2 The Trans New Guinea family

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2.1 Introduction

The island of New Guinea is a region of spectacular, deep linguistic diversity.[1] It contains roughly 850 languages, which on present evidence fall into at least 18 language families that are not demonstrably related, along with several isolates.[2] This immense diversity, far greater than that found in the much larger area of Europe, is no doubt mainly a consequence of the fact that New Guinea has been occupied for roughly 50,000 years by peoples organised into small kin-based social groups, lacking overarching political affiliations, and dispersed across a terrain largely dominated by rugged mountains and swampy lowlands, with quite frequent population movements.

Among the non-Austronesian families of New Guinea one family stands out for its large membership and wide geographic spread: Trans New Guinea (TNG). With a probable membership of between 300 and 500 discrete languages, plus hundreds of highly divergent dialects, TNG is among the most numerous of the world's language families.[3] TNG languages are spoken from the Bomberai Peninsula at the western end of mainland New Guinea (132 degrees E) almost to the eastern tip of the island (150 degrees E). Most of the cordillera that runs for more than 2000 kilometers along the centre of New Guinea is occupied exclusively by TNG languages. They are also prominent in much of the lowlands to the south of the cordillera and in patches to the north, especially from central Madang Province eastwards. There are possible outliers spoken on Timor, Alor and Pantar.

The breakup of the common ancestor of the core members of TNG (see sections 2.2, 2.3, 2.8) was recent enough for their common origins to be still detectable, yet early enough for the language family to be lexically much more diverse than either the well-established Indo-European or Austronesian families and to severely limit what can be done by way of reconstructing Proto Trans New Guinea

1 We are indebted to Meredith Osmond for research assistance in compiling section 3 of this paper, to Sebastian Fedden, Bill Palmer and Ger Reesink for helpful comments on a draft of this chapter, and to Bill Foley whose surveys of Papuan languages (Foley 1986, 2000) provided a valuable guide in writing sections 2.4 and 2.5.

2 Based on Ross (2000, 2005a). More conservative classifications, e. g. Nordhoff et al. (2013), recognise a much larger number of demonstrated families.

3 *Ethnologue* (Lewis et al. 2013) gives the following estimates for major language families: Niger-Congo (1524), Austronesian (1221), Trans New Guinea (475), Sino-Tibetan (456), Indo-European (436), Afro-Asiatic (366). These estimates are problematic for a number of reasons but give a rough idea.

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(pTNG) lexicon. A case can be made for associating the initial dispersal of TNG languages with the spread of agriculture through the major valleys of the highlands perhaps between 10,000 and 6,000 years ago (see section 2.8).

Section 2.2 of this chapter gives a brief history of the TNG hypothesis. Section 3 treats the subgrouping and membership of the family. Sections 2.4–2.6 sketch structural similarities and differences exhibited by TNG languages in phonology, morphology-syntax and lexical semantics, respectively. Section 2.7 summarises progress to date in reconstructing the phonology and morphosyntax of early TNG and later interstages. The final section asks questions about the circumstances that led to the present distribution of TNG languages. For example, what circumstances enabled TNG languages to spread over the large area of New Guinea they now occupy while preventing them from spreading into other areas? Where was the primary dispersal centre and what was the chronology of the dispersal? In order to tackle such questions it is necessary to compare linguistic evidence with that of other historical disciplines, such as archaeology, palaeobotany, geomorphology, climatology, and biological anthropology.

The best print-published bibliography of Papuan linguistics is Carrington (1996), which gives a near exhaustive treatment of published and unpublished materials up to 1995. A large and up-to-date on-line bibliography is the appendix to Hammarström and Nordhoff (2012). Foley (1986) gives the clearest account of the structural features of Papuan languages in general, updated in Foley (2000). Quite detailed historical reviews of research on Papuan languages up to the early 1970s are provided by Laycock (1975) for Papua New Guinea, and Voorhoeve (1975) for Irian Jaya (today's Indonesian provinces of Papua and Papua Barat)[4]. Wurm (1982) reviews research on the major groups of Trans New Guinea and other Papuan languages up to the late 1970s. The atlas of Wurm and Hattori (1981–83) maps the distribution of these languages. More recent commentaries on historical research on TNG can be found in Pawley et al. (2005) and Hammarström and van den Heuvel (2012).

4 The Indonesian half of the island of New Guinea comprises two provinces: Provinsi Papua (the main part of the island, excluding the Bird's Head), and Provinsi Papua Barat (centred on the Bird's Head). Together these are often referred to as West Papua. Confusingly, Provinsi Papua Barat is also known as West Papua, and the term Papua is also traditionally used for the southern half of Papua New Guinea. To avoid confusion, in this chapter the terms Provinsi Papua and Papua Barat are used respectively for the two provinces of the Indonesian half of the island. The term West Papua will be used to refer to the two provinces together.

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2.2 A brief history of the Trans New Guinea hypothesis

It was not until the 1890s (Ray 1893, Schmidt 1900–1901) that linguists demonstrated conclusively that western Melanesia, and especially New Guinea, contains many languages that do not belong to the vast Austronesian family. These were given the collective name 'Papuan'. Until the late 1940s it was thought that no family of Papuan languages had more than about 20 members, with each of these small families having no demonstrable relationship to the rest. The unexpected discovery in the 1930s of substantial populations inhabiting the central highlands of what is now Papua New Guinea (Connolly and Anderson 1987) was to change that view. When the first descriptions of languages of the central highlands appeared in the 1940s, linguists noticed that they show some striking structural resemblances to the non-Austronesian languages of the Huon Peninsula in northeast New Guinea (Capell 1948–1949), suggestive of a distant relationship.

In the late 1950s and 1960s a number of scholars in the Netherlands (Anceaux, Cowan, and Voorhoeve) began looking for wider relationships among small families of Papuan languages. Around the same time scholars at the Australian National University (ANU) led by Stephen Wurm began a program of field surveys and comparative research in New Guinea.[5] In a series of papers (especially Wurm 1960, 1964, 1965) Wurm noted the existence of four small families situated in the central highlands between the Strickland River in the west (143 degrees E) and just beyond Kainantu in the east (146 degrees E), and argued that all should be assigned to a larger group of more than 50 languages which he called the East New Guinea Highlands stock (ENGHS). His grounds for the ENGHS were mainly lexicostatistical percentages, and typological features considered to be diagnostic. Although these were not the kinds of evidence used in classical demonstrations of genetic relationship (Shafer 1965), the quantity of the arguments Wurm advanced was impressive and there is no doubt he was right in concluding that most of these languages share a common origin. In the late 1960s he speculated on the possibility that many other non-Austronesian groups in the highlands might be related to the ENGHS.

By the late 1960s a number of scholars were asserting the possibility, even likelihood, that various geographically distant groups of Papuan languages in New Guinea share a common ancestor, foreshadowing the Trans New Guinea hypothesis.[6]

5 In addition to the staff members of the Department of Linguistics then working in New Guinea – Stephen Wurm, Tom Dutton, Bert Voorhoeve and Don Laycock – several PhD students who had lengthy field experience in Papua New Guinea made key contributions, especially Karl Franklin, Alan Healey, Kenneth A. McElhanon (all members of The Summer Institute of Linguistics) and John Z'graggen.

6 In a paper drafted much earlier but not published until 1971, Joseph Greenberg suggested that all the Papuan languages of Melanesia, Timor, Alor, Pantar and Halmahera

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There have been at least four versions of this hypothesis, each significantly different in scope, reflecting changes in knowledge and interpretation over the last 50 years.

Trans New Guinea I. In 1970 a small but data-rich monograph appeared arguing for the common origin of some 70 languages of the Finisterre and Saruwaged Ranges and Huon Peninsula region of NE New Guinea and about 70 languages spoken several hundred kilometres to the west in central and southwest New Guinea (McElhanon and Voorhoeve 1970). The authors gave the name 'Trans New Guinea (phylum)' to this putative group. We will call this 'TNG I'.

With the partial exception of Greenberg (1971) (see footnote 6), McElhanon and Voorhoeve were the first to specify a significant body of putative cognate sets in basic vocabulary, some 90 sets in all, shared by distant groups of Papuan languages.[7] They did not attempt to apply the comparative method to these sets of resemblant forms. However, they observed that some of the sets have resemblant forms in additional small groups of Papuan languages, especially Binanderean in south-east New Guinea and certain languages of Madang Province. They anticipated that further work would confirm a distant family relationship between TNG I and these other groups and also with the collection of groups assigned by Wurm to his East New Guinea Highlands Stock.

Trans New Guinea II. Their expectation was soon fulfilled. During the next few years Wurm and his Australian National University research team put forward two expanded versions of TNG (Wurm (ed.) 1975; Wurm et al. 1975). One consisted of a 'main section' or core group of 256 languages, which were regarded unequivocally as members of TNG. We will call this TNG II. It contains all the languages spoken along the central cordillera east of the Bird's Head, from the Wissel

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belong to a vast 'Indo-Pacific' group, to which he also assigned the Southern Andaman Islands group and the Tasmanian languages. Greenberg's Indo-Pacific proposal rested mainly on a tenuous chain of resemblances in lexical forms (84 sets) and grammatical forms (10 sets). The resemblances were tenuous because of the uneven distribution of forms across language groups and the lack of means to distinguish chance and borrowing from shared retention. Only about 25 of the sets of resemblant forms supporting Indo-Pacific are reasonably convincing and almost all of these are confined to what today we recognise as the TNG family (Pawley 2009). Within Indo-Pacific Greenberg posited some 14 major subgroups. He divided the non-Austronesian languages of New Guinea into seven groups. One of these, the 'Central' group, included all the central highlands languages from the Baliem Valley in West Papua to the Huon Peninsula group in Morobe Province, Papua New Guinea, i. e. most of the core members of TNG. Evidence for such a group was however not given except as part of the etymologies adduced in support of Indo-Pacific as a whole.

7 McElhanon and Voorhoeve's cognate sets represent only 53 meanings from the basic vocabulary list. However, they found multiple separate series of cognate sets for many meanings, yielding some 90 putative cognate sets in all.

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Lakes and the Baliem Valley to the southeast of West Papua, together with some languages spoken to the north of the central ranges (chiefly the Finisterre-Huon and Binanderean groups) and a few spoken to the south (such as the Asmat-Kamoro and Awyu-Dumut groups).

Three main types of evidence were cited as diagnostics for deciding whether a language belongs to TNG II (McElhanon 1975: 150–151, Wurm et al. 1975: 306–7, Wurm 1975c,d). To qualify, a language should meet one or more of the following criteria:

(a) It should have several forms belonging to a small body of cognate sets (about 10 were identified) in basic lexicon, each of which is very widely distributed among TNG languages.

(b) It should have certain structural features in morphology and syntax that are common among TNG languages but rare or absent in other Papuan languages, e. g. switch reference morphology on medial verbs.

(c) It should have reflexes of some personal pronouns from set 1. Three sets of free form pronouns, called sets 1, 2 and 3, were posited as having great antiquity in Papuan languages. Set 1 was said to be original to TNG. Sets 2 and 3 originally belonged to other families. If a language has reflexes of several pronouns belonging to set 1, especially drawn from the 1st, 2nd and 3rd singular and 1st plural forms, this is strong evidence for its membership in TNG II. By contrast, if reflexes of sets 2 and 3 are found in a language that satisfies other grounds for inclusion in TNG, this is taken as evidence that the language contains a non-TNG substratum (and so is included in TNG III – see below).

Trans New Guinea III. At the same time, Wurm et al. (1975) also posited a much larger, more speculative group, referred to here to as Trans New Guinea III. TNG III covers most of the inhabited regions of the New Guinea mainland. Almost the only Papuan languages of New Guinea excluded from it were (i) many of the languages of those parts of central and western New Guinea that lie to the north of the central cordillera, especially in Sandaun and East Sepik Provinces and in the western part of Madang Province and (ii) some of those spoken in the Bird's Head Peninsula at the western end of the island. The Papuan languages of Timor, Alor and Pantar in eastern Indonesia were also tentatively included in TNG for the first time.

About 491 languages were assigned to TNG III, consisting of the 256 assigned to TNG II, which formed a core group of unequivocal members of the family, plus another 235 said to have mixed origins. The genealogical status of the latter set was considered problematic because they satisfy only one or two of criteria (a)–(c). Some exhibit no or very few specific lexical resemblances with typical TNG languages. Some lack any set 1 pronouns. Furthermore, some are structurally aberrant – exhibiting many "non-TNG phylum" grammatical features. Wurm et al. regarded these aberrant languages as hybrids, or "partially TNG" languages, resulting from the overlaying of a TNG component on a non-TNG substratum.

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> ...It appears that much of the Trans New Guinea Phylum area may have originally been occupied by a number of probably unrelated earlier languages, and that *the inter-relationship of many of the present-day Trans-New Guinea Phylum languages is, in a way, secondary, or partial and fractional, in nature* and brought about by the very strong and pervading influence of an originally little differentiated element manifested in both the lexical and structural-typological levels, and attributable to the spreading of daughter languages of the Trans-New Guinea Phylum proto-language first from west to east through much of the New Guinea mainland well over five thousand years ago, and perhaps much more vigorously, from east to west during the last five thousand years or so*... The presence of the older, different languages upon which the Trans-New Guinea Phylum languages appear to have been superimposed in the course of these migrations, is noticeable in the form of substrata of varying strength throughout the greater part of the Trans-New Guinea Phylum*. (Wurm et al. 1975: 300. Our italics: AP & HH)

Wurm et al. go on to indicate the regions of New Guinea where substrate residues are strongest:

> The main characteristics [of TNG phylum languages] show a fair amount of homogeneity…except that the influence of various substrata is in evidence in most parts of the phylum, with their influence being particularly strong in some, mostly marginal areas where the languages contain a considerable number of non-Trans-New Guinea Phylum features and are quite aberrant… Such areas are, in particular, in a rather extended region in the central south, in the border area between the West Sepik District [today's Sandaun Province] of Papua New Guinea and Irian Jaya [today's Papua and Papua Barat provinces of Indonesia], in the north and extreme west of Irian Jaya, as well as in Madang District. *... it has nevertheless been decided to include such fringe area language groups in the Trans-New Guinea Phylum,... even though only a component part of each of them is likely to be genetically related to other Trans-New Guinea Phylum languages.* Other language groups which…show quite strong, but apparently less incisive, Trans-New Guinea Phylum influence, have been excluded…with the decisions…being perhaps somewhat arbitrary in some cases. (Wurm et al. 1975: 300. Our italics: AP & HH)

The groups regarded as made up of hybrid languages included Madang-Adelbert Range, Border, Eleman, Inland Gulf, Kalam-Kobon-Gants, Kolopom, South Bird's Head, Southeast Papuan, Teberan-Pawaian and Trans-Fly.

In his review of Wurm (ed.) (1975), Lang (1976) was sharply critical of the weight given to substratum influence as an explanation of diversity within TNG languages:

> [W]hat evidence we have of population movements in Papua New Guinea is of a kind that does not allow for substrata. Populations have been displaced in recent history... through either of two events (or a combination of the two): (a) natural disasters such as volcanic eruption, an earthquake, or drought and/or frost have driven populations from their home ground; (b) warfare has had the same effect. When they have left their home ground they have either moved into virgin bush to carve out an entirely new existence for themselves... or they have taken refuge with allies, in which case they have been

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> absorbed into the host group, thus giving up their language and adopting that of their hosts.
> ... It would seem that the natural fragmentation of the country and the social conditions (partly brought about by geographical factors) would be much stronger determinants of linguistic diversity than substratum influence. But how the social conditions bring about linguistic changes, of this we know precious little in the New Guinea area. The sophisticated sociolinguistic research has just not yet been carried out. (Lang 1976: 77–78)

Surprisingly, it was the more speculative TNG III, rather than TNG II, that was represented in Wurm and Hattori's (1981–1983) influential two volume *Atlas of Languages of the Pacific Area*.

It is probably fair to say that for next 15–20 years all variants of the TNG hypothesis were regarded with great reserve by most of the small band of historical linguists knowledgeable about Papuan languages. Reviews of Wurm (ed.) (1975) were highly critical of the case for TNG II and III (Foley 1986, Haiman 1979, Heeschen 1978a, Lang 1976). Indeed, serious reservations were entered by two of the principal contributors to Wurm (ed., 1975), namely McElhanon (1975) and Z'graggen (1975).

The criticisms were largely justified. In their haste to rewrite the linguistic map of the New Guinea area the ANU researchers had detected a number of promising resemblances (and overlooked others, indicated by Haiman 1979) but they had not done the systematic comparative work needed to make a convincing case for a large TNG family. There had been no serious attempt to reconstruct pTNG phonology or lexicon. With respect to TNG II, comprising the 'main section' branches of TNG in Wurm (ed., 1975), there had been just a handful of attempts to determine regular sound correspondences within low-order subgroups (Healey 1964, 1970 on the Ok and Awyu-Dumut subgroups and Voorhoeve 1980 on Asmat), let alone across subgroups. And for many of the language groups and isolates assigned to TNG III the available data were of the most fragmentary kind; all that connected them to core TNG languages was a handful of impressionistic lexical resemblances. The critics of Wurm (ed., 1975) argued that even if one applied the Comparative Method to TNG data, a top-down approach, one that focused on comparing data from distantly related subgroups, would not yield convincing reconstructions because the body of convincing cognate forms would be too small. The only hope was to work from the bottom-up, beginning with the reconstruction of the proto-languages of lower-order subgroups.

Trans New Guinea IV. In the 1990s a number of linguists began to reconsider the case for a large TNG family. Evidence has accumulated that supports a grouping whose membership is smaller than TNG III but more extensive than TNG II. We will call this proposed grouping TNG IV. The new wave of research, which relied heavily (but not exclusively) on top-down methods of reconstruction, has yielded the following evidence:

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Heruntergeladen am | 16.10.19 13:48

(1) Systematic form-meaning correspondences in personal pronouns, permitting reconstruction of a virtually complete pTNG paradigm for free form pronouns and a partial paradigm for object pronouns, along with reconstructed pronoun sets for most low-order and some middle-order interstages. Work in the 1960s and early 1970s had identified pronominal forms typical of TNG but not attempted systematic reconstruction. Ross (2000a, 2005a) reconstructed independent pronoun forms for the proto-languages of around 40 branches of TNG and for pTNG. He attributed the following independent pronominal roots to pTNG: *na '1SG', *ŋga '2SG', *ua and *ya '3SG', *ni (with variant *nu) '1PL', *ŋgi '2PL' and *i 3PL. A striking feature of this paradigm is the pattern of contrast between the vowel in singular pronouns (*a) and the plural pronouns (*i). Dual pronouns were formed by adding dual suffixes, probably of the form *-li or *-ti, to the plural roots. Ross also reconstructs the same singular and plural roots as bound object pronouns, prefixed to transitive verbs. Suter (2012) has provided further evidence for reconstructing object pronouns for a large class of Northeastern TNG languages.
(2) Some 200 putative cognate sets, most of them belonging to basic vocabulary, with each set represented in two or more subgroups that are not closely related (Pawley 2011).
(3) A body of sound correspondences that allow a good part of the pTNG consonant and vowel systems to be tentatively reconstructed (Pawley 1995, 1998, 2001).
(4) A few fragmentary but striking resemblances in verb morphology that allow partial paradigms to be reconstructed. These are chiefly suffixes marking subject agreement, prefixes marking object (mentioned in (1) above), and a suffix marking a medial verb as having the same subject as the next verb.

In addition, the distribution of certain striking structural resemblances noted by Wurm and his associates, such as switch reference morphology in clause chains, has been more precisely charted, and shown to correlate rather closely with the distribution of TNG IV languages (Roberts 1997). While the possibility of diffusion means that such structural evidence cannot be primary grounds for positing a genetic stock it carries some weight as corroborative evidence.

The most comprehensive reassessment of TNG membership is that of Ross (2000a, 2005a), which relies largely on pronominal agreements, with some attention to the other criteria. Obviously, the more putative reflexes of pTNG personal pronouns a language exhibits, the stronger the case for its inclusion in TNG. If a language retains two or more pTNG pronouns, Ross assigns it to TNG[8]. However,

[8] Contra Ross (2005a: 49–53), Hammarström (2012) argues that only showing reflexes of the putative pTNG 1SG and 2SG pronouns is not enough evidence for a TNG affiliation, since chance cannot be ruled out.

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Heruntergeladen am | 16.10.19 13:48

failure to meet this criterion is not sufficient grounds for excluding a language. There are a number of well-marked groups or individual languages that show enough reflexes of other pTNG lexical items to make a strongish case for their inclusion in TNG. Well described languages that show no systematic resemblances in lexicon or morphosyntax to core members of TNG are excluded. We have largely adopted this approach, and the classification of possible TNG languages presented in section 2.3 corresponds broadly to TNG IV.

Ross concludes that at least 347 languages meet his minimal requirements for inclusion in TNG. There remains a sizeable residue of languages for which the data are too slender to do more than make a very tentative preliminary assignment. Of course, it should be kept in mind (see footnote 2) that any exact estimate of the number of languages spoken in TNG, or indeed of any linguistically diverse region, is likely to be misleading because of the difficulties of placing language boundaries in dialect networks.

A recent paper by Reesink et al. (2009) investigates similarities among 121 Papuan and non-Papuan languages in the Oceania area using a database of 160 structural features, e. g. presence of genders, the position of adjectives and the existence of a switch reference system. These data are fed into an algorithm that attempts to explain the input languages as a mix of a number of populations. The algorithm was originally designed to recover gene admixture and as such the outcome is difficult to interpret in terms of language history. Rather than being synthesized from various populations, languages are known to develop through inheritance and innovation through a series of nested proto languages, coupled with changes due to contact with neighbouring languages. Nevertheless, the inferred populations are reminiscent of (macro-)families and Reesink et al. (2009) hope that the outcome carries a deep historical signal. The sample in Reesink et al. (2009) includes a subset of TNG languages, most of which are clustered into one population. Since the TNG family was posited by Wurm and colleagues partly based on typological features, this result is hardly surprising. Rather, the study by Reesink et al. (2009) is a welcome addition because it is systematic and objective. But as it does not distinguish chance, universals, and areal diffusion from genealogical inheritance (Reesink and Dunn 2012), the results are exploratory rather than proof of genealogical relationship.

As with any deep language family, we can predict, on logical grounds, that the precise limits to membership of the TNG family will remain uncertain. There are two reasons for this. First, it is possible, indeed probable, that some languages in the New Guinea area are very remotely related to TNG languages (i. e. are related at a higher level than pTNG) but retain only the faintest traces of common origin with them. Second, it is possible, indeed probable, that there are some languages that derive from pTNG but whose claims to membership in TNG will never be established with certainty because the traces of common ancestry they retain are too fragmentary.

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2.3 Subgrouping and membership

The task of establishing a family tree for TNG has proved to be daunting. Many low-order subgroups are easily identified by inspection but middle-order and high-order relationships are for the most part poorly understood. This is unsurprising given the very limited amount of rigorous reconstructive work needed to identify and sequence innovations that has been carried out so far and given the extensive lexical borrowing that has occurred within the family.[9]

Ross (2000a, 2005a) uses pronominal innovations as his main evidence for identifying subgroups. The more shared changes to the pTNG pronominal paradigm that a set of languages exhibit, the stronger the evidence for assigning them to a subgroup. The same principle applies to lexical innovations.

About 60 small groups have been identified that are roughly comparable in internal diversity to Germanic or Romance, or to the Polynesian group, i. e. indicating that they probably derived from a common proto-language within the last 1000 to 2500 years. Such groups are generally transparent – obvious on inspection. They typically contain from two to about 30 languages.

Only two subgroups with more than 40 members are commonly assumed: Finisterre-Huon, with about 70 languages, and Madang, with about 100. These are high-order subgroups, each dividing into a number of intermediate subgroups which in turn divide into smaller, transparent groups. Other higher-order subgroups have been proposed but few of these are secure. A large subgroup proposal combining Ok, Awyu-Dumut and Asmat-Kamoro (amounting to over 40 languages) has been articulated by Voorhoeve (2005) based on higher rates of shared proto-vocabulary between Awyu-Dumut and Ok, and to a lesser extent, Asmat. A detailed re-evaluation by van den Heuvel and Fedden (2014) finds practically no

9 We will mention just two studies indicating extensive borrowing of basic vocabulary between neighbouring Papuan languages that are only distantly related. Comrie (1986, 1989) found that Haruai, a language of the Western Schrader Ranges, shares about 35 percent resemblant forms with Kobon, a neighbouring language belonging to the Kalam branch of the Madang group. Given that the genetic relationship, if there is one, between Haruai and Kobon is extremely remote (they are very unlike in morphology) almost all of this agreement can be attributed to borrowing. In a similar vein, Shaw (1986) notes that Huli, a language of the Enga-Huli group spoken in the southern highlands of Papua New Guinea shares only 5 to 10 percent of resemblant forms in a basic vocabulary list with Bogaya, a language of the Central and South New Guinea Stock spoken not far away in the Mt Bosavi region, but shares 27–32 percent with Duna, another language of Southern Highlands Province. However, Duna shares 20–28 percent with Huli. It would seem that Duna's percentages with at least one of the languages, either Huli or Bogaya (or both) have been inflated by about 20 percent by borrowing. Presumably, the items in question are loans into Bogaya, a small language socio-economically dominated by its larger neighbour Duna (San Roque 2008).

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shared morphology between the groups, and, giving primacy to morphology, they prefer to interpret the lexical items as early borrowings.

There are several possible isolates, single languages that appear to belong to TNG but have no good claims to be subgrouped with any other language(s). And there are other small sets of TNG languages whose subgroup status is problematic.

In the discussion that follows, we divide language groups and isolates into three categories according to the relative strength of the evidence for including them in the TNG family:

(i) Groups and isolates that have relatively strong claims to membership in TNG.

(ii) Groups and isolates whose claims to membership are relatively weak or disputed.

(iii) Groups and isolates which have been claimed at one time or another to be members of TNG but for which no supporting evidence has been presented, or the supporting evidence is so weak that their inclusion in TNG is at the present time not warranted.

Given the incipient state of historical linguistic research outlined above, it goes without saying that proof of TNG membership in the sense of orthodox comparative methodology (Campbell and Poser 2008) remains to be spelled out for most of the groups listed below.

For each putative subgroup, we list the member languages and whatever is known about subclassification. For each language, we give an estimate of speaker numbers drawn from Lewis et al. (2013), the iso-639-3 code (if available), and the most extensive source(s) of data (minimal, overview, sociolinguistic study, wordlist, phonological description, study of a specific typological feature, dictionary, grammar sketch, grammar).

2.3.1 Groups with relatively strong claims to membership in TNG

Groups with relatively strong evidence supporting TNG membership, include Angan, Anim, Asmat-Kamoro, Awin-Pa, Bosavi, Chimbu-Wahgi, Dagan, Dani, Duna-Bogaya, East Strickland, Enga-Kewa-Huli, Finisterre-Huon, Gogodala-Suki, Goilalan, Greater Awyu, Greater Binanderean, Kainantu-Goroka, Kayagaric, Kiwaian, Koiarian, Kolopom, Kutubu, Kwalean, Madang, Mailuan, Manubaran, Mek, Marori, Ok-Oksapmin, Paniai (Wissel) Lakes, Somahai, Turama-Kikori, West Bomberai, Wiru, and Yareban.

