	Less singular/plural neutralization (frequency is high even where less common)
No or few tones	Complex tone systems
One stop series	Two or more stop series

In addition to the ten markers of Table 2, which as a cluster pattern in both New Guinea and Australia as they pattern on a global scale, differentiating the Old World Africa and Eurasia) and the New World (the Americas), Nichols shows that the inclusive-exclusive opposition has a slightly different distribution in Sahul: it is almost universal in Australia, both in NWC and SEI languages, while in New Guinea it is almost entirely confined to coastal and northern languages (1997: 150). Nichols concludes (1997: 160) that the eleven markers differ not only as to whether they polarize more strongly into north/south or coast/interior distributions, but also in the clarity of that division and the degree of parallelism between New Guinea and Australia. No two features have exactly the same distribution. This variety of distributions strongly suggests that there was more than one colonization per stratum.

This picture is somewhat refined in a following publication. Nichols (1998: 152–157) divides the language areas around the Pacific into three *provinces* on the basis of frequencies of a few other historical markers, in addition to some given in Table 2. The Pacific Interior province is dominated by descendants of a very early wave of colonization, whose languages are characterized by ergativity, rarity of head-marking, systematic marking of singular/plural (dual) oppositions on nouns,⁵ minimal consonant systems (often limited to a single manner of articulation) and high frequency of derived intransitivity in the verbal lexicon. The Pacific Hinterland is a slightly expanded coastally oriented area, characterized by head marking, gender or other agreement classes in nouns, reduplicated plurals, extensive prefixation, causativisation as a regular derivational process in the verbal lexicon. This is a more recent stratum which has not penetrated deeply into the interior, present in both New Guinea and Australia. Finally, the Pacific Rim province, characterized mainly by identical SG and PL pronominal stems, *n : m* personal pronoun roots for

5. Note the curious discrepancy with Table 2 after Nichols (1997), which suggests that singular/plural neutralization is predominant in South-East-Interior languages but much less so in the North-West-Coastal languages.

first and second person, numeral classifiers, verb-initial word order, tones, and possessive classification, must have formed after New Guinea and Australia had been separated by rising sea-levels, since it is lacking in Australia but well represented in New Guinea. The latest wave of the Pacific Rim involved the Austronesians, who dispersed from Taiwan around 6,000 years ago, reaching the New Guinea area approximately 4,000 years ago. The west-east migration that Nichols assumes has been challenged by various linguists on the basis of linguistic evidence (Foley 2000 Ross 2005) or on the basis of historical documents (Voorhoeve 1989). In section 2.3.1 on the structure of Papuan languages we will elaborate on this issue.

Thus, it is plausible that these three provinces in the greater New Guinea area correlate to some degree with the multiple migrations proposed by Birdsell. We should emphasize the qualification ‘to some degree’, because we do not really know the time frames of each wave of colonization. Nichols (1998: 162) suggests that “more time probably elapsed between the Interior and Hinterland entries [possibly 50,000 to 20,000 years ago] than between the Pacific Hinterland and Pacific Rim strata”, with the latter possibly starting 16 millennia ago and ending with the entry of the Austronesians.

2.2.2 *The Austronesians*

Some three to four thousand years ago, the first Austronesians arrived through the Philippines in the Moluccan and New Guinea area (Bellwood 1997: 123). There is no evidence that all islands in the archipelago were inhabited when the Austronesians arrived, so that in some places they may be considered first settlers of the islands. However, in other places they will have encountered inhabited islands and various simplistic contact scenarios, violent and peaceful, are possible. In some places, they may have occupied whole islands. Nowadays, we find numerous islands, such as Seram, Buru, Biak, Manam, Manus, etc. that are completely ‘Austronesian’. It is not clear whether size of island or population has any correlation with full or partial occupation by Austronesian speakers. The actual processes of linguistic replacement can no longer be determined. The Austronesians may have simply chased the ancestors of the current Papuan populations to other areas, or they may have conquered them, and through intermarriage and slavery obliterated the original languages while, perhaps, adopting some of their features. In other cases, they came to share certain islands, a situation that we still find today in many places in East Nusantara, for example, on Timor where the south-west is Austronesian and the north-east is Papuan; Halmahera where the south is Austronesian and the north is Papuan; Makian where on the east coast is Austronesian Taba is spoken and on the west coast Papuan Moi (the endonym for West-Makian); and Yapen where Papuan Yawa is spoken in central Yapen, and on either side we find Austronesian languages. It is important to realise at this point that we should not think of the dispersal of the Austronesians as a single event, just as the dispersal of the pre-Austronesians most likely was not. Periods of warfare and expansion were followed by more peaceful times in which trade relations between groups would be set up and allies would be found. In both situations language contact would occur: in times of war speakers of a language would have

been abducted and enslaved, in times of peace intermarriages would have introduced bilingual situations, as would trade.

We still know very little about the first 2–3,000 years of Austronesian presence in eastern Indonesia. Hindu influences found throughout Java, Bali and Lombok never reached this area, but there must have been contact between east and west. Clove trees (*Eugenia caryophyllata*) were indigenous only to the north Moluccan islands of Ternate, Tidore, Jailolo (Halmahera) and Bacan; nutmeg and mace were native to Banda (van Fraassen 1983: 3). Because these trees originated in the Moluccas, cloves and nutmeg serve as ‘tracers’ of contact between the Moluccas and the outside world. As long as 2,000 years ago cloves were transported to China and even to the Middle East. This means that there must have been trade relations far beyond the region even then, but we do not know who actually collected the spices in the Moluccas and there is no evidence for actual presence of, say, Indians, Arabs, Persians or Chinese in this period. It is likely that Austronesians from Java or Sulawesi traded cloves with the inhabitants of the islands and took them further west. These inhabitants would then be the predecessors of the current non-Austronesian speakers on e.g., Ternate, Tidore, Moti and Makian. But it is also possible that at the time some of the islands themselves were still uninhabited and that, in fact, it was the trade in cloves that drove different groups of people, Austronesians and other, to establish settlements in the first place.

From the 12th century onward we can be a little more confident about historical developments. First, trade relations existed between the Moluccas with groups from Java, Sulawesi, possibly China, and northern India. Islam was introduced to Ternate at around 1460 and to Banda around 1480. In Ternatan accounts of this event, no distinction is made between the arrival of the first Malay traders and the formal acceptance of Islam (Jacobs 1971: 104–105; Reid 1984: 24, cited in Dix Grimes 1991: 93). During the last decades of the 15th century both Ternate and Banda were incorporated into the greater Malay-Muslim trading network of cities spread throughout Southeast Asia. By the 16th century, Malay had become a lingua franca over much of the archipelago (Bellwood 1997: 122).

Between the 13th and the 18th century the kingdoms in the North Moluccas increased their economic and political power in the region and Ternatans and Tidorese travelled south as far as Banda, north to Mindanao and east to the Bird’s Head of Papua. In the 17th century, Tidorese often led headhunting and raiding expeditions (*honggi*) to other islands. The traditional routes of these expeditions went southward to the Aru-Kei islands, Tanimbar, the Seram Laut Islands, Seram, Buru, Ambon, as well as northward to the Sulas, Banggai, and north Sulawesi (Andaya 1993: 192). Both Malay and the languages of Ternate and Tidore (at present still very similar) were used for intergroup communication. When the first Europeans arrived in the late 16th century, people from the Bird’s Head lived on Ternate and Tidore as slaves (*popuha* in these languages). In fact, in the entire area slave trade was very common, which must have implied the displacement of Austronesian speakers to non-Austronesian

speaking areas, and vice versa.⁶ About two centuries later, the political and commercial relations between Tidore and the Moluccan islands towards the south, including Seram, Banda and Kei, appear to have remained just as tight. During the last quarter of the 18th century, the famous Tidore ruler Nuku, who rebelled against the Dutch East Indies Company, had to escape from Dutch expeditions directed against him and for several years travelled with a group of followers around the Moluccan archipelago (Andaya 1993: 219–232). The fact that this was possible for a Tidorese ruler suggests that the Moluccan islands were indeed considered an entity, and that this entity was connected with Tidore and Ternate (see Andaya 1993 for argumentation). Since Nuku is also reported to have traded Papuan slaves, sea cucumber, and tortoise-shell for gunpowder and ammunition from Banda, slave trade must still have been common practice at the time as well.

2.2.3 *European Colonisers and modern state formation*

Although the Europeans were mainly drawn to this part of the world for the spices, they soon embarked on missionary activities too. Some colonial powers were more adamant on spreading Christian faith than others, and of course the Portuguese and Spanish would propagate Catholicism while the Dutch advocated Protestantism. Not many Muslims were converted, but among those groups that had ‘animist’ traditions or were otherwise ‘non-religious’, Christianity was more successful. The reason that religions, both Islamic and Christian, are relevant for the determination of a linguistic area, is that along with religion new languages and genres were introduced. For example, Islam introduced Arabic orthography as well as Arabic as a language of religion, while the Dutch Protestant church on Ambon introduced a particular variety of Malay, called ‘High’ or ‘Church’ Malay. This literary Malay variety contrasted with ‘low’ Malay, the regional lingua franca and was introduced by the colonial government through a High Malay Bible translation in 1733 (Dix Grimes 1991: 98–99). This translation became a school text for education, and its language was the foundation for the church language in the Central Moluccas.

The different colonial powers also played an important role in determining how the different parts of the area developed into parts of nation states in the 20th century. After the Indonesian declaration of independence on August 17 1945, Indonesian was introduced as the national language. Through the educational system and the media, Indonesian as well as local Malay varieties have become increasingly dominant, and are steadily replacing the local languages of East Nusantara. Dutch New Guinea was included as Indonesia’s easternmost province Irian Jaya (now Papua) in 1962, and in

6. For example, in the 18th century we find references to old treaties which allowed Tidorese to buy slaves in the New Guinea area, in particular around what is now called Fak-Fak, on the southern shores of the MacCluer Gulf and the Bird’s Head in Papua. The Papuan slaves bought by the Tidorese from people in Fak-Fak had been recruited from the interior of Papua, probably from the Inanwatan area across the Gulf (Valentyn 1724, cited in Van Staden 2000: 8).

1974 the Indonesian army occupied the Portuguese colony of East Timor. Both the Papuans and the East Timorese peoples resisted incorporation into the Indonesian Republic, culminating in the Independent Republic of East Timor in 1999 and a name change and special status for Irian Jaya / Papua in the year 2000. In both areas, however, the influence of the Indonesian political and educational system and the official Indonesian language have also been significant: on East Timor the older (educated) generations still have some command of Portuguese, but the people who had their education between 1974 and 2002, are fluent in Indonesian. In 2002, Portuguese has been re-introduced as the language of education in East Timor, besides Tetun as the national language. In Papua, many of the indigenous languages are being replaced by eastern Indonesian local variants of Malay.

2.3 The languages of East Nusantara

2.3.1 *The Papuan languages*

The Papuan languages are both lexically and morphosyntactically a highly heterogeneous group, and it is often difficult to impossible to determine genealogical ties between the individual languages on the basis of the familiar methods of lexical comparison. (For discussion and references, see for example Foley 1986, 2000) This in itself is not a surprise, since most successful reconstructions in other language families go back only as far as approximately 6,000 to maximally 10,000 years (Nichols 1998: 128), and have benefited from both archaeological and historical linguistic evidence. By contrast, the Papuan languages are the descendants of various waves of colonizers starting at least 30,000 years ago, but probably much earlier, as the linguistic age of New Guinea and Australia together is estimated at 60,000 years (Nichols 1998: 138), roughly correlating with the oldest archaeological evidence. This is far too long ago to apply the comparative method.

Wurm (1982) proposed five major phyla of 'Papuan' languages, as well as six minor ones and a number of isolates. More conservative estimates (e.g., Foley 1986) suggest that there are at least 60 different families (some of which consisting of only a few members or even isolates) for which genealogical ties cannot be established yet. The largest family for which there is general agreement is the Trans New Guinea (TNG) family, with close to 300 languages and some two million speakers. This family comprises about half the Papuan speaking population (Foley 2000: 363), but represents only a tiny fraction of the genealogical variation found in Papua. The label 'Papuan', then, does not refer to a superordinate category to which all the languages belong. Rather, the term is used for a negatively defined group of languages: the non-Austronesian languages spoken in New Guinea and archipelagos to the west and east. Nevertheless, there are a number of characteristics that, although too general to give true 'typological affinity' (Wurm 1982: 36), may point to a 'closer (though in some way secondary) affinity between these languages' (ibid.). This affinity could be genealogical in origin, but it could also be the result of language contact and language mixing, as both

Wurm (1982) and Foley (1986) stress. Foley (2000) is the most recent overview of general 'Papuan' characteristics, of which we list here only few of the more general ones, including those of particular relevance here.⁷

The phonemic inventories of languages in New Guinea tend to be simple. Generally, the number of segmental phonemes is approximately two dozen, although an extreme exception is Yele, or Yéli Dnye, spoken on Rossel island, which has a total of 94 contrasting sounds (Henderson 1995: 11). The great majority of Papuan languages have only a single liquid phoneme. In the Austronesian languages, by contrast, a phonemic distinction between /r/ and /l/ is virtually universal. Tone systems are found in a number of Papuan families, including various sub-families of TNG, Skou, Lakes Plain, and as we will see in a number of Papuan languages of East Nusantara, but often not in all their member languages.

Syntactically, Papuan languages are overwhelmingly head-final, with SOV constituent order. Typical of the TNG family, but not restricted to it, is clause chaining, often with some concomitant switch reference system. Such a system basically encodes whether the following clause in the chain has the 'same' or a 'different' subject, although in many languages it is more aptly described as marking changes in topic or setting.

Morphologically, verbs are the most complex word class in many Papuan languages, such as the major groupings of TNG, Sepik, and Trans-Fly languages. The majority of Papuan languages are head marking. The canonical verbal structure for the TNG languages is a bound pronominal agreement prefix for object, and a suffix for subject, often as portmanteau with TAM distinctions. Verbal prefixing for subject is found in various language groups along the north coast, which generally have few other affixal categories: most of the Papuan languages of the East Nusantara region, the Skou family, Torricelli, Lower Sepik and some East Papuan languages. A number of languages in the north coastal region also exhibit a greater degree of morphological complexity in nouns than is found in most TNG languages. Numeral classifiers are widespread in the Papuan languages of East Nusantara; noun class systems are found in isolates in northern Papua as well as in the North Halmahera family, in members of the Torricelli and Lower Sepik-Ramu families and various East Papuan languages. Roughly coinciding with these groups, although not in the East Nusantara region, are languages with nouns inflected for number in an extremely irregular fashion. Reduced nominal classification of gender in pronouns (often just for 3sg) is a typical Papuan feature. It is found in most non-TNG languages along the north coast, and in some TNG languages along the Indonesian – Papua New Guinea border. An inclusive/exclusive contrast in the first person plural pronouns – a universal feature of Austronesian languages – is found in many Papuan languages neighbouring Austronesian languages, but typically absent in others.

7. For the examination of 'Papuan' characteristics it is important to realize that they do not define some Papuan essence of all these languages. Some features may only typically be found in certain subgroupings.

There are some indications that the Papuan languages of the East Nusantara area reflect traces of at least two original strata. The marking of gender, which represents a reduced system of nominal classification, is a feature that appears to be stable through time only when reinforced by gender systems in neighbouring languages (Nichols 2003: 303). Gender and extensive noun class systems are widespread in the Papuan language families along the northern rim of where Papuan languages are spoken: from North Halmahera all the way to the Solomon Islands in the Pacific, coinciding with Nichols' Pacific Rim or North-West-Coastal populations. The distribution of tone systems in Papuan languages of the Bird's Head may be another marker of this stratum, although tone systems are also rather widely attested in various sub-families of TNG of the interior and not available in most of the West Papuan languages. In other words, at least in New Guinea, tone is not a very distinctive areal or genealogical feature.

The Papuan languages of the Timor-Alor-Pantar and South Bird's Head families are claimed to be members of the large Trans New Guinea family. According to Foley (2000: 395), the languages of this family closely fit Nichols' South-East Interior profile (e.g., ergative, dependent marking, fewer noun classes, no or few tones; see 2.2.1), but they "believe the migration pattern expected by Nichols' summary". Foley suggests, as does Ross (2005), that the homeland of this family is located somewhere in the eastern highlands of New Guinea and that the languages spread (as a result of language shift? or by means of peoples' migrations?) from east to west, all the way to the Timor area. Voorhoeve (1989: 82) likewise addresses this question. He suggests that the migration may have been east-west, on the basis of a tradition of speakers of the non-Austronesian language Fataluku in East Timor, according to which they originally came from the Kei islands in the east (Capell 1972). And in an unpublished grammar sketch of the Iha language, a non-Austronesian language spoken in south west Papua, the Dutch Roman Catholic missionary Coenen mentions that in pre-contact days the Iha speakers went on slave expeditions all the way to the Kei and Tanimbar islands. This suggests at least the existence of east-west maritime contacts between the two ends of the chain Papua-Timor, and a point in between, Kei (Voorhoeve 1989: 82).

Yet, it seems more parsimonious to assume that these patches of Papuan languages are remnants of ancient continuous populations than to assume that New Guinea highlanders migrated back over water to small islands such as Alor and Pantar. The Timor-Alor-Pantar languages and their putative relatives of the South Bird's Head and Bomberai peninsula may well be part of the early South-East-Interior populations, while the northern groups (present-day North Halmahera and most of the Bird's Head and Yawa) appear to belong to the North-West-Coastal (= Pacific Rim/Hinterland) migration(s). In other words, whether the Papuan languages presently spoken in North Halmahera and in Timor-Alor-Pantar are the result of east-west migrations, but still predating the arrival of the Austronesian speaking populations, or whether they are remnants of more widespread Papuan populations throughout the archipelago, it is clear that there is an old connection between Timor and Halmahera regions and the Papuan mainland New Guinea, as the human genetic studies indicate (see section 2.2.1).

Lexically, the Papuan languages of East Nusantara have little in common. The Papuan languages of Timor-Alor-Pantar are related, and in North Halmahera, too, we find a clear set of related languages. But a conservative estimate gives nine distinct families of Papuan languages in East Nusantara, (see also **map 3):

Cenderawasih Bay

- (1) Yawa (isolate) (Jones 1986; Reesink 2005)

The Bird's Head, with three families and three isolates.

- (2) East Bird's Head family (Voorhoeve 1975; Reesink 2002a): Meyah; Sougb
- (3) West Bird's Head family (Voorhoeve 1987): Moi; Tehit; Moraid; Seget
- (4) Hatam and (extinct) Mansim (Reesink 2002a)
- (5) Mpur
- (6) Maybrat
- (7) Abun

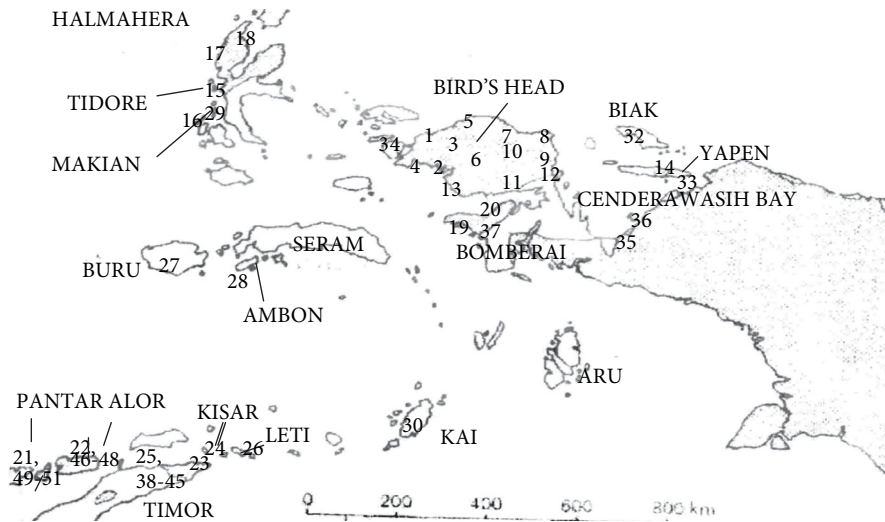
North Moluccas

- (8) The North Halmahera family with four subgroups or languages (Voorhoeve 1987, 1989): dialect chain: Galela, Tobelo, Pagu; Sahu; Tidore-Ternate; West Makian

Southern Bird's Head and Timor area

- (9) The Trans New Guinea family with four subgroups in East Nusantara:
 - South Bird's Head, with Inanwatan (Voorhoeve 1975; Wurm 1982; Berry and Berry 1987; De Vries 2004)
 - West Bomberai: Iha, Baham
 - West Timor-Alor-Pantar: Bunak, Abui, Adang, Klon, Kafoa, Blagar, Nedebang, Teiwa, Lamma
 - East Timor: Oirata, Makasai (Ross 2005)

There are some indications in the lexicon and the bound morphology, in particular the subject cross-referencing on the verb, that suggest a very distant common origin for Yawa, the Northern Bird's Head languages and the North Halmahera family, (see Reesink 1996, 1998, 2005; Ross 2005, to appear, for discussion and references). Evidence for assigning Inanwatan and the Timor-Alor-Pantar languages to the TNG family is extremely slender (Pawley 1998: 683), but Ross (to appear) presents several pronominal forms in Proto-West Bomberai-TAP that reflect forms in Proto Trans New Guinea. Within these two groups, the East Timor family occupies a position midway between the West Bomberai and West Timor-Alor-Pantar languages, sharing different pronominal innovations with each, presenting evidences of an erstwhile dialect chain. Inanwatan is possibly related to the Marind family, but its position in the TNG family is also highly uncertain (De Vries 1998, 2001, 2004).



Papuan languages:

Bird's Head:

- 1 Moi
- 2 Tehit
- 3 Moraid
- 4 Seget
- 5 Abun
- 6 Maybrat
- 7 Mpur
- 8 Mansim
- 9 Hatam
- 10 Meyah
- 11 Moskona
- 12 Sougb
- 13 Inanwatan
- Yapen island**
- 14 Yawa
- Tidore island**
- 15 Tidore
- Makian island**
- 16 West Makian
- North Halmahera**
- 17 Sahu
- 18 Galela
- Bomberai peninsula**
- 19 Iha
- 20 Baham
- Pantar island**
- 21 Blagar
- 49 Nede bang
- 50 Teiwa
- 51 Lamma
- Alor island**
- 22 Kabola/Adang
- 46 Abui
- 47 Klon
- 48 Kafoa
- Timor island**
- 23 Makasai
- 45 Bunak
- Kisar island**
- 24 Oirata

Austronesian languages:

- Timor island**
- 25 Tetun
- 38 Idate
- 39 Isri
- 40 Kemak
- 41 Lakalei
- 42 Lolein
- 43 Mambai
- 44 Tokodede
- Leti island**
- 26 Leti
- Buru**
- 27 Buru
- Ambon**
- 28 Asilulu
- Makian island**
- 29 Taba
- Kai island**
- 30 Keiese
- Aru island**
- 31 West-Tarangan
- Biak**
- 32 Biak
- Yapen island**
- 33 Ambai
- Raja hampat islands**
- 34 Ma'ya
- Bomberai**
- 37 Irarutu
- Cenderawasih coast**
- 35 Waropen
- 36 Mor

Map 3. Location of a selection of languages of East Nusantara

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2.3.2 *The Austronesian languages*

The classification of a language as ‘Austronesian’ is far less problematic than for the Papuan languages and does imply a clear geneological relationship. However, within the various sub-groupings of Austronesian, there is still much ongoing research to determine the precise classification of particular languages. The reasons for these problems are probably rapid migration as well as prolonged and complex contact situations between languages, which have led to diffusion of features and borrowing that may now obscure original geneological relations between languages. The Austronesian languages of East Nusantara all belong to the large group of the Central Eastern Malayo Polynesian (CEMP), which has approximately 600 members and comprises the languages of eastern Indonesia and almost all the Pacific languages (Blust 1993). In East Nusantara we find two major sub-branches of CEMP: the Central Malayo-Polynesian (CMP) languages and the South Halmahera/West New Guinea (SHNWG) languages. The latter constitute again a sub-group of the larger Eastern Malayo-Polynesian (EMP) family, which includes the Oceanic languages (Blust 1993: 274). Figure 1 gives the three major branches and a necessarily non-exhaustive list of member languages discussed in the context of this paper. For an indication of their geographical location, see the Appendix.

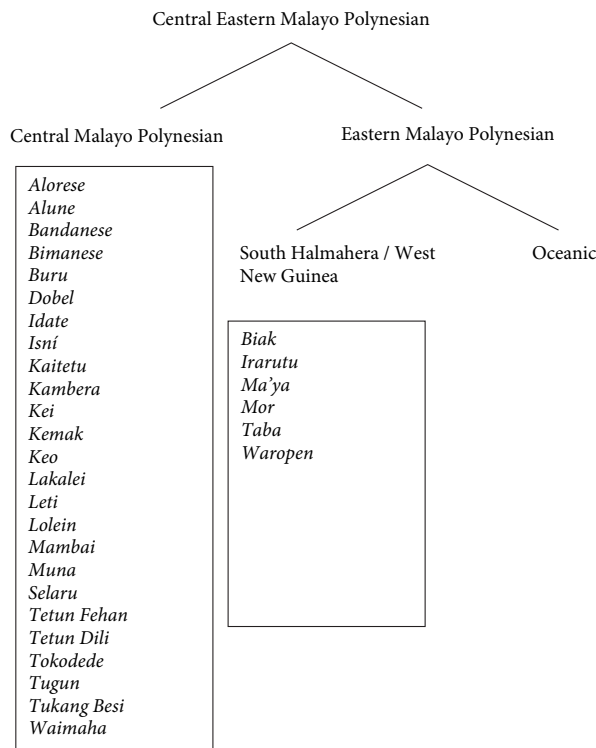


Figure 1. Some Central Eastern Malayo Polynesian languages discussed in this paper, per subgroup, in alphabetical order.

The classification of a language as either CMP or SWHNG is difficult (Blust 1993: 271ff.; Ross 1995; Grimes 2000). A few characteristics of SWHNG are: loss of vowel between nasal and following stop, shift of **e* to **o* in penultimate position, and the replacement of **anak* with **natu* for ‘child’. Diagnostic features of CMP include: glide truncation in diphthongs, postnasal voicing, loss of prepenultimate initial vowels, and the replacement of **qasu* by **masu* for ‘smoke’. On the whole it appears that the SWHNG languages are less conservative in their basic vocabularies than most CMP languages (Blust 1993: 245), which may be due to more extensive contact (substrate?) with Papuan languages.

Some typological characteristics of Austronesian languages in which they contrast with Papuan languages in general are (i) a phonemic distinction between /*r*/ and /*l*/, (ii) a predominance of bisyllabic lexical morphemes (CVCV), (iii) if possessors are affixed, they are suffixed rather than prefixed (Klamer 2002), (iv) common occurrence of reduplication, and (v) a distinction between the 1st plural inclusive and exclusive. Syntactically, the Austronesian languages are typically head-initial, i.e., they are verb initial or verb second, and their negation precedes the predicate.

3. Austronesian features in Papuan languages

In this section we discuss two features that appear to have diffused from Austronesian to Papuan languages. First, we consider constituent order, arguing that the SVO structure found in some Papuan languages in our survey is a contact phenomenon. Next, we discuss the distinction between 1PL exclusive (‘we without you’) and 1PL inclusive (‘we including you’). When this distinction is marked in the pronominal paradigm of a Papuan language in our sample, we assume it is the result of diffusion.

3.1 Primary constituent order

All the Austronesian languages in East Nusantara have SVO constituent order, correlating with the typical head-initial phrase structure found in Austronesian languages (Clark 1990; Tryon 1995; Foley 1998; Klamer 2002). Apart from VO constituent order, such languages typically have prepositions rather than postpositions, clause-initial/preverbal/pre-predicate complementisers and negators, and possessed nominals preceding the possessor. In East Nusantara, the Austronesian languages virtually all have prepositions, with the exception of Alorese which has postpositions, and all, including Alorese, have clause initial complementisers. We return to the issue of word order in the possessive construction in 4.1 and the placement of the negator in 4.2, where the Austronesian languages give a more diverse picture.

By contrast, Papuan languages are generally head-final, with OV constituent order, postpositions, final complementisers, possessor-possessum order, and clause final negators (Foley 1986, 2000). However, in East Nusantara we find both SOV and SVO constituent

order in Papuan languages. In Alor/Pantar, all the Papuan languages have SOV as the basic constituent order (cf. Steinhauer 1995; Nitbani et al. 2001; Kratochvíl, in press, Klamer, to appear, Baird, forthcoming), and this is also the case in Timor (Makasai: Brotherson 2003: 78, 80; Bunak: Friedberg 1978).⁸ In Halmahera, however, as Voorhoeve (1987, 1994) argued, all the Papuan languages originally had SOV order, but a few (Sahu, Ternate-Tidore and West Makian) have now shifted to SVO constituent order (see also Reesink 1998: 633; Foley 2000: 393). There are occasional examples with VO order in descriptions of North Halmaheran languages, as for example in Pagu (Wimbish 1991: 103):

- (1) *Yo-uit-isa ya-siguti ma naok.*
 3PL-descend-land 3PL-unload ART fish
 ‘When they got out, they unloaded the fish.’ Pagu

The South Bird’s Head languages (de Vries 1996, 2001) also have SOV order, as well as isolate Yawa spoken in the Cenderawasih Bay (Jones 1986; 1991). However, most of the Papuan languages spoken in the Bird’s Head have SVO constituent order: the West Bird’s Head languages, Moi (Menick 1996) and Tehit (Flassy and Stokhof 1979), the isolates Abun (Berry and Berry 1999), Maybrat (Dol 1999), Mpur (Odé 2002a), and the small families in the eastern Bird’s Head, Hatam-Mansim (Reesink 1999) and Meyah-Sougb (Gravelle 2002; Reesink 2002a). Some of these Papuan SVO languages show evidence of head-final phrase order in other areas. Tidore, for instance, has clause final complementisers, although it does have prepositions, and all of the SVO languages have post-predicate negation. Outside East Nusantara, SVO word order is rare among Papuan languages, found only in a number of languages along the north coast of New Guinea in areas where contact with Austronesian may be assumed. Although spontaneous shift from SOV to SVO is possible, it is reasonable to assume that in East Nusantara the shift is the result from contact with Austronesian.