2.3.1.1 Angan

About 12 languages spoken in Morobe and Gulf Provinces, Papua New Guinea, extending into Eastern Highlands Province. They are bounded by the Kainantu and Goroka groups to the northwest, Pawaian to the west and the Oceanic languages

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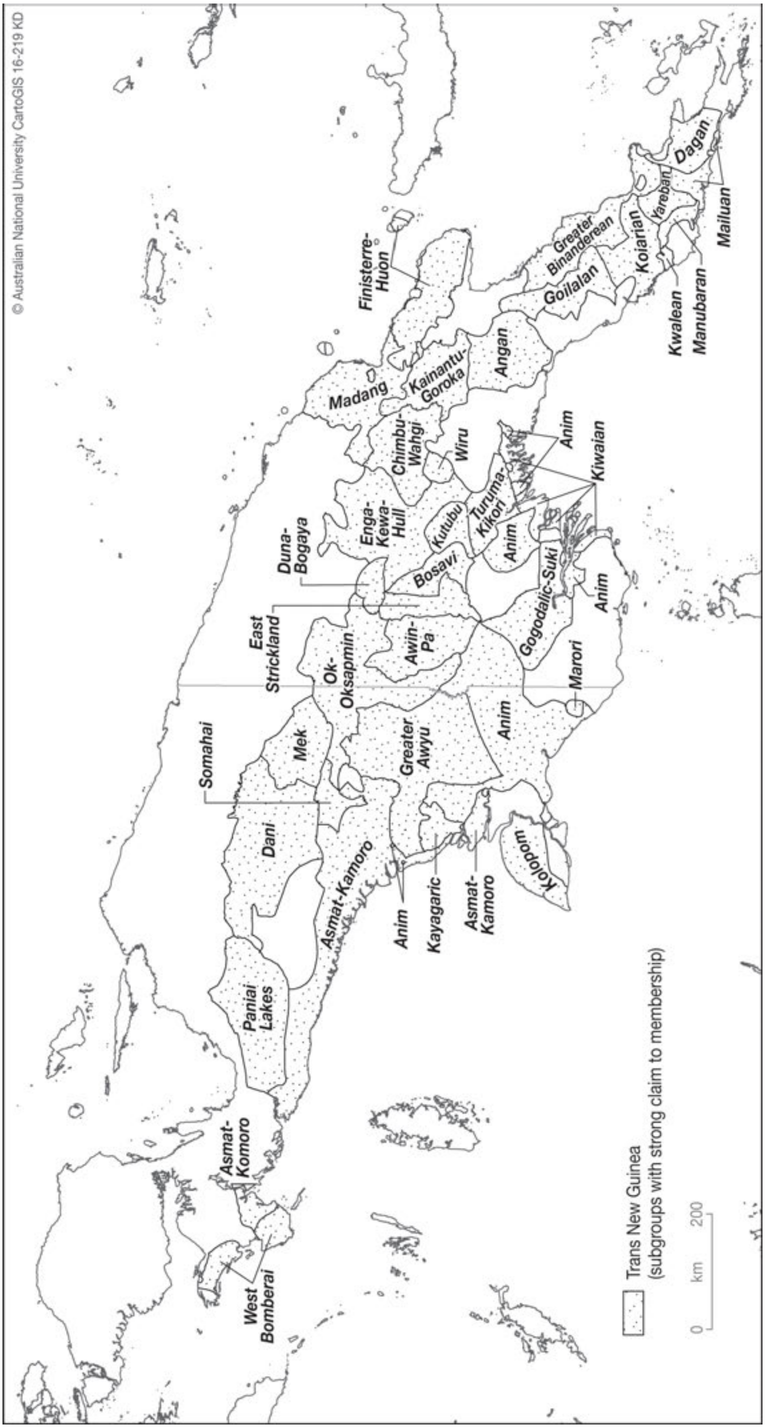

Map. 2.1: Trans New Guinea (families with strong claims to membership).

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of the Huon Gulf and Markham Valley to the northeast. A subclassification based on the lexicostatistical figures in Lloyd (1973a: 36) is given below, with the addition of the subsequently discovered Susuami, said to be closest to Kamasa (Smith 1992).

Angaatiha [agm] 2,100; specific feature: Huisman 1973
NUCLEAR ANGAN
BARUYA-SIMBARI
Baruya [byr] 6,600; grammar sketch: Lloyd 1989; dictionary: Lloyd 1992
Simbari [smb] 3,040; phonology: Lloyd 1973
KAPAU-MENYA
Hamtai [hmt] 45,000; grammar: Oates and Oates 1968
Menya [mcr] 20,000; grammar: Whitehead 2004
WOJOKESIC
KAMASA-SUSUAMI
Kamasa [klp] 7; phonology: Lloyd 1973
Susuami [ssu] 10; grammar sketch: Smith 1990
Safeyoka [apz] 2,390; grammar: West 1973
Kawacha [kcb] 12; phonology: Lloyd 1973
ANKAVE-TAINAE-AKOYA
TAINAE-AKOYE
Tainae [ago] 1,000; grammar: Carlson 1991
Akoye [miw] 800; phonology: Lloyd 1973
Ankave [aak] 1,600; phonology: Speece 1988
Yagwoia [ygw] 10,000; phonology: Lloyd 1973

All three reconstructable Proto Angan object prefixed pronouns, *nə ‘1SG’, *gə ‘2SG’, *wə ‘3SG’, continue pTNG *na, *ŋga, *wa, respectively. Proto Angan pronouns also show a number of replacement innovations, including free forms *ti ‘2SG’, *nai ‘1PL’, *sai ‘2PL, *yai ‘1DU’ and *kai ‘2DU’.

2.3.1.2. Anim

Anim is a recently proposed subfamily consisting of the Marindic, Yaqayic, Lake Murray, Lower Fly and Inland Gulf groups (Usher and Suter 2015). The Anim languages occupy a discontinuous territory. The westernmost are the Marindic and Yaqayic languages, which occupy a sizable area of south-central West Papua, between Asmat languages (to the west), and Awyu-Dumut and Kayagaric (east and north). The Lake Murray languages are found in Western Province, Papua New Guinea, south of Lake Murray, around the Upper Fly River, abutting Ok and Pa languages in the north. The poorly known Lower Fly (or Tirio) languages are spoken to the west of the Fly River close to its mouth. Inland of them to the west

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

we find languages of the Yam and Pahoturi families, and to the south and east the Kiwai languages. The Inland Gulf languages constitute the easternmost subgroup of Anim and are geographically disconnected from the rest. The Western Inland Gulf languages are closely related, constituting a dialect chain, while Ipiko is so different that is was initially not even considered related to the others (Franklin 1968b).

The family is posited on the grounds of an ablaut system with four genders and a small body of cognates in basic vocabulary (Usher and Suter 2015). Usher and Suter (2015: 126) assume that the Marindic and Yaqayic languages form a subgroup, but they share no exclusive phonological innovations in the posited phonological history and the lexicostatistical figures from Voorhoeve (1968: 5) are only marginally in favour of this. The same lexicostatical figures matched with a cognate count projectable from Usher and Suter (2015) may also be interpreted as a subgroup consisting of Marindic, Yaqayic and Lake Murray and this solution is adopted here. The moribund Abom language discovered only in the survey of Jore and Alemán (2002) is excluded from the Anim family by Usher and Suter (2015) because of the shortage of inherited-looking lexical cognates between Abom, the Lower Fly and the other Anim languages. However, the grammatical data collected by Jore and Alemán (2002), although meagre, shows Abom to have the same gender ablaut pattern in the verb as the Lower Fly languages. It could be that these data reflect insertions of lexical stems of a moribund language in the verbal template of a dominant (Lower Fly) language, but if not, Abom must be an Anim language on the same logic that the Lower Fly are so considered. Karami is an extinct language known only from a wordlist collected by Flint (1917–1918) and was traditionally considered an Western Inland Gulf language (Franklin 1973b: 269–273) but Usher and Suter (2015: 125) argue that the similarities are loans, in which case there remains no evidence that Karami is a Trans New Guinea language. See N. Evans et al. (this volume) for further discussion of the Anim group.

INLAND GULF
- **Ipiko [ipo]** 345; wordlist: Chance 1926, Petterson 2007, Z'graggen 1975a
- **WEST INLAND GULF**
  - **Hoyaic**
    - **Hoia Hoia [hhi]** 80; wordlist: Carr 1991
    - **Hoyahoya [hhy]** 95; wordlist: Carr 1991
  - **Minanibai-Foia Foia [mcv]** 300; wordlist: Franklin 1973a, Johnston 1920, Z'graggen 1975a, Carr 1991
  - **Mubami [tsx]** 1,730; wordlist: Z'graggen 1975
  - **Mahigi [-]** 0; wordlist: Cridland 1924

LOWER FLY (TIRIO)
- **Abom [aob]** 15; wordlist: Jore and Alemán 2002

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

NUCLEAR LOWER FLY

Baramu [bmz] 850; wordlist: Jore and Alemán 2002

Were [wei] 490; wordlist: Jore and Alemán 2002

Makayam [aup] 1,300; wordlist: Chalmers 1897, Jore and Alemán 2002, Ray 1907c, 1923, Riley and Ray 1931

Bitur [mcc] 860; wordlist: Jore and Alemán 2002

MARIND-BOAZI-YAQAY

BOAZI

Kuni-Boazi [kvg] 4,500; grammar sketches: Drabbe 1954b, Edwards-Fumey 2006

Zimakani [zik] 1,500; text: Unevangelized Fields Mission 1956, 1966

MARINDIC

Bian Marind [bpv] 2,900; wordlist: Drabbe 1954a, 1950a, Voorhoeve 1975b

Marind [mrz] 7,000; grammar: Drabbe 1955, Geurtjens 1926

YAQAYIC

Warkay-Bipim [bgv] 300; wordlist: Voorhoeve 1971, 1975

Yaqay [jaq] 10,000; grammar sketch: Drabbe 1954b

Usher and Suter (2015) reconstruct a full set of proto Anim pronominal object prefixes: *na- '1SG', *ŋga- '2SG', *(u)a- '3SG', *ni- '1PL', *ja '2PL', *ja '3PL', all of which except the last reflect pTNG free form pronouns as reconstructed by Ross (2000a, 2005).

Marind-Boazi-Yaqay languages distinguish 3rd singular masculine and feminine pronouns. Ross (2000a) reconstructs the following "pMarind" (i. e. pMarind-Boazi-Yakay) pronouns: *no-[ko] '1SG', *ɣo-ko '2SG', *ɛ-ɣi, *ɛ '3SGmasc' *-u- '3SGfem' *ni-ki '1PL', *zo-ko '2PL', *ya-Xa '3PL'. Marind-Boazi-Yaqay languages retain reflexes of a number of pTNG lexical etyma, e. g. Marind *kase* 'saliva' < pTNG *kasipa 'spit', *maŋgat* 'mouth' < *maŋgat[a], *mudu-meŋ* 'belly' < *mundu-maŋgV 'heart', *mokom* 'fruit, seed' < *maŋgV, *saŋga* 'hand, finger, arm' < *sa(ŋg,k)(a,i)l 'hand, claw', *sâ* 'sand' < *sa(ŋg,k)asiŋ, *de* 'tree' > *inda, *iwar* 'wind' < *kumbutu, *kuyu* 'cassowary' < *ku(y)a,

Ross (2000a) reconstructs Proto Inland Gulf *no '1SG', *go '2SG' and *ni 'PL', reflecting pTNG *na, *ŋga and *ni. Inland Gulf languages show probable reflexes of several pTNG lexical etyma, e. g. Hoia Hoia, Mubami, Ipiko *de* 'tree' < *inda, Hoia Hoia *mo'noto*, Ipiko *manoto* 'mouth' < *maŋgat[a] 'mouth, teeth', Mubami *mo'moʔo*, Hoiahoia *mo'mo:ko* 'seed' < *maŋgV.

Lower Fly languages show probable reflexes of a few pTNG etyma, e. g. Makayam *mako:tʰ*, Baramu *mango:t* 'chin' < *maŋgat[a] 'mouth, teeth', Makayam (Giribam dialect) Bitur, Baramu *mo:m* 'seed' < *maŋgV 'fruit, seed, round', Makayam *sakoa* 'lower arm', Baramu *saga* 'arm' < *sa(ŋg,k)(a,i)l 'hand, claw'.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

2.3.1.3 Asmat-Kamoro

Up to 10 languages spoken in the coastal lowlands in southern Indonesian Papua, from the western margins of the Digul River Basin to the Bomberai Peninsula. All languages for which there are data are transparently related in basic vocabulary. Looking at lexicon and phonology, Voorhoeve (2005: 148–149) sees four primary branches: three small branches Sabakor, Sempan and Kamoro and the Asmat branch. The Sabakor group occupies a small part of the Bomberai Peninsula discontinuous with the rest. The only published information on Diuwe (Lewis et al. 2013) is its number of speakers and location in the remote area north of the Citak. Van Arsdale (1974, 1987) collected a wordlist from people near the Brazza river, which matches the location of Lewis et al.'s (2013) Diuwe. This wordlist indicates a close relationship to Citak.

- **ASMAT**
  - CENTRAL-YAOSAKOR ASMAT
    - **Yaosakor Asmat [asy]** 2,000; grammar sketch: Drabbe 1963a
    - **Central Asmat [cns]** 7,000; wordlist: Drabbe 1959a; grammar: Drabbe 1959b, Voorhoeve 1965
  - CITAK ASMAT
    - **Diuwe [diy]** 100; wordlist: Van Arsdale 1974
    - **Tamnim Citak [tml]** 290; wordlist: Drabbe 1963b, Van Arsdale 1974, Voorhoeve 1980
    - **Citak [txt]** 8,000; grammar sketch: Kruidhof 1979
  - **Casuarina Coast Asmat [asc]** 9,000; wordlist: Drabbe 1963b, Voorhoeve 1980
  - **Momogo-Pupis-Irogo [nks]** 1,000; wordlist: Feuilleteau de Bruyn 1913, 1915, Voorhoeve 1980
- **SABAKOR**
  - **Buruwai [asi]** 1,000 wordlist: Voorhoeve 1975b
  - **Kamberau [irx]** 1,570 wordlist: Voorhoeve 1975b
- **Kamoro [kgq]** 8,000 grammar: Drabbe 1953
- **Sempan [xse]** 1,000 wordlist: Drabbe 1954a, 1950a, Galis 1955, Voorhoeve 1975b

The uniformity of pronoun forms among Asmat languages suggests that their differentiation is recent. Ross reconstructs Proto Asmat *no '1SG, *o or *we '2SG' and *a '3SG', which appear to continue pTNG *na, *ŋga, *wa, with vowel change and loss of velar stop in the 2SG form. Of the Proto Asmat plural forms *ca '2PL' may continue pTNG *ja '2PL'. Some possible reflexes of pTNG lexical etyma in pAsmat-Kamoro (largely following Voorhoeve 2005) are: *fiti 'fingernail' < pTNG mb(i,u)t(i,u)C, *isi 'mosquito < *kasin, *ese 'blood' < *kenja, *masap or *masip 'saliva' < *si(mb,p)atV, *yi 'urine' < *[si]si, *asa 'excrement' < *asa, *manaka

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

‘eye’ < *mun(a,e,i)ka, *sisi ‘tooth’ < *(t,s)i(t,s)i, *yirama ‘night’ < *k(i,u)tama ,*tama ‘morning’ < *k(i,u)tama, *na- ‘eat’ < *na-.

2.3.1.4. Awin-Pa

Two closely related languages (Voorhoeve 1975a) or one quite diverse dialect cluster (Stewart no date:2). Aekyom (or Awin) is bisected by the Fly River, Pare (or Pa) is spoken over an area extending from the Strickland River to the east and Lake Murray to the south. To the north lie the Ok languages of Faiwol, Ninggerum and Yonggom.

Aekyom [awi] 8,000; grammar sketch: Stewart no date
Pare [ppt] 2,000; wordlist: Franklin 1973, Shaw 1986, Z’graggen 1975a

Proto Awin-Pa pronouns are conservative, with pTNG *na, *ŋga and *ya continued as *na, *go and *ya. It is more difficult to reconstruct non-singular forms but Ross posits *ne ‘1PL’ and *ge ‘2PL’, next to *ni ‘1DU’ and *gi ‘2DU’, with vowel ablaut distinguishing them from their singular counterparts. Some probable reflexes of pTNG etyma are Aekyom: *kendoke* ‘ear’ < *kand(e,i)k[V], *khatike* ‘leg’ < *k(a,o)ndok[V], *kare* ‘skin’ < *(ŋg,k)a(nd,t)apu, *di* ‘firewood, fire’ < *inda. Pa: *keba* ‘head’ < *kV(mb,p)(i,u)tu, *ama* ‘mother < *am(a,i), *di-* ‘burn’ < *nj(a,e,i).

2.3.1.5. Bosavi

The Bosavi languages lie to the east and south of the East Strickland group, around Mt Bosavi, east of the Strickland River and southwest of western edge of the central highlands of Papua New Guinea. No detailed study of subgrouping has been done, but the lexicostatistical study by Shaw (1986: 53) gives some indications. Kaluli and Sunia share 70 % lexicostatistical similarity which is higher than with any other languages, so the two probably form a subgroup. Similarly, Etoro and Bedamini form a subgroup with a percentage of 67 %. Aimele, Kasua, Onobasulu, Kaluli-Sunia share more isoglosses with each other than with the Etoro-Bedamini group, some of which are likely innovations.

BOSAVI WATERSHED
Kaluli-Sunia
Kaluli [bco] 2,500; grammar sketches: Grosh and Grosh 2004, Schieffelin 1995; dictionary: Schieffelin and Feld 1998
Sonia [siq] 400; wordlist: Shaw 1986
Aimele [ail] 140; wordlist: Shaw 1986
Kasua [khs] 600; grammar sketch: Logan 2007
Onobasulu [onn] 1,000; wordlist: Shaw 1986

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

ETORO-BEDAMINI

Beami [beo] 4,200; wordlist: Shaw 1986, Z'graggen 1975a
Edolo [etr] 1,670; grammar sketch: Gossner 1994

Shaw (1986: 50) lists a few lexical items common to the Bosavi languages and the East Strickland languages. However, there are hardly enough of them to set up sound correspondences. Even though the items in question are not localized to specific adjacent pairs of Bosavi-East Strickland languages, the bulk of the lexicon of the two groups is different and, given their proximity, some early loans are to be expected.

Another language often associated with the Bosavi group is the southern neighbour Dibiyaso. Reesink (1976: 12) gives a number of lexical lookalikes between Dibiyaso and Kaluli. These contain a few fairly convincing comparisons where Dibiyaso *p* corresponds to Kaluli *f*. The items in question are common to the entire Bosavi Watershed group (not just Kaluli) but none are found in the Etoro-Bedamini group. This suggests that we are dealing with loans between Dibiyaso and the Bosavi watershed group.

Yet another language to the south is Doso, attested only in unpublished Summer Institute of Linguistics survey data and by a short wordlist taken from a second language speaker in Shaw (1986: 68). This wordlist has a few items with forms identical to Dibiyaso. The fact that those items are identical whereas the bulk of items are different, again suggests borrowing. Doso, however, is reported to have 61 % lexicostatistical similarity with the newly discovered and highly endangered Turumsa language, for which no data has yet been published (Tupper 2007c).

Finally, Kamula, also to the south, is cited by Shaw (1986: 53) as having high lexicostatistical similarity (38 % to 55 %) with languages in the Bosavi Watershed group. We have not been able to reproduce anything like these figures, nor have other comparisons with much improved knowledge of Kamula such as Reesink (1976: 15) who finds 5 % similarity with Kaluli where Shaw (1986: 53) has 44 % and Routamaa (1994: 7) who, with much improved knowledge of Kamula, finds "very few similarities". In fact, Kamula, apart from a few obvious cultural wanderwörter, appears to have a basic lexicon totally different from the Bosavi languages. (See 3.3.4 below.)

The Proto Bosavi pronouns are conservative. Ross reconstructs singular forms *na, *ga, *ya, and plural forms *ni-PL, *gi-PL and *i-PL, all of which continue pTNG antecedents. (*-PL here represents a plural suffix whose precise form is not reconstructable.)

2.3.1.6. Chimbu-Wahgi

This group is situated in Simbu and Western Highlands Provinces, Papua New Guinea, east and south of Mt Hagen, in the large Wahgi, Nebilyer and Kaugel

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

Valleys, and north of the Sepik-Wahgi Divide in the Jimi Valley and in the Bismarck Range. Extensive dialect chaining in the major valleys makes any estimate of the number of languages problematic but it is customary to distinguish about 12. The best known members are probably Kuman (Chimbu), Middle Wahgi, Sinasina and Melpa. A group-wide subclassification has not been done, but a four-way division seems likely, following the impressions of Capell (1962: 105–128). The internal classification of the microgroups Jimi (Cook 1966) and Simbu (Tida 2011, 2012) have been investigated, whereas with the Wahgic and Hagen group we are left with the suggestions of Capell (1962) and some remarks on sound correspondences by Shafer (1965: 370–372).

HAGEN
- Aua-Gawil
  - **Imbongu [imo]** 42,500; grammar sketch: Stefaniw 1987
  - **Umbu-Ungu [ubu]** 34,200; grammar: Head 2011
- Melpa-Tembagla
  - **Melpa [med]** 130,000; grammar sketches: Berthold 2008, Strauss no date, Vicedom and Tischner 1948; dictionary: Stewart et al. 2011
  - **Bo-Ung [mux]** 40,900; grammar sketch: Merlan and Rumsey 1991

JIMI
- Kandawo-Narak
  - **Kandawo [gam]** 4,000; dialectology: Graham 1998
  - **Narak [nac]** 6,220; comparative study: Cook 1966
- **Maring [mbw]** 11,000; grammar sketch: Woodward 1973

SIMBU
- Chuave-Nomane
  - **Chuave [cjv]** 23,100; phonology: Swick 1966
  - **Nomane [nof]** 6,700; comparative study: Tida 2012
- Nuclear Simbu
  - Golinic
    - **Golin [gvf]** 51,100; grammar: Evans et al. 2005
    - **Salt-Yui [sll]** 6,500; grammar: Irwin 1974
    - **Sinasina [sst]** 50,100; grammar: McVinney and Luzbetak 1964
  - Kuman-Dom-Gunaa
    - **Dom [doa]** 12,000; grammar: Tida 2006
    - **Kuman [kue]** 115,000; grammar: Bergmann 1953

WAHGIC
- **Nii [nii]** 12,000; grammar sketch: Stucky and Stucky 1970
- **Wahgi [wgi]** 39,000; grammar: Phillips 1976; dictionary: Ramsey 1975
- **North Wahgi [whg]** 47,000; grammar sketch: Aufenanger 1953

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

Chimbu-Wahgi languages typically distinguish two or three laterals (see Phonology, section 4). They have contrastive tone and this is manifested in the pronoun system. Singular pronouns are reconstructable with high tone, marked here by an acute accent. Two Proto Chimbu-Wahgi (pChW) singular free form pronouns, *ná '1SG' and *[y]é '3SG', appear to continue pTNG etyma. Chimbu-Wahgi languages reflect *nim '2SG' as an innovation replacing pTNG *ŋga. The pChW dual marker *-l and plural marker *-n appear to reflect pTNG counterparts. pChW non-singular roots are hard to reconstruct. Some possible reflexes of pTNG etyma follow, from the Middle Wahgi language. Middle Wahgi: *ama* 'mother' < *am(a,i), *amu* 'breast < *amu, *numan* 'louse' < *niman, *numan* 'thought, mind, will' < *n(o,u) man, *muŋ* 'fruit, nut, lump', *muŋgum* 'kidney' < *maŋgV 'round object', *mundmuŋ* 'heart' < *mundun-maŋgV, *mokum, mokem* 'knuckle, joint' < *mo(k,ŋg) Vm 'joint', *mundun mo-* 'be pot bellied'< *mundun 'internal organs, belly', *ŋaŋ* 'small male child' < *ŋaŋ[a] 'baby', *apa-* 'maternal uncle' < *apa 'father', *embe(m)* 'name' < *imbi 'name', *muk* 'blue' < *muk, *tuk-* 'chop' < *tVk- 'cut, cut off', *no-* 'eat' < *na-, *mek si-* 'to vomit', *mek* 'vomitus' < *makV[C] + t(e,i)- 'to vomit'.

2.3.1.7 Dagan

Dagan is the most easterly subgroup of TNG, occupying the mountainous south-eastern region of Papua New Guinea almost to the tip. Lexicostatistical agreements among Dagan languages given by Dutton (1971: 15–19) range from 29 % to 51 % but do not indicate any consistent subgroupings. Troolin (1998) adds Turaka, also with lexicostatical figures around 20 %.

Daga [dgz] 9,000; grammar: Murane 1974
Umanakaina [gdn] 2,400; wordlist: Anonymous 1914a, Ray 1938
Ginuman [gnm] 1,440; a list of numerals: Lean 1986b: 24–25; comparative study: Dutton 1975b
Dima [jma] 750; wordlist: Ray 1938
Mapena [mnm] 270; comparative study: Dutton 1971
Maiwa (Papua New Guinea) [mti] 1,400; specific feature: Nakamura and Nakamura 2002
Onjob [onj] 150; specific feature: Capell 1976
Kanasi [soq] 2,200; grammar sketch: Pappenhagen 1986
Turaka [trh] 25; wordlist: Troolin 1998

Several Proto Dagan pronouns reflect pTNG etyma. pTNG *na 'SG', *nga '2SG' and *nu '1PL' (*u-gade) are continued by pDagan *na ,*ga and *nu. Dagan languages share several innovatory pronouns: *me '1SG, *ya '2PL' and *m[a]u '3PL'. Some possible reflexes of TNG lexical etyma follow, from Daga and Kanasi. Daga: *ama* 'breast' < *amu, *meri(nawa)* 'tongue < *me(l,n)e, *ira* 'tree' < *inda. Kanasi:

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

asi ‘ear’ < *kand(e,i)k(V], *etepa* ‘bark’ < *(ŋg,k)a(nd,t)apu ‘skin’, *obosa* ‘wind’ < *kumbutu, *oman* ‘stone’ < *ka(m,mb)u[CV], *nene* ‘bird’ < *n(e)i.

2.3.1.8 Dani

Consists of about a dozen languages spoken in the western highlands of West Papua along the Balim (Baliem) Valley, and its side valleys, situated between the Mek group in the east and the Paniai Lakes group in the west. Larson (1977) provides a lexicostatistical subclassification with three branches, and, Etherington (2002) adds Nggem as a fourth.

- **CENTRAL DANI**
  - GRAND VALLEY DANI
    - **Upper Grand Valley Dani [dna]** 20,000; wordlist: Bromley 1967, Larson 1977
    - **Lower Grand Valley Dani [dni]** 20,000; grammar: Bromley 1972, 1981, Fahner 1979, van der Stap 1966
    - **Mid Grand Valley Dani [dnt]** 50,000; wordlist: Bromley 1967, Larson 1977
    - **Hupla [hap]** 3,000; overview: Silzer and Heikkinen-Clouse 1991
  - PYRAMID-SWART VALLEY
    - **Western Dani [dnw]** 180,000; grammar: Barclay 2008
    - **Walak [wlw]** 20,000; wordlist: Bromley 1967, Larson 1977
- **NGALIK-NDUGA**
  - YALIC
    - **Ninia Yali [nlk]** 10,500; ethnographic: Wilson 1986, 1988
    - **Pass Valley Yali [yac]** 5,000; grammar: Fahner 1979
    - **Angguruk Yali [yli]** 15,000; wordlist: Bromley 1967, Larson 1977
  - **Nduga [ndx]** 10,000; wordlist: de Bruijn 1941, Feuilleteau de Bruyn 1913, 1915, Galis 1955, Larson 1977, Le Roux 1950: 901–913, Ranneft 1953, van Nouhuys 1912
  - **Silimo [wul]** 5,000; wordlist: Bromley 1967, Larson 1977, Voorhoeve 1975b
- **Nggem [nbq]** 4,400; grammar: Etherington 2002
- **Wano [wno]** 1,000; phonology: Burung 2007

Proto Dani pronouns are conservative. pDani *an ‘1SG’, *ka-t ‘2SG’ and *a-t ‘3SG’ continue pTNG *na, *nga and *ya. pDani *ni-t ‘1PL’, *ki-t ‘2PL and i-t ‘3PL’ continue pTNG *ni, *ki and *i. Five of the six pDani pronouns show a suffix *-t* of uncertain function. pDani *an ‘1SG’ for expected *na is a feature shared with several other groups in the far western part of the TNG region. Some possible reflexes of lexical etyma in Dani languages are: Grand Valley Dani: *ap* ‘man’ < *ambi, *meli* ‘tongue’

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

< *me(l,n)e, *n-esi* 'hair' < *iti[C] (*n-* is 1sg possessor), *me(m)-* 'come' < *me-, *ket* 'new' < *kVndak. Western Dani: *ap* 'man' < *ambi, (n)iti < *iti[C], *meli* 'tongue' < *me(l,n)e, *get* 'new' < *kVndak, *okut* 'leg' < *k(a,o)ndok[V], *kat(lo)* 'skin' < *(ŋg,k)a(nd,t)apu, *idu* 'tree' < *inda. Ngalik: *idu(k)etu* 'tree' < *inda, Ngalik (*nak) amu* 'breast' < *amu, *tokon* 'full' < *tVkV[ti], *kopu* 'smoke' < *kambu.