3.2 Inclusive/Exclusive opposition

It is a general feature of Austronesian languages, reconstructed even for Proto-Austronesian, to have an opposition inclusive-exclusive for the first person plural. The Austronesian languages of East Nusantara follow this pattern, with the exception of local varieties of Malay, such as the one spoken in the North Moluccas (see Van Minde 1997 for Ambonese Malay) and Alor/Pantar (Baird, Klamer and Kratochvíl 2004). The inclusive/exclusive distinction is not generally found in Papuan languages, spoken in the interior of New Guinea. Yet, many of the Papuan languages in East Nusantara have

8. SVO is attested as minor constituent order pattern in some of the languages of Alor/Pantar (Klon, Teiwa) and Timor (Bunak). What exactly determines this minor order is (yet) unclear; it could be the sign of an ongoing language shift, but may also be determined by pragmatics or discourse considerations. Therefore we consider the major pattern only, and classify these languages as SOV here.

the distinction. In this section, we show that this Austronesian feature has diffused into Papuan languages.

All the Austronesian languages in our sample have the inclusive/exclusive opposition for the first person plural. Although the inclusive/exclusive opposition for first person plural is not generally 'Papuan', in East Nusantara we find that the majority of the Papuan languages do have this opposition. It is found in all the Papuan languages of Alor/Pantar surveyed by Stokhof (1975: 16–17), with the exception of Kolana in East Alor. In Timor, both Bunak (Friedberg 1978: 25) and Makasai (Brotherson 2003: 28) make the distinction as well as all North Halmahera languages (Voorhoeve 1987). In the Bird's Head, the extent to which the distinction is encoded differs. The EBH family, Meyah and Sougb, have a robust distinction in non-singular first person pronominal forms (Reesink 2002a), as do the WBH family (Reesink 1996) and Inanwatan of the South Bird's Head (De Vries 1996). Hatam, however, marks the distinction not in the free pronouns but only in the verbal prefixes, where the inclusive form is identical to 3PL and the exclusive is the same as 3SG POS. Other languages in the Bird's Head, such as the isolates Maybrat, Abun and Mpur, located more centrally in the peninsula, do not have the distinction. Outside East Nusantara, the distinction is found in some Papuan languages mainly along the north coast of New Guinea, but also in a few languages spoken in the interior.

Interestingly, none of the local Malay varieties spoken in Papua, the Moluccas and Alor/Pantar have the distinction. We have no explanation for the loss of this distinction in the contact language when both the indigenous languages and the lexifier of the contact language do. Perhaps it is the result of European and other foreign traders learning the contact language imperfectly, but this is mere speculation. What we can say is that it is highly unlikely that the distinction entered the Papuan language through these Malay varieties, but that it is a much older feature of the Papuan languages of East Nusantara. There is some disagreement still on whether the forms are borrowed from Austronesian languages. Voorhoeve (1994: 661) suggests that they are, but Ross (2005) is not convinced and believes that it is possible that the presence of the distinction predates even the arrival of the Austronesians, because it is also found in Senagi and Border languages, spoken in the interior of New Guinea, for which an Austronesian contact scenario is unlikely. Yet in East Nusantara, it appears that the inclusive/exclusive distinction for the first person plural, a typically Austronesian feature, occurs just in those Papuan languages that have had a long history of contact with surrounding Austronesian languages.

4. Shared Papuan features

In this section we review a number of Papuan features found in both Papuan and Austronesian languages in the area under discussion. Three of these have to do with the categorisation and expression of possessive relations: alienability (4.1.1), the order of the possessor and possessum in adnominal possession (4.1.2), and the morphological marking in the possessive construction (4.1.3). The fourth Papuan feature concerns the

occurrence of final negators (4.1.3). Tone, finally, is found in a number of Austronesian subgroups, but typically not in the CEMP languages. At the same time it is weakly linked to Papuan languages. It is remarkable then, that in East Nusantara we find a small set of Papuan languages with tone, but moreover, that two neighbouring Austronesian languages also exhibit tone. It appears that this feature has also diffused from Papuan to Austronesian (4.3).

4.1 Possessive constructions

4.1.1 *Alienability*

For the Austronesian languages, the inalienability distinction has been claimed to be an innovation of the CEMP subgroup (Blust 1993: 258), which includes all the Austronesian languages of East Nusantara. It does not occur in the western Austronesian languages. This innovation must have occurred prior to the population of Oceania, as Ross (2001: 138) hypothesizes that “it is also probable that the formal distinction between alienable and inalienable possession entered Proto-Oceanic or an immediate precursor through Papuan contact”. In view of the data at hand, this hypothesis appears correct. Virtually all the Papuan languages of East Nusantara do have this distinction, and wherever the distinction occurs in the Austronesian languages of East Nusantara these languages are spoken in areas with Papuan contact. Furthermore, as we demonstrate in sections 4.1.3 and 4.1.2, the structure of the possessive constructions in these languages also warrants a contact scenario with inalienable possession virtually everywhere marked more conservatively than alienable possession.

Where languages mark the difference between alienable and inalienable possession, the latter group typically contains terms designating a ‘close biological or social bond between two people’ (Heine 1997: 11) body parts and other part-whole relations, spatial relations, and objects ‘essential for one’s livelihood or survival’ (ibid.; see also Chappell and McGregor 1996; Nichols 1992). In the languages of East Nusantara it is typically kinship and body part terms that are included in this category of inalienables. The inclusion of spatial relations and some artefacts is reported for only a few. In one exceptional language, Austronesian Taba of the North Moluccas, only part-whole relations are marked differentially, while body parts and kinship terms are treated as ‘alienable’ (Bowden 2001:233–34). For Taba this means that inalienables have obligatory expression of the possessive relationship, as in (2a), while for alienables, the possessor may be omitted (2b):

- | | | | | | | |
|-----|----|------------------------|------------|----|--------------------|------|
| (2) | a. | <i>meja ni</i> | <i>wwe</i> | b. | <i>Wwe mhonas.</i> | |
| | | table 3sg.pos | leg | | leg be.sick | |
| | | ‘the leg of the table’ | | | ‘My leg is sore.’ | Taba |

It has been questioned whether the alienability distinction is similar to ‘gender’ in the sense that it categorises the lexicon, or whether it should be treated rather as a semantic relation between the possessor and the possessum (Heine 1997: 17, cf. also Lynch 1978.) Grimes (1991: 287), in his treatment of Buru possession, argues in favour

of the latter when he discusses the different uses of the word *olo* ‘head’, used inalienably in (3a) and alienably in (3b):

- (3) a. *Da iko tu olo-n.*
 3SG go with head-3SG.GEN
 ‘He went with (accompanied possession) its (pig’s) head.’
 b. *Da iko tu nak olo.*
 3SG go with 3SG.POS head
 ‘He went with (comitative) his (social/political) head.’
- Buru

Most treatments of the distinction in East Nusantara do not report on this issue and for our discussion we will include all descriptions of alienability as one phenomenon.

Typically, the difference between the two categories is marked morphologically. Svorou (1993: 198ff) observes that inalienables tend to be zero marked while alienables do have some morphological marking. This is what we find in only one language in East Nusantara. Papuan Abun (Berry & Berry 1999: 79) expresses alienable possession with a ligature *bi* between possessor and possessum as in (4a), while inalienable possession is expressed by the simple juxtaposition of possessor and possessum as in (4b):

- (4) a. *an bi nji bi nggon bi nu*
 3SG POS brother POS wife POS house
 ‘his brother’s wife’s house’
 b. *Wo Kwai tik Sepenyel gwes.*
 fish Kwai pull Sepenyel leg
 ‘The kwai fish pulled Sepenyel’s leg.’
- Abun

Inanwatan (De Vries 1996: 104–106), however, arguably has the reverse, with inalienable nouns marked by a person prefix on the possessum, as in (5a), and constructions with alienable nouns with a gender marked possessive pronoun that precedes the possessum without any further marking:

- (5) a. *Ná-wir-i me-tutú-rita-bi.*
 1SG-belly-M 3SG-hurt-DUR-M
 ‘I (male) have pain in my belly (lit. my [male] belly hurts).’
 b. *Owó-i nárido-wo méqaro-wo.*
 that.F-SG 1SG.POS-F house-F
 ‘That is my house.’
- Inanwatan

Klon of Alor island (Baird, forthcoming) and Bunak in central Timor (Friedberg 1978: 28–30) have a similar pattern, in which inalienably possessed items are inflected for the person and number of their possessor, as in (6a), whereas the possessor of alienably possessed items is expressed by a separate pronoun, as in (6b):

- (6) a. *g-agar*
 3-mouth
 ‘His/her/their-mouth.’

- b. *gie deu*
 3 house
 'His/her/their house' Bunak

More commonly the distinction is marked through different morphological marking, possibly combined with different word order. In this context, Lichtenberk (1985) distinguishes two types of possessive constructions: 'direct possession' which involves a construction in which the possessor is directly cross-referenced on the possessum and 'indirect possession', which has a ligature or 'possessive classifier' of some kind. In his overview of Oceanic languages, Lichtenberk (1985: 103) found that the distinction between 'direct' and 'indirect' possession may be considered the 'hallmark of the Oceanic subgroup' (1985: 95–96), whereby the direct construction is typically used to express inalienable possession, and the indirect one is used for alienable possession.

The northern Papuan languages of East Nusantara, tend to conform to this pattern also. The inalienables typically take a prefix that derives from a paradigm (nearly) identical to the subject or object prefixes found on verbs indicating person and number of the possessor, while alienable possession is expressed with the possessive prefix attached to a possessive ligature that is often of likely verbal origin. For instance, throughout the eastern Bird's Head we find inalienable possession expressed by a subject prefix on the possessum, as in Mpur (Odé 2002a: 62) and Hatam (Reesink 1999: 49), which both include the words for 'name' in the category of inalienables:

- (7) a. *An-muk* b. *an-tar jan*
 2SG-name 2SG-POS house
 'your name' 'your house' Mpur
- (8) a. *A-nyeng tou i?* b. *a-de singau*
 2SG-name who QUEST 2SG-POS knife
 'What is your name?' 'your knife' Hatam

In Yawa (Cenderawasih Bay) inalienable nouns (9a) have a prefix identical to the undergoer prefixes used on transitive verbs and uncontrolled intransitive verbs, as in (9b) (Jones 1986: 44–49). The expression of alienable possession involves a ligature and a different set of person markers as in (10) (Linda Jones, unpublished texts):⁹

- (9) a. *in-aneme* b. *In-awabea*
 1SG-hand 1SG-yawn
 'my hand' 'I yawn.' Yawa
- (10) *Weti sy-a ana-syora yamo, syopi no naije.*
 so 1SG-POS NOM-speech TOP arrive LOC there
 'So as for my speech, it's finished.' Yawa

9. Sougb has a different set of affixes for both the inalienables, when they are directly prefixed to the noun, and the alienables when they are prefixed to a possessive ligature. (Reesink 2002a: 218).

There are some languages, however, in which, as in Maybrat, additional differences are found, or in which the distinction is marked in a different manner, as for instance in Tidore. In Maybrat (Dol 1999: 149) the inalienables are inflected like verbs with a subject prefix, but in addition, there is a different word order for alienable and inalienable possession. In inalienable possession the order is possessor-possessum (11a), but alienably possessed nouns are followed by a relator *ro* and the possessor, as seen in (11b). In this example, the possessor is itself an inalienably possessed noun *t-atia* ‘my-father’ with a subject prefix:¹⁰

- (11) a. *fnia m-ao* b. *amah ro t-atia*
 woman 3U-foot house pos 1SG-father
 ‘the woman’s foot’ ‘my father’s house’
- Maybrat

In Tidore inalienably possessed nouns, including also words for names, boats and houses, require a possessive prefix or an invariant marker *ma-*, which with alienably possessed nouns can only be used for third person neuter possessors (Van Staden 2000: 125–126; 253). This means that with alienable nouns agreement between free pronoun and possessive pronoun is obligatory, while with inalienable nouns there is the choice between person/number marking and invariant *ma*. In addition, alienable nouns frequently occur without a possessor whereas this is very unusual for inalienable nouns:

- (12) a. *Mina ma-ronga nage?*
 3SG.F INAL-name who
 ‘What’s her name?’
 b. *Ma-fola nde jang bahaya!*
 INAL-house 3NH.here beautiful very
 ‘This house is really beautiful!’
- Tidore

In the Papuan languages of Timor, Alor and Pantar we find that the ‘direct’ versus ‘indirect possession’ opposition works less well. As indicated above, Klon and Bunak are like Inanwatan with a ‘direct’ construction for inalienable possession, but no ligature with alienables. Teiwa, like Tidore, marks alienable and inalienable possession with the same set of forms, but for alienably possessed items the possessor prefix is optional, while for inalienably possessed items the prefix is obligatory. Other languages of this area have different person markers for alienable and inalienable possession. Prefix or bound pronoun is typically used to mark objects, free form for subjects, as in Blagar (Steinhauer 1993: 150–151):

- (13) a. *n-amal* b. *ne quu*
 1SG-voice 1SG tuber
 ‘my voice’ ‘my tuber’
- Blagar

10. U = unmarked, used for both 3SG.F and 3PL

the Moluccas and on Timor, e.g., Selaru (Tanimbar Archipelago), Kei, Buru, (Grimes 1991: 283, 331) and Kemak (East Timor), the same or a similar situation is observed.

Yet frequently different combinations are found, as for instance in Lakalei (Hull 2001a: 123–125) where the inalienables take a possessor suffix as well as a preposed possessor pronoun, and the alienables take a postposed possessive pronoun:

- (16) a. *au amak* b. *arbau auk*
 1SG father:1SG buffalo 1SG
 ‘my father’ ‘my buffalo’ Lakalei

An entirely different way to make the distinction is found in Alorese, the indigenous Austronesian language of Alor/Pantar, which marks the third person singular differently depending on whether the possessive relation is alienable (*ni* or *ning* > *ni*) or inalienable (*no* or *neng* > *no*) (Klamer, field notes 2003):

- (17) a. *Sa no maring ni ahho: “.”*
 CONJ 3SG say 3SG.POS dog
 ‘Then he told his dog: “.”’
 b. *Pada hal, kujo ha gaki no leing terus.*
 in fact crab this bite 3SG.POS leg then.
 ‘In fact, the crab did bite his leg.’ Alorese

Recall also Taba in example (2) that does not mark alienable possession morphologically and has a possessive prefix only for inalienables. However, word order in both constructions is the same: possessor-possessum (Bowden 2001: 233–234).

By contrast, in the Austronesian languages to the east, in particular in the Cenderawasih Bay, the possessor of inalienable nouns is prefixed to the possessum, as for instance in Biak and Ambai, spoken on Yapen island, and also in Waropen. The distinction between ‘direct’ possession for inalienables and ‘indirect’ possession for alienables in these languages often does hold. In Biak (18) (Van Hasselt 1905: 37) and Ambai (19) (Silzer 1983: 89), non-singular possessors of inalienable objects are expressed by prefixes on the possessum while singular possessors give suffixes, as in (18a) and (19a) respectively.¹¹ The corresponding (b) examples give the alienable constructions that in both languages involve possessive ligatures, again prefixed when the possessor is plural. In Biak this ligature is of obvious verbal origin:

- (18) a. *Sno-ri* *sno-m-ri* *ko-sno-sna*
 name-1,3SG name-2SG-SG 1INC-name-PL
 my, his/her name your name our names

11. In Biak, first and third person singular are identical and the second person singular is distinguished only by the addition of the Austronesian cognate form *-m*. Number of the possessum is marked by a suffix.