2.3.1.9 Duna-Bogaya

Two languages: Duna (Yuna), Bogaya (Pogaia, Pokoi), which occupy contiguous regions northwest of the central highlands of Papua New Guinea. Duna is spoken in the Lake Kopiago and Koroba Districts in the northwest corner of Southern Highlands Province, next to Huli, of the Enga-Huli group. Voorhoeve (1975a: 395–396) gives some reasons for subgrouping Duna and Bogaya, namely perceived innovations in pronouns and some lexical resemblances. While Voorhoeve (1975a: 395–396) and Shaw (1986: 53) give lexicostatistical figures above 20 %, these are difficult to reproduce, and, in any case, loans would be expected from Duna to Bogaya. If the subgroup relation is real, it must be quite distant.

Duna [duc] 11,000; grammar: San Roque 2008
Bogaya [boq] 300; wordlist: Franklin 1973a, Shaw 1986

Their free form pronouns largely agree, allowing reconstruction of Proto Duna-Bogaya *nó '1sg', *gó '2sg, *kó '3sg', *i-nu '1pl' *ki-nu '3pl', of which the 1sg and 2sg forms continue pTNG *na and *ŋga, and the 1pl form may contain a reflex of pTNG *nu '1pl'. The other pronoun forms appear to be innovations. Possible Duna reflexes of other pTNG etyma are: *amu* 'breast' < *amu, *konane* 'ear' < *kand(e,i)k(V], *kuni* 'bone' < *kondaC.

2.3.1.10 East Strickland

A long dialect chain from Konai in the north down to Odoodee in the south along mainly the east side of the Strickland river. Somewhat artifically (see Dwyer et al. 1993 for an introduction to clan interrelations) divided into six languages by Shaw (1986). Based on mutual intelligibility and relatively high lexicostatistical agreement, the Kubo-Samo-Bibo varieties form a subgroup within the chain.

KUBO-SAMO-BIBO
  Gobasi [goi] 1,100; wordlist: Shaw 1986, Z'graggen 1975a
  Kubo [jko] 1,000; wordlist: Shaw 1986, Z'graggen 1975a
  Samo [smq] 900; grammar sketch: Shaw 1973
Fembe [agl] 350; wordlist: Shaw 1986, Z'graggen 1975a
Odoodee [kkc] 490; wordlist: Shaw 1986
Konai [kxw] 600; phonology: Årsjö and Årsjö 2005

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

Proto E. Strickland (pES) *na '1SG'and *yõ '3SG' continue pTNG *na and *ya and the first element in the 3DU pronoun *i-le may reflect pTNG *i '3PL'. The other pronominal roots appear to be shared innovations of pES. However the pTNG dual marker is retained as a suffix in the pES dual pronouns *o-li and *a-la '1DU', *nĩ-le '2DU' and *i-le '3DU'. Some possible E. Strickland reflexes of pTNG etyma in Samo, Bibo and Agala follow. Samo: (da)subu 'ashes' < *sumbu, si- 'burn' < *nj(a,e,i)-, *na-* 'eat' < *na-, *magara* 'mouth' < *maŋgat[a], *korofu* 'skin' < *(ŋg,k) a(n,t)apu, *mere(ma)* 'tongue' < *me(l,n)e, *mini* 'nose' < *mundu. Bibo: *(da)suf* 'ashes' < *sumbu. Agala: *fulu(ma) ali* 'to fly' > *pululu-.

2.3.1.11 Enga-Kewa-Huli

A well-defined group of about a dozen languages, including Engan, Huli, Kewa and Angal (Mendi), occupies a large continuous area at the western end of the central highlands of Papua New Guinea, in Enga Province, overlapping into East Sepik Province in the north and Southern Highlands Province in the south. This group, termed 'Enga-Kewa-Huli' here, is bordered by Chimbu-Wahgi to the east, Wiru to the southeast, Kutubu to the south and Sepik languages to the north. The subgroup relationship of the Enga-Kewa-Huli languages is not in doubt, as they exhibit numerous regular sound correspondences and lexicostatistical agreements in the range of 40 % or above (Franklin 1975a). Within Enga-Kewa-Huli there is a clearly demarcated Engic subgroup that includes Engan, Ipili, Kyaka and Lembena (Conrad and Lewis 1988, Davies and Comrie 1985, Franklin 1975a, 1997). Similarly, Sau, Angal (Mendi) and Kewa form a subgroup (Franklin 1968a). Franklin (1997) groups Huli and Sau-Angal-Kewa together as South Enga-Kewa-Huli on the basis of isoglosses in pronoun forms.

- **ENGIC**
  - **OUTER ENGA**
    - **Bisorio [bir]** 260; wordlist: Conrad and Lewis 1988, Davies and Comrie 1985
    - **Nete [net]** 750; wordlist: Davies and Comrie 1985
  - **Enga [enq]** 230,000; grammar sketch & dictionary: Lang 1973
  - **Ipili [ipi]** 26,000; comparative study: Franklin 1975
  - **Kyaka [kyc]** 15,400; dictionary: Draper and Draper 2002
  - **Lembena [leq]** 1,760; grammar sketch: Heineman 1998
- **KEWA-HULI**
  - **SAU-ANGAL-KEWA**
    - **ANGAL-KEWA**
      - **ANGAL MENDI**
        - **Angal [age]** 18,600; grammar sketch: Madden no date
        - **Angal Heneng [akh]** 40,000; grammar sketch: Williams 1940

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Angal Enen [aoe] 22,000; specific feature: Tipton 1982
KEWA
West Kewa [kew] 45,000; grammar: Franklin 1971; dictionary: Franklin and Franklin 1978
East Kewa [kjs] 45,000; grammar: Yarapea 2006
Erave [kjy] 10,000; specific feature: Franklin 1968
Samberigi [ssx] 3,130; wordlist: Franklin 1973a, Z'graggen 1975a
Huli [hui] 150,000; grammar: Lomas 1988

The neighbouring Wiru language has been put forward as a possible immediate relative of the Enga-Kewa-Huli group (Kerr 1975), but the similarities can also be explained as general typological resemblances and loans of cultural vocabulary into Wiru.

Ross (2000a: 127), following Franklin (1997), finds that full sets of free pronouns can easily be reconstructed for a northern and a southern subgroup, respectively, but because of sharp differences between the two subgroups, it is much harder to reconstruct Proto Enga-Kewa-Huli. Ross tentatively reconstructs a partial paradigm for pEnga-Kewa-Huli: *n '1SG', *ne(ke) '2SG' *(n)i/*(n)u '3SG', *ni[a] '2PL', *ñi[a]-li '2DU'. Among these only the 1SG form and the dual marker *-li continue pTNG etyma.

Some possible reflexes of pTNG etyma in Enga-Kewa-Huli languages follow. Enga: *mona* 'heart' < *mundun, *yaka* 'bird' > *yaka(i), *lyaŋa* 'ashes' < *la(ŋ,k)a, *ŋaŋa* 'baby < *ŋaŋ(a), *(m)ama* 'mother' < *am(a,i), *kuri* 'bone' < *kondaC, *kare* 'ear' > *kand(e,i)k(V], *ne-* 'eat' > *na-, *apa(ne)* 'father' < *apa, *iti* 'hair' < *iti[C], *endo* 'fire' < *kend(o,u)p, *lema* 'louse' > *niman, *kana* 'moon' < *takVn[V], *mana* 'instructions' < *mana, *kitama* 'morning' < *k(i,u)tuma, *kumi-* 'die' < *kumV-, *re-* 'speak' < *nde-, *maa* 'taro' < *mV, *ita* 'tree' < *inda. Huli: *ega* 'bird' < *yaka(i), *na-* 'eat' < *na-, *aba* 'father' < *apa, *iri* 'hair' < *iti[C], *ira* 'tree' < *inda, *ma* 'taro' < *mV. Kewa: *ama* 'mother' < *am(a,i), *ibi* 'name' < *imbi, *iri* 'hair' < *iti[C], *uni* 'bone' < *kwanjaC, *apu* 'tail' < *a(mb,m)u, *lema* 'louse' < *niman, *oma* 'die' < *kumV-, *reka-* 'stand' < *t(a,e)kV-, *la-* 'talk' < *nde-, *maa* 'taro' < *mV, *yaa* 'bird' < *yaka(i). Mendi: *am* 'mother' > *am(a,i), *ap* 'father' > *apa, *mbi* 'name' < *imbi, *ome-* 'die' < *kumV-.

2.3.1.12 Finisterre-Huon

A large group, numbering 60 to 70 languages, depending on language/dialect placement, occupying most of the western part of Morobe Province, Papua New Guinea. A fine-grained subgrouping is not available, but ongoing studies by Suter (2010, 2012) assume a primary split between the Finisterre and the Huon groups as well as a six-way division within Finisterre and a two-way division within Huon taken over from foundational work by McElhanon (1967, 1973). The eight micro-

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

groups can be further divided in accord with the lexicostatistical figures in Hooley and McElhanon (1970), McElhanon (1970b: 44) and Carter et al. (2012), though this leaves a few question marks regarding the placement of languages discovered subsequently or languages with little data.

FINISTERRE-SARUWAGED
- **Erap**
  - **Boana**
    - **Nek-Nuk**
      - **Nek [nif]** 2,000; comparative studies: Claassen and McElhanon 1970, Ross 1995
      - **Nuk [noc]** 900; comparative study: Claassen and McElhanon 1970
    - **Mungkip [mpv]** 12; wordlist: Retsema et al. 2009
    - **Nakama [nib]** 980; wordlist: Retsema et al. 2009
    - **Numanggang [nop]** 2,300; specific feature: Hynum 2010
  - **Finungwan-Mamaa-Gusan**
    - **Finongan [fag]** 1,300; minimal: Rice and Rice 2002
    - **Gusan [gsn]** 800; comparative studies: Claassen and McElhanon 1970, Ross 1995
    - **Mamaa [mhf]** 200; comparative study: Claassen and McElhanon 1970
  - **Sauk-Nimi**
    - **Nimi [nis]** 1,700; comparative study: Claassen and McElhanon 1970
    - **Sauk [skc]** 1,500; phonology: Pennington (2013)
  - **Uri [uvh]** 2,500; phonology: Webb 1974
- **Gusap-Mot**
  - **Gira-Neko-Nekgini**
    - **Madi [grg]** 380; comparative study: Claassen and McElhanon 1970
    - **Neko [nej]** 640; comparative study: Claassen and McElhanon 1970
    - **Nekgini [nkg]** 430; comparative studies: Claassen and McElhanon 1970, Ross 1995
  - **Ufim-Rawa-Nahu**
    - **Iyo [nca]** 6,900; grammar sketch: Minter 2009
    - **Rawa [rwo]** 11,500; grammar: Toland and Toland 1991
    - **Ufim [ufi]** 550; comparative study: Claassen and McElhanon 1970
    - **Ngaing [nnf]** 2,020; comparative studies: Claassen and McElhanon 1970, Ross 1995

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

- Uruwa
  - Sakam-Som
    - **Sakam [skm]** 1,300; comparative studies: Claassen and McElhanon 1970, Ross 1995
    - **Som [smc]** 80; comparative studies: Claassen and McElhanon 1970, Ross 1995
  - **?Weliki [klh]** 200; comparative study: Claassen and McElhanon 1970
  - **Nukna [klt]** 1,000; comparative studies: Claassen and McElhanon 1970, Ross 1995
  - **Yau (Morobe Province) [yuw]** 1,700; comparative studies: Claassen and McElhanon 1970, Ross 1995
- Wantoatic
  - Wantoat-Awara
    - **Awara [awx]** 1,900; phonology: Quigley 2003, Quigley and Quigley 2011; grammar sketch: Quigley and Quigley 2011
    - **Wantoat [wnc]** 8,200; phonology: Davis 1994; grammar sketch: Davis 1964a, 1964b; dictionary: Dangepnana et al. 2012
  - **Tuma-Irumu [iou]** 1,100; comparative study: Ross 1995
- Warup
  - **Muratayak [asx]** 810; wordlist: Carter et al. 2012
  - **Bulgebi [bmp]** 50; overview: Z'graggen 1975b
  - **Gwahatike [dah]** 1,570; wordlist: Carter et al. 2012
  - **Degenan [dge]** 790; wordlist: Carter et al. 2012
  - **Forak [frq]** 280; wordlist: Carter et al. 2012
  - **Guya [gka]** 130; overview: Z'graggen 1975b
  - **Yagomi [ygm]** 280; overview: Z'graggen 1975b
  - Molet-Asaroo
    - **Molet [–]** No estimate available; wordlist: Carter et al. 2012
    - **Asaro'o [mtv]** 1,250; wordlist: Carter et al. 2012
- Yupna
  - Bwana-Moam-Tapen
    - **Domung [dev]** 2,330; comparative studies: Claassen and McElhanon 1970, Ross 1995
    - **Ma (Papua New Guinea) [mjn]** 570; overview: Z'graggen 1975b
  - Kewieng-Bonkiman-Nokopo
    - **Bonkiman [bop]** 180; a list of numerals: Smith 1988
    - **Yopno [yut]** 9,000; specific feature: McElhanon 1973
  - ?**Yout Wam [ytw]** 270; wordlist: Gray 2007
  - **Nankina [nnk]** 2,500; grammar: Spaulding and Spaulding 1994

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

HUON

EASTERN HUON

KATE-MAPE-SENE

Kâte [kmg] 20,000; grammar sketches: Grube 1895, Pilhofer 1927, 1933, Schneuker 1962; dictionaries: Flierl and Strauss 1977, Keyßer 1925

Mape [mlh] 1,700; wordlist: McElhanon 1967

Sene [sej] 0; a list of numerals: Smith 1988

MOMARE-MIGABAC

Migabac [mpp] 2,600; grammar: McEvoy 2008

Momare [msz] 1; minimal: Smith 1988

TOBO-KUBE

Kube [kgf] 7,500; specific feature: McElhanon 1973

Tobo [tbv] 2,230; wordlist: McElhanon 1967

Dedua [ded] 6,500; specific feature: Blake 2000

Kovai [kqb] 6,000; grammar sketch: Bugenhagen 1994

WESTERN HUON

KINALAKNA-KUMUKIO

Kinalakna [kco] 305; a list of numerals: Smith 1988

Kumukio [kuo] 1,050; a list of numerals: Smith 1988

KOSORONG-BURUM-MINDIK

Burum-Mindik [bmu] 9,000; dictionary: Olkkonen and Olkkonen 2004

Borong [ksr] 2,200; grammar sketch: Olkkonen and Olkkonen 2000; dictionaries: Olkkonen and Olkkonen 2004

NABAK-MOMOLILI

Mese [mci] 4,000; wordlist: McElhanon 1967

Nabak [naf] 16,000; grammar: Fabian et al. 1998

TIMBE-SELEPET-KOMBA

SELEPET-KOMBA

Komba [kpf] 15,000; grammar: Southwell 1979, Southwell and Southwell 1972

Selepet [spl] 7,000; grammar: McElhanon 1970a,b; dictionary: McElhanon and McElhanon 1970

Timbe [tim] 11,000; grammar sketch: Foster 1981

Nomu [noh] 400; a list of numerals: Smith 1988

Ono [ons] 10,000; grammar sketch: Wacke 1931

Sialum [slw] 400; wordlist: Dempwolff 1905, Ray 1919

Abaga is a highly endangered (if not extinct) language sometimes associated with the Finisterre-Huon group (McElhanon 1975: 543). The evidence for this association has never been published, and from the little data available (*pace* Tupper

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

2007a), lower numerals (Lean 1986a: 27–29) and other items of basic vocabulary look similar to their Eastern Highlands counterparts, especially in the Kamano-Yagaria group.

Most of the Finisterre-Huon languages have been conservative in their free pronoun forms, continuing several pTNG etyma. For Proto Finisterre Ross (2000a) reconstructs *na[k] '1SG' < pTNG *na, *ga[k] and *gi-[n] '2SG' < *ŋga, *wa '3SG' < *wa '2PL', *ni[n] '1PL' < *ni, *nu and *ja[n] '2PL' < *ja, as well as a series of dual pronouns that continue the pTNG dual suffix. For Proto Huon Ross reconstructs *na '1SG', *ga 2SG', *ya (ka) '3SG', as well as dual and plural forms. (See 2.7.2 for conventions for use of parentheses and square brackets in reconstructed forms.)

Some probable reflexes of pTNG etyma in Kâte and Selepet follow. Kâte: *bɔruŋ* 'flame' < *mbalaŋ 'flame', *butoŋ* 'fingernail' < *mb(i,u)t(i,u)C, *bekɔ* 'orphan' < *mbVŋga(-masi), *masiŋ* 'widow' < *masi, *sambɔŋ* 'sky' < *sambV 'cloud', *tofeʔ* 'saliva' < *si(mb,p)atV, *lo-* 'take' < *(nd,t)a-, *munduŋ* 'inner yolk of egg' < *mundun 'internal organs', *go* '2SG' < *ŋga, *hɔmo-* 'die' < *kumV-, *bɔriʔ* 'glitter, flash of lightning' <*(m,mb)elak 'light, lightning', *mi* 'not' < *ma- 'not', *maŋu(zo)* 'to vomit'< *mV(k,ŋ)V t(e,i)-, *ame(ʔ)* 'breast' < *amu, *tsimin(uŋ)* 'stiff coarse hair' < *[nd,s]umu[n,t]V 'hair', *imeŋ* 'louse' <*iman 'louse', *no* '1SG' < *na '1SG', *nɔ-* 'eat' < *na-. Selepet: *balam* 'flame' < *mbalaŋ, *(ni)bilim* 'tongue' < *mbilaŋ, *kɔlɔp* 'fire' <*kend(o,u)p, *kɔlip* 'long' < *kuta(mb,p)(a,u), *irak* 'new' < *kVtak, *sak* 'sand' < *sa(ŋg,k)asin, *somot* 'hair' < *(s,nd)umu(n,t)[V], *madu* 'orphan'<*masi, *si-* 'burn' < *nj(a,e,i)- 'burn', *ga* '2SG' < *ŋga, *kaku-* 'carry on shoulder' < *kakV-, *kɔu* 'ashes' < *kambu 'ashes', *belek* 'lightning' < *(m,mb) elak, *ibi* 'name' < *imbi, *mete* 'forehead' < *me(n,t)e 'head', *man-* 'live, dwell' > *mVn[a]- , *imen* 'louse' < *iman 'louse', *(n)am* 'breast, milk' < *amu 'breast'.

2.3.1.13 Gogodalic-Suki

This small group consists of Suki, Gogodala, and two little-known languages recorded as Ari and Waruna which appear to be lexically closer to each other than to Gogodala (Reesink 1976). The Gogodalic languages Ari, Gogodala and Waruna, are spoken along the northern side of the Fly River delta. Suki is spoken upstream on both sides of the Fly. Voorhoeve (1970) gives a number of lexical and morphological correspondences to argue that Suki and Gogodalic form a subgroup. See N. Evans et al. (this volume) for further discussion of Gogodalic-Suki.

ARI-WARUNA
- **Ari [aac]** 50; comparative study: Reesink 1976
- **Waruna [wrv]** 600; wordlist: Ray 1923, Riley and Ray 1931

Suki [sui] 3,510; new testament: Bidri et al. 1981
Gogodala [ggw] 22,000; specific feature: Capell 1969

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Of the three Proto Gogodala-Suki pronouns that are well supported, two (*ne '1SG', *a '2SG') reflect pTNG etyma and one (*de '2PL') is a shared innovation of the subgroup. Suki has two other pronouns, *u* '3SG' and *i* '3PL', that may continue pTNG *ua and *i. Possible reflexes of pTNG lexical etyma: Gogodala: *omo* 'breast' < *amu, *magata* 'mouth, jaw' < *maŋgat[a], *mele-pila* 'tongue' < *mele-mbilaŋ, *imu* 'eye' < *(ŋg,k)amu, *mi* 'louse' < *iman, *niman, *kadepa* 'sun' < *kand(a,e)pa, *ila* 'tree, fire' < *inda, *na-* 'eat' < *na-, *mana-* 'sit, stay' < *mVna-. Suki: *gigoa* 'cassowary' < *ku(y)a, *na-* 'eat' < *na-.

2.3.1.14 Goilalan

Five languages, each with considerable dialect variation, occupying the mountainous northwest corner of Central Province, Papua New Guinea, and extending into Morobe and Oro Provinces. One would expect a northern and a southern subgroup on geographical grounds, but the lexicostatistical figures (all around 30 %) reported in (Dutton 1975b) do not clearly indicate this.

Biangai [big] 1,400; grammar sketch: Dubert and Dubert 1978
Fuyug [fuy] 14,000; grammar: Bradshaw 2007
Kunimaipa [kup] 8,200; grammar: Geary 1977
Tauade [ttd] 7,000; grammar sketch: Egidi 1907
Weri [wer] 4,160; grammar: Boxwell 1990

Ross was unable to reconstruct Proto Goilalan personal pronouns with confidence because the northern and southern languages show insufficient agreement. However, he tentatively posits pGoilalan *na '1SG' and *nu '2SG'. Possible reflexes of pTNG lexical etyma: Fuyuge: *baba* 'father' < *mbapa, *sabe* 'saliva' < *si(mb,p)at, *magata* 'mouth, jaw' < *maŋgat[a], *mele-pila* 'tongue' < *mele-mbilaŋ, *imu* 'eye' < *(ŋg,k)amu, *ije* 'tree' < *inda.

2.3.1.15 Greater Awyu

About 15 languages, occupying the Digul River Basin between the Asmat-Kamoro and Ok languages. In this ever-changing linguistic landscape of dialect chains and clan loyalty shifts (de Vries 2012), a detailed study by de Vries et al. (2012) uses shared innovations in verb morphology as the most reliable indicator of linguistic ancestry. There is a binary split between the Becking-Dawi and the Awyu-Dumut groups. Awyu-Dumut, in turn, divides into three large dialect chains: Awyu, Dumut and Ndeiram. Morphological data for Sawi is not available, but lexical and pronominal data side with Awyu-Dumut. Lexicostatistical figures in Susanto (2004), Kriens and Lebold (2010) and Lebold et al. (2013) allow for a guess at the subclassification of the Awyu subgroup. No lexicostatistical comparisons are available regarding the older Awyu materials of the Mappi and Digul

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

rivers of Drabbe (1957a) and Stokhof (1982 [1931–1932]:133–140), represented below as Aghu [ahh], but Usher (2015a) proposes that they be subgrouped with the Kriens and Lebold's (2010) data on Taim, Nohon and Ketah, represented here as Central Awyu [awu]. This grouping is followed here since the ongoing phonological and lexical reconstruction of Awyu of Usher (2015a) can account for it with phonological innovations such as **t* > *s* (before *i u e o*). Some further subgroupingings are posited in Usher (2015a) but the basis of these is unclear since they do not follow non-arbitrarily from the phonological innovations charted there.

AWYU-DUMUT
- AWYU
  - **South Awyu [aws]** 9,340; grammar sketch: Drabbe 1950a
  - **Kia River Awyu [awv]** 2,300; wordlist: Lebold et al. 2013
  - **Edera Awyu [awy]** 3,870; wordlist: Lebold et al. 2013
  - **Asue Awyu [psa]** 6,500; grammar sketch: Drabbe 1950a
  - **North Awyu [yir]** 1,500; socling: Susanto 2004
  - MAPPI-DIGUL AWYU
    - **Aghu [ahh]** 3,000; grammar sketch: Drabbe 1957
    - **Central Awyu [awu]** 7,500; wordlist: Kriens and Lebold 2010
- DUMUT
  - KETUM-WAMBON
    - **Ketum [ktt]** 900; wordlist: Jang 2003
    - **Wambon [wms]** 3,000; grammar sketch: de Vries and de Vries-Wiersma 1992
  - MANDOBO
    - **Mandobo Atas [aax]** 10,000; grammar sketch: Drabbe 1959c
    - **Mandobo Bawah [bwp]** 20,000; wordlist: Jang 2003, Lebold et al. 2013
- NDEIRAM
  - **Kombai [tyn]** 4,000; grammar: de Vries 1993
  - **Wanggom [wng]** 1,180; wordlist: Hughes 2009
- ?**Sawi [saw]** 3,500; wordlist: Voorhoeve 1971, 1975

BECKING-DAWI
- TSAKWAMBO-KOMYANDARET
  - **Tsaukambo [kvz]** 780; wordlist: Hughes 2009
  - **Komyandaret [kzv]** 300; wordlist: Hughes 2009
- **Korowai [khe]** 3,500; grammar: de Vries and van Enk 1997

Two reconstructions of Proto Awyu-Dumut pronouns are available. Ross reconstructs Proto Awyu-Dumut *nu[p] '1SG', *gu[p] '2SG', *e[p] '3SG', *na-gu[p] '1PL', *ga-gu[p] '2PL', *ya-gu[p] '3PL'. Two sets, one with and one without the suffix *-p can be reconstructed, those without being the genitive set. These are

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

similar to those reconstructed by Wester (2014: 71–72): *nup ‘1SG’, *ŋgup ‘2SG’, *yup, *eke ‘3SG’, *nakup ‘1PL’, *ŋgakup, *nakip ‘2PL’, *yakup ‘3PL’ also noting that the final –p is an added morpheme. The singular forms in the genitive set seem to be conservative, reflecting pTNG etyma but with vowel rounding. Awyu-Dumut languages reflect a number of other pTNG etyma, e. g. Wambon: *maŋgot* ‘teeth, mouth’ < *maŋgat[a], (Wambon S.) *kodok* ‘leg’ < *k(a,o)ndok[V], *mok* ‘seed’ < *maŋgV, *kotay* ‘bark, skin’ < *(ŋg,k)a(nd,t)apu, *kondok* ‘bone’ < *kwanjaC, *kim-* ‘die’ < *kumV-, *kinum-* ‘sleep’ < *kin(i,u)-, *ok* ‘water, river’ < *okV, e*nop* ‘fire’ < *kendop, *(ko)sep*, ‘ashes’ < *(kambu-)sumbu, (Wambon N.) *kumut* ‘thunder’ < *kumut or *tumuk, *ururuk ko-* ‘to fly’ < *pululu. Mandobo Atas: *am* ‘breast’ < *amu, *magot* ‘mouth’ < *maŋgat[a], *koman* ‘neck’ < *k(o,u)ma(n,ŋ)[V], (*a)moka* ‘cheek’ < *mVkVm ‘cheek, jaw’, *kere(top)* ‘ear’ < *kand(e,i)k(V], *betit* ‘fingernail’ <*mb(i,u)t(i,u)C, *kodok* ‘foot, leg’ < *k(a,o)ndok[V], *otae* ‘bark, skin’ < *(ŋg,k)a(nd,t)apu, *kiow* ‘wind’ < *kumbutu, *komöt* ‘thunder’ < *kumut, *üp* ‘name’ < *imbi, *kinum-* ‘sleep’ < *kin(i,u)-, *(ko)tep* ‘ashes’ > *(kambu-)sumbu, *ok* ‘water, river’ < *okV, *apap* ‘butterfly’ < *apa(pa)ta. Pisa: *mugo* ‘egg’ < *maŋgV, *kiri mogo* ‘eye’ < *kiti-maŋgV, *kifi* ‘wind’ < *kumbutu, *ise* ‘mosquito’ < *kasin, *apero* ‘butterfly’ < *apa(pa)ta, *kunu (ri-)* ‘sleep’ < *kin(i,u)-, *kekuŋ-* ‘carry on the shoulder’ < *kak(i,u)-. Syiaxa: *fi* ‘name’ < *imbi, *apa* ‘butterfly’ < *apa([pa]pata, *boro* ‘to fly’ < *pululu.