- b. *Awa ko-be-na na mbra.*
 mango 1INC-possess-3PL.INAN 3PL.INAN ripe
 Our mango's are ripe. Biak
- (19) a. *awe-ku awe-mu ta-nu-mi*
 foot-1SG foot-2SG 1INC-head-PL
 'my foot' 'your foot' 'our heads'
- b. *ne-ku wa ne-mu fian ta-ne romi*
 POS-1SG canoe POS-2SG food 1INC-POS garden
 'my canoe' 'your food' 'our garden' Ambai

Waropen, a third Cenderawasih Bay language, has a 'direct possession' construction with prefixes for inalienables, as in (20a) (Held 1942: 48). The same forms are also used with a possessive morpheme in indirect possession constructions for alienable nouns, as in (20b) (Held 1942: 45):

- (20) a. *ra-worai* b. *ra-i ruma*
 1sg-leg 1SG-POS house
 'my leg' 'my house' Waropen

This arrangement is similar to various languages of the eastern Bird's Head, Hatam, Meyah and Soug (Reesink 1999, 2002a: 217; Gravelle 2004).

Summing up, we find that the Papuan languages all have a distinction between alienable and inalienable possession and that, furthermore, like the Oceanic languages the former tend to be expressed in 'direct' possessive constructions, and the latter – to a somewhat lesser degree – in 'indirect' possessive constructions. For the Austronesian languages of East Nusantara, the easternmost languages conform to this Papuan pattern, while the languages furthest west, such as Keo, Bimanese and Kambara, and north, such as Tukang Besi and Muna, are like the western Austronesian languages lacking this distinction altogether. In between, i.e., the area between Timor and the Bird's Head, we find languages that do distinguish alienable and inalienable possession but show variability in the expression of this distinction. Blust (1978, 1993) and Lichtenberk (1985) have argued that the 'direct' possessive construction for inalienable possession is an innovation in the CEMP group of Austronesian languages. On the basis of the data reviewed in this section, however, we find that rather as an innovation in the CEMP group as a whole, it appears that it is only a subset of the CEMP languages in East Nusantara that adopted the distinction as a result of contact with Papuan languages. For the Austronesian languages on islands west and north-west of Timor/Alor/Pantar there is no evidence of contact with Papuan populations. Thus, the data presented in this section support the hypothesis that the alienable-inalienable distinction (with the concomitant 'indirect' and 'direct' constructions) is an areal feature of East Nusantara and the Bird's Head that diffused from the Papuan languages to the Austronesian ones. It was in this area that the distinction entered the precursor language(s) of Proto-Oceanic (Ross 2001:138), making it a distinctive feature of the Oceanic languages today.

4.1.2 *The order of possessor and possessum*

An old diagnostic characterizing the non-Austronesian languages of the Moluccas and the Bird's Head is the possessor (ligature) possessum order in a possessive noun phrase. Cowan (1953: 10) mentions compounds like 'chin-hair' for 'beard' as evidence for what he calls the 'Papuan genitive construction' in various languages of the Bird's Head, and Van der Veen (1915: 92–95) gives a Galela example (21) as illustrative for the North Halmahera languages:

- (21) *O baba awi tahu*
 ART father 3SG.M.POS house
 'father's house' Galela

This order contrasts with what is found in the western Austronesian languages, as for example in Standard Indonesian *rumah saya* '(lit. house I) my house' where the possessor follows the possessum. This is what is found also in the Austronesian languages of the western part of East Nusantara, such as Kambera, whether the possessor is a noun (22) or a pronoun (23):

- (22) *Uma tau*
 house person
 'someone's house' Kambera
- (23) *Uma-nggu (nyungga)*
 house-1SG.POS I
 'my house' Kambera

In the eastern part of East Nusantara, however, we find the Papuan order also in the Austronesian languages. This so-called 'reversed Genitive' has been a long-standing topic in comparative work of the Moluccan languages. A central question has been whether it should be taken as a diagnostic for genealogical subgrouping of Austronesian languages (e.g., Brandes 1884), or whether it is a clear non-Austronesian feature (e.g., Van der Veen 1915). Grimes (1991: 287, 495–506) suggests that the reversed Genitive order is due to contact with non-Austronesian languages of the area, and Himmelmann (2005), likewise, uses the 'preposed possessor' order as a typological, rather than a genealogical, feature of some Austronesian languages in Eastern Indonesia (recall Table 1). Recently, several authors have argued that the 'reversed Genitive' should be seen in connection with the semantics and expression forms of the possessor. For example, Collins (1983: 27–29) argues that it is important to make a distinction between alienable possession, which typically has Possessor-Possessum order, and inalienable possession with Possessum-Possessor order. Similarly, the order may depend on the expression of the possessor as a pronoun or a full noun phrase, and in some cases on yet other factors.

Before we link the word order in the possessive construction to contact, genealogy, or general typology, let us first examine the languages in some detail. In the Papuan languages of East Nusantara, regardless of basic constituent word order in the clause, the possessor occurs before the possessed noun, at least whenever the possessor

is expressed by a full noun (phrase) and the possessive relation is ‘inalienable’. For example, SOV languages like Teiwa (24) on Pantar (Klamer, forthcoming), and Adang on Alor (Haan 2001: 163; Stokhof 1975: 20), Galela in the North Moluccas (cf. example (21) above), and Inanwatan in the Southern Bird’s Head (De Vries 2004: 64), and Yawa in the Cenderawasih Bay (Jones 1986: 47) all have this order:

- (24) *Iman ga-yivar ga`an un tei luxun goxu’ pati.*
 3PL 3-dog that.one ASP tree high/lift bark PROG
 ‘Their dog is barking up a tree.’ Teiwa
- (25) *Jadi suda órewo agá aiba-séro iko-we-ge-i.*
 so allright woman POS voice-word follow-3SU-do-PAST.M
 ‘So, alright, he followed the instructions of the woman.’ Inanwatan
- (26) *Natanyer apa-jaya Ø-awabe-to.*
 Nathaniel 3SG.M.POS-father 3SG.M-YAWN-PERF
 ‘Nathaniel’s father is yawning.’ Yawa

But also the Papuan SVO languages, such as Tidore in the North Moluccas (Van Staden 2000: 250), and most languages of the Bird’s Head, illustrated here by Abun (Berry & Berry 1999: 82), have possessor-possessum order:

- (27) *Cole ma-giba yo-foluji.*
 bra 3NH.POS-strap 3NH-come.loose
 ‘The bra strap has come loose (by itself).’ Tidore
- (28) *an bi nji bi nggon bi nu*
 3SG POS brother POS wife POS house
 ‘his brother’s wife’s house’¹² Abun

In Maybrat, in the centre of the Bird’s Head, only the inalienable possessive constructions conform to the possessor-possessum order. In the case of alienable possession, the possessor is in post-nominal position linked to the possessum by an invariant relator *ro*, which is also used to introduce relative clauses (Dol 1999: 149):

- (29) a. *fnia m-ao* b. *amah ro t-atia*
 woman 3U-foot house POS 1SG-father
 ‘the woman’s foot’ ‘my father’s house’ Maybrat

This order need not have the same origin in all Papuan languages. First of all, it appears that there is a universal preference for the ‘possessor-possessum’ order, despite further typological characteristics of languages. It is more common to find the possessor preceding the possessum in SOV languages, than it is to find the possessum before the possessor in SVO languages. This preference has been

12. Abun *bi* is most likely of Biak origin: *ve* ‘possess’ has infix *y* for 3SG: *vye*; compare Abun loan verbalizer *bi* ~ and Biak verbalizer *ve*.

related to two principles governing word order in many languages: animate before inanimate and definite before indefinite (Heine 1997: 135, cf. also Clark 1978). The tendency for possessor-possessum order in the Papuan languages may simply be in line with this. However, some languages, like Tidore, show indications of erstwhile SOV order and the placement of the possessor is thus in line with other placement patterns that accompany this dominant constituent order (cf. section 3.1 above). Furthermore, in languages like Hatam it may be the verbal origin of the possessive ligature that has led to the possessor-possessum order. In this language, the ligature is cross-referenced with a 'subject' marker co-referential with the possessor. The word order in the possessive construction then mirrors the order of subject, verb and object in the clause.

As indicated above, if the possessor is pronominal or if the possessed is inalienable, there may be deviations from this possessor-possessum order. Hatam and Meyah, for example, allow the alternative order possessum-possessor if the possessum is alienable, as in (30), as an alternative to the far more frequent pre-nominal position if the possessum is alienable, in (31) (Reesink 1998: 623, 1999: 81; Gravelle 2004: 278):

- (30) *Munggwom ji-de=nya i-pim mindei i?*
 child 2PL-POS=PL 3PL-cry what Q
 'Why are your children crying?'
 (31) *Ji-de munggwom=nya i-pim mindei i?*
 2PL-POS child=PL 3PL-cry what Q
 'Why are your children crying?' Hatam
 (32) *Eita meiteb (ongga) efen.*
 give machete (REL) 3SG.POS
 'He/she gave (him) the machete (that) he/she owned' Meyah

The motivation for the word order differences in Hatam and Meyah is still unclear, possibly related to a relative clause construction, as argued by Gravelle (2004: 278), but in some other languages emphasis may play a role. For instance, Tehit and Moi (Menick, n.d., Reesink 1998: 622–624) allow for a pronominal possessor after the possessum, as in the following example, for reasons of emphasis:

- (33) *Na-saalek n-e-kuwok n-a ø-o-w se!*
 2SG-carry 2SG-POS-stringbag 2SG-POS NEAR.^aDDR-SG-3SGM/NH PERF
 'Carry your (own) stringbag!' Moi

In the Austronesian languages of East Nusantara possessor-possessum order is also frequently attested, although there are also languages with possessum-possessor as the only option. Languages of the latter type include the Austronesian languages in the western part of East Nusantara, such as Kambera (recall examples (22) and (23) above), but also, rather exceptionally, Biak spoken east of the Bird's Head. Possessive phrases clearly have a verbal origin in this language, consisting of a verb with a prefix

cross-referencing the possessor and a suffix marking number and gender of the possessum (Van Hasselt 1905: 37).¹³

- (34) *Awa ko-be-na na mbra.*
 mango 1INC-possess-3PL.INAN 3PL.INAN ripe
 ‘Our mangos are ripe.’ Biak

When the possessor is a noun phrase, either possessor (35) or possessum (36) may come first, although the possessive pronoun (or cross-referenced ligature) is always in a phrase-final position (Steinhauer 2005; Van den Heuvel, p.c.):

- (35) *Ya-mam snon=ya rum v(y)e=di.*
 1SG-see man-3SG.DEF house <3SG>-possess=3SG.DEF
 ‘I see the house of the man.’
- (36) *Ya-mam rum snon=ya v(y)e=di.*
 1SG-see house man-3SG.DEF <3SG>-possess=3SG.DEF
 ‘I see the house of the man.’ Biak

Other languages that have alternative orders are Tetun Fehan (Van Klinken 1999: 142–143) and Tetun Dili (Williams-van Klinken et al. 2002: 33–35) on Timor, the latter only for alienables. However, the reversed genitive represents over 80% of the textual examples in the corpus of Tetun Fehan, and pronominal possessors also virtually always precede the possessum in everyday Tetun Dili:

- (37) *tumukun nia=kan¹⁴ fé=n*
 village.head 3SG=POS wife=GEN
 ‘village head’s wife’ Tetun Fehan
- (38) *asu ó=k*
 dog 2SG-POS
 ‘your dog’ Tetun Fehan
- (39) a. *João nia liman *liman João nian*
 John POS hand hand John POS
 ‘John’s hand’
- b. *João nia uma uma João nian*
 John POS house house John POS
 ‘John’s house’ ‘John’s house’ Tetun Dili

In Tetun Fehan, the structure of the two possessive constructions is rather different. In the case of a preposed possessor, the clitic =*kan* is virtually obligatory but it does not occur

13. When treated as verbal constructions, they display the also unusual SOV or even OVS and OSV constituent orders in this otherwise SVO language. The word order in the possessive construction is therefore remarkable in more than one way.

14. The possessive clitic =*kan* is optional but strongly preferred for pre-nominal possessors

with the postposed possessor, which takes requires =*k*, as in (38). Furthermore, inalienably possessed items (kinship terms, part-whole relations, and terms such as ‘house’) take a genitive clitic =*n* on the possessum, when the possessor precedes the possessum, as in (37), but not when it follows. In Tetun Dili, the postposed possessor usually expresses a more general relationship of association between the possessor and possessum.

The reversed genitive is found as the only option in Alorese and Alor Malay, the Austronesian languages of Pantar and Alor, as well as in the languages of central Timor, such as Idate and Mambai (Klamer, field notes 2003). In the Moluccas, Leti (Van Engelenhoven 1995: 170) has this order (43) as well as Buru (Grimes 1991: 282), Dobel (Hughes 2000: 146), Tugun on Wetar (Hinton 2000: 116), Bandanese (Collins & Kaartinen (1998: 536)), Kei (Geurtjens 1921: 19) and Taba (Bowden 2001: 230). Further to the east, it is found in Wandamen (Cowan 1955: 47), Ambai (Silzer 1983: 124), and Waropen (Held 1942: 44–49). As such it is clearly the dominant pattern in the Austronesian languages of East Nusantara:

- (40) *au ama*
1SG father
‘my father’ Mambai
- (41) *Ni ning laffo juang.*
3SG POS village far
‘His village is far (from here).’ Alorese
- (42) *ni mahina-n*
3SG wife-POS
‘his wife.’ Idate
- (43) *puat-e lavar-ne*
woman-DEI sarong-POS
‘the woman’s sarong’ Leti

Both typologically and genealogically the possessor-possessum order in the Austronesian languages of East Nusantara is unexpected since SVO languages tend to have the order possessum-possessor, as indeed the western Austronesian languages do. As with the Papuan languages, a general preference for this order typologically or the verbal nature of the ligature are possible explanations. For the latter, consider Buru (Grimes 1991) in which the possessive construction is ambiguous between a predicative and attributive reading. Grimes (1991: 287) gives the following schema with just one translation, but an alternative reading is ‘my house’:

SUBJECT _{Actor}	VERB	OBJECT _{Undergoer}
Possessor	inflected possessive word	Possessed
<i>Yako</i> 1SG ‘I have/own a house’	<i>Nango</i> 1SG.POS	<i>huma saa</i> house one

Yet, if we consider the geographical distribution of the languages with this unexpected order, we find that these languages are all spoken in close proximity to Papuan languages, or in places where historically Papuan influences may have been strong: Timor-Alor-Pantar in the west, North Halmahera in the north, and the Bird's Head in the east. Kambara, as a language that has the 'western Austronesian' possessum-possessor order, significantly does not border a Papuan language. The only exception is Biak, which prefers the 'western Austronesian' order, despite its geographical location and intense Papuan contact evidenced also in other parts of the grammar. The languages with this order also all have the distinction between alienable and inalienable possession, which may also be traced to Papuan contact. This distribution confirms Grimes' (1991: 292) hypothesis that the "Austronesian languages [calqued] on the order of the genitive construction of languages in the area prior to the arrival of the Austronesians." The evidence for a 'contact' rather than 'innovation' account is strengthened further if we also take into consideration the placement of possessive affixes and ligatures. It may be assumed that these are more resilient to change than the possessor noun (phrase) and may reveal 'older' stages of the languages.

4.1.3 Possessive ligatures and affixes

So far we have seen that both the alienability distinction and the order of the possessor and possessum in the possessive phrase are striking features in the Austronesian languages of East Nusantara that are not easily accounted for by genealogy or typology. In this section we examine the position of possessive ligatures and affixes in particular in the Austronesian languages to demonstrate that these reveal remnants of an erstwhile possessum-possessor order, strengthening our claim that the current structure of the possessive constructions in the Austronesian languages of East Nusantara is due to contact with neighbouring Papuan languages.

Not all languages in East Nusantara cross-reference the possessor on the possessum, but for the languages that do we may find prefixes or suffixes. In addition, languages may (and indeed do) mark alienable and inalienable possession differently. An important difference between the Austronesian and the Papuan languages of East Nusantara is the position of the possessive affix or ligature. In the Papuan languages, this affix or ligature invariably occurs before the possessum, but in the Austronesian languages both orders are frequent. Recall examples (40) to (43) above, in which Leti and Idate have suffixes and Alorese has a ligature preceding the possessum. A complication is found some of the Moluccan Austronesian languages, such as Buru (Grimes 1991: 279), Kei (Geurtjens 1921: 19) and Taba (Bowden 2001: 230), which have a ligature between the possessor and the possessum, like many of the Papuan languages, but with a suffix marking the possessor rather than a prefix:

- (44) a. *yak ni-k mapin* b. *ni-m capeyo*
 1SG POS-1SG wife POS-2SG hat
 'my wife' 'your hat' Taba

Frequently, the position of the affix or ligature is different for alienables and inalienables. Bandanese (Collins and Kaartinen 1998: 536), for instance, has a single affix that suffixes to inalienably possessed nouns and prefixes to alienably possessed nouns:

- (45) a. *ak mata-N(u)* b. *ak Nu-rumo*
 1SG eye-1SG.POS 1SG 1SG.POS-house
 ‘my eye’ ‘my house’ Bandanese

East of the Bird’s Head, Ambai (Silzer 1983: 124) has a similar phenomenon with ligature, *ne*, but now the possessor is suffixed when it is singular (46) and prefixed when it is plural (47):

- (46) a. *ne-ku wa* b. *ne-mu fian*
 POS-1SG canoe POS-2SG food
 ‘my canoe’ ‘your food’ Ambai
- (47) a. *ta-ne romi* b. *e-ne munu*
 1INC-POS garden 3PL-POS house
 ‘our garden’ ‘their house’ Ambai

The morphological markers suggest that many of the Austronesian languages of East Nusantara have retained the suffixing nature of the possessor marking on the possessum or on the ligature while adjusting the word order in the construction to that of surrounding Papuan languages. Some of the Austronesian languages of the Cenderawasih Bay show a partial shift to prefixes, as for instance Biak and Ambai, which have suffixes for singular and prefixes for plural possessors; in others, like Waropen, the shift is complete. Because all the Oceanic languages have retained a cognate set of suffixes,¹⁵ we know that the language(s) ancestral to proto-Oceanic must have left the Cenderawasih Bay (Lynch, Ross & Crowley 2002: 57) before the shift in Waropen, Ambai and Biak took place. Considering both the placement of the possessor noun (phrase) and the ligature or affix, we can set up a scale from ‘typically’ (western) Austronesian, with Kambara as a clear representative, to ‘typically’ Papuan as in Alorese or in Bandanese alienable constructions. Languages that have preposed ligatures with person marking suffixes like Taba are also toward the Papuan end of the scale, while languages that have postposed ligatures or suffixes on the possessum are toward the Austronesian end.

Summing up, we find that although it is not striking to find the possessor-possessum order in SVO languages it is remarkable is that this order is found i. often in combination with postposed ligatures or possessor suffixes on the possessum noun; ii. in alienable constructions rather than inalienable constructions; and iii. precisely in those Austronesian

15. Lichtenberk (1985: 112–113) notes that “there is overwhelming evidence that POC had possessive suffixes and not prefixes.” Although he reports a “veritable embarrassment of riches” in Oceanic possessive suffixes, the reconstructed POC set is quite like that of Proto-Austronesian, with reflexes easily identified in Kaitetu of the Moluccas and various Oceanic languages of New Britain, the homeland of POC.

languages that have been in contact with Papuan languages. Significantly, it is not found in the languages that lack the alienable/inalienable distinction, which is another feature that may be traced to Papuan contact. Since the adaptations to the Papuan structure are clearest in areas with the strongest Papuan influences, and absent in parts where Papuan contact was limited or absent, we see the emergence of the typical East Nusantara possessive construction as an areal feature that is the result of contact rather than as a spontaneous innovation in a reconstructed ancestor of a genealogically defined group.

4.2 Post-predicate negation

As mentioned in section 3.1, verb final or clause final negation is typologically associated with SOV constituent order. It is therefore an unexpected feature in Austronesian languages, which are predominantly SVO, while in Papuan languages, which are typically, though not exclusively, SOV it is expected to occur widely. Indeed, in the majority of Papuan languages negation is either expressed by a pre-verbal adverb or particle, or through some morphological modification of the final verb (Reesink 1998, 2002b). Clause-final negation is found in Papuan families belonging to the TNGP, such as the Dani languages and, tentatively, the South Bird's Head languages such as Inanwatan, and the Papuan languages of the Timor area. It is also found further along the north coast of New Guinea (Sentani), in some of the Torricelli Phylum languages, both those with SVO and those with SOV, as well as in East Papuan languages. In Austronesian languages, where we almost universally find pre-verbal/pre-predicate or initial negators, final negation is not found, with except in East Nusantara and in some Oceanic languages.

In East Nusantara, the typical TNG negation that involves a suffix on the verb is found only in Inanwatan. As the example shows, negative verb forms may optionally be preceded by an additional negative adverb *náwo* (De Vries 1996: 111):

- (48) *(Náwo) né-se-sa-aigo*
 (not) 1SG.S-walk-FUT-NEG
 'I am not going to walk.' Inanwatan

In most other Papuan languages, such as Yawa (Jones 1991: 102), of Yapen island in the Cenderawasih Bay, the negator appears to be a free form, always in sentence-final position:

- (49) *Yancea beare ruwijirati bauname joen?*
 Yance be why marry NEG
 'Why hasn't Yance married yet?' Yawa

This goes for both the SVO languages of the Bird's Head, such as Maybrat (50) (Dol 1999: 127) and Hatam, and for the SOV languages of Timor such as Bunak (51) (Friedberg 1978: 36, 57), Teiwa and Lamma (52) of Pantar (Nitbani et al. 2001: 90, cf. 93, 134, 135):

- (50) *Ana m-amo Kumurkek fe.*
 they 3PL-go Kumurkek NEG
 'They do not go to Kumurkek.' Maybrat

- (51) *Halali a niq, halali a loi niq.*
 3DU eat NEG 3DU eat good NEG
 ‘They two don’t eat, they two can’t eat.’ Bunak
- (52) *Nang sakka kauwa.*
 I strong NEG
 ‘I am not strong.’ Lamma

There is one language family that shows some deviation from this pattern: the North Halmahera family. Although these languages are generally described as having clause final negation (Van der Veen 1915: 98), the data available for some of these languages suggest that the negative element is primarily attached to the verb, with some material possibly following, as in Pagu (Wimbish 1991: 57):

- (53) *Muna ma-oko-wa-si ma gasi-ko.*
 3SG.F 3SG.F-seawards-NEG-still ART sea-seawards
 ‘She hasn’t yet gone seawards to the beach.’ Pagu

It appears that this language initially had the same structure as Inanwatan with a verbal suffix that in a verb final language will always occur in clause final position. When a language becomes less rigidly verb final, there are two possibilities: the suffix retains its position on the verb, as appears to be the case in Pagu, or the suffix retains its position in the clause detaching itself from the verb. Indeed, in related Tidore, which has completely shifted to SVO, the negator is a separate morpheme that occurs rigidly clause-final (Van Staden 2000: 232).

Like Inanwatan, this last language also has double negation. The preverbal element *kama* places focus on the negated verb and is often used to disambiguate the scope of negation in complex clauses (Van Staden 2000: 235–240):

- (54) *Fangato kama hoda mina mo-oro nyao ua.*
 1SG.M NEG see 3SG.F 3SG.F.A-take fish NEG
 ‘I did not see her steal the fish.’
- (55) *Fangato hoda mina kama mo-oro nyao ua.*
 1SG.M see 3SG.F NEG 3SG.F.A-take fish NEG
 ‘I saw she did not steal the fish.’ Tidore

Such optional preverbal adverbs are also found in Abun of the Bird’s Head (Berry and Berry 1999: 135; Reesink 2002b: 255) and Adang of Timor. The final negator may occur alone, as in (56a), or with a preverbal negator that may be omitted, as in (56b). Since the postverbal negator is always obligatory, we assume that this is the basic one (Haan 2001: 75, 76):

- (56) a. *Ince (e) sam don nene.*
 Ince NEG go shopping NEG
 ‘Ince did not go shopping.’
- b. **Ince e sam don*
 Ince NEG go shopping Adang

Most of the Austronesian languages of East Nusantara have the typical Austronesian pre-verbal/pre-predicate/clause-initial position for their negators. For example on Timor, Tetun Fehan (Van Klinken 1999: 228), Tetun Dili (Williams-van Klinken et al. 2002: 86), Mambai (Hull 2001b: 10), Tokodede, Kemak, and Lakalei (Hull 2001a: 171–173) all have preverbal negators, as do Leti (Van Engelenhoven 1995: 213) in the southwest Moluccas and Dobel (Hughes 2000: 162) in the southeast Moluccas. Further west, Kambera on Sumba (Klamer 1998: 77, 107–108, 142), Bimanese on Bima (Owens 2000: 127–137) and Keo on Flores (Baird 2001: 339) all have similar negation strategies:

- (57) *Ami la h' osan.*
 1PL.EXC NEG have money
 'We don't have money.' Tetun Fehan
- (58) *Muani ta=na-natu surt-e.*
 man:INDEX NEG=3SG-send:INDEX letter-INDEX
 'The man did not send the letter.' Leti
- (59) *Nda ku-hili beli-ma-nya-pa*
 NEG 1SG.N-again return-EMPH-3SG.D-IMPF
 'I am not going back to him again.' Kambera

However, East Nusantara also hosts a significant number of Austronesian languages with clause-final negators. Geographically, most of these languages are spoken in the area close to the Bird's Head or otherwise in close proximity to Papuan languages. For example, the Austronesian languages on Timor do not have final negation, but Alorese, the only indigenous Austronesian language in the Alor/Pantar area, does have clause final negation (Klamer, field notes 2003):

- (60) *Fe guo guo, matto oro uttang unung tapi fe dapa lahhe.*
 they call call frog at forest inside but they find NEG
 'They called and called the frog in the woods but they didn't find it.' Alorese

Yet, in the Cenderawasih Bay and in the 'neck' of the Bird's Head, as well as in the Bomberai Peninsula, south of the Bird's Head, most Austronesian languages have final negation. Examples are Biak (see Reesink 2002b: 249), Mor (61) (Laycock 1978: 300), Ambai (62) (Silzer 1983: 215), Waropen, Wandamen-Windesi (Cowan 1955: 58) and Irarutu (Matsumura and Matsumura 1990: 9):

- (61) *Igwa-n rueta va.*
 1SG-eat something NEG
 'I do not eat something.' Mor
- (62) *Y-okon dian we Yani kaka.*
 1SG-give fish to Yani NEG
 'I didn't give any fish to Yani.' Ambai

In the Moluccas the picture is mixed with many languages with preverbal negation, but on the island Makian, west of Halmahera, Taba has clause final negation (Bowden

2001: 335), as do the Central Moluccan languages Buru (Grimes 1991: 232) and Alune (Florey 2001: 100), and south Moluccan Kei (Geurtjens 1921):

- (63) *Nik calana kuda-k asfal te.*
 1SG.POS trousers be.black-APPL bitumen NEG
 ‘My trousers are not blackened with bitumen.’ Taba
- (64) *A=a-somi be dana mo.*
 2SG=CAU-embarrass COMP take NEG
 ‘Don’t be embarrassed to take it.’ Alune

In the majority of cases, the forms of these negators appear to come from two different origins: from **ba ~βa ~(u)wa*, found in both Austronesian and Papuan languages and from proto-Austronesian (PAN) **ta*. Which negator a language has is not necessarily predictable on the basis of its genealogy. For instance Waropen and its dialect Waropen-Napan have forms that can be traced to different origins: Waropen has *afa ...womo*, possibly cognate with the former (compare also Buru *moo* and Alune *mo* below), and Waropen Napan *ambe...te*, clearly cognate with the latter (Held 1942: 80–81):¹⁶

- (65) *Yenggea ambe i-tononako te.*
 my.leg NEG it.hurt NEG
 ‘My leg doesn’t hurt.’ Waropen-Napan

Similarly, in the south Moluccas, one Kei dialect has *dem* ‘not’ while another has *waeid* (Geurtjens 1921: 38). The former is again a reflex of PAN **ta*; the latter is a cognate form of *ba ~βa ~(u)wa*:

- (66) *Uba nangan waeid*
 1SG.go forest NEG
 ‘I don’t go to the forest.’ Kei

In other words, this typically Papuan feature occurs in a number of Austronesian languages in New Guinea, the Moluccas, including Halmahera, and Alor/Pantar. Reesink (2002b), therefore, hypothesizes that clause-final negation originates from the verb-final Papuan languages. It has been retained in Papuan languages that changed to SVO word order, and has diffused into Austronesian languages in East Nusantara. We have both linguistic and historical evidence to believe that this is indeed the case. The historical evidence is that speakers of Austronesian and Papuan languages in the Moluccas and Papua have been in contact for a long time, as discussed in sections 2.2–2.2.3. As additional linguistic evidence for diffusion there is the sound sound correspondence *ba ~βa ~(u)wa* which, as Reesink (2002b) points out, links the negative markers *bar* and *big* in non-Austronesian Mansim and Hatam (Bird’s Head) and *(u)wa* in the

16. Waropen and its dialect Waropen-Napan are the only Austronesian languages with double negation.

non-Austronesian languages of North Halmahera to βa in Austronesian Biak, Mor and Wandamen in the Cenderawasih Bay region, and to various other languages in the Moluccas, such as Kei, and possibly even Buru and Alune. At the same time, a number of Austronesian languages in the East Nusantara area, and one Papuan language, Abun in the northwest of the Bird's Head, have reflexes of PAN $*ta$. It is plausible that one of the negative morphemes reconstructed for Proto-Oceanic, $*b^w\text{ali}$, with a truncated $*b^w a$ (Lynch, Ross & Crowley 2002: 88), has its origin in the contact area of West Papuan and Austronesian in Maluku and the Bird's Head area, while POc $*ta$ is the canonical Austronesian negative morpheme.