2.3.1.16 Greater Binanderean

Binanderean is a relatively well studied and closely related group of about 15 languages situated in Oro (Northern) and Morobe Provinces, Papua New Guinea. They occupy a long strip of coast and near hinterland from just south of the Huon Gulf east as far as Cape Nelson and Collingwood Bay. The closest relative of Binanderean is Guhu-Samane, a single language spoken in an inland area west of Suena and Goilalan and also in a small area immediately to the north in Morobe. Binanderean together with Guhu-Samane form the Greater Binanderean group. Smallhorn (2011) provides the following subclassification of Greater Binanderean languages based on shared phonological and lexical innovations.

BINANDEREAN
- NORTH BINANDEREAN
  - **Suena [sue]** 3,600; grammar: Wilson 1974
  - **Zia [zia]** 4,500; grammar sketch: Wilson 1980
- NUCLEAR BINANDEREAN
  - **Binandere [bhg]** 7,000; grammar sketches: King 1927, Ray 1907a, Wilson 1996, 2002
  - SOUTH BINANDEREAN
    - COASTAL BINANDEREAN

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

BARUGA-DOGHORO

Baruga [bjz] 2,230; grammar sketch: Farr et al. no date

Doghoro [dgx] 270; wordlist: Ray 1938

GAENA-KORAFE

Gaina [gcn] 1,410; comparative studies: Dutton 1971, Wilson 1969

Korafe-Yegha [kpr] 3,630; grammar: Farr 1996, 1999

Ewage-Notu [nou] 12,900; grammar sketch: Parrington and Parrington no date

OROKAIVIC

Aeka [aez] 3,400; comparative studies: Dutton 1975b, Wilson 1969

Hunjara-Kaina Ke [hkk] 8,770; wordlist: Chinnery and Beaver 1915, MacDonald 1900, Ray 1907b, Strong 1911

Orokaiva [okv] 35,000; grammar sketches: Healey et al. 1969, Larsen 1977, Larsen and Larsen 1982

Yekora [ykr] 1,050; comparative studies: Dutton 1975b, Smallhorn 2009, Wilson 1969

Guhu-Samane [ghs] 13,000; grammar sketches: Richert 1975, no date

Ross reconstructs two sets of singular pronoun roots for Proto Binanderean. One is a free form set *na '1SG', *ni '2SG', *nu '3SG'. Only the 1SG continues a pTNG etymon. The second set, *a- '1SG', *i- '2SG' *u '3SG', drops initial *n-, and always occurs before a suffixed element. Binanderean languages continue a number of other TNG etyma, e. g. Binandere: *birigi* 'lightning' < *(m,mb)elak, *mendo* 'nose' < *m(i,u)undu, *mundu* 'kidney, testicles' < *mundun 'internal organs', *(gisi)-moka* 'eye' < *(kiti)-maŋgV, *mu* 'sap' < *muk 'sap, milk', *ami* 'breast' < *amu, *kopuru* 'head' < *kV(mb,p)(i,u)tu, *ji* 'teeth' < *(s,)ti(s,t)i 'tooth', *kosiwa* 'spittle', *kosiwa ari-* 'to spit' < *kasipa tV- 'to spit', *afa* 'father' < *apa, *embo* 'man' < *ambi, *izi* 'tree' < *inda, *ganuma* 'stone' < *ka[na]m(a,u)una, *tumba* 'darkness' < *k(i,u) tuma 'night', *biriga* 'lightning' < *(m,mb)elak '(fire)light', *(aßa)-raka* 'fire' < *la(ŋg,k)a 'ashes', *ni* 'bird' < *n[e]i, *na-* 'eat, drink' > *na-, *put-* 'to blow' < *pu + verb, *tupo* 'short' < *tu(p,mb)a[C]. Korafe: *munju* 'egg' < *mundun 'internal organs', *soso* 'urine' < *sisi, *aßa-raka* 'burning stick' < *la(ŋg,k)a 'ashes', *mut-* 'give' < *mV-, *niŋg-* 'hear, understand' < *nVŋg- 'know'. Suena: *boga-masa* 'destitute' > *mbeŋga-masi 'orphan, widow and child', *mia* 'mother' < *am(a,i), *tumou* 'night' < *k(i,u)tuma, *ma* 'taro' < *mV, *asi* 'netbag' < *at(i,u). Yega: *kari* 'ear' < * kand(e,i)k(V].

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

2.3.1.17 Kainantu-Goroka

The Kainantu and Goroka groups occupy contiguous parts of Eastern Highlands Province, Papua New Guinea. Scott (1978a: 175–197), Foley (1986: 245–257) and Xiao (1990) present good evidence in the form of lexicon with sound correspondences linking the two groups. A Kainantu subgrouping emerges from McKaughan (1964). As noted above, the poorly attested Abaga is likely a bona-fide Kamano-Yagaria language rather than a Finisterre-Huon language with heavy Kamano-Yagaria influence (Tupper 2007a). Oweina is attested only by six words in Gajdusek (1980) and an unpublished Summer Institute of Linguistics wordlist which, according to Lloyd (1973b: 93), shows 30 % lexicostatistical similarity to Awa. Kenati is attested with a wordlist in Gajdusek (1980) and an unpublished Summer Institute of Linguistics wordlist, which, according to Lloyd (1973b: 93) shows 12–19 % lexicostatistical agreement with various Kainantu-Goroka languages. Foley (1986: 236–237), Capell (1949, 1962: 105–128) and Haiman (1987) give impressionistic comments on Gorokan subgrouping, supplemented by lexicostatistical figures in Wurm (1961: 20–23). Isabi, previously considered a Madang language, is reclassified as Gorokan by Pawley (2005: 93) and Ross (1995: 146).

GOROKA
Gende [gaf] 8,000; grammar sketch: Aufenanger 1952
FORE-GIMI
  Fore [for] 17,000; grammar: Scott 1973, 1978
  Gimi [gim] 22,500; grammar sketch: Haiman 1980a
GAHUKU
  Dano [aso] 30,000; specific feature: Strange 1972
  Alekano [gah] 25,000; grammar sketch: Deibler 1973; dictionary: Deibler 2008
  Tokano [zuh] 6,000; grammar sketch: No author stated 1977
KAMANO-YAGARIA
  UNCLASSIFIED KAMANO-YAGARIA
    Abaga [abg] 5; comparative study: Claassen and McElhanon 1970
  Inoke-Yate [ino] 10,000; a list of numerals: Lean 1986
  Kamano [kbq] 63,200; grammar sketches: Payne and Drew 1966, 1970
  Kanite [kmu] 8,000; grammar: Gibson and McCarthy 1967
  Keyagana [kyg] 12,300; comparative studies: Capell 1962, Wurm 1975b
  Yagaria [ygr] 21,100; grammar: Haiman 1980b, Renck 1975
Benabena [bef] 45,000; grammar sketch: Young 1971
Siane [snp] 29,000; grammar sketches: Haiman 1980a, Salisbury 1956
Yaweyuha [yby] 2,000; grammar sketch: Deibler 1976
UNCLASSIFIED GOROKA
  Isabi [isa] 280; wordlist: Z'graggen 1980d

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

KAINANTU

Gauwa

Auyana

Kosena-Awiyaana

Awiyaana [auy] 11,100; grammar sketch: McKaughan and Marks 1973

Kosena [kze] 2,000; grammar sketch: Marks 1974; dictionary: Marks 1975

Usarufa [usa] 1,300; grammar: Bee 1973, 1965

Awa-Oweina

Awa (Papua New Guinea) [awb] 2,050; grammar sketch: Loving and McKaughan 1973; dictionary: Loving and Loving 1975

Oweina [wsr] 350; specific feature: Wurm 1964

Gadsup-Agarabi

Agarabi [agd] 27,000; grammar sketches: Goddard 1974, 1976, 1980

Gadsup [gaj] 22,100; grammar sketch: Franz and McKaughan 1964, Frantz 1976

Tairora

Binumarien [bjr] 360; grammar sketch: Bee 2008

Kambaira [kyy] 140; comparative study: Wurm and Laycock 1962

South Tairora [omw] 7,000; wordlist: Gajdusek 1980

North Tairora [tbg] 6,000; grammar sketch: Vincent and Kaave 2010; dictionary: Vincent and Kaave 2010

Waffa [waj] 1,300; grammar sketch: Stringer and Hotz 1971; dictionary: Hotz and Stringer 1979

UNCLASSIFIED KAINANTU-GOROKA

Kenati [gat] 950; wordlist: Gajdusek 1980

Foley (1986) and Haiman (1987) reconstruct a number of pKainantu-Goroka (pKG) etyma. Ross (2000a) has reconstructed pronoun paradigms for Proto Gorokan, Proto Kainantu and pKG. He notes three probable shared innovations in the pronouns attributable to pKG: (i) *tá[za] '1PL' replaces pTNG *ni, *nu, (ii) *tá-na '2PL' replaces *ŋgi or *ja, (iii) genitive forms ending in *-i. The singular and plural free pronouns are reconstructed as below. PKG *ná '1SG' *ká[za] '2SG' *[y]á/[w]á '3SG' *tá[za] '1PL' *tá-na '2PL' *yá '3PL'. pKainantu *né '1SG' *é[ze] '2SG' *wé '3SG' *té-[-ze] '1PL' *té-ne '2PL' *yé '3PL'. PGoroka *na '1SG', *ka '2SG' *[y]a '3SG' *ta[za] '1PL' *ta-na- '2PL' [y]a-na- '3PL'. Some possible reflexes of pTNG lexical items in selected languages of the two major branches follow. Awa: *are* 'ear' < *kand(e,i)k(V], *nu* 'louse' < *niman. Tairora: *ato* 'ear' < * kand(e,i)k(V], ir 'tree' < *inda, *(n)am* 'breast' < *amu, *nume* 'louse' < *niman,

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

kubu ‘short’ < *k(a,u)tu(p,mb)aC, *mi-* ‘give’ < *mV-. Fore: *na-* ‘eat’ < *na-, *numaa* ‘louse’ < *niman, *mi-* ‘give’ > *mV-, *amune* ‘egg’ < *mun(a,i,u)ka, *kasa* ‘new’ < *kVndak, *mone* ‘nose’ < *mundu. Gende: *ami* ‘breast’ < *amu, *mut* ‘belly’ < *mundun ‘internal organs’, *mina-* ‘stay’ < *mVna-, *nogoi* ‘water < *[n]ok, *(tu) nima* ‘louse’ < *niman, *me-* ‘give’ < *mV-.

2.3.1.18 Kayagaric

Three closely related languages spoken in the south of Indonesian Papua, between Asmat languages to the north and south and the Yaqay (Marind) group to the east. Kayagar and Tamagario are closer to each other than to Atohwaim (Voorhoeve 1971: 87–88).

KAYGIR-TAMAGARIO
- **Kayagar [kyt]** 10,000; wordlist: Kriens et al. 2011, Krosschell 1961, Voorhoeve 1971, 1975b
- **Tamagario [tcg]** 3,500; wordlist: Lebold et al. 2010, Voorhoeve 1971, 1975b

Atohwaim [aqm] 1,000; wordlist: Voorhoeve 1971, 1975b

Ross (2000) notes that the three pTNG singular pronouns *na ‘1SG’, *ŋga ‘2SG’ and *ya ‘3SG’ have probable reflexes in Proto Kayagar, in the first elements of *na-ka *a-ka and *e-ka, respectively. pTNG *ni ‘1PL’ is continued by pKayagar *ni-pi.

2.3.1.19 Kiwaian

A dialect network that can be divided into about six closely related languages spoken on the coast and offshore islands of the western side of the Gulf of Papua, around the deltas of the Fly, Bau, Turama, Kikori and Era Rivers. Wurm (1973) looks at the internal relationships among the Kiwai lects in terms of phonology, lexicostatistics and typology, and gives some consistent reasons for subgrouping Kerewo and Morigi. See N. Evans et al. (this volume) for further discussion of the Kiwaian group.

TURAMA-KEREWO
- **Kerewo [kxz]** 2,200; specific feature: Wurm 1951
- **Morigi [mdb]** 700; specific feature: Wurm 1951

Bamu [bcf] 6,310; specific feature: Wurm 1951
Northeast Kiwai [kiw] 6,041; grammar sketch: Brown 2009
Southern Kiwai [kjd] 9,700; grammar: Ray 1931
Waboda [kmx] 2,750; specific feature: Wurm 1951

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

The TNG status of the Kiwai group rests on reflexes of a significant number of pTNG basic vocabulary etyma. Lexical reflexes include: S. Kiwai *magota* ‘mouth’ < *maŋgat[a], *amo* ‘breast > *amu, S. Kiwai *gare* ‘ear’ > *kand(e,i)k(V], Waboda *kepuru*, S. Kiwai *epuru* ‘head’ < *kV(mb,p)utu, S. Kiwai *nimo* ‘louse’ < * niman, Kerewo *bena* ‘shoulder’ < *mbena ‘arm’, Morigi *kota* ‘leg’ < *k(a,o)ndok[V], N.E. Kiwai *modi* ‘nose’ < *mundu, S. Kiwai *pitu* ‘fingernail’ < *mb(i,u)t(i,u)[C], S. Kiwai *baba* ‘father’ < *mbapa, *sagana* ‘moon’ < *takVn[V], S. Kiwai *tuwo* ‘ashes’ < *sumbu, S. Kiwai *era* ‘tree’ < *inda, Bamu *kukamu* ‘cold’ < *kukam(o,u), S. Kiwai *kopu* ‘short’ < *kutu(p,mb)a, *abida* ‘sister’ < *pi(n,nd)a. The Kiwai languages show no definite reflexes of pTNG pronouns. Ross reconstructs the following for Proto Kiwai: *mo[ʔo] ‘1SG’, *(o)ro ‘2SG’, *nau ‘3sg’, *nimo 1PL’, *nigo ‘2PL’, *nei ‘3PL’. Kiwai languages are also divergent from typical TNG languages in grammatical structure. Contemporary Kiwai languages typically distinguish singular, dual, trial and plural pronouns.

2.3.1.20 Koiarian

Comprises seven languages spoken on both sides of the Owen Stanley Range in Central and Northern Provinces, Papua New Guinea. Dutton (2010) provides a subgrouping based on shared innovations in lexicon and phonology.

BARAIC
- **BARAI-NAMIAE**
  - **Barai [bbb]** 800; grammar: Olson 1981
  - **Namiae [nvm]** 1,200; new testament: Ewande et al. 2004
- **Ömie [aom]** 800; grammar sketches: Austing and Upia 1975, Dutton 1969
- **Ese [mcq]** 10,000; grammar sketches: Dutton 1969, Parlier 1970; dictionary: Parlier and Parlier 1981

KOIARIC
- **KOITA-KOIARI**
  - **Grass Koiari [kbk]** 1,700; grammar sketches: Dutton 1969, 1996, 2003; dictionary: Dutton 2003
  - **Koitabu [kqi]** 2,700; grammar sketches: Dutton 1969, 1975a
- **Mountain Koiali [kpx]** 4,000; grammar: Garland 1980

Dutton (2010) and Ross (2000a) have reconstructed Proto Koiarian free pronouns as follows: *na and *d[a,i] ‘1SG’, *a ‘2SG’, *ahu ‘3SG’, *no ‘1PL’, *ya ‘2PL’, *yabu ‘3PL’. Here we find probable reflexes of pTNG *na ‘1SG’, *ŋga ‘2SG’ and *ni ‘1PL’ while the other forms represent innovations of pKoiarian. Possible reflexes of pTNG etyma in Koiarian and Managalasi include: Koiari: *muka* ‘lump’ < maŋgV ‘round object’, *uni* ‘egg’ < *mun(a,i,u)ka, *idu* ‘tree’ < *inda, *iya* ‘cassowary’ < *ku(y)a, *karika* ‘dry’ < *(ŋg,k)atata, *muni* ‘stone < *(na)muna, *nana* ‘older same

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

sex sibling' < *nan(a,i), *u-tuvu* 'ashes' < *kambu-sumbu. Managalasi: *ata* 'bone' < *kondaC, *muka* 'lump' < *maŋgV 'round object', *iha* name' < *imbi, *uma* 'louse' < *iman, *uka* 'bird' < *yaka, *tuua* 'short' < *tukumba[C], *muna* 'stone' < *(na) muna, *ija* 'tree' < *inda, *otoka* 'knee' < *(k,ŋg)atuk, *kora* 'dry' < *(ŋg,k)atata.

2.3.1.21 Kolopom

Three languages, Kimaghama (= Kimaana), Ndom and Riantana, spoken on Kolopom (formerly Frederik Hendrik) Island in the southeast of Indonesian Papua. Kimaama and Riantana almost certainly form a subgroup, since the 1st and 2nd person pronouns correspond in singular as well as plural, and the two have lexicostatistical agreement in the 20–40 % range (Drabbe 1949b, Menanti and Susanto 2001, Voorhoeve 1975a). Ndom is likely to be part of the group as well, but there is some room for doubt. Ndom also shares the 1st person singular and plural pronoun form but lexicostatistical figures between Ndom and Kimaama/Riantana village pairs may drop below 10 % (Menanti and Susanto 2001). See N. Evans et al. (this volume) for further discussion of the Kolopom group.

KIMAAMA-RIANTANA
- **Kimaama [kig]** 3,000; grammar sketch: Drabbe 1949b
- **Riantana [ran]** 1,100; grammar sketch: Drabbe 1949b

Ndom [nqm] 1,200; grammar sketch: Drabbe 1949b

The Kolopom languages are typologically unusual among TNG languages in having almost no verb morphology. However, they show reflexes of several pTNG pronouns as well as reflecting some basic lexical etyma. Based on a comparison of Kimaghana and Riantana, Ross reconstructs pKolopom *na '1SG', *[a]ga 2SG, *ni '1PL' *[i]gi '2PL' and *i '3PL', all of which continue pTNG forms. Possible reflexes of pTNG etyma include Kimaghana: *kura* 'leg' < *k(a,o)ndok[V], *nome* 'louse' < *niman, *nanu* 'older sibling' < *nana(i). Riantana: *mu* 'breast' < *amu, *modo* 'head' < *mVtVna, *nome* 'louse' < *niman.

2.3.1.22 Kutubu

Two languages spoken to the east and southeast of Lake Kutubu (East Kutubu) and one dialectally diverse language Fasu (West Kutubu).

EAST KUTUBU
- **Fiwaga [fiw]** 300; comparative study: Franklin and Voorhoeve 1973
- **Foi [foi]** 2,800; grammar sketch & dictionary: Rule 1993

Fasu [faa] 1,200; grammar: Loeweke and May 1980

Some lexical arguments have been presented (Franklin 1973b, Franklin 2001: 311) for a combined Kutubu group consisting of East Kutubu and Fasu (West Kutubu)

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

but the lexical domains referred to, such as the counting system and kinship terms, are susceptible to diffusion. Ross (2000) finds no support for such a group in the pronominal paradigms. Foi appears to continue just one pTNG pronoun: *na '1SG' > Foi *na*. The one noteworthy feature common to West Kutubu and Fasu pronouns is that they have an *n*-initial 2SG form. This feature is also present in several other subgroups: Chimbu-Wahgi, East Strickland, Enga-Kewa-Huli, Goilalan and Madang. Some possible reflexes of pTNG etyma follow. Foi: *gage-* 'carry on back' < *kak(i,u), *ku-* 'die' < *kumV-, *na-* 'eat' < *na-, *korage* 'leg' < *k(a,o)ondok[V], *gariko* 'neck' < *k(a,e)(nd,t)ak, *ira* 'tree' < *inda, *kuba* 'wind' < *kumbutu, *ya* 'bird' < *yaka(i), *babo* 'mother's sister' < *mbamba 'older same sex sibling'. Fasu: *ku-* 'die' < *kumV-, *na-* 'eat' < *na-, *reke-* 'stand' < ta,e,i)k[V], *ama* 'mother' < *am(a,i), *apa* 'father' < *apa, *himu* 'heart, stomach < *simb(i,u), *iti* 'hair' < *iti[C], *korake* 'leg' > *k(a,o)ndok[V], *kinu* 'shoulder' < *kinV, *kau* 'skin' < *k(a,o)(nd,t)apu, *sikini* 'hand' < *sa(ŋg,k)(a,i)l, *pisi* 'urine' < *pisi, *mane(raka)* 'make the law' < *mana 'instructions', *horop* 'long' < *k(o,u)ti(mb,p)V, *api(a)* 'husband < *ambi 'man', *papa* 'mother's sister' < *mbamba 'older same sex sibling', *ira* 'tree' < *inda, *sakipu* 'sand' < *sa(ŋg,k)asiŋ, *kupa* 'wind' < *kumbutu.

2.3.1.23 Kwalean

Comprises two living languages, Humene and Kwale (aka Uare), located in Central Province, Papua New Guinea, around the lower edge of Sogeri Plateau between Koiari to the northwest and the Oceanic languages of Motu and Sinagoro to the southeast, and one extinct language, Mulaha, formerly spoken southeast of Gaile on the coast. Dutton (1970) finds that Kwale and Humene share about 70 % cognates in basic vocabulary, but Mulaha shares only 22 % with Kwale.

HUMENE-KWALE
  Humene [huf] 940; comparative study: Dutton 1975b
  Kwale [ksj] 1,300; comparative study: Dutton 1975b
Mulaha [mfw] 0; wordlist: English 1902

Ross reconstructs pKwalean *ɣa and/or *a '2SG', *ani and *e '3SG', and *ya and *-ya '2PL'. The only reflexes of pTNG pronouns appear to be Humene *a* '2SG object' and Kwale *ɣa* '2SG', both reflecting pTNG *ŋga. Kwale reflects a few pTNG etyma, e. g. *maɣa* 'egg' > *maŋgV, *oda* 'leg' > *k(a,o)ndok[V], *nomone* 'louse' > *niman, *ire* 'tree' > *inda.

2.3.1.24 Madang

With about 100 members, Madang is the largest well-defined subgroup of TNG. It occupies roughly the central third of Madang Province, Papua New Guinea, from the coast to the Bismarck and Schrader Ranges, and part of the eastern third.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

It is bounded on the west by the Lower Sepik-Ramu family, on the east by the Finisterre branch of the Finisterre-Huon family and on the south by members of the Chimbu-Wahgi and Gorokan families. The most important innovations shared by the Madang group are the replacement of the very stable pTNG independent pronouns *na '1SG', *ŋga '2SG' and *ya '3SG' by Proto Madang *ya, *na and *nu. The pMadang non-singular roots are *i- 'IPL', *ni- and *ta- '2PL', with suffixed markers of dual (*-le, *-t) and plural (*-na and *-ga). The non-singular pronoun roots are also innovations but the dual markers are retained from pTNG. Some pTNG pronouns appear to be reflected in verbal agreement suffixes. Thus Kalam verbal suffixes marking person and number include the following: *-in, -n '1SG' (possibly < pTNG *na), -a- '3SG' (< pTNG *ya), *-nu-, -un- '1PL' (< pTNG *nu), *-nut '1DU' < pTNG *nu-t(V). Other possible innovations defining the Madang group include apparent replacements of, or irregular changes in several pTNG lexemes: pTNG *mbena 'arm' > pMadang *kambena (accretion of *ka-), *mb(i,u) t(i,u)C 'fingernail' > *timbi(n,t) (metathesis), *(n)ok 'water' replaced by pMadang *yaŋgu.

The Madang group corresponds roughly to the large lexicostatistically-based group identified by Z'graggen (1975b,c, 1980a-d) as 'Madang-Adelbert Range', although there are a number of differences in overall membership and in internal classification. The internal classification given here is largely that of Ross 2000b, the main differences being that Kalam-Kobon (assigned to Rai Coast by Ross) is here placed as a primary branch and Korak and Waskia (grouped with Southern Adelbert by Ross) are placed separately, and the subclassification of Sogeram follows Daniels (2012, 2015). The degree of lexical diversity found across the major branches of the Madang group is comparable to that distinguishing the major branches of Austronesian or Indo-European. This suggests that the Madang group probably broke up at least 4,000 years ago and possibly a good deal earlier.