4.3 Tone

Austronesian has a number of branches with tonal languages, most notably the Formosan languages, but it is a phenomenon not at all associated with the CEMP languages. Lexical tone is weakly linked to Papuan languages to the extent that tonal languages are found in various Papuan families. In East Nusantara we find two Papuan languages that clearly have tone: isolates Mpur and Abun. Mpur has four lexical tones, a fifth complex contour tone is a phonetic compound of two lexical ones (see Odé 2002b). Abun is claimed to have three lexical tones, but only two of these (low and high) still provide minimal pairs, e.g., high marks plural, as in *an* '3SG' and *án* '3PL'. Their functional load is low and it is clear that they are in the process of disappearing (Berry & Berry 1999: 20). Meyah and Sougb of the East Bird's Head family have a few contrasts in tone. On some monosyllabic words two contrastive tones can be identified, while on polysyllabic words, only the stressed syllable receives high tone. These languages could be analysed as either tone languages, since there is a clear contrast in tone (cf. Van Zanten and Dol, to appear), or as pitch-accent languages, since the function of tone is restricted to signalling the stress in polysyllabic words. This is the position taken in Reesink (2002a) for Sougb, Gravelle (2002) for Meyah, and Donohue (1997: 366) in his overview of tone systems in Papuan languages.

No tone or pitch distinctions are found in the other Papuan languages of the Bird's Head,¹⁷ or indeed in any of the other Papuan languages of East Nusantara. Yet, just west of Bird's Head on the Raja Ampat islands, there are two Austronesian languages, Ma'ya and Matbat, with tonal systems as in Mpur. For Matbat (2001: 102), Remijsen analyses five lexical tones, and for Ma'ya (2001: 119), two contour tones and one level tone. Both languages also have some Papuan vocabulary, although Matbat more so than Ma'ya. The non-Austronesian lexical items in Matbat and Ma'ya do not all have clear correspondences in the Papuan languages of the Bird's Head, which is not so

17. Dol (1999) and Odé (2002b) report that going by native speaker claims there may be some remnants of tone Maybrat, but experiments and measurements did not reveal any tonal distinctions.

strange, given the lexical diversity among the languages of the peninsula. Nevertheless, there are a few items in the 100-item Swadesh lists, provided in Remijsen (2001: 140–153), that are suspiciously similar to the equivalents in precisely the two tonal languages Abun and Mpur, which are, furthermore, not related. For instance, the word for ‘sago’ is *bi*^[high] in Ma’ya, *bei* in Abun and *bi*^[low] in Mpur. Remijsen suggests that the tone systems are a remnant of a presently extinct Papuan tone language spoken in the Raja Ampat archipelago at the time of the earliest Austronesian arrival. Another possible Austronesian tone language in East Nusantara is reported in Laycock (1978: 290, cf. also Odé 2002b: 8). This language, Mor, is spoken in the Cenderawasih Bay and supposedly has two tones, but the language is almost extinct and the status of these tones at present or in the past is unclear. A tonal area may then be established stretching from the Raja Ampat islands with Matbat and Ma’ya, the northern coastal languages of the Bird’s Head Abun and Mpur, and perhaps including the East Bird’s Head family in the southeast and even Mor in the Cenderawasih Bay.

5. Discussion and conclusion

In East Nusantara we are dealing with a heterogeneous group of Papuan languages (2.3.1) that have a number of features in common with the Austronesian languages that neighbour them: (1) the possessor-possessum order in adnominal possession, (2) the overt marking of the distinction alienable vs. inalienable possession, and (3) clause-final negation. While these features are not generally found in Western Austronesian (see Himmelmann, as given in Table 1), they do occur in many Austronesian languages in East Nusantara (see Table 3). Tone, finally, has diffused to just a few Austronesian languages (Ma’ya and Matbat on the Raja Ampat islands).

Table 3. Non-Austronesian features in Austronesian languages of East Nusantara and the Bird’s Head

non-Austronesian Feature	Austronesian Languages with this feature according to region
Possessor-Possessum	Alor/Pantar (Alorese) Timor (e.g., Tetun Fehan, Tetun Dili, Idate, Mambai) Central and South Moluccas (e.g., Leti, Buru, Dobel, Wetar, Bandanese, Kei) Halmahera (e.g., Taba) Cenderawasih Bay (e.g., Wandamen, Ambai, Waropen)
Clause-final negation	Alor/Pantar (Alorese) Central and South Moluccas: all (e.g., Buru, Alune, Kei) Halmahera (e.g., Taba) Cenderawasih Bay (e.g., Biak, Irarutu, Ambai, Mor, Waropen). Not found in Timor languages

(Continued)

Table 3. Continued

non-Austronesian Feature	Austronesian Languages with this feature according to region
Alienable/inalienable	Alor/Pantar (Alorese) Timor (e.g., Tetun Fehan, Tetun Dili, Lakalei, Isní, Lolein, Kemak, Waimaha) Central and South Moluccas (e.g., Kaitetu, Selaru, Kei, Buru) Halmahera (e.g., Taba) Cenderawasih Bay (e.g., Biak, Ambai, Waropen)

At the same time, we identified a number of Austronesian areal features as typical for Austronesian languages, but uncommon in Papuan languages: (1) SVO as primary constituent order, and (2) an inclusive/exclusive opposition. In East Nusantara they are both attested in a number of Papuan languages (see Table 4):

Table 4. Austronesian features in non-Austronesian languages of East Nusantara and the Bird's Head

Austronesian Feature	non-Austronesian languages with this feature according to region
SVO constituent order	Some Halmahera languages (e.g., Sahu, Ternate, Tidore, West-Makian) but not all Bird's Head, except the SBH languages (e.g., Inanwatan) Not in Alor/Pantar, Timor
Incl/excl distinction	Alor/Pantar (e.g., Teiwa, Lamma, Blagar, Adang, Abui, Kui, Klon, Kafoa, Hamap, etc.) Timor (Bunak, Makasai) Halmahera (e.g., Tidore) Bird's Head, except for three isolates in the center: Maybrat, Abun, Mpur

Clearly, the features in Table 3 and Table 4 do not all converge on the same isoglosses. However, all five features overlap in Halmahera and the Bird's Head; four (3 non-Austronesian, 1 Austronesian) overlap in Alor/Pantar, the Moluccas, Halmahera, and the Bird's Head & surroundings; while three (2 non-Austronesian, 1 Austronesian) overlap in Timor, Alor/Pantar, the Moluccas, Halmahera, and the Bird's Head & surroundings. Together, the features define a linguistic area that has Halmahera and the Bird's Head as its core, and radiates outwards to first include the Moluccas and Alor/Pantar, and then Timor. The fact that the Austronesian languages of East Nusantara agree in a number of features with the diverse Papuan languages in this area could be due to various contact scenarios, since we find Austronesian languages with Papuanisms and Papuan languages with Austronesian traits.

Considering these data, the first observation to make is that contact is not a one-way process. The Austronesian and Papuan languages have influenced each other. At the same time it is also clearly not the case that the typology of these languages is the result

of one 'clash of civilisations' between the newly arrived Austronesians and the original Papuan communities. East Nusantara has been, for centuries, a highly dynamic area with a long history of migration, intense (slave) trade, and many shifts in power and dominance. This is reflected in the complexity of its linguistic situation.

It is difficult to date the various changes in the individual languages, but there is one point of departure that we can use, which is the origin of Proto Oceanic. East Nusantara is the missing link between Proto Malayo-Polynesian (PMP) and Proto Oceanic. As we described in section 2.3.2, the Oceanic languages are a direct descendant of the Eastern Malayo Polynesian languages, just as the SHWNG languages like Biak, Tabu and Waropen. But although the ancestors of the Proto Oceanic speakers probably lived in the Cenderawasih Bay area (Blust 1978; Lynch et al. 2002: 57), too little was known about the Austronesian languages of East Nusantara, i.e., the Central Eastern Malayo Polynesian languages, to use as a basis for reconstructing Proto Oceanic. For this reason, traditionally PMP is used to examine innovations in Proto Oceanic. Yet, on the basis of the present study we can now examine which of the typical characteristics of the East Nusantara languages that are not found in Western Austronesian languages do again occur in the Oceanic languages, or indeed in reconstructed POc. If a change is present in POc, we have a fair indication that the change occurred, at least in some languages, prior to the peopling of Oceania.

The first of these characteristics is the possessive construction. We noted two important aspects of this construction in the East Nusantara languages. The first is the introduction of the alienable-inalienable distinction, and a concomitant distinction between direct and indirect possession, which has occurred in the vast majority of the Austronesian languages of East Nusantara. The second is the change in order from possessed-possessor to possessor-possession. Here we find variation although there is a clear trend towards possessor-possession order. In particular in those languages that are spoken in areas with many Papuan languages, e.g., North Halmahera and Papua, the order is typically possessor-possession. When we then consider the Oceanic languages and reconstructed POc, it appears that the alienability distinction and direct-indirect possession is all present and almost certainly a characteristic of POc (Lynch et al. 2002: 69). However, when we look at the actual order of the possessor and the possessum, the Oceanic languages, despite some variation (e.g., in Fijian and in some Western Melanesian languages), favour possessor suffixes in direct possession and possessive classifiers with suffixes following the possessed noun in indirect possession. Possessor nouns, similarly, follow the possessed (Lynch et al 2002: 40). It appears then that the changes in order have occurred over a long period of time, and are in fact still ongoing, while the introduction of the alienability distinction was a very early influence from the Papuan languages on Austronesian.

The second was the position of the negator clause finally, or at least: after the predicate. Western Austronesian languages typically have pre-predicate negation, but in East Nusantara we find post-predicate negation in many languages. In section 4.2 above, we also showed that the forms of the negators in the Austronesian languages reflected

two sources. One, **ta*, is clearly Austronesian and typically occurs in pre-predicate position, both in the languages of East Nusantara and in the Oceanic languages; the other **ba ~βa ~(u)wa* is found also in the Papuan languages of North Halmahera and Papua (not in those of Alor/Panra and Timor) and typically occurs clause finally. In their reconstruction of POc, Lynch et al. (2002: 88) give **b^wali* or **b^wa* as a POc negative verb, and we suggest that these have the same origin. Unlike **ta*, this negative verb typically occurs in post-clausal clausal position, although some pre-clausal negators are also found (Lynch et al. 2002: 91). Yet, while the post-predicate position of this negator in the Papuan languages makes perfect sense, since they are – or were – SOV, for the verb initial Oceanic languages, the typical post-predicate position of this particular negator is odd. Lynch et al. (2002: 88) explain the position of this negative verb as a later development that occurred when individual Oceanic languages changed from verb initial to verb medial or even final, but on the basis of our findings we propose that an alternative account could be that the POc copied the form as well as its position in the clause from the Papuan source. A shift to a clause initial position in some Oceanic languages is the result of a later reanalysis of this verb. Further evidence enhancing this view is that in the Oceanic languages, the negative verb virtually never has person marking.

In brief, we suggest that two of the three Papuan features of East Nusantara occurred already in at least some of the Austronesian languages before Proto Oceanic emerged and split up, about 3,500 years ago. The shift in order in the possessive construction may have occurred early in some Austronesian languages, but at least in the ancestor language(s) of POc it did not, and the variation that we find today in the Austronesian languages also suggest that it was probably a later and more gradual development.

Dating the Austronesian influences on the Papuan languages is even more difficult. It appears that the change from SOV to SVO order is relatively recent. First, many of the Papuan languages of East Nusantara still have SOV order, or show remnants of erstwhile SOV order. In the languages of North Halmahera, for example, Ternate-Tidore, West-Makian (Voorhoeve 1982) and Sahu (Visser and Voorhoeve 1987) have SVO order, while the other N Halmaheran languages, such as Galela (van Baarda 1908) and Pagu (Wimbish 1991) still have SOV (see Voorhoeve 1987, 1994). And even Ternate-Tidore have a number of features that typically come with SOV order, e.g., clause final conjunctions (Van Staden 2000: 38). Second, if POc was indeed verb initial, as also proposed for Western Austronesian languages (Himmelmann 2005, see Table 1), then it follows that the ancestral Austronesian languages of the East Nusantara area were likewise verb-initial. If the change in constituent order in the Papuan languages is indeed as we suggest the result of contact with Austronesian languages, then this cannot have occurred until the Austronesian languages themselves had changed to SVO.

The introduction of an inclusive/exclusive distinction in the pronominal paradigm again suggests an earlier development, found in all the Papuan languages regardless of genealogical affiliation. As Nichols (2003: 304) observes, the borrowing of this feature involves ‘the opposition in the abstract’, while the formal expression comes from native resources.

These findings support the possible historical settlement of East Nusantara and the Bird's Head that we gave in 2.2.1. and provide additional evidence for the hypotheses put forth by Grimes (1991), Voorhoeve (1994), and Ross (2001) (cf 2.2.1 and 2.3.1), which argue that the innovations in the Austronesian languages typologically defined as *preposed possessor languages* (Himmelman 2005) are due to substratal Papuan influence. There were a number of Papuan speaking populations before Austronesian-speaking peoples entered this region. It is likely that the Moluccan Austronesian languages are the result of language shift. We assume that many Moluccan islands were once occupied by speakers of Papuan languages who were confronted by an influx of Austronesian speakers several millennia ago, see section 2.2. The two populations must have mixed, adopting the Austronesian languages of the more powerful invaders, but with some Papuan features.

Apparently, not all Papuan populations shifted completely to Austronesian languages. Scattered throughout the East Nusantara area a number of Papuan pockets remained: (1) on the small islands Alor and Pantar, (2) in the northeastern part of the island Timor, (2) in North-Halmahera and nearby small islands Tidore, Ternate and Makian, (3) on the tip of the Bomberai peninsula, (4) on Yapen island in the Cenderawasih Bay, and (5) in virtually all of the Bird's Head. For whatever reasons, these populations maintained their indigenous languages, but they did have prolonged contact with the various 'Papuanized' Austronesian speakers. The effects of this contact vary considerably, but the most noticeable pattern taken from the Austronesian languages is the introduction of the inclusive/exclusive distinction in the pronominal paradigm. In most of these areas Papuan languages maintained their SOV order, only some of the North-Halmahera and almost all of the BH languages rearranged the constituent order in the clause to V-medial.

Our conclusion is that these regions together constitute a linguistic contact area. The data also indicate that this area was not defined by a single wave of diffusion, but rather that several waves, taking place at different points in time (and perhaps going in various directions), have shaped it as it is now.