There are perhaps four well-defined high-order subgroups. Croisilles (about 50 languages) extends from just north of Astrolabe Bay, south of Madang township, north and northwest to Bogia. Kalam-Kobon consists of two dialectally diverse languages, spoken in the Schrader Range and at the western end of the Bismarck Range. Rai Coast (30 languages) occupies the eastern coastal region of Madang Province from Astrolabe Bay eastwards to Saidor, and inland to just south of the Ramu River. Southern Adelbert Range (14 languages) occupies an area in the west of Madang Province north of the Ramu River, around the Sogeram, Aingurum and Goam Rivers. Ross (2000b) argues, using pronominal evidence, that Korak, spoken on the north coast just west of Karkar Island and Waskia (spoken on Karkar) form a subgroup and tentatively suggests that these in turn may form a higher-order subgroup with the Southern Adelbert Range group.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

CROISILLES

Amaimon [ali] 1,780; wordlist: Z'graggen 1980b

DIMIR-MALAS

Dimir [dmc] 3,820; wordlist: Z'graggen 1980b

Malas [mkr] 650; wordlist: Z'graggen 1980b

KUMILAN

Bepour [bie] 50; wordlist: Z'graggen 1980b

Brem [buq] 1,190; wordlist: Capell 1952, Z'graggen 1980b

Mauwake [mhl] 2,390; grammar: Berghäll 2010

Musar [mmi] 680; wordlist: Capell 1952, Z'graggen 1980b

Moere [mvq] 50; wordlist: Z'graggen 1980b

MABUSO

GUM

PANIM-ISEBE

Isebe [igo] 910; wordlist: Z'graggen 1980a

Panim [pnr] 420; wordlist: Dempwolff 1905, Ray 1919, Z'graggen 1980a

Amele [aey] 5,300; grammar: Roberts 1986, 1987

Bau [bbd] 3,150; wordlist: Z'graggen 1980a

Gumalu [gmu] 580; wordlist: Z'graggen 1980a

Sihan [snr] 570; wordlist: Z'graggen 1980a

HANSEMAN

SILOPI-UTU

Utu [utu] 580; wordlist: Z'graggen 1980a

Silopi [xsp] 180; wordlist: Z'graggen 1980a

WAMAS-SAMOSA-MURUPI-MOSIMO

Mosimo [mqv] 50; wordlist: Z'graggen 1980a

Murupi [mqw] 300; wordlist: Kaspruś 1945, Z'graggen 1980a

Samosa [swm] 90; wordlist: Z'graggen 1980a

Wamas [wmc] 220; wordlist: Z'graggen 1980a

Baimak [bmx] 650; wordlist: Z'graggen 1980a

Bagupi [bpi] 50; wordlist: Z'graggen 1980a

Wagi [fad] 3,380; wordlist: Dempwolff 1905, MacKenzie et al. 2011, Ray 1919, Z'graggen 1980a

Gal [gap] 340; wordlist: Z'graggen 1980a

Nobonob [gaw] 5,000; dictionary: Inselmann 1941

Garus [gyb] 2,650; wordlist: Kaspruś 1945, Z'graggen 1980a

Mawan [mcz] 470; wordlist: Z'graggen 1980a

Matepi [mqe] 280; wordlist: Z'graggen 1980a

Nake [nbk] 170; wordlist: Z'graggen 1980a

Rempi [rmp] 1,590; wordlist: Dempwolff 1905, Kaspruś 1945, Miklucho-Maclay 1951b, Ray 1919, Z'graggen 1980a

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Rapting [rpt] 330; comparative study: Z'Graggen 1975
Saruga [sra] 130; wordlist: Z'graggen 1980a
Yoidik [ydk] 770; wordlist: Z'graggen 1980a
Kare (Papua New Guinea) [kmf] 380; wordlist: Z'graggen 1980a
Kokon
Girawa [bbr] 4,000; grammar: Gasaway and Sims 1992; dictionary: Lillie 1999
Kein [bmh] 1,750; wordlist: Z'graggen 1980a
Munit [mtc] 910; wordlist: Z'graggen 1980a
Mugil-Kaukombaran
Kaukombaran
Mala (Papua New Guinea) [ped] 1,390; phonology: May and Loeweke 1985
Miani [pla] 1,500; phonology: May and Loeweke 1985
Maia [sks] 4,350; grammar sketch: Hardin 2002; dictionary: Weisenburger et al. 2008
Maiani [tnh] 3,040; phonology: May and Loeweke 1985
Bargam [mlp] 3,750; grammar: Hepner 2006; dictionary: Hepner 2002
Numugenan
Yaben-Bilakura
Bilakura [bql] 30; wordlist: Z'graggen 1980b
Yaben [ybm] 700; wordlist: Z'graggen 1980b
Yarawata-Parawen-Ukuriguma
Parawen [prw] 430; wordlist: Z'graggen 1980b
Ukuriguma [ukg] 170; wordlist: Z'graggen 1980b
Yarawata [yrw] 130; wordlist: Z'graggen 1980b
Usan [wnu] 1,400; grammar: Reesink 1987
Tibor-Omosa
Omosan
Pal [abw] 1,160; wordlist: Z'graggen 1980b
Kobol [kgu] 720; wordlist: Z'graggen 1980b
Tiboran
Pamosu [hih] 1,500; wordlist: Z'graggen 1980b
Mawak [mjj] 25; wordlist: Z'graggen 1980b
Wanambre [wnb] 590; wordlist: Z'graggen 1980b
Kowaki [xow] 25; wordlist: Z'graggen 1980b
Kalam-Kobon
Kalam
Etp [kmh] 20,000; grammars: Lane 2007, Pawley 1966, Pawley and Bulmer 2011
Ti [taw] 5,000; Kalam dictionary: Pawley and Bulmer 2011

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

Kobon [kpw] 6,000; grammars: Davies 1981, 1987; dictionary: Davies 1985

South Adelbert

Osum-Wadaginam-Pomoikan

Pomoikan

Anamuxra [imi] 1,250; grammar: Ingram 2001

Moresada [msx] 200; wordlist: Z'graggen 1980d

Anam [pda] 1,070; wordlist: Z'graggen 1980d

Utarmbung [omo] 1,170; wordlist: Z'graggen 1980d

Wadaginam [wdg] 950; wordlist: Z'graggen 1980d

Sogeram

Central Sogeram

North Central Sogeram

Mum [kqa] 3,290; wordlist: Z'graggen 1980d

Sirva [sbq] 260; grammar sketch: Daniels 2015; wordlist: Z'graggen 1980d

Apalɨ [ena] 980; specific feature: Wade 1997

Manat [pmr] 150; grammar sketch: Daniels 2013b, 2015

East Sogeram

Aisian

Aisi [mmq] 360; grammar sketch: Daniels 2013c, 2015, 2016

Magɨ [–] 50; grammar sketch, wordlist, text: Daniels 2016

Gants [gao] 1,880; grammar sketch: Daniels 2013a, 2015; wordlist: Daniels 2012

Kursav [faj] 50; grammar sketch: Daniels 2015; wordlist: Z'graggen 1980d

West Sogeram

Nend [anh] 2,000; grammar sketch: Harris 1990

Atemble [ate] 60; wordlist: Z'graggen 1980d

RAI COAST

Evapia

Asas-Sinsauru

Asas [asd] 330; wordlist: Z'graggen 1980c

Sinsauru [snz] 500; wordlist: Z'graggen 1980c

Kesawai-Sausi

Sausi [ssj] 93; wordlist: Z'graggen 1980c

Kesawai [xes] 770; grammar: Priestley 2008

Dumpu [wtf] 510; wordlist: Z'graggen 1980c

Kabenau

Arawum [awm] 60; wordlist: Z'graggen 1980c

Kolom [klm] 470; wordlist: Dempwolff 1905, Miklucho-Maclay 1951b, Ray 1919, Z'graggen 1980c

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Lemio [lei] 270; wordlist: Z'graggen 1980c
Pulabu [pup] 120; wordlist: Ray 1919, Schmidt 1900, Z'graggen 1980c, Zöller 1891
Siroi [ssd] 1,310; grammar: Wells 1979

Mindjim
Anjam [boj] 2,020; wordlist: Hagen 1899, Hanke 1905, Miklucho-Maclay 1951b, Ray 1919, Schmidt 1900, Miklucho-Maclay 1882, Z'graggen 1980c, Zöller 1891
Bongu [bpu] 850; grammar: Hanke 1909
Male (Papua New Guinea) [mdc] 970; wordlist: Hagen 1899, Miklucho-Maclay 1951b, Ray 1919, Schmidt 1900, Werner 1911, Z'graggen 1980c
Sam [snx] 780; phonology: Troolin and Troolin 2005

Nuru
Duduela [duk] 470; wordlist: Lambrecht et al. 2008, Z'graggen 1980c
Ogea [eri] 2,210; grammar sketch: Colburn 1984
Jilim [jil] 650; wordlist: Z'graggen 1980c
Kwato [kop] 780; wordlist: Lambrecht et al. 2009, Z'graggen 1980c
Rerau [rea] 590; wordlist: Hagen 1899, Ray 1919, Schmidt 1900, Z'graggen 1980c
Uya [usu] 270; wordlist: Z'graggen 1980c
Yangulam [ynl] 400; wordlist: Miklucho-Maclay 1951b, Ray 1919, Miklucho-Maclay 1882, Z'graggen 1980c

Peka
Danaru [dnr] 260; wordlist: Z'graggen 1980c
Sumau [six] 2,580; wordlist: Z'graggen 1980c
Urigina [urg] 1,400; wordlist: Z'graggen 1980c
Sop [urw] 2,250; wordlist: Z'graggen 1980c

Unclassified Rai Coast
Biyom [bpm] 380; wordlist: Z'graggen 1980d
Wasembo [gsp] 590; wordlist: McElhanon and Sogum 1976
Tauya [tya] 350; grammar: MacDonald 1990; dictionary: MacDonald (2013)

Yaganon
Bai-Maclay [-] 0; wordlist: Miklucho-Maclay 1951a
Dumun [dui] 35; overview: Z'graggen 1975b
Ganglau [ggl] 470; wordlist: Z'graggen 1980c
Saep [spd] 550; wordlist: Z'graggen 1980c
Yabong [ybo] 1,500; wordlist: Z'graggen 1980c

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

UNCLASSIFIED MADANG

Kowan

Korak [koz] 510; wordlist: Z'graggen 1980b

Waskia [wsk] 20,000; grammar: Ross and Paol 1978; dictionary: Lee and Barker 1985

The Croisilles group shows no shared changes to the pMadang pronoun forms, although several of its subgroups do, including the large but homogeneous Mabuso group. The Croisilles languages continue a number of pTNG etyma, e. g. Garuh: *muki* 'brain' < *muku, *bi* 'guts' < *simbi, *hap* 'cloud' < *samb(V), *balamu* 'fire-light' < *mbalaŋ, *wani* 'name' < *[w]ani 'who?', *wus* 'wind, breeze' < *kumbutu, *kalam* 'moon' < kala(a,i)m, *neg-* 'to watch' < *nVŋg- 'see, know', *ma* 'taro' < *mV, *ahi* 'sand' > *sa(ŋg,k)asiŋ. Pay: *in-* 'sleep' < *kin(i,u)-, *kawus* 'smoke' < *kambu, *tawu-na* 'ashes' < *sambu, *imun* 'hair' < *sumu(n,t), *ano* 'who' < *[w]ani.

Kalam-Kobon: Kalam includes two sharply divergent dialect groups, Etp and Ti. Etp is centred in the Upper Kaironk and Upper Simbai Valleys and Ti in the Asai Valley. (Tai, spoken in valleys to the west of the Asai, is sometimes named as a third dialect but it belongs to the Ti subgroup.) Kobon is spoken to the west of Kalam, also in several dialects. Kalam and Kobon retain about 40 possible reflexes of pTNG etyma, e. g. Kalam *meg* 'teeth' < *maŋgat[a], *md-magi* 'heart' < *mundu-maŋgV, *mkem* 'cheek' < *mVkVm 'cheek, chin', *sb* 'excrement, guts' < *simbi, *muk* 'milk, sap, brain' < *muku, *yman* 'louse' < *iman, *yb* 'name' < *imbi, *kdl* 'root' < *kindil, *malaŋ* 'flame' < *mbalaŋ, *melk* '(fire or day)light' < *(m,mb)elak, *kn-* 'to sleep, lie down', < *kini(i,u)[m]-, *kum-* 'die', *md-* < *mVna- 'be, stay', *nŋ-*, *ng-* 'perceive, know, see, hear, etc' < *nVŋg-, *kawnan* 'shadow, spirit' < *k(a,o)nan, *takn* 'moon' < *takVn[V], *magi* 'round thing, egg, fruit, etc.' < *maŋgV, *ami* 'mother' < *am(a,i,u), *b* 'man' < *ambi, *bapi, -ap* 'father' < *mbapa, *ap, *saŋ* 'women's dancing song' < *saŋ, *ma-* 'negator' < *ma-, *an* 'who' < *[w]ani.

The ancestral Rai Coast language replaced the pMadang 1st person non-singular root *i- with *si-. Rai Coast languages continue more than 20 pTNG etyma, e. g. Dumpu: *man-* 'be, stay' < *mVna-, *mekh* 'teeth' < *maŋgat[a], *im* 'louse' < *iman, *munu* 'heart' < *mundun 'inner organs', *kum-* 'die' > *kumV-, *kono* 'shadow' < *k(a,o)nan, *kini-* sleep' < *kin(i,u)[m]-, *ra-* 'take' > *(nd,t)a-, *urau* 'long' < *k(o,u)ti(mb,p)V, *gra* 'dry' < *(ŋg,k)atata.

pSouthern Adelbert Range pronouns show some formal changes to pMadang. pMadang *i '1PL' and *ni '2PL' were replaced by *a- and *na-. pMadang *nu appears as '3PL' as well as '3SG'. Some possible reflexes of pTNG etyma in a Sogeram language: Sirva: *mun(zera)* 'be, stay' < *mVna-, *kaja* 'blood' < *kenja, *miku* 'brain' < *muku, *simbil* 'guts' < *simbi, *tipi* 'fingernail' < *mb(i,)ut(i,u)C (metath.), *i:ma* 'louse < *iman, *ibu* 'name' < *imbi, *kanumbu* 'wind' < *kumbutu, *mundu(ma)* 'nose' < *mundu, *ka:si* 'sand' < *sa(ŋg,k)asiŋ, *apapara* 'butterfly' < *apa(pa)ta, *kumu-* 'die' < *kumV-, *ŋg-* 'see' < *nVŋg-.

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

Daniels (2015) traces the phonological history of the Sogeram subgroup, reconstructs a sketch of proto Sogeram morphosyntax and gives a body of lexical reconstructions.

2.3.1.25 Mailuan

Eight languages in southeast Papua New Guinea. Mailu (in several dialects) and Morawa are spoken along the south coast of eastern Papua New Guinea between Cape Rodney and Orangerie Bay. Binahari, Bauwaki and Laua are situated inland in mountainous country, extending as far as Mt Suckling. O'oku, a poorly attested and now extinct language also appears to be Mailuan, closest to Bauwaki (Ray 1938). Apart from the two closely related Binahari and Bauwaki-O'oku pairs, the Mailuan languages share around 50 % cognates in basic vocabulary (Dutton 1999).

- **BINAHARIC**
  - **Binahari-Ma [-]** 172; wordlist: Ray 1938
  - **Binahari [bxz]** 630; wordlist: Ray 1938
- **BAUWAKIC**
  - **Bauwaki [bwk]** 520; wordlist: Anonymous 1913, Ray 1938
  - **O'oku [-]** 0; wordlist: Ray 1938
- **Domu [dof]** 950; wordlist: Ray 1938
- **Laua [luf]** 0; wordlist: Ray 1938
- **Mailu (Magi) [mgu]** 8,500; grammar sketches: Lanyon-Orgill 1944, Saville 1912, Thomson 1975; dictionary: Lanyon-Orgill 1944
- **Morawa [mze]** 1,100; wordlist: Anonymous 1913, 1914b, Ray 1938

Mailu shows heavy borrowing from Oceanic sources, very likely the outcome of language shift from an Oceanic language of the Papuan Tip subgroup to a Mailuan language (Dutton 1982). Ross reconstructs the following Proto-Mailuan pronouns: *i '1SG', *ga '2SG', *ge '1PL', *[y]a '2PL', *mee '2PL', *gu- '1DU' < *[y]a '2DU', *emu '3DU'. Of these, only *ga continues a pTNG etymon. Mailuan languages retain a number of pTNG lexical etyma, e. g. Mailu *ama* 'breast' < *amu, *maa* 'mouth' < *maŋgat[a], *kisa* 'bone' < *kondaC, *tupa* 'short' < *tu(p,mb)a(C), *guia* 'cassowary' < *ku(y)a, Bauwaki *baba* 'father < *mbapa, *idi* 'hair < *iti[C], *(ine) ibi* 'name' < *imbi, *iini-* 'sleep' < *kin(i,u)-.

2.3.1.26 Manubaran

Two closely related languages, spoken in the east of Central Province, Papua New Guinea, along the southern slopes of the Owen Stanley Range, west of Mt Brown and inland from the Oceanic languages Sinaugoro and Keapara (Dutton 1975b).

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Doromu-Koki [kqc] 1,500; grammar: Bradshaw 2012
Maria (Papua New Guinea) [mds] 1,350; wordlist: Ray 1938

For Proto Manubaran Ross (2000a) reconstructs a partial paradigm of personal pronouns: *na '1SG', *ya '2SG', *ina and *-e '3SG', *una '1PL', *ya[uma]' '2PL', *ina[uma] '3PL'. Only *na has a pTNG antecedent. Manubaran retains at least a few pTNG etyma, e. g. Maria *ama* 'mother' < *am(a,i), *baba(e)* 'father' < *mbapa, *kuyau* 'cassowary' < *ku(y)a, *ita(isa)* 'tree' < *inda.

2.3.1.27 Mek

The closely related Mek languages occupy an area of the central highlands of West Papua between the Dani group in the west and the Ok group in the east. The division into seven languages as below is somewhat arbitrary. Lexicostatical figures weakly support an East/West subgrouping (Heeschen 1978b, 1992b). The Korapun wordlist collected by Bromley at Korapun in 1967, reproduced partly in Voorhoeve (1975b: 117), is quite different from the Sela valley wordlist in Godschalk (1993), and may represent a different Western Mek language (Tim Usher p.c. 2013). Godschalk spent time in both the Korapun and Sela valleys and reports that the same language is spoken but with notably different accents (Godschalk 1993:passim). Whatever the nature and magnitude of the discrepancy between Korapun and Sela, lexicostatistically Bromley's Korapun wordlist is roughly as close to Nalca and Nipsan as they are to each other (Heeschen 1978).

EASTERN MEK
Eipo [eip] 3,000; grammar: Heeschen 1998
Una [mtg] 5,600; grammar: Louwerse 1988
Ketengban [xte] 9,970; phonology: Sims and Sims 1982
WESTERN MEK
Kosarek Yale [kkl] 2,300; grammar sketches: Heeschen 1992a, 2000; dictionary: Heeschen 1992a
Korupun-Sela [kpq] 8,000; wordlist: Godschalk 1993
Nalca [nlc] 11,100; wordlist: Voorhoeve 1975b
Nipsan [nps] 2,500; overview: Silzer and Heikkinen-Clouse 1991

Only partial pronoun paradigms are available for most Mek languages. Ross reconstructs pMek *na 'lSG', *ka-n '2SG', *e-r '3SG', *nun '1PL'. The first two reflect pTNG *na and *ŋga and the last two may reflect pTNG *ya and *nu. Mek languages appear to continue at least a number of pTNG lexical etyma, e. g. Eipo: *mun* 'belly' < *mundun 'internal organs', *kuna* 'shadow' < *k(a,o)nan, *saŋ* 'dancing song' < *saŋ, *getane* 'sun' < *kVtane. Bime: *mundo* 'belly' < *mundun 'internal organs', Kosarek: *ami* 'louse' < *niman, *si* 'tooth' < *(s,t)i(s,t)i , *tomo* <

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

*k(i,u)tuma ‘night’, Yale: *de* ‘to burn’ < *nj(a,e,i), *mon* ‘belly’ < *mundun ‘internal organs’, *xau* ‘ashes’ < *kambu.

2.3.1.28 Marori

A single language, Marori (also appearing as Moraori, Morori), is spoken in a small area just east of Merauke, on the Indonesian side of the border between Provinsi Papua and Papua New Guinea. It lies between the Marind group and the (non-TNG) Morehead and Upper Maro family. See N. Evans et al. (this volume) for further discussion of Marori.

Marori [mok] 10; grammar sketches: Arka 2012, Boelaars 1950, Drabbe 1954b

Among its personal pronouns, *na* ‘1sg’, *ka* ‘2sg’, *ni-ɛ* ‘1pl, and *ki-ɛ* ‘2pl’ continue pTNG forms. The other pronouns, *ŋgafi* ‘3sg’ and *ŋgamdE* ‘3pl’, do not. Possible reflexes of pTNG eyma are: *mam* ‘breast’ < *amu, *mam* ‘mother’ < *am(a,i), *nemeŋk* ‘louse’ < *niman, *sa* ‘sand’ < *sa(ŋg,k)asiŋ, *ŋwar* ‘bone’ < *kondaC.

2.3.1.29 Ok-Oksapmin

The Ok group consists of about 20 languages spoken over a large expanse in the central ranges on both sides of the Indonesia-Papua New Guinea border, including the Star Mountains, and the Thurnwald, Victor Emmanuel and Western Ranges. The pioneering comparative work on Ok by Healey (1964) distinguished a Lowland Ok branch, a Mountain Ok branch and the singleton Ngalum, based on sound correspondences. A number of additional Ok languages have recently been uncovered. Among these, Tangko and Nakai seem to form a subgroup on lexicostatistical grounds (Hughes 2009, Wilbrink 2004a) and Kwer-Kopkaka-Burumakok form a close-knit complex (Wilbrink 2004a). How the Ngalum, Tangko-Nakai and Kwer-Kopkaka-Burumakok subgroups relate to each other has not been studied in depth, except for the ongoing phonological and lexical reconstruction of the Ok family by Usher (2015b). This reconstruction is presented with the same subgrouping as that given below, although the chart of phonological innovations listed there would be more consistent with subgrouping Ngalum, Tangko-Nakai and Kwer-Kopkaka-Burumakok into one intermediate node. This is because the changes in final **-mb* > **p* and **-ndz* > **ø* would otherwise have had to happen interpendently or areally, and all other phonological innovations are consistent with this subgroup, i. e. either indeterminate, extending, or specializing this subgroup, but never cross-cutting it. The closest relative of Ok is probably Oksapmin, spoken near the headwaters of the Strickland River, in Telefomin District, Sandaun Province (Loughnane and Fedden 2011). It is bounded by the Ok languages to the south and west and Sepik languages to the northeast.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

OK
Kwer-Kopkaka-Burumakok
Kwer-Burumakok
Burumakok [aip] 40; wordlist: Wilbrink 2004a
Kwer [kwr] 100; wordlist: Wilbrink 2004a
Kopkaka [opk] 400; phonology: Wilbrink 2004b
Lowland Ok
Iwur/Dintere [iwo] 6,900; wordlist: Jang 2003
North Muyu [kti] 8,000; wordlist: Drabbe 1954a, 1950a, Healey 1964, Ray 1923, Stokhof 1982, Voorhoeve 1975b
South Muyu [kts] 4,000; grammar sketch: Drabbe 1954b
Ninggerum [nxr] 5,150; wordlist: Healey 1964, Voorhoeve 1975b
Yonggom [yon] 6,000; grammar sketch: Christensen 1995
Mountain Ok
Mianic
Mian [mpt] 1,400; grammar: Fedden 2011, Smith and Weston 1974; dictionary: Smith and Weston 1986
Suganga [sug] 350; wordlist: Healey 1964
Bimin [bhl] 2,250; wordlist: Healey 1964, Poole 1976
Faiwol [fai] 4,500; phonology: Mecklenburg 1974
Setaman [stm] 280; wordlist: Cott and Spencer 2010, Healey 1964
Tifal [tif] 3,600; grammar sketches: Boush 1975, Healey and Steinkraus 1972; dictionary: Healey and Steinkraus 1972
Telefol [tlf] 5,400; grammar: Healey 1966
Urapmin [urm] 370; ethnographic: Brumbaugh 1980, Robbins 1998
Tangko-Nakai
Nakai [nkj] 700; wordlist: Hughes 2009, Wilbrink 2004a
Tangko [tkx] 100; wordlist: Hughes 2009
Ngalum [szb] 10,000; text: Roman Catholic Mission 1970
Oksapmin [opm] 8,000; grammar: Loughnane 2009; dictionary: Marshall 1993

Ok pronoun roots are conservative. They are reconstructed as follows by Ross 2000a, following Healey 1964: *na- '1sg', *ka-b- '2sg.m' *ku-b- '2sg.f', *ya- '3sg.m', *yu '3sg.f', *nu[b]-, *ni[b]- '1pl', *ki[b] '2pl', *[y]i- '3pl'. The singular forms all continue pTNG etyma, with the addition of 2sg and 3sg feminine forms in which *i is replaced by *u. The plural pronouns also appear to reflect TNG forms. The Ok group retains a number of possible reflexes of pTNG lexical items. The following reconstructions for pMountain Ok are from Healey (1964). PMountain Ok: *be:n 'arm' < *mbena, *mburuŋ 'fingernail' < *mb(i,u)t(i,u)C, *katuun 'knee' < *(ng,k)atVk, *maŋkat 'mouth' < *maŋgat[a], *gitak 'neck' <

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

*k(a,e)ndak, *kum ‘side of neck’ < *kuma(n,ŋ), *mutuum ‘nose’ < *mundu, *falaŋ ‘tongue < *mbilaŋ, *kaliim ‘moon’ < *kal(a,i)m.

2.3.1.30 Paniai Lakes (Wissel Lakes)

Five languages spoken northeast of Lake Paniai in the western highlands of Indonesian Papua, between the neck of the Bird’s Head and the territory occupied by the Dani group and Uhunduni. All languages are closely related and may be subgrouped lexicostatistically (Moxness 2002: 6–7, Larson 1977). This group has previously been referred to as Wissel Lakes but here we call it by the local name for the lakes.

AUYE-DAO
  Auye [auu] 350; grammar sketch: Moxness 2002
  Dao [daz] 250; overview: Lewis et al. 2013
Ekari [ekg] 100,000; grammar: Drabbe 1952, Steltenpool and van der Stap 1959
Moni [mnz] 20,000; grammar sketches: Drabbe 1949a, 1959d, Larson and Larson 1958
Wolani [wod] 5,000; wordlist: de Bruijn 1941, Larson 1977, Voorhoeve 1975b

Ross attributes the following pronouns to pPaniai Lakes: *ani ‘1SG’, *aga ‘2SG’, *oga ‘3SG’, *ini ‘1PL’, *igi ‘2PL’, *ina ‘1DU’, *iga ‘2DU’. The 1SG, 2SG and 1PL forms appear to continue pTNG etyma with the addition of a vowel. The prefixed Ekagi singular object pronouns *na-* ‘1SG’, *ka-* ‘2SG’, *e-* ‘3SG’ all reflect pTNG singular pronouns. Possible reflexes of pTNG lexical etyma follow. Ekari: *ama* ‘breast’ < *amu, *benâî* ‘arm’ < *mbena, *modo* ‘belly’ < *mundun, *ama* ‘breast < *amu, *kado* ‘skin’ < *k(a,o)(nd,t)apu, *yame* ‘louse’ < *niman, *mei-* ‘come’ < *me, *wawa* ‘father’ < *mbapa, *mana* ‘speech, talk’ < *mana ‘instructions’, *tani* ‘sun’ < *ketane. Moni: *ama* ‘breast’ < *amu, *(duku)mudu* ‘heart’ < *mundun ‘internal organs, belly’, *ada* ‘skin’ < *k(a,o)(nd,t)apu, *pane* ‘woman’ < *panV, *timu* ‘night’ < *k(i,u)tuma, *homa* ‘stone’ < *ka(mb,m)uCV, *usa* ‘tree’ < *inda, *me-* ‘come’ < *me-.

2.3.1.31 Somahai

Two closely related languages, Momuna and Momina, spoken in the remote lowland/foothills southwest of the Mek languages in West Papua. Asmat and Dani languages are neighbours to the west and northwest. Language boundaries to the south and southeast are imperfectly known but involve Asmat, Ok and Bayono-Awbono clan lects.

Momina [mmb] 200; overview: Silzer and Heikkinen-Clouse 1991
Momuna [mqf] 2,000; grammar sketch: Reimer 1986

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

These languages have barely been considered in comparative work, presumably because of the paucity of published data. Momuna *na* '1SG', *ka* '2SG', *mo* '3SG' (Reimer 1986) and Momina *na* '1SG', *ka* '2SG', *mɔ* '3SG' (Kroneman 2004) are consistent with the hypothesis of a TNG origin. Voorhoeve (1972b: 32) mentions lexical resemblances to the Greater Awyu and Ok groups without specifying which these are. Tim Usher (p.c. 2010) finds lexical resemblances that point to a closer relationship to the Mek languages.

2.3.1.32 Turama-Kikori

Four languages located around the Turama, Omati and Kikori Rivers in Kikori District, western Gulf Province, just north of the Kiwaian group in the Gulf of Papua and to the west of the Teberan group. Ikobi-Mena, Barikewa and Mouwase are closely related, forming the Turama group while Kairi stands apart, its highest cognate percentage with a Turama language being 16 % (Franklin 1973b: 263–267).

Rumu [klq] 1,000; grammar sketch & dictionary: Petterson 1999
TURAMA-OMATIAN
- **Ikobi-Mena [meb]** 1,572; wordlist: Saunders 1924, Z'graggen 1975a
- **Barikewa [jbk]** 310; wordlist: Johnston 1923
- **Mouwase [jmw]** 450; wordlist: Franklin 1973, Johnston 1921, Z'graggen 1975a

Several Kairi pronouns reflect pTNG forms. The genitive suffixes *-na* '1SG', *-ka* '2SG' and *-a* '3SG' reflect *na '1SG', *ŋga '2SG' and *ya '3SG', respectively and the morphologically complex non-singular free pronouns *na-mə* '1PL', *na-tí* '1DU', *ka-mə* '2PL', *ka-tí* '2DU' and *atí* '3DU' contain reflexes of the pTNG forms (Ross 2005: 30, data from Petterson 1999).

2.3.1.33 West Bomberai

Two dialectally diverse languages, Iha and Baham, spoken at the western end of the Bomberai Peninsula and Karas spoken on Karas Island. Iha and Baham share about 60 % putative cognates (Voorhoeve 1975a: 432–437). Karas is quite different but arguably has systematic correspondences in pronominals and a few items of basic vocabulary with other West Bomberai languages (Cowan 1953: 33–36).

Karas [kgv] 240; wordlist: Cowan 1953, Galis 1955, Robidé van der Aa 1879, Smits and Voorhoeve 1998, Voorhoeve 1975b
NUCLEAR WEST BOMBERAI
- **Baham [bdw]** 1,100; grammar sketches: Flassy 2002, Flassy et al. 1984
- **Iha [ihp]** 5,500; grammar sketch: Flassy and Animung 1992

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Ross reconstructs pWest Bomberai pronouns *na '1SG', *ka '2SG', *bi(r) '1EXCL.PL', *in '1INCL.PL', *ki '2PL', of which the 1SG, 2SG and 2PL forms appear to reflect pTNG etyma. The 1st person pronouns distinguish inclusive and exclusive of addressee.

2.3.1.34 Wiru

Wiru is situated in Ialibu District, Southern Highlands Province, at the southwestern edge of the central highlands of Papua New Guinea, between Kewa (Enga-Huli) to the west and Folopa (Teberan) to the south.