References

- Adelaar, K.A. & Himmelman, N.P. (eds). 2005. *The Austronesian languages of Asia and Madagascar*. London: Routledge/Curzon.
- Andaya, L.Y. 1993. *The world of Maluku: Eastern Indonesia in the early Modern Period*. Honolulu HI: University of Hawaii Press.
- Baarda, M.J. van. 1908. *Leidraad bij het bestuderen van 't Galéla'sch Dialekt, op het eiland Halmahera*. Den Haag: Martinus Nijhoff.
- Baird, L. 2002. A grammar of Kéo: An Austronesian language of East Nusantara. PhD dissertation. Australian National University.
- Baird, L. Forthcoming. *A grammar of Klón*.
- Baird, L., Klamer, M. & Kratochvíl, F. 2004. Alor Malay as a distinct variety of Malay. Paper presented on the 8th International Symposium on Malay/Indonesian linguistics (ISMIL 8),

- Universiti Sains Malaysia, Penang, Malaysia, 31 July–2 August 2004. www.let.leidenuniv.nl/aapp/
- Bellwood, P. 1997. *The prehistory of the Indo-Pacific Archipelago*. 2nd edn. Honolulu HI: University of Hawaii Press.
- Bellwood, P. 1998. From Bird's Head to bird's eye view: Long term structures and trends in Indo-Pacific prehistory. In *Perspectives on the Bird's Head of Irian Jaya, Indonesia*, J. Miedema, C. Odé & R.A.C. Dam (eds.), 951–975. Amsterdam: Rodopi.
- Berg, R. van den. 1989. *A grammar of the Muna language*. Leiden: KITLV Press.
- Berry, K. & Berry, C. 1987. A survey of the South Bird's head stock. *Workpapers in Indonesian languages and cultures* 4: 81–117. Abepura: SIL/Department of Education and Culture, Percetakan Universitas Cenderawasih.
- Berry, K. & Berry, C. 1999. *A description of Abun, a West Papuan language of Irian Jaya*. Canberra: Pacific Linguistics.
- Birdsell, J.B. 1977. The recalibration of a paradigm for the first pepling of greater Australia. In *Sunda and Sahul: Prehistoric studies in Southeast Asia, Melanesia and Australia*, J. Allen, J. Golson & Jones (eds.), 113–167. New York NY: Academic Press.
- Blust, R.A. 1978. Eastern Malayo-Polynesian: A subgrouping argument. *Pacific Linguistics* C-61: 181–234.
- Blust, R.A. 1993. Central and Central-Eastern Malayo-Polynesian. *Oceanic Linguistics* 32: 241–293.
- Bowden, J. 2001. *Taba, description of a South Halmahera language*. Canberra: Pacific Linguistics.
- Brandes, J.L.A. 1884. *Bijdragen tot de vergelijkende klankleer der westerse afdeeling van de Maleisch-Polynesische taalfamilie*. PhD dissertation. University of Utrecht.
- Brotherson, A. 2003. *A spatial odyssey: Referring to space in Makasai*. Honours Thesis, Australian National University.
- Campbell, L. 1998. *Historical linguistics: An introduction*. Edinburgh: EUP.
- Capell, A. 1972. Portuguese Timor: Two more non-Austronesian languages. *Oceania Linguistic Monographs* 15.
- Capelli, C., Wilson, J.F., Richards, M., Stumpf, M.P.H., Gratrix, F., Oppenheimer, S., Underhill, P., Pascali, V.L., Tsang-Ming Ko & Goldstein, D.B. 2001. A predominantly indigenous paternal heritage for the Austronesian-Speaking peoples of insular Southeast Asia and Oceania. *American Journal of Human Genetics* 68: 432–443.
- Chappell, H. & McGregor, W. (eds.). 1996. *The Grammar of inalienability: A typological perspective on body part terms and the part-whole relation*. Berlin: Mouton de Gruyter.
- Clark, E.V. 1978. Locational: Existential, locative, and possessive constructions. In *Universals of human language*, Vol. 1: *Method and theory*, Vol. 2: *Phonology*. Vol. 3: *Word structur.*, Vol. 4: *Syntax*, J.H. Greenberg, C.A. Ferguson & E.A. Moravcsik (eds.), 85–126. Stanford CA: Stanford University Press.
- Clark, R. 1990. The Austronesian languages. In *The major languages of East and South East Asia*, B. Comrie (ed.), 173–184. London: Routledge.
- Collins, J.T. 1983. *The historical relationship of the languages of Central Maluku, Indonesia*. Canberra: Pacific Linguistics.
- Collins, J.T. & Kaartinen, T. 1998. Preliminary notes on Bandanese: Language maintenance and change in Kei. *Bijdragen tot de Taal-, Land- en Volkenkunde* 154–4: 521–570.
- Cowan, H.J.K. 1953. *Voorlopige resultaten van een ambtelijk taalonderzoek in Neuw-Guinea*. 's-Gravenhage: Martinus Nijhoff.

- Cowan, H.J.K. 1955. Notes on Windesi grammar. *Oceania* 26: 42–48.
- Dix Grimes, B. 1991. The development and use of Ambonese Malay. In H. Steinhauer (ed.) *Papers in Austronesian linguistics* 1: 83–123. Canberra: Pacific Linguistics.
- Dixon, R.M.W. 1997. *The rise and fall of languages*. Cambridge: CUP.
- Dol, P. 1999. A grammar of Maybrat. PhD dissertation, Leiden University.
- Donohue, M. 1997. Tone systems in New Guinea. *Linguistic Typology* 1: 347–386.
- Donohue, M., 1999. *A grammar of Tukang Besi*. Berlin: Mouton De Gruyter.
- Engelenhoven, Aone van. 1995. A description of the Leti language. PhD dissertation. Leiden University.
- Flassy, D.A.L. & Stokhof, W.A.L. 1979. A note on Tehit (Bird's Head – Irian Jaya). *NUSA* 7: 35–83.
- Florey, M. 2001. Verb and valence in Alune. In *Explorations in valency in Austronesian languages* [La Trobe Papers in Linguistics 11], P. Austin, B. Blake & M. Florey (eds.), 73–120.
- Foley, W.A. 1986. *The Papuan languages of New Guinea*. Cambridge: CUP.
- Foley, W.A. 1998. Towards understanding Papuan languages. In *Perspectives on the Bird's Head of Irian Jaya, Indonesia*, J. Miedema, C. Odé & R.A.C. Dam (eds.), 503–518. Amsterdam: Rodopi.
- Foley, W.A. 2000. The languages of New Guinea. *Annual Review of Anthropology* 29: 357–404.
- Fraassen, C.F. van. 1983. Ternate, de Molukken en de Indonesische archipel: Van soa-organisatie en vierdeling: Een studie van traditionele samenleving en cultuur in Indonesië (2 volumes). PhD dissertation, Leiden University.
- Friedberg, C. 1978. *Comment fut tranchée la liane celeste et autre textes de littérature orale bunaq (Timor, Indonésie)*. Paris: Société d'études linguistiques et anthropologiques de France Selafr.
- Geurtjens, H. 1921. *Spraakleer der Keieesche Taal* [Verhandelingen van het Bataviaasch genootschap van Kunsten en Wetenschappen, Deel LXIII]. Den Haag: Martinus Nijhoff.
- Gravelle, G. 2002. Morphosyntactic properties of Meyah word classes. In *Languages of the Eastern Bird's Head*, G.P. Reesink (ed.), 109–180. Canberra: Pacific Linguistics.
- Gravelle, G. 2004. Meyah: An east Bird's Head language of Papua, Indonesia. PhD dissertation, Vrije Universiteit, Amsterdam.
- Grimes, C.E. 1991. The Buru language of Eastern Indonesia. PhD dissertation, Australian National University.
- Grimes, C.E. (ed.). 2000. *Spices from the East: Papers in languages of eastern Indonesia*. Canberra: Pacific Linguistics.
- Haan, Johnson W. 2001. The grammar of Adang: A Papuan language spoken on the island of Alor - East Nusa Tenggara - Indonesia. PhD dissertation, University of Sydney.
- Hasselt, F.J.E. van. 1905. *Spraakkunst der Numfoorsche Taal*. Den Haag: Martinus Nijhoff.
- Heine, B. 1997. *Possession: Cognitive sources, forces and grammaticalization*. Cambridge: CUP.
- Held, G.J. 1942. *Grammatica van het Waropensch* [Verhandelingen van het Koninklijk Bataviaasch Genootschap van Kunsten en Wetenschappen, deel LXXVII]. Den Haag: Martinus Nijhoff.
- Henderson, J.E. 1995. *Phonology and grammar of Yele, Papua New Guinea*. Canberra: Pacific Linguistics.
- Himmelman, N.P. 2005. The Austronesian languages of Asia and Madagascar: Typological characteristics. In *The Austronesian languages of Asia and Madagasca*, K.A. Adelaar & N.P. Himmelman (eds.), 110–181. London: Routledge/Curzon.
- Hinton, B. 2000. The languages of Wetar: Recent survey results and word lists, with notes on Tugun grammar. In C.E. Grimes (ed.), *Spices from the East: Papers in languages of eastern Indonesia*, 105–129. Canberra: Pacific Linguistics.

- Hughes, J. 2000. The morphology of Dobel, Aru, with special reference to reduplication. In C.E. Grimes (ed.), *Spices from the East: Papers in languages of eastern Indonesia*, 131–180. Canberra: Pacific Linguistics.
- Hull, G. 2001a. A morphological overview of the Timoric Sprachbund. *Studies in languages and cultures of East Timor* 4: 98–205.
- Hull, G. 2001b. *Mambai language manual (Ainaro dialect)*. Winston Hills: Sebastião A. da Silva Project.
- Jacobs, H.T.T. (ed.). 1971. *A treatise on the Moluccas (c.1544). Probably the preliminary version of Antônio Galvão's Histiória das Molucas*. Rome: Loyola Press.
- Jones, L.K. 1986. The question of ergativity in Yawa, a Papuan language. *Australian Journal of Linguistics* 6: 37–55.
- Jones, L.K. 1991. Question words in Yawa. Canberra: *Pacific Linguistics* A-73: 97–105.
- Kayser M., Brauer, S. Weiss, G., Schiefenhövel, W., Underhill, P., Peidong Shen, Oefner, P., Tommaseo-Ponzetta, M. & Stoneking, M. 2003. Reduced Y-chromosome, but not mitochondrial DNA, diversity in human populations from West New Guinea. *American Journal of Human Genetics* 72: 281–302.
- Kratochvíl, F. In press. *A grammar of Abui: A Papuan language of Alor*. Utrecht: LOT.
- Klamer, M. 1998. *A grammar of Kampera*. Berlin: Mouton de Gruyter.
- Klamer, M. 2002. Typical features of Austronesian languages in Central/Eastern Indonesia. *Oceanic Linguistics* 41: 363–383.
- Klamer, M. To appear. One item, many faces: 'Come' in Teiwa and Kaera. To appear in *Typological and areal analysis: Contributions from East Nusantara*, M. Ewing & M. Klamer. Leiden: KITLV Press.
- Klamer, M. Forthcoming. *A grammar of Teiwa*.
- Klinken, C. van. 1999. *A grammar of the Fehan dialect of Tetun, an Austronesian language of West Timor*. Canberra: Pacific Linguistics.
- Laycock, D. 1978. A little Mor. In *Second International Conference on Austronesian Linguistics: Proceedings, Fascicle I. Pacific Linguistics*, S.A. Wurm & L. Carrington (eds.), 285–316. Canberra: Pacific Linguistics.
- Lichtenberk, F. 1985. Possessive constructions in Oceanic languages and in Proto-Oceanic. In *A. Austronesian Linguistics at the 15th Pacific Science Congress*, A. Pawley & L. Carrington (eds.), 93–140. Canberra: Pacific Linguistics.
- Lynch, J. 1978. Verbal aspects of possession in Melanesian languages. *University of Hawaii working papers in linguistics* 5(9): 1–22.
- Lynch, J., Ross, M. & Crowley, T. (eds.) 2002. *The oceanic languages*. Richmond: Curzon Press.
- Matsumura, T. & Mastumura, M. 1990. Irarutu grammar notes. Unpublished manuscript. Jayapura: Cenderawasih University and Summer Institute of Linguistics.
- Menick, R.H. 1996. Verb sequences in Moi. In *Studies in Irian languages*, G.P. Reesink (ed.), NUSA 40: 41–60.
- Minde, D. van. 1997. Malayu Ambong. PhD dissertation. Leiden University.
- Nichols, J. 1992. *Linguistic diversity in space and time*. Chicago IL: University of Chicago Press.
- Nichols, J. 1997. Sprung from two common sources: Sahul as a linguistic area. In *Archaeology and linguistics*, P. McConvell & N. Evans (eds.), 135–168. Melbourne: OUP.
- Nichols, J. 1998. The origin and dispersal of languages: Linguistic evidence. In *The Origin and Diversification of Language*, N.G. Jablonski & L.C. Aiello (eds.), 127–170. San Francisco CA: Memoirs of the California Academy of Sciences, Number 24.

- Nichols, J. 2003. Diversity and stability in language. In *The handbook of historical linguistics*, B.D. Joseph & R.D. Janda (eds.), 283–310. Oxford: Blackwell.
- Nitbani, S.H., Kosmas, J., Wona, S. & Naley, H. 2001. *Struktur Bahasa Lamma*. Jakarta: Pusat Bahasa, Departemen Pendidikan Nasional.
- Odé, C. 2002a. A sketch of Mpur. In *Languages of the Eastern Bird's Head*, G.P. Reesink (ed.), 45–107. Canberra: Pacific Linguistics.
- Odé, C. 2002b. *Mpur prosody: An experimental-Phonetic analysis with examples from two versions of the fentora myth* [ELPR Publication series A1-003]. Osk: Endangered Languages of the Pacific Rim.
- Owens, M. 2000. Agreement in Bimanes. MA Thesis. University of Canterbury, New Zealand.
- Pasveer, J. 2003. The Djief hunters, 26,000 years of lowland rainforest exploitation on the Bird's Head of Papua, Indonesia. PhD dissertation, Rijksuniversiteit Groningen.
- Pawley, A.K. 1998. The Trans New Guinea Phylum hypothesis: A reassessment. In *Perspectives on the Bird's Head of Irian Jaya, Indonesia*, J. Miedema, C. Odé & R.A.C. Dam (eds.), 655–690. Amsterdam: Rodopi.
- Rankin, R.L. 2003. The comparative method. In *The Handbook of Historical Linguistics*, B.D. Joseph & R.D. Janda (eds.), 183–212. Oxford: Blackwell Publishing.
- Reesink, G.P. 1996. Morpho-syntactic features of the Bird's Head languages. In *Studies in Irian languages*, G.P. Reesink (ed.), *NUSA* 40: 1–20.
- Reesink, G.P. 1998. The Bird's Head as Sprachbund. In *Perspectives on the Bird's Head of Irian Jaya, Indonesia*, J. Miedema, C. Odé & R.A.C. Dam (eds.), 603–642. Amsterdam: Rodopi.
- Reesink, G.P. 1999. *A grammar of Hatam*. Canberra: Pacific Linguistics C-146.
- Reesink, G.P. (ed.) 2002a. *Languages of the Eastern Bird's Head*. Canberra: Pacific Linguistics.
- Reesink, G.P. 2002b. Clause-final negation: Structure and interpretation. *Functions of Language* 9: 239–268.
- Reesink, G.P. 2005. West Papuan languages: Roots and development. In *Papuan Pasts, Studies in the cultural, linguistic and biological history of the Papuan-speaking peoples*, A. Pawley, R. Attenborough, J. Golson & R. Hide (eds.). Canberra: Pacific Linguistics.
- Reid, A. 1984. The islamization of Southeast Asia. In *Historia: Essays in commemoration of the 25th anniversary of the Department of History, University of Malaya*, M. Abu Bakar, A. Kaur and A.Z. Ghazali. (eds.), 13–33. Kuala Lumpur: Malaysian Historical Society.
- Remijnsen, B.C. 2001. *Word-prosodic systems of Raja Ampat languages*. Utrecht: LOT.
- Ross, M.D. 1995. Some current issues in Austronesian linguistics. In *Comparative Austronesian Dictionary*, D.T. Tryon (ed.), 1: 45–120. Berlin: Mouton de Gruyter.
- Ross, M.D. 2001. Contact-induced change in oceanic languages in North-West Melanesia. In A.Y. Aikhenvald & R. M.W. Dixon (eds.) *Areal diffusion and genetic inheritance*, 134–166. Oxford: OUP.
- Ross, M.D. 2005. *Pronouns as a preliminary diagnostic for grouping Papuan languages*. In: Andrew Pawley, R. Attenborough, Jack Golson, and Robin Hide (eds.) *Papuan Pasts, Studies in the cultural, linguistic and biological history of the Papuan-speaking peoples*. Canberra: Pacific Linguistics.
- Ross, M.D. To appear. Defining the Trans New Guinea family: preliminary evidence from pronouns. In: A. Pawley, M. Ross and M. Osmond (eds.) *Papuan languages and the Trans New Guinea phylum*. Canberra: Pacific Linguistics.
- Silzer, P.J. 1983. Ambai: An Austronesian Language of Irian Jaya, Indonesia. PhD dissertation. ANU, Canberra.