Wiru [wiu] 15,300; grammar: Kerr 1967

Wiru appears to preserve two pTNG pronominal roots: *no* '1SG' < *na, *ki-wi* '2PL' and *ki-ta* '2DU' < *ki. Kerr (1975) makes a case for assigning Wiru to a subgroup with Enga-Kewa-Huli, on the basis of a considerable number of structural and lexical resemblances, including the 2nd person singular forms: Wiru *ne*, pEnga-Kewa-Huli *ne(ke). Although the evidence looks very promising we prefer to take a conservative position here, given the possibility that many of the resemblances may be due to borrowing. Possible reflexes of pTNG etyma include: *ibi(ni)* 'name' < *imbi, *nomo* 'louse' < *niman, *laga* 'ashes' < *la(ŋg,k)a, *tokene* 'moon' < *takVn[V], *mane* 'instructions, incantations' < *mana, *keda* 'heavy' < *ke(nd,n)a, *mo-* 'negative prefix' < *ma-.

2.3.1.35 Yareban

Five languages spoken in Oro (Northern) Province, southeast Papua New Guinea, in river valleys on both sides of the Owen Stanley Range, to the east of the Koiarian group and to the west of Mailuan. Lexicostatistical figures are available in Dutton (1971: 14–15) and these suggest two subgroups.

BARIJIAN
- **Bariji [bjc]** 460; grammar sketch: Weimer 1978
- **Yareba [yrb]** 750; grammar sketches: Weimer 1978, Weimer and Weimer 1975
- **Nawaru [nwr]** 190; grammar sketch: Weimer 1978

ANEME WAKE-MOIKODI
- **Aneme Wake [aby]** 650; grammar sketch: Weimer 1978
- **Moikodi [mkp]** 570; grammar sketch: Weimer 1978

Comparative data are sparse and allow the reconstruction of only two pYareban pronouns: *na '1SG' and *a '2SG'. Both appear to reflect pTNG etyma. There are probable reflexes of a number of basic pTNG lexical items, including Yareba: *ama* 'breast' < *amu, *uyau* 'cassowary' < *ku(y)a, *rarara* 'dry' < *(ŋg,k)atata, *baba* 'father' < *mbapa, *iji* 'hair' < *iti[C], *ifu* 'name' < *imbi, *kofiti* 'head' <

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

*kV(mb,p)(i,u)tu, *ogo* 'water' < *ok[V], *eme* 'man' < *ambi. Abia: *amai* 'mother' < *am(a,i), *sagai* 'sand' < *sa(ŋg,k)asiŋ.

2.3.2 Groups and isolates with weaker or disputed claims to membership in TNG

A number of groups and isolates have weak claims to membership in, or may have a distant relationship to TNG. These include Bayono-Awbono, Komolom, Mairasi, Pauwasi, Pawaian, Sentanic, South Bird's Head, Tanah Merah, Teberan, Timor-Alor-Pantar and Uhunduni.

2.3.2.1 Bayono-Awbono

A number of clan lects conventionally defined as two languages, Bayono and Awbono, spoken in the remote lowland/foothills area south of the Somahai languages in West Papua.

Awbono [awh] 100; wordlist: Hischier 2006, Wilbrink 2004a
Bayono [byl] 100; wordlist: Hischier 2006, Wilbrink 2004a

The only data so far collected on these languages are unpublished wordlists recorded in first-contact situations in the past two decades. The lists collected by Mark Donohue appear in an unpublished MA thesis by Wilbrink 2004a. Another pair of wordlists collected by Hischier 2006 are also unpublished. Restricted by the sparseness of the data, few people have looked at the classification of Bayono-Awbono. Most words are different from neighbouring Ok and Greater Awyu languages, but there are also clear resemblances (Wilbrink 2004a), and the 1SG/2SG pronouns fit the TNG pattern, e. g. Awbono *nɛ* '1SG' and *gu* '2SG', Bayono *ne* '1SG' and *gwe* '2SG' (Wilbrink 2004a: 109).

2.3.2.2 Komolom (Mombum)

Two closely related languages: Koneraw is situated on the south coast of Kolopom and Mombum is spoken further east, on Mombum (Komolom) Island, which adjoins Kolopom.

Koneraw [kdw] 1,200; wordlist: Geurtjens 1933: 397–429, Le Roux no date, Voorhoeve 1975b
Mombum [mso] 250; grammar sketch: Drabbe 1950b

Ross notes that the pKomolom pronouns *nu '1SG', *yu '2SG' and *eu '3SG' probably reflect pTNG *na, *ŋga and *ya, with shift of root-final *a to *u. The same shift occurs in the pKomolom plural forms: *nu-mu, *ni '1PL', *yu-mu '2PL', with pTNG *ni '1PL' also retained. The replacement of *i by *u* also occurs in Awyu-Du-

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

mut and Asmat singular pronouns. The sparse lexical data for Mombum contain very few good-looking reflexes of pTNG etyma. However, although N. Evans et al. (this volume) tentatively group Komolom with TNG, they regard any ruling on its genetic status as premature due to the paucity of information on the group.

2.3.2.3 Mairasi

Three closely related languages spoken in the neck of the Bird's Head, on its southern side extending from Etna Bay to Kamrau Bay and in the north as far as Cenderawasih Bay. The three are roughly equidistant from each other in degree of similarity (Peckham 1991a).

Semimi [etz] 1,000; wordlist: Earl 1853, Miklucho-Maclay 1951c, Gabelentz and Meyer 1882, Miklucho-Maclay 1876, Voorhoeve 1975b
Mer [mnu] 85; comparative study: Peckham 1991a
Mairasi [zrs] 3,300; grammar sketch: Peckham 1982; dictionary: Peckham et al. 1991

Voorhoeve (1975a,b) argues on lexical grounds that Mairasi is TNG and that, within TNG, it subgroups with the Tanah Merah laguages of the Bomberai Peninsula. Ross (2000a) finds no pronominal evidence for such a subgroup or for including Mairasi in TNG. A possible reflex of a TNG etymon is Mairasi *ooro*, Semimi o*koranda* 'leg' < *k(a,o)nd(a,o)C.

2.3.2.4 Pauwasi

Five little studied languages close to the border between Provinsi Papua and Papua New Guinea, around the headwaters of the Pauwasi River in Sandaun Province and in Provinsi Papua, just south of Jayapura. The eastern languages form a clear subgroup (Voorhoeve 1971) including Karkar-Yuri (see Hammarström 2010). However, the two western languages are so different from each other and from the eastern languages that one may doubt whether they are really related (Voorhoeve 1971).

EASTERN PAUWASI
- **Emumu [enr]** 2,000; wordlist: Galis 1956, Lee 2006, Voorhoeve 1971, 1975
- **Yafi [wfg]** 230; wordlist: Galis 1956, Voorhoeve 1971, 1975
- **Karkar-Yuri [yuj]** 1,140; grammar sketch: Rigden no date

WESTERN PAUWASI
- **Tebi [dmu]** 220; wordlist: Galis 1956, Im 2005, Voorhoeve 1971, 1975
- **Towei [ttn]** 120; wordlist: Galis 1956, Voorhoeve 1971, 1975, Wambaliau 2004

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

The Pauwasi languages are scantily documented but Tebi and Yafi show a few possible reflexes of pTNG eytma, including a couple of pronouns: Tebi *na*, Yafi *nam* ‘1SG’ < *na, Tebi *numu*, Yafi *nim* ‘1PL’ < *ni, and Tebi *ne* ‘eat’ < *na-, Tebi *mi,* Yafi *yemar* ‘louse’ < *iman, *niman. The Pauwasi languages were classified as TNG by Wurm and McElhanon (1975: 155–156) based on these and a few more putative TNG cognates. Foley (this volume) is unconvinced.

2.3.2.5 Pawaian

A single language spoken around the Purari and Pio Rivers in Karimui District, Simbu Province, overlapping into Gulf and Southern Highlands Provinces. It is situated east of the Teberan group and west of the Angan group. Wiru is spoken to the north.

Pawaia [pwa] 4,000 grammar sketch: Trefry 1969

Pawaian is sometimes assigned to a subgroup with the Teberan group on the basis of putative cognate percentages of 16 % shared with Podopa and 10 % with Dadibi. However, Ross (2000a) finds no evidence for such a relationship in the pronouns. Only a partial paradigm of Pawaian free form pronouns is available: *ana* ‘1SG’, *nono* ‘1PL’, *ono* ‘2PL’. A very few possible reflexes of pTNG etyma have been noted: *emi* ‘breast’ < *amu, *in* ‘tree’ < *inda, *su* ‘tooth’ < *(s,t)i(s,t)i.

2.3.2.6 Sentanic

Four languages spoken in the northeast corner of Provinsi Papua. Hartzler and Gregerson (1987) reconstruct proto-phonology and posit a primary division beween Demta and the rest.

Demta [dmy] 1,300; wordlist: Cowan 1953, Galis 1955, Kim 2006, Voorhoeve 1971, 1975
NUCLEAR SENTANIC
- **Nafri [nxx]** 1,630; wordlist: Galis 1955, Voorhoeve 1975b
- **Sentani [set]** 30,000; grammar sketches: Cowan 1951, 1965a
- **Tabla [tnm]** 3,750; specific feature: Collier and Gregerson 1985

The Sentanic group was tentatively assigned to TNG by McElhanon and Voorhoeve (1970). However, Ross (2000a) finds no pronominal evidence supporting the inclusion of Sentanic in TNG and instead argues that it belongs in a separate family with Burmeso, spoken on the Mamberamo River well to the west of Sentani. Data in Gregerson and Hartzler (1987) contain a few possible reflexes of pTNG etyma, e. g. (words from Central Sentani unless otherwise noted) *an-* ‘eat’ < *na-, *mikæ* ‘vomit’ (n.) < *mVkV[C], *mu* ‘penis’ < *mo, W. Sentani, Tabla *oto* ‘leg’ < *k(a,o) ndok, Tabla *miŋ*, C. Sentani *mi* ‘louse’ < *iman, *mi-* ‘come’ < *me-.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

2.3.2.7 South Bird's Head

Includes about 12 languages most of which are spoken along the southwest coast of the Bird's Head including one southern Arandai dialect spoken on the Bomberai Peninsula across Bintuni Bay. Three clear groups emerge, Inanwatan-Duriankere (Voorhoeve 1975a: 437–446), Konda-Yahadian (Berry and Berry 1987) and the Nuclear South Bird's Head family (Berry and Berry 1987, Voorhoeve 1975a: 437–446). The three groups are lexically quite divergent and on lexical grounds do not obviously form a coherent subgroup.

KONDA-YAHADIAN
- **Konda [knd]** 500; wordlist: Cowan 1953, Galis 1955, Smits and Voorhoeve 1998, Voorhoeve 1975b
- **Yahadian [ner]** 500; wordlist: Cowan 1953, de Vries 2004: 143–150, Galis 1955, Smits and Voorhoeve 1998, Voorhoeve 1975b

INANWATAN-DURIANKERE
- **Duriankere [dbn]** 0; wordlist: Smits and Voorhoeve 1998, Voorhoeve 1975b
- **Inanwatan [szp]** 1,100; grammar sketches: de Vries 2002, 1996, 2004

NUCLEAR SOUTH BIRD'S HEAD
- **East South Bird's Head**
  - **Kemberano [bzp]** 1,500; grammar sketches: Berry and Berry 1987, Voorhoeve 1985
  - **Arandai [jbj]** 1,000; grammar sketches: Berry and Berry 1987, Voorhoeve 1985
  - **Kokoda [xod]** 3,700; wordlist: de Vries 2004: 130–137, Galis 1955, Smits and Voorhoeve 1998, Voorhoeve 1975b
- **Kais [kzm]** 700; wordlist: Cowan 1953, Galis 1955, Smits and Voorhoeve 1998, Voorhoeve 1975b
- **Puragi [pru]** 700; wordlist: Cowan 1953, de Vries 2004: 137–143, Galis 1955, Smits and Voorhoeve 1998, Voorhoeve 1975b
- **Kaburi [uka]** 600; wordlist: de Vries 2004: 153–154

Ross (2000a) unites the three groups on the basis of several resemblant pronouns. He finds reflexes of two pTNG pronouns: pSouth Bird's Head *na '1SG' and *a '2SG' continue pTNG *na and *ŋga. Possible reflexes of pTNG etyma are Duriankere *kabu* 'eye' < *(ŋg,k)amu, Arandai: *akare* 'ear' < *kand(e,i)k(V], Tarof, Kasuari: *kotora* 'leg' < *k(a,o)nd(a,o)C. See Holton and Klamer (this volume) for further discussion of the South Bird's Head group.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

2.3.2.8 Tanah Merah

A single language, Tanah Merah (not to be confused with other languages/places named Tanah Merah in other parts of Provinsi Papua and Papua Barat), spoken on the north coast of the Bomberai Peninsula. Voorhoeve (1975a: 424–431) suggested a subgrouping relationship with the Mairasi languages, near-neighbours to the southeast, on undeclared lexical resemblances, which turn out to be difficult to reproduce.

Tanah Merah [tcm] 500; wordlist: Smits and Voorhoeve 1998, Voorhoeve 1975b

Ross (2000a) regards two Tanah Merah pronouns as containing reflexes of pTNG: *na-fea* '1SG' < *na, *ka-fea* '2SG' < *ŋga. Other possible reflexes of pTNG etyma are *egorage* 'neck' < *k(a,e)(nd,t)ak and *tate* 'dry' < *(ŋg,k)atata.

2.3.2.9 Teberan

Two languages situated just north of the Kiwai group in the Gulf of Papua, extending northwards as far as the border of Southern Highlands Province.

Dadibi [mps] 10,000; grammar: MacDonald 1976
Folopa [ppo] 3,000; wordlist: Franklin 1973, Z'graggen 1975a

Dadibi and Folopa pronouns show few close agreements. Dadibi *éna* '1SG' may continue pTNG *na. Folopa *ya* '2SG' and *a* '3SG' may continue pTNG *ŋga and *ya. A very few possible reflexes of pTNG lexical etyma have been noted. Dadibi: *ami* 'breast' < *amu. Folopa: *kabu* 'stone' < *ka(mb,m)u[CV], *kolemane* 'star' < *kala(a,i)m 'moon', *kile* 'eye' < *(ŋg,k)iti.

2.3.2.10 Timor-Alor-Pantar

More than 20 non-Austronesian languages are present in Timor and the small island of Kisur, just northeast of Timor, and in Alor and Panar and small intervening islands. For a detailed discussion of the relationships of these languages see Holton and Klamer (this volume).

It has long been assumed that the languages of East Timor are distantly related to the Alor-Pantar group, and this has now received a bona-fide demonstration (Schapper et al. 2014) though the placement of Bunaq as part of the East Timor branch, Alor-Pantar branch or as a third branch, remains to be worked out satisfactorily. A subgrouping for Alor-Pantar based on shared phonological innovations is given below, following Schapper et al. (2012), Holton et al. (2012) and Schapper et al. (2014). Languages not appearing there have been placed according to the lexicostatistical figures in Stokhof (1975).

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

ALOR-PANTAR

Alor

East Alor

Wersing [kvw] 3,700; grammar sketch: Schapper & Hendery 2014

East Alor Montane

Sawila [swt] 3,000; grammar sketch: Kratochvíl 2014

Kula [tpg] 5,000; specific feature: Donohue 1997

West Alor

Straits West Alor

Adang-Hamap-Kabola

Adang [adn] 3,000; grammar: Haan 2001

Hamap [hmu] 900; wordlist: Stokhof 1975

Kabola [klz] 3,900; text: Stokhof 1987

Blagaric

Blagar [beu] 11,000; grammar sketches: Steinhauer 1995, Wakidi et al. 1989

Retta [ret] 800; wordlist: Stokhof 1975

Tereweng [twg] 800; wordlist: Stokhof 1975

Klon [kyo] 5,000; grammar: Baird 2008

Kafoa [kpu] 1,000; wordlist: Stokhof 1975

Abui [abz] 16,000; grammar: Kratochvíl 2007

Kui (Indonesia) [kvd] 1,900; wordlist: Stokhof 1975, Verbeek 1914

Kamang [woi] 6,000; wordlist: Schapper 2014a

Kaera [-] 10,000; grammar sketch: Klamer 2014

Western Pantar [lev] 10,000; grammar sketch: Nitbani et al. 2001; dictionary: Holton and Koly 2007

Nedebang [nec] 1,500; wordlist: Stokhof 1975

Teiwa [twe] 4,000; grammar: Klamer 2010

EAST TIMOR

Fataluku-Oirata-makasae

Fataluku-Oirata

Fataluku [ddg] 37,000; grammar sketches: Campagnolo 1973, 1979, Hull 2005, Langford 2007; dictionary: Nacher 2004

Oirata [oia] 1,220; grammar sketches: Cowan 1965b, Faust 2006; text & dictionary: Josselin de Jong 1937

Makasae [mkz] 102,000; grammar: Huber 2011

Bunak [bfn] 55,000; grammar: Schapper 2010

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Various commentators have concluded, tentatively, that the Timor-Alor-Pantar (TAP) languages form a branch of TNG (Wurm 1982, Ross 2000a, 2005a, Pawley 2011). Holton and Robinson (2012, 2014) regard current evidence as insufficient to confirm a genealogical relationship between TAP and TNG or any other family, and this is the position taken by Holton and Klamer (this volume). The main grounds for including the Timor and Alor-Pantar languages in TNG are that they show possible reflexes of two pTNG pronouns, namely pTNG *na, pTAP *na '1SG', and pTNG *ni 'IPL', pTAP *ni '1PLEXCL', and that both pTNG and pTAP show a pattern whereby singular pronouns have the form *Ca and plural pronouns the form *Ci. In addition TAP languages exhibit possible reflexes of a small number of other pTNG etyma. pTNG reconstructions that follow are from Pawley (n.d.) and reconstructions for pTAP (proto Timor-Alor-Pantar), PAP (proto Alor-Pantar) and pTimor are (unless otherwise noted) from Holton and Robinson (2014): pTNG *am(i,u) 'breast', pTAP hami 'breast': pTNG *na 'eat' > pTAP *nVa 'eat, drink', pTNG *ata 'excrement' > pTAP *(h)at(V) 'excrement', pTNG *kumV- 'die' > pTAP *mV(n), pAP *min(a) 'die', pTimor *-mV 'die', pTNG *inda 'tree, wood' > pTAP *hate 'fire, wood', pTNG *panV > pTAP *pan(a) 'girl', pTNG *nan(a,i) 'older sibling' > pAP *nan(a) 'older sibling', pTNG *me 'come' > pAP *mai 'come', pTNG *mundu 'nose' > pTAP *mVN 'nose', pTNG *tukumba[C] 'short' > pAP *tukV 'short', pTNG *ŋgatata 'dry' > pAP *takata (our pAP reconstruction: AP, HH), pTNG *(m,mb)elak 'lightning' > Blagar *merax*, Retta *melak* 'lightning'. The small number of possible cognate forms is insufficient to firmly establish regular sound corespondences, but Holton and Robinson (2014: 148) point to a few recurring consonant correspondences.

2.3.2.11 Uhunduni (Damal)

A single language spoken in the western highlands of West Papua, between Ekagi and Moni in the west and the Dani languages in the east.

Uhunduni [uhn] 14,000; new testament: Damal people and CMA 1988

Classified as TNG by Ross because it reflects some pTNG pronouns: *na* '1SG' and *a* '2SG' may continue pTNG *na and *ŋga. It shares 14–17 % resemblant items in basic vocabulary with Ekagi and Moni (Larson 1977) but these may include loanwords from its larger neighbours. The scanty lexical data for Uhunduni include possible reflexes of four pTNG verbs: *no-* 'eat' < *na-, *mo-* come' < *me-, *mini-* 'sit' < *mVna-, *eme-* 'give' < *mV-.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

2.3.3 Groups and isolates sometimes assigned to the TNG family without sufficient supporting evidence

A number of other groups and isolates have at some point or another been assigned to TNG but without sufficient supporting evidence, i. e. without any convincing reflexes of pTNG pronouns or lexical items. These include Dem, Eleman, Kaki Ae, Kamula, Kaure-Narau, Mor, Porome and Purari.

2.3.3.1 Dem

A single language, Dem (Ndem, Lem) (1,000), spoken around the Upper Rouffaer River, north of the Western Dani region of West Papua.

Dem [dem] 1,000; wordlist: de Bruijn 1941, Galis 1955, Larson 1977, Le Roux 1950: 852–862, 892–895, Voorhoeve 1975b

Larson (1977) connects Dem to the other TNG families in the highlands of West Papua based on a small number of putative lexical cognates. However, the small number of cognates do not show consistent correspondences, and may, in any case, reflect loans into Dem from its larger neighbours.

2.3.3.2 Eleman

The Eleman languages occupy a coastal area west of Port Moresby and east of the Turama-Kikori languages. The languages are closely related. An eastern and western subgrouping emerges from Brown (1973).

EASTERN ELEMAN
- **Tairuma** [uar] 4,500; grammar sketch: Ikamu & Jo 2014
- **Toaripi** [tqo] 23,000; grammar: Brown 1972

WESTERN ELEMAN
- **Orokolo** [oro] 13,000; grammar: Brown 1972
- **Opao** [opo] 1,120; wordlist: Franklin 1973a
- **Keoru-Ahia** [xeu] 5,970; wordlist: Franklin 1973a

A putative group Eleman-Purari-Kaki Ae was included in Trans New Guinea by Franklin (1975c:861) on "slight" lexical evidence and an oral tradition of some Eleman groups having migrated from the north. Ross (2005a: 24, 37) notes that Eleman personal pronouns show no resemblance to pTNG, but on the assumption of an Eleman-Kaki Ae relationship, regards it possible that the 1SG and 2SG pronouns in an Eleman-Kaki Ae protolanguage derive from their proto TNG counterparts. We have not been able to improve on this (insufficient) evidence, and, moreover, we find the relationship Eleman-Kaki Ae difficult to defend. Franklin (1975b: 892–893) did find up to 21 % lexicostatistical resemblances between

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Kaki Ae and Eleman and lists the proposed cognates. However, as observed by Clifton (1995: 33–34) the proportions of lexicon shared with Kaki Ae, the semantic fields, metalinguistic awareness, and relevant sociolinguistic facts strongly favour a borrowing scenario. Franklin (1995) alludes to regular sound correspondences in these items, but these correspondences are also perfectly predictable as loan renderings given the phonemic systems of Eleman (which has no n/l/r-phonemic distinction) and Kaki Ae (which has no t/k distinction). Similarly, the relatively small number of lexical look-alikes shared by Purari and the Eleman languages are arguably loans, contra Brown (1973: 286–290), leaving no convincing evidence for a genealogical relationship (Franklin 1994: 198).

2.3.3.3 Kaki Ae

Kaki Ae is spoken in some six villages southeast of Kerema in Gulf Province, Papua New Guinea. Kaki Ae is a highly multilingual community squeezed in between larger Eleman (to the west) and Angan languages (to the north).

Kaki ae [tbd] 630; grammar sketch: Clifton 1995

For the proposed relationship of Kaki Ae with Eleman, see section 2.3.3.2 on Eleman. Ross (2005: 37) regards the Kaki Ae pronouns *na-o* ‘1PSG’ and *a-o* ‘2PSG’ as plausible reflexes of their proto TNG counterparts, but beyond this there is little evidence for TNG membership.

2.3.3.4 Kamula

Kamula (Kamira, Wawoi) is spoken in two widely separated villages south of the Bosavi languages. See 2.3.1.5 for comments on claims of a relationship with the Bosavi languages.

Kamula [xla] 800; grammar sketch: Routamaa 1994

The short wordlist in Shaw (1986) contains two possible reflexes of pTNG etyma: *nê* ‘1SG’ < *na, *mu* (*u* nasalised) ‘nose’ > *mundu. Ross (2000a, 2005a: 35) included Kamula as an isolate within TNG on the basis of problematic resemblances in the singular personal pronouns, but the resemblances are not strong enough to justify inclusion in the absence of other evidence.

2.3.3.5 Kaure-Narau

Kaure and Narau are spoken in a continuous area just northeast of the Lakes Plain in West Papua. They are typically treated as separate languages (Voorhoeve 1975b) but Dommel and Dommel (1991: 1–3) argue that they are varieties of one language, which is consistent with the only published data attributed to Narau.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Kaure [bpp] 450; grammar sketch: Auri et al. 1991
Narau [nxu] 80; wordlist: Giël 1959, Voorhoeve 1975b, Smits and Voorhoeve 1994

Voorhoeve (1975b: 45) suggests that the little-known Kosare and Kapauri languages are related to Kaure-Narau, but newer evaluations of the lexical relationships show insufficient resemblances between the Kaure-Narau group and Kosare (Wambaliau 2006) or Kapauri to justify such a claim (Rumaropen 2006: 13). However, Foley (this volume chapter 4.4) is inclined to treat both Kosare and Kapauri as members of the Kaure family. See Palmer (this volume) for further discussion of Kaure.

2.3.3.6 Mor

A single, highly endangered language spoken along the Budidi and Bomberai rivers, east of the Baham, on the Bomberai Peninsula.

Mor (Bomberai Peninsula) [moq] 30; wordlist: Smits and Voorhoeve 1998, Voorhoeve 1975b

Voorhoeve (1975b) notes similarities in the personal pronoun system between Mor and South Bird's Head languages but regards the classification of Mor as TNG as highly tentative. Ross (2000a) observes that its pronouns *na-ya* '1SG' and *a-ya* '2SG' appear to contain reflexes of pTNG *na and *ŋga, respectively.

2.3.3.7 Porome

A single language spoken in Kikori District, Gulf Province, Papua New Guinea, around the estuary of the Kikori River.

Porome [prm] 1,180; wordlist: Petterson 2010, Z'graggen 1975a

Considered a Papuan isolate by Franklin (1975b). Although Ross (2000a) tentatively links it to the Kiwai group, the evidence for such a connection is very weak. It exhibits some structural features characteristic of TNG languages.

2.3.3.8 Purari

Purari, also known as Namau, is spoken around the mouth of the Purari River in Gulf Province, Papua New Guinea.

Purari [iar] 7,000; grammar sketches: Holmes (1913), Kairi and Kolia (1977), Dutton (1979:passim)

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

For the proposed relationship of Purari with Eleman, see section 2.3.3.2 on Eleman. The argument for Purari being a member of TNG rests on the idea that Purari subgroups with Eleman and Kaki Ae.

2.4 Phonology

Segmental phonology is examined in 2.4.1, phonotactics in 2.4.2 and prosody in 2.4.3. As Foley (1986: 52) points out, in describing sound systems it is important to distinguish between phonetics and phonology, between sounds and phonemes. Sound systems that look similar at a fairly abstract, phonemic level can have sharply differing inventories of phonetic realisations of phonemes. This is the case in many TNG languages.

2.4.1 Segmental phonology

A sample of segmental phoneme inventories for 14 languages is given in Table 1 below. Mentions of particular languages as exemplars generally refer to this sample.

2.4.1.1 Consonants

Most TNG languages have inventories of between 10 and 15 consonants, a few as many as 18–20, with series of nasals and stops, and small classes of fricatives and affricates, laterals, rhotics, and semivowels.

Nasals. It is common to find three contrasting nasals /m, n, ŋ/ (see e. g. Angaatɨha, Baruya, Selepet, Siroi, South Muyu in Table 1). However, many languages lack velar /ŋ/ (see Awa, Beami, Boazi, Dani, Ekari, Kuman, Wiru) and others disallow the velar in word-initial position. At least one Ok language is reported as having /m/ and /ŋ/ while lacking /n/. A fairly small minority of languages have a palatal /ɲ/ (see Ku Waru and Kalam). In a few languages voiced stops and nasals have been described as being in complementary distribution, e. g. Asmat (Voorhoeve 1965). In some languages, such as the possible TNG South Bird's Head language Inanwatan (de Vries 2004: 20–21), there is no phonemic distinction between laterals, rhotics and nasals, so /n/ subsumes phonetic [n, l, r].

Stops. A few languages distinguish three series of stops: a voiceless series, a plain voiced series and a voiced series where the stop is preceded by a homorganic nasal. Such a system is found in the Marind and Awyu groups, both located in southwest New Guinea (see Boazi in Table 1). More commonly there are two series. These may be plain voiced vs voiceless (Baruya, Ekari, Kuman, South Muyu) or prenasalised voiced vs voiceless (Dani, Kalam, Ku Waru, Siroi, Wiru). Other languages have just a single series of stops, predominantly voiceless (see Angaatɨha and Asmat in Table 1).

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

Generally there are three contrasting points of articulation for stops: bilabial, dental and velar. Some languages have a glottal stop (e. g. Angaatɨha, Awa). Some languages have an alveopalatal affricate that forms part of the stop series (e. g. Kalam, Ku Waru, Siroi). A few languages distinguish one or more labiovelar (e. g. Iha, see Anceaux 1958) as well as velar stops (e. g. Dani). Languages with a phonemic uvular stop can be found in the disputed TNG Timor-Alor-Pantar group, such as Teiwa (Klamer 2010: 37–38).

The foregoing typology oversimplifies the phonetics of stops. In some languages 'stops' show great allophonic variation, e. g. certain voiceless stops become voiced fricatives after a vowel or between vowels, and voiced stops word-finally. /t/ is often realised as a flapped [ɾ] after a vowel. For example, Kalam /p/ > [ɸ] word initially, [β] between vowels and [p] or [b] word finally, /k/ > [ɣ] between vowels and /t/ > [ɾ] after a vowel. Fore shows a similar variation: /p/ > [ɸ, β, p, b], /t/ > [t, ɾ, l], k > [ɣ, k, g].

Fricatives and affricates. Many, perhaps most languages have only one pure fricative, usually a sibilant /s/, occasionally /h/. A number also have /f/ and /v/ and/or affricates /ʧ/ and /ʤ/, e. g. the disputed TNG South Bird's Head language Kemberano (Voorhoeve 1985, Hammarström fieldnotes 2010). However, in the case of languages that have obstruents with both stopped and fricative allophones, it makes more sense to speak of obstruent series rather than of stops vs fricatives.

Laterals. Most languages have a single lateral /l/, which in some languages is a flap rather than a continuant. However, in the Chimbu-Wahgi group one finds either two contrasting laterals (see e. g. Kuman) or three (see e. g. Ku Waru). Nii (Chimbu-Wahgi) has a typical three lateral series with alveopalatal /l/, dental /l̪/, which is voiceless finally and voiced elsewhere, and velar /ʟ/[10], which is voiceless word finally and voiced elsewhere. Kobon (Madang) also distinguishes three lateral phonemes: alveolar /l/, palatal /ʎ/, and a sub-apical retroflex flap /ɭ̆/.

Rhotics. Most languages have a single rhotic, usually a flapped [ɾ] or trilled [r]. This is often in complementary distribution or free variation with the apical stop /t/ or with /l/.

Glides. It is usual to find two glides or semi-vowels, /w/ and /j/, which behave as consonants but with some phonotactic restrictions, e. g. they often occur only initially and finally in phonological words.

[10] Often transcribed as *gl*.

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

2.4.1.2 Vowels

Five-vowel systems predominate in TNG, typically consisting of two front unrounded, /e, i/, two back rounded, /o, u/, and one low central, /a/ (see Ekari, Kalam, South Muyu, Wiru in Table 1), although often there is considerable allophonic variation. It is rare to find languages with fewer than five contrasting vowels. However, there is a range of systems with more than five.

A number of languages have six vowel systems in which, besides the standard five, there is a mid-central or a low front vowel. In other cases, the additional vowel is a lower mid-front [ɛ] or low front [æ] contrasting with mid-front /e/, e. g. Boazi (Voorhoeve 1975: 356). Nii (Chimbu-Wahgi) has a six vowel system showing a contrast between two high front vowels /i/ and /ɪ/ (Stucky and Stucky 1973). Selepet has low back /ɔ/ as well as the five standard vowels. Mian (Ok) has a pharyngalised vowel /aˤ/ as the sixth vowel (Fedden 2011).

In Finisterre-Huon languages it is common to find seven vowels, consisting of the standard five plus low mid front /ɛ/ and low mid back /ɔ/ (McElhanon 1973). Samo has a similar system (Shaw 1973). Languages of the Angan group also typically have seven vowel phonemes: the standard five vowels plus a high central vowel and a low back vowel. Yaqay (Marindic) has a seven vowel system which includes a low mid front vowel and a mid-central rounded vowel in addition to the standard five (Voorhoeve 1975: 361). Dani adds to the standard five vowels a mid high front and a mid high back vowel.

In the Kalam-Kobon and South Adelbert Range groups (both belonging to the large Madang family), and in certain Chimbu-Wahgi languages, including Dom (Tida 2006) heavy use is made of a high-central vowel [ɨ]. In some cases, this vowel is predictable. For example, in Kalam a short vowel, most often [ɨ], occurs predictably between any two consonant phonemes juxtaposed within a single phonological word. It may take the form of a copy of the following phonemic vowel, or [i] after a palatal consonant, or [u] after /w/. This predictable vowel is shorter than standard vowels and unlike them, is often unstressed. If this vowel is treated as a non-phonemic 'consonant release' vocoid, many Kalam phonological words can be analysed as consisting only of consonants, e. g. *ccp, mnm, clkl, pkpnp, mdnknŋ* (Pawley 1966, Blevins and Pawley 2010). The last two of these words have the phonetic form [ɸɨ́ɣɨβɨnɨ́p] and [mɨ́ndɨnɨ́ɣɨnɨ́ŋ].

A contrast between short and long vowels is present in a minority of languages, e. g. Dom (Chimbu-Wahgi) (Tida 2006) has the standard five short vowels plus long /aː/. In Telefol all five short vowels contrast with matching long vowels, but only in the first syllable of a word (Healey 1964b). A few languages contrast nasal vs oral vowels, e. g. in Korafe (Farr 1999) the standard five oral vowels are matched by five nasal vowels.

An indication of the variation in TNG segmental phoneme systems can be seen in Table 1, in which 14 languages drawn from diverse subgroups are represented.

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

Table 1: Segmental phoneme inventories in 14 contemporary TNG languages

Angaatiha (Angan)

m	n		ŋ	
p	t		k	ʔ
	s			
	r			
w		j <y>		

i	ɨ	u
e		o
	a, aː	

Baruya (Angan)

m	n		ŋ
b	d		g
p	t		k
	l		
w		j <y>	

i	ɨ	u
e	oː	
	aː	

Selepet (Finisterre–Huon)

m	n		ŋ	
b	d		g	
p	t		k	
f	s			h
	l, r			
w		j <y>		

i		u
e		o
ɛ	a	ɔ

Ku Waru (Chimbu–Wahgi)

m	n	ɲ	ŋ
mb	nd	ɲdʒ	ŋg
p	t		k
	s		
w		j <y>	

i		u
e		o
	a	

Kuman (Chimbu–Wahgi)

m	n		
b	d		g
p	t		k
	s		
	r, l		ʟ <gl>
w		j <y>	

i		u
e		o
	a	

Awa (Kainantu)

m	n			
b	d		g	
p	t		k	ʔ
	s			
w		j <y>		

i		u
e		o
	a	

Wiru (isolate)

m	n		
mb	nd		ŋg
p	t		k
	l		
w		j <y>	

Kalam (Madang)[11]

m	n	ɲ <ñ>	ŋ
mb <b>	nd <d>	ɲdʒ <j>	ŋg <g>
p	t	ʧ <c>	k
	s		
	l		
		j <y>	

[11] Kalam /mb, nd, ɲdʒ, ŋg/ > [mp, nt, ɲʧ, ŋk] word-finally.

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

i		u
e		o
	a	

Siroi (Madang)

m	n		ŋ
		ʤ	
mb	nd	ɲʤ	ŋg
p	t		k
f	s		
	l, r		
w		j <y>	

i		u
e		o
a		ɒ[12] aa

Asmat (Asmat-Kamoro)

m [m,mb,b]	n [n,nd,d]	
p [p, pw]	t	k
f	s, ʧ	
	r	w
w	j [j,ʤ] <y,j>	

i		u
e	ə	o
	a	

Beami (Bosavi)

m	n		
b	d		g
f	s		
w		j <y>	

Note: All Bosavi obstruents have both voiced and voiceless allophones

i		u
e		o
æ	a	

i		u
e		o
	a	

Boazi (Beset dial.) (Anim)

m	n		
b	d	g	
mb	nd	ŋg	nq
p	t	k	q
f	s		
v	z	ɣ	
	l		

i		u
e		o
ɛ	a	

South Muyu (Ok)

m	n		ŋ
b	d		
p [p,b]	t [t,d]		k [k,g]
		j <y>	

i		u
e		o
	a	

Ekari (Paniai Lakes)

m	n		
b	d		g
p	t		k [k,x,kw]
w		j <y>	

i		u
e		o
	a	

12 The source indicates that Siroi has three front and three back vowels, but represents the vowel in this position as *aa*. This probably represents /ɒ/ as shown here.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Dani (Wodo Valley dialect)

m	n			
mb	nd		g	ŋgw
p	t		k	kw
ɓ	ɗ			
	l			
w		j <y>		

i		u
e		o
ɛ		ɔ
	a	

Mor (probable non-TNG isolate)

m	n		
b	d		g
	t		k
ɸ	z [ʑ]		
	s		
	r [r,l]		
w		j <y>	

i		u
e		o
	a	

Note: /ɓ/ and /ɗ/ are voiced implosive stops.

2.4.2 Phonotactics

The pattern attributed to pTNG (section 2.7) is that the only permitted syllable shapes are (C)V word-initially, CV word-medially, and CV(C) word-finally. Phonemic consonant clusters and vowel clusters (as opposed to diphthongs) are not allowed within a syllable.

Many TNG languages, e. g. Asmat, Awa, Dom, Kâte, Selepet and Waskia, maintain this pattern. However, there are numerous exceptions. Certain TNG languages require all syllables to be open, disallowing final CVC, e. g. Barai and other Koiarian languages, Korafe and other Binanderean languages, Kewa, Tauya and Yareban. Others allow consonant clusters syllable-initially or finally, e. g. Apalɨ and other South Adelbert Range languages. Some languages allow syllables with the orthographic shape (C)V_1V_2, but in such cases the vowel clusters are usually diphthongs, where the first vowel is more sonorant than the second, and carries stress, and the second vowel is an unstressed high vowel. For example, Tauya (Madang) allows *ai, au, ae, ao, ou* and (rarely) *oi*. In languages where the second vowel of a cluster is always *i* or *u* it can be interpreted as a glide, *y* or *w*. Thus, Kalam allows only the vowel sequences [au, ou, ai, ei, oi, ui] and the second vowel in each case is best analysed as a glide consonant: *aw*, *ow*, *ay*, *ey*, *oy*, *uy*. Many languages permit a wider range of vowel clusters word-internally but not syllable-internally, e. g. Yareba (Yareban) allows *ai, au, oi, ou, ei, ei, ui, ua* and *ue* and Asmat (Asmat-Kamoro) allows almost all possible combinations of the six vowels, but most combinations behave as two syllables.

Phonetic sequences consisting of a nasal followed by a homorganic voiced obstruent are common. In most languages these can be analysed as unit phonemes, as the nasal is a predictable onset to the obstruent in all positions in the word. But some languages, e. g. Apalɨ (Wade n.d.) allow nasal + homorganic stop clusters only in medial position and show a contrast there with plain obstruents.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

As mentioned above, under Vowels (Section 4.1.2), Kalam, and to a lesser extent certain Chimbu-Wahgi languages, are unusual in having roots that phonemically consist of consonants alone, having the shapes C, CC, CCC, CCCC, etc.

2.4.3 Prosody

Under this heading we consider tonal and accent systems. In his pioneering studies of tone systems in New Guinea languages Donohue (1997) distinguishes three main types:

syllable tone: a separate tone is assigned to each syllable in a phonological word.

word tone: the domain of each tone is the word as a whole, i. e. the word carries a tonal melody. A given melody remains the same regardless of how many syllables there are in the word.

pitch accent: there is one designated syllable that determines the shape of the pitch pattern on the rest of the word.

While this is a useful broad-brush typology Donohue finds that it oversimplifies the diversity of tonal systems represented in New Guinea. There is a continuum between canonical syllable tone systems at one extreme and pitch accent systems and stress systems at the other.

Donohue argues that, in general, the distribution of prosodic systems in TNG languages can be better explained in terms of areal diffusion rather than in terms of genealogical affiliation. Word tone or pitch accent systems occur throughout the central cordillera, from the Paniai Lakes group in the west to Kainantu-Goroka in the east.

In TNG languages situated to the south of the central highlands the presence or absence of a tonal system and the type of system correlates with proximity to central cordilleran languages. Such a correlation is found, for example, in central and southwest New Guinea, where within a single subgroup both tonal and non-tonal systems are present. The various TNG subgroups in this region largely lack pitch accent prosody. This holds for most Awyu-Dumut languages, the Kayagar group and the Asmat-Kamoro group. However, northern members of Awyu-Dumut, who are in close contact with people of the central highlands, do have pitch accent. Similarly, most members of the Asmat-Kamoro group lack tonal prosody but Kamoro and Citak Asmat are tonal and these are in contact with cordilleran languages.

In southeast New Guinea there are indications that tonal prosody may be present in some Goilalan and Binanderean languages and contrastive stress is found in the Koiarian and Baraic groups. The further southeast we go towards the 'tail' of New Guinea the less evidence there is of languages exhibiting tonal or pitch accent prosody or stress contrast.

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

Detailed descriptions of TNG pitch-accent systems are lacking but Donohue (1997) finds that Una (Mek), Marind (Marindic) and the probable non-TNG Kaure have pitch accent and that Fasu (Kutubuan) and Momuna (Somahai) have systems intermediate between pitch accent and word tone.

Ross (2005b) also discusses the tonal typology of TNG languages, drawing on the small number of detailed descriptions. Word tone systems are exemplified by East Kewa (Enga-Kewa-Huli group) and Kairi (Turama-Kikori). East Kewa nouns fall into five classes, each of which carries one the following five basic melodies: L (low), L^H (low with floating high tone which serves as a 'trigger' (see below) for the following word), LH (low to high), HL (high to low) and H_L (high with falling tone). H and L tones are allocated to the first and last syllables. In a trisyllable the second syllable is non-contrastive. When the final tone of the previous word is high this triggers a change in the melody, the details of which need not concern us here.

Prosodic systems that lie between word tone and syllable tone types are exemplified by Fore and Usarufa (Kainantu-Goroka), Telefol (Ok) and Angaatɨha (Angan). In an ideal syllable tone language, the number of possible melodies equals the number of contrasting syllable tones times the number of syllables in the word; thus, a languages with two tones, H and L, with words of up to four syllables, should have 30 (2+4+8+16 = 30) possible melodies. In most syllable tone languages, however, there are gaps in the system, i. e. some possible melodies do not occur. In Scott's (1990) analysis of Fore, for example, 20 of a possible 30 melodies are attested. Telefol has two tones, which Healey (1964b) calls UP and DOWN. All possible combinations of the two tones are found in one, two and three syllable words. However, different parts of speech pattern differently. In the case of disyllabic nouns, adjectives and verbal adjuncts, DOWN-UP and UP-UP predominate and are equally common. In the case of disyllabic verb stems UP-UP overwhelmingly predominates, followed by DOWN-UP. DOWN-DOWN is rare with all grammatical classes and UP-DOWN hardly occurs. Angaatɨha is analysed by Huisman and Lloyd (1981) as having syllable tone, with 20 different melodies. Ross (2005) proposes a somewhat different analysis, suggesting that Angaatɨha can be interpreted as a word-tone language.

Ross maps the distribution of tonal types in TNG languages of West Papua as follows. In the far west word-tone or syllable-tone systems occur in certain Paniai Lakes languages (Wolani and Moni) and in the disputed TNG isolate Uhunduni. Ekari (Paniai Lakes), Kamoro (Asmat-Kamoro) and the Western Dani languages have pitch-accent prosody. In languages of the Madang and Finisterre-Huon groups and of South-east Papua generally, tone and pitch accent are largely absent.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

2.5. Morphosyntax

2.5.1 Introductory note

TNG languages show considerable diversity in morphosyntactic structure. This is to be expected in a very large and ancient family, some of whose members have been in long-term contact with unrelated families of different structural types. Nevertheless, a contrast can be made between characteristics that are 'typical' – widespread in the family – and characteristics that are restricted to a few languages or subgroups. It is likely that the typical characteristics represent a common heritage from Proto Trans New Guinea.

Nouns and verbs are well differentiated. Generally, the inventories of noun and verb roots show no overlap in membership. In many TNG languages verb stems cannot be derived from any other part of speech. Overt derivational morphology is needed to derive a noun from a verb. Other major word classes include adjectives, adverbs and verbal adjuncts.

In all TNG languages so far documented the unmarked order of major constituents in verbal clauses is SOV. OSV occurs as a marked structure (2.5.3.5). However, in connected discourse, once the identity of the subject and object has been established, a subject or object NP is seldom included; many clauses consist of an inflected verb alone.

Within the verb complex itself, the usual order of agreement affixes is oVs, less often Vos. In all but a few TNG languages the grammatical relation of subject is marked by a pronominal suffix on the verb. That of direct object is usually marked by a pronominal prefix or suffix. Most languages organise pronominal affixes in a nominative-accusative alignment, with subjects of intransitive and transitive verbs represented by the same set of agreement markers. No language is known to have a full ergative-absolutive alignment for verb pronominals.

The following subsections first treat nouns and nominal constructions (2.5.2) and verbs and verbal constructions (2.5.3), and then, more briefly, a number of other word classes.

2.5.2 Nouns and nominal constructions

In most TNG languages nouns carry little morphology. What nominal morphology there is, is chiefly suffixing. Nominal prefixes are generally confined to pronominal possessors of inalienable nouns and to object prefixes, i. e. markers of the person-and number of the object of a transitive verb.

Typically there is a division between alienable and inalienable common nouns, according to mode of possession. Alienable nouns take free form possessive pronouns, usually encliticized to the possessed noun. Inalienable nouns take affixed possessive pronouns, which in some languages are prefixed, in others suffixed.

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

Proper nouns form a well-defined class, dividing into personal names and place names. Proper nouns cannot be modified e. g. by possessors, quantifiers or adjectives.

2.5.2.1 Pronouns

Several sets of pronouns and proforms are distinguished, typically (1) independent or free form pronouns occurring as subject or topic, (2) prefixed or suffixed possessive pronouns, (3) postposed (enclitic) possessive pronouns, (4) subject marking suffixes, (5) object pronouns, and (6) interrogative proforms. Although subject markers and object pronouns generally belong morphologically to the verb (2.5.3), it is convenient to treat them here, together with other pronominal sets.

2.5.2.1.1 Independent personal pronouns

In some TNG languages there is perhaps an absolute rule that independent personal pronouns are used only of people (e. g. Tauya, MacDonald 1990: 92). In others there is merely a strong preference for this.

TNG languages have a set of independent (free form) pronouns occurring as subjects and topics. As noted in section 2.7, six distinct independent pronominal roots – three singular and three plural – can be reconstructed for pTNG. In addition a dual suffix can be reconstructed.

While some TNG languages have retained the pTNG contrasts in independent pronouns, or at least those between three singular and three plural pronouns, many depart from this pattern. Kiwai languages distinguish four pronominal numbers: singular, dual, paucal and unlimited plural.

Chimbu-Wahgi languages generally distinguish only from two to four dedicated independent pronouns, although they mark a larger number of contrasts in subject marking suffixes on verbs. Thus, Salt-Yui has only two dedicated pronouns: *na* ‘1st person’ and *ni* ‘2nd person’. It lacks a true 3rd person pronoun, using instead a noun plus a demonstrative: *yal i* (lit. ‘male this’) indicates a male referent or referents, and *ai i* (lit. ‘female this’) indicates a female referent or referents.

There are often considerable differences between the number and kinds of distinction made in free pronouns marking subject or agent and those made in verbal suffixes indexing the subject or agent. See 2.5.2.1.2 for further discussion.

A distinction between 1st person plural exclusive and inclusive, characteristic of Austronesian languages, is rare in TNG but occurs in certain Chimbu-Wahgi languages and Ok-Oksapmin, as well as the possible TNG South Bird’s Head and Timor-Alor-Pantar languages. Oksapmin (Loughnane 2009) distinguishes as many as 12 pronouns within each of five paradigms (regular, reflexive, alone, possessive and reflexive-possessive). The ‘regular’ forms are:

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Heruntergeladen am | 16.10.19 13:48

Table 2: Oksapmin regular pronouns (after Loughnane 2009)

	1EXCL	1INCL	2	3	
				M	F
SG	*nox*	–	*go*	*ox*	*ux*
DU	*nuxut*	*dit*	*gut*	*ixit*	
PL	*nuxul*	*dil*	*gul*	*ixil*	

2.5.2.1.2 Suffixes marking person and number of subject on final verbs

Almost all TNG languages have a set of suffixes marking person-and-number of the subject of final verbs.

It is probable that pTNG distinguished at least six independent pronouns: three persons, each with singular and plural (2.7.1) and probably also three dual pronouns. In some contemporary languages the subject marking suffixes on final verbs match these categories, or, if there is no dual series, show a six-way contrast. However, there is often a discrepancy between the number and kinds of person-and-number distinctions made in independent pronouns and those made in verbal suffixes marking subject.

Across several subgroups in the central highlands of Papua New Guinea and in the Finisterre-Huon group and parts of the Madang group it is common to find that the 2nd/3rd person contrast is neutralised both for dual and plural number in the subject marking suffixes, exemplified by the following verb paradigm for Awara, a Finisterre-Huon language (Quigley and Quigley 2011):

Table 3: Imperative paradigm for verb root *bupmɜ* ‘sew’ in Awara[13]

	1	2	3
SG	*bupsot*	*bupso*	*bupsok*
DU	*bupsom*	*bupson*	
PL	*bupnom*	*bupnoŋ*	

As noted in 2.5.2.1.1, Chimbu-Wahgi languages generally distinguish only from two to four dedicated independent pronouns but make more contrasts in subject marking suffixes on verbs. Thus, Salt-Yui has just two dedicated independent pronouns but in subject suffixes it makes five distinctions, between 1st person exclusive, 1st person with indefinite number, 2nd person with indefinite number, 3rd person with indefinite number, and dual number with indefinite person. Kuman distin-

13 Quigley (2003) represents a mid central vowel he identifies as /ɜ/ with ʌ. Quigley and Quigley (2011) represent the same vowel as *ä*. These have been standardized here as *ɜ*.

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

guishes only four free pronouns but shows a seven-way contrast in the marking of subject by verbal desinences: 1st, 2nd and 3rd singular, 1st dual and 1st plural all contrast but 2nd and 3rd dual are marked by the same suffix, as are 2nd and 3rd plural.

There is usually a considerable amount of allomorphy in subject marking suffixes. There is often some degree of fusion with TAM suffixes, which usually precede subject agreement suffixes (2.5.3.2.4).

In Kiwai languages person and number categories in the subject-marking affixes are separate. Island Kiwai has two person-markers, which are prefixed to the verb: *n-* '1st person (all tenses)', *r-* '2/3nd person (present)', *w-* '2/3nd person (near past/immediate future)', *g-* '2/3nd person (definite past)', and four number-markers (singular, dual, trial and plural), which are suffixed (Wurm 1973: 228–233).

2.5.2.1.3 Object pronouns

Suter (2012) has shown that, for at least some transitive verbs in pTNG person-and-number of the object was marked by a set of pronouns preposed to the verb, which closely resembled the independent pronouns (2.5.1.2). Reflexes of these pronouns in contemporary languages are either proclitics or prefixes. Prefixes often show considerable allomorphy, e. g. the unstressed vowel of the prefix assimilates to the first vowel of the verb root, whereas this is not the case in clitics.

In many Finisterre-Huon languages there are two sets of object-indexing prefixes. Awara (Quigley and Quigley 2011: 164ff) has seven verbs taking prefixes that distinguish only the number of the object. Thirteen verbs take prefixes that mark both person and number. The latter have the following basic forms, closely resembling the independent pronouns.

Table 4: Awara object marking pronouns

	1	2	3
SG	*na-*	*ga-*	*i-, ʒ-*
PL	*ni-*	*da-*	*yʒ-*

2.5.2.1.4 Possessive pronouns

Possessive pronouns typically fall into two sets, one for alienable and another for inalienable nouns. Alienable nouns typically take free form possessive pronouns, postposed to the possessed noun. Inalienable nouns always carry a possessive pronoun as affix or clitic. In most languages the pronoun precedes the inalienable term, in others it follows.

In some languages the inalienable class contains both terms for body-parts and other parts of a whole and terms for kin (referential, not address), as well as

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

for certain other intimate entities, such as ‘name’. This is the case, for instance, in Gadsup (Frantz1962)[14]:

(1)	a. *ti-yaami*	b. *aa-yaami*	c. *aa-naagi*	d. *aa-βiʔi*	[Gadsup]
	1SG.POSS-arm	3SG.POSS-arm	3SG.POSS-wife	3SG.POSS-name	
	‘my arm’	‘his arm’	‘his wife’	‘his name’	

In many languages the inalienable class consists essentially of body part terms alone, or kin terms alone. In Tauya, for instance, the inalienable class, marked by prefixed possessive pronouns, consists of body part terms and a few other terms for intimate referents, such as *wanimo* ‘name’. 3SG possessors are marked by zero.

(2)	a. *nen-neme*	b. *sen-neme*	c. *neme*	[Tauya]
	3PL.POSS-head	1PL.POSS-head	head	
	‘their heads’	‘our heads’	‘his/her/its head’	

Kalam represents a type where the inalienable class is restricted to kin terms. Kin-terms take a prefixed pronoun for 2nd and 3rd person possessors. However, for 1st person possessor a postposed clitic pronoun is used, as for alienable nouns, e. g.

(3)	a. *ami=yad*	b. *na-nm*	c. *no-nm*	[Kalam]
	mother=1SG.POSS	2.POSS-mother	‘3.POSS-mother	
	‘my mother’	‘your mother’	‘his/her/their mother’	
	d. *bapi=yad*	e. *na-p*	f. *no-p*	
	father=1SG.POSS	2.POSS-father	‘3.POSS-father	
	‘my father’	‘your father’	‘his/her/their father’	

In Daga (Murane 1974), nouns denoting kin and a few other intimate entities take a suffixed rather than a prefixed possessor, e. g.

(4)	a. *ina-ga*	b. *goani-na*	c. *even-e*	[Daga]
	mother-2SG.POSS	y.sibling-1SG.POSS	friend-3SG.POSS	
	‘your mother’	‘my younger sibling’	‘his friend’	

Non-kin nouns in Daga also take suffixed pronouns but their forms differ from those occurring with kin nouns.

2.5.2.1.5 Interrogative proforms

For interrogative mood markers see 2.5.3.8. Generally a contrast is made between at least six interrogative proforms, corresponding to English ‘who’, ‘what’, ‘where’, ‘when’, ‘how many’, ‘how’ and ‘why’. Typically ‘who, ‘what’ and ‘where’ are

[14] Frantz uses orthographic *aa* to represent /a/ and *a* to represent a mid central vowel (not present in this data).

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

monomorphemic. The others are often phrasal expressions. Examples follow from three languages of the Madang and Kainantu groups.

Table 5: Interrogative proforms in Kalam, Waskia and Fore[15]

	Kalam	Waskia	Fore[16]
who?	*an*	*aweri*	*ké*
what?	*etp*	*anape*	*na:ná*
why?	*etp=nen*[(a)]	*anape ko*[(a)]	*na:ná=ka*[(a)]
where?	*akay*	*apeia, apago*	*aé*
when?	*won akay*[(b)]	*adamuia*	*ayántagáwe*[(c)]
how many/much?	*etp=etp*[(d)]	*awukala*	*ayakine, ariawáye*
how?/ do how?	*et g- + V*[(e)]	*awuk*	*ayá*
which? (adjectival)	*an*, *etp*[(f)]	*awugamu*	*na:ná*

Additional interrogative categories are found in particular languages.

Some languages form a range of compound interrogatives using a single base followed by modifiers. Thus, Eipo (Heeschen 1998) uses the basic interrogative *yate* ‘what?, ‘which?, what kind of?’ to form *yate anye* ‘who?’, *yate ate* ‘why? (what for)’, *yate arye* ‘why? (what reason)’, *yate-barye* ‘why?, *yate-sum* ‘when? (what day/time)’, and uses the base *dan-* ‘where?, where to, whence’, to form *dan-segum* ‘whereabouts? (approximate location)’, along with *dan-tam* (where side) and *dan-ak* (where at), both meaning ‘where, whence, whereto’. Like Kalam, Waskia and Fore, Eipo also has an interrogative verb ‘do how?’; this is constructed using the verb *wirib* ‘do how’ with suffixed interrogative mood marker *-do* or with *yate* ‘what?’ preceding it.