- Staden, M. van. 2000. Tidore. A linguistic description of a language of the North Moluccas. PhD dissertation, Leiden University.
- Steinhauer, H. 1985. Number in Biak: Counterevidence to two alleged language universals. *Bijdragen tot de Taal-, Land- en Volkenkunde* 141: 462–485.
- Steinhauer, H. 1993. Sisters and potential wives: Where linguists and anthropologists meet. Some notes on kinship in Blagar (Alor Archipelago). In *Vrienden en verwanten: Liber amicorum Alex van der Leeden*, P. Haenen & A. Trouwborst (eds.), 147–168. Leiden/Jakarta: DSALCUL/IRIS.
- Steinhauer, H. 1995. Two varieties of the Blagar language (Alor, Indonesia). In *Tales from a concave world: Liber amicorum Bert Voorhoeve*, C. Baak, M. Bakker & D. van der Meij (eds.), 265–296. Leiden University: Department of Languages and Cultures of South East Asia and Oceania.
- Steinhauer, H. 2005. Biak. In *The Austronesian languages of Asia and Madagascar*, K.A. Adelaar and N.P. Himmelman (eds.), 793–823. London: Routledge/Curzon.
- Stokhof, W.A.L. 1975. *Preliminary notes on the Alor and Pantar languages (East Indonesia)*. Canberra: Pacific Linguistics.
- Svorou, S. 1993. *The grammar of space*. Amsterdam: John Benjamins.
- Thomason, S.G. 2001. *Language contact. An introduction*. Edinburgh: EUP.
- Tryon, D.T. 1995. The Austronesian languages. In *Comparative Austronesian dictionary: An Introduction to Austronesian studies*. Part 1: *Fascicle*, D.T. Tryon (ed.), 5–44. Berlin: Mouton de Gruyter.
- Veen, H. van der. 1915. *De Noord-Halmahera'se taalgroep tegenover de Austronesiese talen*. Leiden: Van Nifferik.
- Veth, P., Spriggs, M., Jatmiko, A. & O'Connor, S. 1998. Bridging Sunda and Sahul: The archaeological significance of the Aru Islands, southern Moluccas. In *Bird's Head approaches [Modern Quaternary Research in Southeast Asia 15.]*, G.-J. Bartstra (ed.), 157–177. Rotterdam: Balkema.
- Visser, L.E. & Voorhoeve, C.L. 1987. *Sahu-Indonesian-English dictionary and Sahu grammar sketch* [Verhandelingen van het KITLV 126]. Dordrecht: Foris.
- Voorhoeve, C.L. 1975. *Languages of Irian Jaya: Checklist. Preliminary classification, language maps, wordlists*. Canberra: Pacific Linguistics.
- Voorhoeve, C.L. 1982. *The Makian languages and their neighbours*. Canberra: Pacific Linguistics.
- Voorhoeve, C.L. 1987. The non-Austronesian languages in the North Moluccas. In *Halmahera dan Raja Empat sebagai Kesatuan majemuk*, [Buletin LEKNAS, Vol. II, No. 2, 1983; published 1987], E.K.M. Masinambow (ed.), 13–39. Jakarta: Lembaga Ekonomi dan Kemasyarakatan Nasional, Lembaga Ilmu Pengetahuan Indonesia.
- Voorhoeve, C.L. 1989. The masked bird: Linguistic relations in the Bird's Head area. In *Peoples on the move*, P. Haenen & J. Pouwer (eds.), 78–101. Nijmegen: Centre for Australian and Oceanic Studies.
- Voorhoeve, C.L. 1994. Contact-induced change in the non-Austronesian languages in the north Moluccas, Indonesia. In *Language Contact and Change in the Austronesian world*, T. Dutton and D.T. Tryon (eds.), 649–674. Berlin: Mouton de Gruyter.
- Vries, L. de. 1996. Notes on the morphology of the Inanwatan language. In *Studies in Irian languages*, G.P. Reesink (ed.). *NUSA* 40: 97–127.
- Vries, L. de. 1998. Some remarks on the linguistic position of the Inanwatan language. In *Perspectives on the Bird's Head of Irian Jaya, Indonesia*, J. Miedema, C. Odé & R.A.C. Dam (eds.), 643–653. Amsterdam: Rodopi.

- Vries, L. de. 2001. An Introduction to the Inanwatan language of Irian Jaya. In *Between worlds: Linguistic papers in memory of David J. Prentice*, K.A. Adelaar & R. Blust (eds.), 77–93. Canberra: Pacific Linguistics.
- Vries, L. de. 2004. *A short grammar of Inanwatan, an endangered language of the Bird's Head of Papua, Indonesia*. Canberra: Pacific Linguistics.
- Williams-van Klinken, C., Hajek, J. & Nordlinger, R. 2002. *Tetun Dili: A grammar of an East Timorese language*. Canberra: Pacific Linguistics.
- Wimbish, S.G. 1991. An introduction to Pagu through the analysis of narrative discourse. MA thesis, The University of Texas at Arlington.
- Wurm, S.A. 1982. *The Papuan languages of Oceania*. [Ars Linguistica 7]. Tübingen: Gunter Narr.
- Zanten, E. van & Dol, P. To appear. Word stress and pitch accent in Papuan languages. In *Stress patterns of the world II: The data*, R. Goedemans & H.G. van der Hulst (eds.). Amsterdam: John Benjamins.

Abbreviations

1	first person	N	nominative
2	second person	NEG	negator
3	third person	NH	non-human
A	actor	OBJ	object
^a DDR	addressee	PERF	perfect
APPL	applicative	PL	plural
ART	article	POS	possessive
ASP	aspectual marker	QUEST/Q	question marker
CAU	causative	S	subject
COMP	complementiser	SG	singular
D	dative	SU	subject
DEF	definite	TOP	topic
DEI	deictic	U	undergoer
DU	dual		
DUR	durative		
EMPH	emphasis		
EXC	exclusive		
F	feminine		
FUT	future		
GEN	genitive		
IMPF	imperfective		
INAL	inalienable		
INAN	inanimate		
INC	inclusive		
INDEX	indexer		
M	masculine		

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Appendix

The following table gives an alphabetical list of languages mentioned in the paper, with general classification and (where applicable) subgroup classification, geographical location and references.

Table 5. Languages cited

Language	Genetic affiliation	Subgroup (if applicable)	Geographical area	References
Abun	PAPUAN	Family-level isolate of WBH Stock of WPP	NW Bird's Head	Voorhoeve 1987; Berry & Berry 1999. Also known as <i>Karon Pantai</i> , a family-level isolate of WPP
Abui	PAPUAN	Timor-Alor-Pantar of TNG	Alor island	Kratochvíl, in press
Adang	PAPUAN	Timor-Alor-Pantar of TNG	Alor island	Wurm 1982; Haan 2001
Ambai	AN	SHWNG	Yapen island, Cenderawasih Bay, E of Bird's Head	Silzer 1983
Alorese	AN	CMP	Alor & Pantar	Klamer, fieldnotes 2003
Alune	AN	CMP	C Moluccas	Blust 1978; Florey 2001
Ambonese Malay	AN	WMP	C Moluccas	Van Minde 1997
Bandanese	AN	CMP	C/S Moluccas	Van Fraassen 1983, Collins & Kaartinen 1998
Biak (+ Numfor dialect)	AN	SHWNG	Biak island, Cenderawasih Bay, E of Bird's Head	Blust 1978; Steinhauer 1985, 2005
Bimanese	AN	CMP	Bima	Owens 2000
Blagar	PAPUAN	Timor-Alor-Pantar of TNG	Pura and Tereweng island, W of Alor	Steinhauer 1993, 1995
Bunak	PAPUAN	Timor-Alor-Pantar of TNG	C/E Timor	Friedberg 1978, Klamer fieldnotes 2002
Buru	AN	CMP	C Moluccas	Grimes 1991

(Continued)

Table 5. Continued

Language	Genetic affiliation	Subgroup (if applicable)	Geographical area	References
Dobel	AN	CMP	SE Moluccas	Hughes 2000
Galela	PAPUAN	N Halmahera family of N Moluccan Stock of WPP	N Halmahera	Voorhoeve 1987; Voorhoeve 1994
Hatam	PAPUAN	Hatam-Mansim family	E Bird's Head	Voorhoeve 1987; Reesink 1999
Idate	AN	CMP	E Timor	Hull 2001a, Klamer fieldnotes 2002
Inanwatan	PAPUAN	Inanwatan Family of SBH Stock	S Bird's Head	Voorhoeve 1975; De Vries 1996, 1998, 2001
Irarutu	AN	CMP/SHWNG?	Bomberai Peninsula, S of Bird's Head	Matsumura and Matsumura 1990; Blust 1993
Isní	AN	CMP	E Timor	Hull 2001a
Kaitetu	AN	CMP	Seram	Collins 1983
Kambera	AN	CMP	E Sumba	Klamer 1998
Kei	AN	CMP	Kai islands, SE Moluccas	Geurtjens 1921; Blust 1993
Kemak	AN	CMP	E Timor	Hull 2001a, Klamer field notes 2003
Keo	AN	CMP	E Flores	Baird 2002
Klon	PAPUAN	Timor-Alor-Pantar of TNG	Alor island	Baird forthcoming
Lakalei	AN	CMP	E Timor	Hull 2001a, Klamer field notes 2003
Lamma	PAPUAN	Timor-Alor-Pantar of TNG	Pantar	Nitbani et. al. 2001
Leti	AN	CMP	Leti, S Moluccas	Blust 1993; Van Engelenhoven 1995
Lolein	AN	CMP	E Timor	Hull 2001a
Makasai	PAPUAN	Timor-Alor-Pantar of TNG	E Timor	Brotherson 2003
Ma'ya	AN	SHWNG	Raja Ampat islands, W of Bird's Head	Blust 1978; Remijsen 2001
Mambai	AN	CMP	E Timor	Hull 2001b, Klamer field notes 2002
Mansim	PAPUAN	Hatam-Mansim	E Bird's Head	Voorhoeve 1975; Reesink 2002a. Earlier known as <i>Borai</i> of

(Continued)

Table 5. Continued

Language	Genetic affiliation	Subgroup (if applicable)	Geographical area	References
Marind	PAPUAN	Marind family of TNG	SE Papua	Borai-Hattam Stock-level Family belonging to WPP Foley 1986
Matbat	AN	SHWNG	Raja Ampat islands, W of Bird's Head	Remijisen 2001
Maybrat (Brat)	PAPUAN	Family-level isolate of WBH Stock of WPP	C Bird's Head	Voorhoeve 1987; Dol 1999
Meyah (Meax)	PAPUAN	East Bird's Head family	E Bird's Head	Voorhoeve 1987; Gravelle 2002
Moi	PAPUAN	WBH family of WBH Stock of WPP	W Bird's Head	Voorhoeve 1989
Mor	AN	SHWNG	Mor island, Cenderawasih Bay, E of Bird's Head	Laycock 1978
Moraid	PAPUAN	WBH family of WBH Stock of WPP	W Bird's Head	Voorhoeve 1987
Muna	AN	CMP	S Sulawesi	Van den Berg 1989
Mpur	PAPUAN	Stock-level isolate of WPP	northeast Bird's Head	Odé 2002a, 2002b. Earlier known as <i>Amberbaken</i> stock-level isolate of WPP (Voorhoeve 1975).
Pagu	PAPUAN	North Halmahera family of North Moluccan Stock of WPP	North Halmahera	Voorhoeve 1987; Voorhoeve 1994: 650; Wimbish 1991
Sahu	PAPUAN	North Halmahera family	North Halmahera	Voorhoeve 1994
Seget	PAPUAN	WBH family of WBH Stock of WPP	southwest Bird's Head	Voorhoeve 1987
Selaru	AN	CMP	Tanimbar Archipelago, S of Seram	Blust 1993
Sentani	PAPUAN	Sentani Family of Sentani Stock TNGP	northeast Papua	Voorhoeve 1975: 41

(Continued)

Table 5. Continued

Language	Genetic affiliation	Subgroup (if applicable)	Geographical area	References
Sougb (known as <i>Manikion</i>)	PAPUAN	Member of the EBH Stock-level Family of WPP	E Bird's Head	Voorhoeve 1987; Reesink 2002a
Taba	AN	SHWNG	Makian island, Halmahera	Blust 1978; Bowden 2001: 13
Tehit	PAPUAN	WBH family of WBH Stock of WPP	SW Bird's Head	Voorhoeve 1987
Tetun Dili	AN	CMP	East Timor	Williams-van Klinken et.al. 2002
Tetun Fehan	AN	CMP	Timor	Van Klinken 1999
Tehit	PAPUAN	WBH	Southwest Bird's Head	Flassy and Stokhof 1979
Teiwa	PAPUAN	Timor-Alor-Pantar of TNG	Pantar, E of Alor	Klamer, to appear, and forthcoming
Tidore	PAPUAN	N Halmahera family of the N Moluccan Stock of WPP	Tidore island, Halmahera	Van Staden 2000; Voorhoeve 1987
Tokodede	AN	CMP	E Timor	Hull 2001a, Klamer field notes 2002
Tugun	AN	CMP	Wetar, SW Moluccas	Hinton 2000
Tukang Besi	AN	CMP	S Sulawesi	Donohue 1999
Waimaha	AN	CMP	E Timor	Hull 2001
Wanda- men	AN	SHWNG	'neck' of the Bird's Head	Cowan 1955 (Windesi- Wandamen); Reesink 1996
Waropen	AN	SHWNG	coast of Cenderawasih Bay, E of Bird's Head	Held 1942; Blust 1993
West- Makian	PAPUAN	Family-level isolate of N Moluccan Stock of WPP	Makian island, Halmahera	Voorhoeve 1987; Voorhoeve 1994
Yawa	PAPUAN	Yava Stock-level isolate of Geelvink Bay Phylum	Yapen island	Voorhoeve 1975; Jones 1986; Reesink 2005

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