2.5.2.2 Noun class, gender and nominal classifiers

Although noun class systems occur, in elaborate form, in the Torricelli and Lower Sepik-Ramu families of northern New Guinea, they are generally absent in TNG.

Gender systems are confined to a few TNG subgroups, including Ok-Oksapmin and Marindic, and the possible TNG South Bird’s Head group. In Oksapmin gender (masculine/feminine) is marked only in the pronouns of the 3rd person singular (Loughnane 2009). In Mian of the Ok family (Fedden 2011, Smith and

15 Notes for Table 5: (a) lit. ‘what for?’, ‘concerning what?’, (b) lit. ‘time where?’, (c) lit. ‘what time?’, (d) lit. ‘what what?’, (e) lit. ‘what done/happen?’ + verb, e. g. ‘what happened and it broke?’ (f) *an* refers to humans, *etp* to non-humans.

16 The acute accent on Fore vowels indicates high pitch in the language’s pitch accent system.

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

Weston 1974) there is a contrast between masculine and feminine nouns, marked by suffixes that indicate gender and number. Masculine nouns include most male animates and, in the case of inanimates, nouns that are singular or small in size or quantity. Feminine nouns include female animates, some animals that are round and squat in shape (e. g. turtles, crabs) and in the case of inanimates, nouns that are plural or large in size or quantity. There is concord for gender between a head noun and its adjuncts.

In Marind (Drabbe 1955) four genders are distinguished by the final vowel of the noun stem. One class consists of male humans, which if singular are usually marked by the vowel *e.* A second class consists of female humans and animals, which if singular are marked by *u*. When the noun is plural both genders are marked by *i.* A third class, marked by *e, a* or *o*, consists mainly of trees and other plants. A fourth, residual class includes clothing and decorations, body-parts and some plants. Modifiers agree with the gender of the head noun, agreement being marked by ablaut of the last vowel of the adjective, making the vowels the same as the final vowel of the noun.

Nominal classifiers resemble gender markers in that they distinguish noun classes. Two main types of classifier systems occur in TNG, one a nominal construction, the other verbal. In nominal constructions the classifier is a word whose form resembles a noun and that is paired with members of a class of nouns that typically share certain inherent attributes. Iha (West Bomberai) and Anamuxra (Madang) are examples of languages with nominal classifiers.

Awara, a Finisterre-Huon language, has almost 30 nominal classifiers, which mainly distinguish nouns by shape or arrangement (Quigley and Quigley 2011: 125–8). Thus the classifier *tзpa* ‘CL.stick’ occurs with nouns denoting things are that long and rigid, e. g. pole, man; *gwen* ‘CL.lump’ occurs with nouns denoting things that have roughly the same size in all dimensions (e. g. house, pig, dog, sun); *tзknga* ‘CL.rope’ occurs with nouns referring to things long and flexible (vine, snake). Abstract nouns are paired in a more arbitrary way with particular shape classifiers. In Awara noun phrases precede the classifier and must occur with another noun phrase that serves as complement, or with a demonstrative or with a quantifier. The following examples show a classifier phrase with demonstrative and numeral, respectively. The noun phrase carries a linker *-u.*

(5) a. *yol-u* *a=nggwen* [Awara]
house-LINK this=CL.lump
‘this house’

b. *yol-u* *kalux-u* *gwen=du*
house-LINK new-LINK CL.lump=one
‘one new house’

The most widespread type of classifer system is that in which the classifier is a verb. A class of nouns selects a particular existential verb, e. g. ‘stand’, ‘sit’,

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

‘lie’, ‘hang’, with each noun class exhibiting some common attributes, e. g. of sex, shape, size, etc. Constructions of this type are described in more detail in 5.3.6.

2.5.2.4 Number and case marking on nouns

Few TNG languages inflect nouns for number. The probable non-TNG language Mor inflects nouns for number only for a handful animate nouns, e. g. *mor* ‘man’ *mor-ir* ‘men’ but *is* ‘bird/birds’ (Hammarström fieldnotes 2010). For case-marking see 2.5.3.2.4.

2.5.2.5 Non-verbal sentences

Grammatical descriptions of TNG languages tend to give short shrift – sometimes even fail to mention – non-verbal sentences. Yet certain types of sentences with non-verbal predicates probably occur in all members of the family. All can be analysed as topic + comment constructions, where the topic is a noun phrase denoting a given entity and the comment serves as the predicate, giving new information about the topic. One such type is equational sentences consisting of two NPs which are coreferential, as in the following examples from Tauya (MacDonald 2013), Waskia (Ross and Paol 1978) and Dom (Tida 2006). In Tauya nominal predicates are inflected for mood, either indicative or interrogative.

(6) a. *ʔe fenaʔa-ra afe na-pi-yaeʔ?* [Tauya]
DET woman-TOP mother 2SG-GEN-Q
‘Is that woman your mother?’
b. *Mafo-ra ano na-pi-ʔa-e?*
which-TOP sibling 2SG-GEN-COLLECT-Q
‘Which ones are your younger siblings?’

(7) *Kawam omu idigo.* [Waskia]
house that men’s house
‘That house is the men’s house.’

(8) *Na Mntai Markus.* [Dom]
1SG *Mntai Markus*
‘I am Mntai Markus.’

A second type has a comment that specifies an attribute of the topic, saying what kind of thing it is.

(9) *Kawam mu ititi.* [Waskia]
house the new
‘The houses are new.’

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

In Waskia the predicate may be a postposition, indicating that it is in the possession of, or is the source of, or resembles the topic NP.

(10) a. *Ane* *naur* *karo.* [Waskia]
1SG coconut with
'I have a coconut.'
b. *Kuiak* *munta* *Simbu* *ko.*
boy that Simbu from
'That boy is from Chimbu.'

In Yagaria (Renck 1975) equational sentences usually have an equational marker suffixed to the predicate:

(11) *Maʔi* *ege-mo* *hagana-ʔe.* [Yagaria]
this banana-CON tasty-EQ
'This banana is tasty.'

2.5.3 Verbs and verbal constructions

2.5.3.1 Introduction

Verb morphology is best treated in conjunction with the syntax of verbs, as much verbal morphology defines or relates to the wider structure of verbal sentences. As head of the clause, the verb in TNG languages typically carries information about the subject, the object, tense, aspect and mood of the clause, about sequential/temporal relations between successive clauses in the same sentence and, in some regions, evidentiality. Most of these grammatical categories are marked by suffixes. Verbal prefixes or proclitics are generally confined to object pronouns and negators.

This section first introduces the distinction between final (or independent) verbs and medial (or dependent) verbs, and their roles in reference tracking and temporal sequencing (2.5.3.2). It then examines a number of verbal constructions that are typical of TNG languages: transitive vs intransitive constructions (2.5.3.3), verb adjunct phrases (2.5.3.4), experiental clauses with impersonal subject (2.5.3.5), verbal classifying constructions with existential or quasi-copular verbs (2.5.3.6), and serial verb constructions (2.5.3.7).

2.5.3.2 Medial vs final verbs and reference-tracking

2.5.3.2.1 The prevalence of switch reference systems in TNG

A striking feature of most TNG languages is a distinction between sentence *medial* and sentence *final* verbs (also known as *coordinate-dependent* and *independent* verbs, respectively). This distinction is central to the way clauses are chained

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

together to form complex sentences. Instead of using free form conjunctions to indicate sequential relations between events and independent pronouns to track subject reference in connected discourse, TNG languages mainly use verbal suffixes for these purposes.

Among the interclausal relations marked by these verbal suffixes is switch-reference. The latter is defined by Haiman and Munro (1983) as follows.

> Canonical switch-reference is an inflectional category of the verb, which indicates whether or not its subject is identical with the subject of some other verb. (1983:x) ... Characterisation of subject is strictly syntactic, rather than semantic or pragmatic in most cases; it is not the agent or topic whose identity is being traced. (1983:xi)

New Guinea contains the largest concentration of languages with switch-reference marking of any region in the world and perhaps the most elaborate switch-reference systems. The distribution of switch-reference systems in New Guinea correlates fairly well with genealogical relationships. Roberts (1997) investigated a sample of 169 languages of Papua New Guinea and found that, among those languages that belong to core subgroups of TNG, all but a few have some sort of switch-reference system. The main exceptions are certain subgroups in the south of Western Province (Kiwai, Marind, Gogodala-Suki) and some Chimbu-Wahgi languages (e. g. Golin, Sinasina). It is also not found in any languages of the Bird's Head[17], including the disputed TNG languages. By contrast, only a minority of non-TNG Papuan languages of New Guinea and hardly any Austronesian languages have switch-reference marking.

2.5.3.2.2 Final verbs

Final or independent verbs are conventional main verbs, which can head a one-clause sentence or head the final clause in a clause chain. Final verb morphology is generally moderately complex, including suffixes marking tense-aspect and mood categories and person-and-number of subject. In most cases the subject-marker follows the TAM marker. If there are prefixes they are generally restricted to object pronouns and negators.

Heeschen (1998: 83) gives the following table comparing the order of morphemes in transitive verbs in three contiguous highland groups:

[17] The limited data on Tanah Merah means it is not possible to extend this observation to that language with certainty.

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

Table 6: Structure of transitive verbs in Ok, Dani and Mek

	object pron.	verb stem	aspect	indirect object pron.	auxiliary/ aspect	object pron.	tense	person, number
Ok	+	+	+	+	+	+	+	+
Dani	+	+	–	+	+	–	+	+
Mek	–	+	–	–	–	+	+	+

Verb roots usually fall into a number of different conjugation classes distinguished by the morphophonology of their combination with TAM and subject markers.

2.5.3.2.2.1 Tense, aspect and mood markers in final verbs

It is usual for several tense-aspect (TA) categories to be distinguished in final verbs, with from two to four past tenses.

Amele (Roberts 1987) has seven TA categories including of four past tenses: *Past Habitual, Remote Past, Yesterday's Past, Today's Past,* plus *Present, Future, Relative Future*.

Enga (Lang 1973) has five tense categories, consisting of three past tenses: *Near Past* (yesterday to a week or so back), *Today's Past*, *Remote Past* (events earlier than yesterday), plus *Present* and *Future*.

Kalam (Pawley 1966) distinguishes eight TA categories marked by suffixes. There are four past tenses: *Past Habitual, Remote Past* (yesterday or earlier), *Today's Past,* and *Immediate Past,* plus *Present Habitual, Present Progressive*, *Immediate Future* and *Future.* In addition it has several TA categories marked by grammaticalised verb roots, appearing as the final verb in a serial verb construction, each such verb itself taking a TA suffix: *Emphatic Present Completive, Immediate Present Completive, Immediate Future Completive* and *Emphatic Progressive.* At least four different grammaticalised verbs compete to mark Emphatic Present Completive aspect: *d-* 'hold, stop', *ju-* 'withdraw', *tk-* 'cut off' and *ay-* 'put, stabilise, become'.

The latter observations are consistent with Foley's (1986) finding that whereas tense is marked by verbal affixes, aspect is often marked lexically, by an inflection-bearing final verb in a serial verb construction. Extended or progressive aspect is marked by verbs of existence ('stay, live, be at') or posture ('sit, 'lie', 'stand') and completed action by verbs of holding, disposal or disconnection.

A realis-irrealis modal distinction is present in a widely scattered minority of TNG languages, such as Dani (Barclay 2008), in the far west, the Awyu-Dumut languages in the southwest (Wester 2014) and Duna (San Roque 2008), in the highlands of Papua New Guinea. Dani distinguishes real vs unreal, and divides unreal into likely and possible. Realis verbs in Dani can also carry suffixes marking tense.

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

Verb paradigms for hortative (or imperative) mood are universal in TNG languages that have TAM morphology. Verb paradigms marking contrary to fact (or hypothetical) mood and desiderative (or optative) mood are very widespread.

2.5.3.2.2.2 Evidentiality

Evidentiality concerns the source of information or evidence a speaker has for an assertion. Languages vary in the means by which and the extent to which they mark distinctions of evidentiality. Grammaticised or ‘narrow’ evidential systems mark evidential categories by verbal morphology. In ‘broad’ evidentiality the source of evidence is marked lexically, e. g. by adverbs or verbs of perception and cognition.

Foley (1986: 165) notes that verbal suffixes marking evidential categories occur in several language groups centred in the western and southern highlands of Papua New Guinea. In their detailed surveys of such systems, San Roque and Loughnane (2012) report that grammaticised evidential systems are present in at least the following groups: Ok, Oksapmin, Duna-Bogaia, Engic (Enga-Huli-Kewa), East and West Kutubu and Bosavi, as well as in the isolate, Wiru, which occupy a more or less continuous area of the central and southern highlands between the Indonesia-Papua New Guinea border and the Engic region.

Types of evidential categories that are commonly marked by verbal suffixes are:
(a) visual: the event was seen
(b) sensory: the event was perceived with nonvisual senses
(c) results: speaker observed results of the event
(d) reasoning: speaker’s inference based on a complex of factors
(e) reported: speaker was told of the event

The following examples (cited in San Roque and Loughnane 2012: 397) are from Duna:

(12) a. *Ita=na=ka* *no* *mbou* *ali=tia.* [Duna]
pig=SPEC=ERG 1SG garden dig.up=VISUAL
‘The pig dug up my garden.’ (I saw it.)

b. *It=na=ka* *no* *mbou* *ali=yaritia.*
pig=SPEC=ERG 1SG garden dig.up=SENSORY
‘The pig dug up my garden.’ (I heard the sounds.)

c. *It=na=ka* *no* *mbou* *ali=rei*
pig=SPEC=ERG 1SG garden dig.up=RESULT
‘The pig dug up my garden.’ (I saw some dug-up earth and pig droppings.)

d. *It=na=ka* *no* *mbou* *ali=noi.*
pig=SPEC=ERG 1SG garden dig.up=REASONING
‘The pig dug up my garden’ (I saw some dug-up earth and someone told me their pig had escaped.)

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

e. *It=na=ka* *no* *mbou* *ali=norua.*
pig=SPEC=ERG 1SG garden dig.up=REPORTED
'The pig dug up my garden.' (I saw some dug-up earth and pig droppings.)

Some languages also distinguish a category called 'participatory' or 'performative'. In this case the information source is the speaker's participation in the event. The following examples from Oksapmin (San Roque and Loughnane 2012: 398) contrast participatory (PCP) with visual-sensory (VIS/SENS) evidence:

(13) a. *nox* *tap* *tit* *su-ti-p* [Oksapmin]
1SG pig INDF kill-PFV-PCP.FRPST.SG
'I killed a pig.' (I did it.)
b. *ox* *tap* *tit* *su-n-gop*
3SG.M pig INDF kill-PFV-VIS/SENS.FRPST.SG
'He killed a pig.' (I saw it.)

Other evidential distinctions marked in some TNG languages concern (1) time elapsed between an event's occurrence and when it was reported and (2) individual vs shared evidence.

How and where did grammaticised evidential morphology develop in the first place? Although most of the groups that have such morphology are only very distantly related, the fact that they occupy a more or less continuous but relatively small area of New Guinea leads San Roque and Loughnane to conclude that the distribution of evidentiality systems within TNG is the result of diffusion rather than common heritage. They suggest that the large Enga-Huli-Kewa group is a likely source for some of the evidential markers.

2.5.3.2.2.3 Interaction between TAM and subject agreement suffixes on final verbs

In some languages and/or in certain TAM paradigms, TAM and subject marking suffixes show partial fusion, so that it is difficult to draw morpheme boundaries. The following table shows the way tense and mood markers combine with singular and plural subject suffixes in certain verb paradigms in Awara, a Finisterre-Huon language (based on Quigley and Quigley 2011: 169). The dual suffixes are omitted. It can be seen that there is fair amount of synthesis. The basic forms of the subject markers may perhaps be posited as *-t* '1SG', *-m* '2SG', *-k* '3SG', *-m* '1PL', *-ŋ* '2/3PL'.

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Heruntergeladen am | 16.10.19 13:48

Table 7: Tense, mood and subject indexing suffixes in Awara

	1SG	2SG	3SG	1PL	2/3PL
PRESENT	*-t*	*-lɜk*	*-k*	*-mɜŋ*	*-yiŋ*
PAST	*-gum*	*-gulɜk*	*-gut*	*-gumɜŋ*	*-gin*
FUTURE	*-pit*	*-pilɜk*	*-pik*	*-nim*	*-niŋ*
APPREHENSION	*-yɜt*	*-yɜ*	*-yɜk*	*-nɜm*	*-nɜŋ*
IMPERATIVE	*-yot*	*-yo*	*-yok*	*-nom*	*-noŋ*
IMMEDIATE	*-pa*	*-ng*	*-pɜn*	*-na*	*-xut*
HYPOTHETICAL	*-pam*	*-pim*	*-pɜn*	*-nam*	*-pɜm*

In many languages, however, morpheme boundaries are transparent in at least some paradigms. Table 8 gives the Korafe-Yegha paradigms for today's past tense, using the verb roots *sé-* 'say' and *g-* 'see' and for yesterday's past, using the same verbs roots in their variant forms *si-* 'say' and *gosú-* 'see'. It can be seen that today's past, following *sé-*, is marked by *-te-* or *-ti-* and following *g-,* by *-é-* or *-i-*. Yesterday's past, following both *si-* and *gosú-*, is marked by *muta-*. The subject markers are equally transparent.

Table 8: Verb paradigms for today's past and yesterday's past in Korafe-Yegha (after Farr and Farr 2008)

Today's Past (V + tense + subject)

	sé- 'say'	*g-* 'see'
1SG	*sé-te-ni*	*g-é-ni*
2SG	*sé-te-si*	*g-é-si*
3SG	*sé-ti-ra*	*g-i-ra*
1/3PL	*sé-te-ri*	*g-é-ri*
2PL	*sé-te-vu*	*g-é-vu*

Yesterday's Past (V + tense + subject)

	si- 'say'	*gosú-* 'see'
1SG	*si-muta-ni*	*gosú-muta-ni*
2SG	*si-muta-si*	*gosú-muta-si*
3SG	*si-muta*	*gosú-muta*
1/3PL	*si-muta-ri*	*gosú-muta-ri*
2PL	*si-muta-vu*	*gosú-muta-vu*

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Heruntergeladen am | 16.10.19 13:48

2.5.3.2.3 Medial verb morphology

Medial (or coordinate-dependent) verbs occur in non-final clauses and typically carry less morphology than final verbs. Minimally, this morphology indicates whether the subject is the same as (SS) or different from (DS) that of the next verb. In many languages it also indicates relative tense, i. e. whether the event denoted by the dependent verb *precedes* that of the following verb (sequential relation, labelled SS:PRIOR) or is *simultaneous with or overlaps* that of the following verb (SS:SIM). In a few languages there is also a relative tense marker for an event expected to occur *after* that of the next verb, representing an intended or purposeful outcome (SS:PURP).

Medial verbs marked for different subject tend to carry more complex inflections than same subject verbs. In some cases they carry not only a suffix marking anticipated change of subject but also a complete set of suffixes marking absolute person-and-number of the subject of the medial verb itself. They may also carry mood markers.

A medial clause is a clause headed by a medial verb. It is common for a long chain of medial clauses, marked for same subject and relative tense, to precede a final clause. Sometimes such chains number more than 15 clauses. In the following narrative fragment in Kalam (Ti dialect), clauses ii-ix form a lengthy chaining construction within a larger construction consisting of clauses i-x. The whole nine clause sequence from i-ix forms the direct object of the independent verb in clause x, *agngabin* 'I am going to describe/talk about'. Verbs roots and their English glosses appear in bold. A non-final intonation juncture (written here as a comma) occurs after each coordinate-dependent clause except the final one, that which immediately precedes the independent clause. Because zero anaphora is the norm for established subject and object NP it is often the case that, in such chains, clause after clause consists only of an inflected verb, as in clauses v-ix.

(14)	i.	*... aps-basd=yad*	***md-**elgp-al*	*won ok,*	[Kalam,
		grandmo.-grandfa.=my	**live**-PAST.HAB-3PL	time that	Ti dialect]
		'…at the time when my grandparents were alive,			

ii.	*kmn=nen*	*gos*	***nŋ**-l,*	iii.	***am**-l,*
	game=after	thought	**perceive**-SS.PRIOR		**go**-SS.PRIOR
	having planned to go after game mammals,				having gone out,

iv.	*kmn*	*tap*	*nb*	*ogok*	*ti*	*ti*	***d**-l,*
	game	food	like	those	what	what	**obtain**-SS.PRIOR
	having gathered various plants for (cooking with) game mammals,						

v.	***ad***	***ñb**-l,*	vi.	***kn**-l,*
	cook	**eat**-SS.PRIOR		**sleep**.SS.PRIOR
	having cooked and eaten them,			having camped out overnight,

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

vii.	***am**-l,* **go**.SS.PRIOR having gone out,	viii.	***ap**-l,* **come**-SS.PRIOR having come back,
ix.	***g**-elgp-al* *ak,* **do**-PAST.HAB-3PL topic those (things) they used to do,	x.	*mñi* ***ag**-ngab-in.* now **say**-FUT-1SG I am now going to talk about.'

'I'm now going to describe how, in the time of my grandparents, when people planned to hunt game mammals, they would go out and gather certain plants and cook them in stone ovens and eat them, and sleep out (in the forest), and after going out and coming back (to camp) they would do these things.'

Relative tense markers serve as functional equivalents of conjunctions marking consecutive ('and', 'then'), simultaneous ('while') or conditional or contingent events ('if', 'when'), as in the following two clause construction with change of subject:

(15) *Mon* *tob* *taw-e-y* *tb-in.* [Kalam]
wood foot tread-DS-2SG chop-HORT-1SG
'You tread on the wood, (then) I'll chop (it).'

In some contexts, prior relative tense, combined with change of subject, marks not only temporal sequence but also, pragmatically, causation. The prior event is taken to be the cause of the subsequent event.

(16) *Aññak* *g-e-k,* *ptk-p-in.* [Kalam]
lightning occur-DS-3SG.PAST afraid-PFV-1SG
'When lightning flashed, I was frightened.' i. e. 'Lightning frightened me.'

A verb marked for prospective tense with same subject followed by one marked by prior tense with different subject also marks a contingency, conditional ('if and when', 'in case') relation, e. g.

(17) *Ñapanŋaŋ* *sb* *ki-ng* *g-e-k,* [Kalam]
baby faeces excrete-SS:FUT do-DS:PRIOR: 3SG
no-nm *tug* *g-s<a>p.*
its-mother padding.by.hand do-PRS.PROG<3SG>
'In case the baby is going to defecate, the mother is padding (the net-bag).'

There is considerable variation across TNG languages in the way switch reference (SR), is marked when there is a chain of two or more medial verbs (MV1, MV2, etc.). Roberts finds that several different strategies are used, chiefly the following:

(a) Only the first medial verb (MV1) is marked for SR, not MV2.
(b) MV2 is marked for SS:SEQ and SS:SIM

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

(c) MV2 is marked for both SS and DS and also for Reason/Result
(d) MV2 is marked for SS:PURP

2.5.3.2.4 Scope of negation in clause sequences with switch reference

As to the scope of negation in clause sequences with medial verbs, comparative data are limited. One pattern, represented by Tauya (MacDonald 1990: 232) is that in a negated clause where the verb is marked for different subject, the scope of negation is confined to that clause, whereas in the case of medial verbs marked for same subject the scope of negation optionally extends to the preceding or following clause. Another pattern, represented by Kalam is that in both same subject and different subject clauses the scope of negation is normally restricted to the clause carrying the negator, with one class of exceptions: highly conventional (formulaic) sequences of same subject clauses may be negated as a single unit.

2.5.3.3 Transitive and intransitive constructions

2.5.3.3.1 Introduction

TNG languages have both transitive and intransitive verbs. However, many concepts that in European languages are expressed by a single transitive verb root are denoted by a serial verb construction; see 2.5.3.3.2, 2.5.3.7 and 2.6.3 for discussion and examples.

Certain verb stems can be used either as intransitives or transitives, e. g. Tauya (MacDonald 1990):

(18) a. *isou* ‘fill(ed) with solids’, ‘fill s.th.’
b. *tepau* ‘break, broken’, ‘break s.th.’
c. *ferai* ‘untie, untied’, ‘untie s.th.’
d. *fu* ‘burn(t)’, ‘burn s.th.’.

Most transitive verb roots take just two arguments: subject and direct object. However, a few three-place verbs occur, typically ‘give’, ‘show’, ‘put’ and ‘exchange/trade/buy’

Intransitive verbs may be active or stative. Some typical active intransitive verbs in Kalam are *am-* ‘go’, *kn-* ‘sleep’, *jak-* ‘stand, dance’, *kum-* ‘die, cease to function’. Some typical stative verbs are: *pag-* ‘(of things) break, be broken’, *sug-* ‘(of a fire) go out’, *yn-* ‘burn, be burnt, fully cooked’, and *wk-* ‘(of solid objects and surfaces) crack, burst, shatter’. These belong to an impersonal class of statives, in which the subject, the Undergoer, is always represented by a 3rd person singular agreement marker.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

2.5.3.3.2 Marking of case relations between verb and arguments

The marking of grammatical relations between verbs and their arguments or adjuncts differs between core arguments (subjects and direct objects), on the one hand, and peripheral arguments and adjuncts (e. g. instrument, goal, recipient, location, source) on the other. Case-marking is generally nominative-accusative, with the subject of an intransitive and a transitive verb marked the same way, in contrast to the object of a transitive verb.

Typically the subject is marked by an agreement pronominal suffix on the verb. The direct object is also usually marked by an affixed pronominal, either prefixed or suffixed. Reesink (2013) found that in a sample of 33 TNG languages from diverse subgroups 15 mark direct object by a prefix, 13 by a suffix and 10 have no affixal marking on monotransitive verbs. (These figures include five languages that have both object prefixes and object suffixes, depending on the verb class.) That is to say, the most common alignment of affixes with transitive verb is oVs (differing from the alignment of full NP arguments, which is usually SOV). An soV order of agreement affixes is attested in Marind, as well as in the disputed TNG South Bird's Head language Inanwatan.

Foley (1986) notes that the pattern of agreement markers, oVs order with Nominative-Accusative alignment, prevails in such widespread languages as Fore, Baruya, Kapau, Dani, Ekari and Usan (Madang). The following examples from Fore (Scott 1978) illustrate:

(19) a. *wa* *kana-i-e.* [Fore]
man come-3SG.SBJ
'The man comes.'

b. *wa* *masi* *a-ka-i-e*
man boy 3SG.OBJ-see-3SG.SBJ
'The man sees the boy.'

c. *wa* *na-ka-i-e*
man 1SG.OBJ-see-3SG.SBJ
'The man sees me.'

Foley (2000: 377) states that "many Trans New Guinea languages do not permit the object prefix to be directly affixed to the verb stem but instead require it to be directly affixed to a secondary auxiliary-like verb, which in turn is compounded with the main root. Some roots may co-occur with more than one auxiliary, signaling semantic differences." This is the case in Dani. In each of the following examples from Bromley (1981), cited by Foley, the main verb root *pa-* 'cut' takes a different auxiliary verb to derive a different compound transitive verb. Verb roots appear in bold font.

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

(20) a. *n-esi* ***pa****-n-****eeik****-h-e.* [Dani]
1SG.POSS-hair **cut-**1SG.OBJ**-see-**REAL-3SG.SBJ
'He cut my hair' ('he cut-saw my hair')

In this sentence *pa-* is followed by the auxiliary verb *eeik-* 'see', which carries the TAM and subject markers as well as the object marker. In the first of the two following sentences *pa-* 'cut' is followed by the auxiliary verb *-et-* 'give', as in (21a), and in the next by the auxiliary *-akeik-* 'put' (21b).

(21) a. *Wam* ***pa****-n-****et****-h-e.* [Dani]
pig **cut-**1SG.OBJ**-give-**REAL-3SG.SBJ
'He selected a pig for me.' ('He cut-give me pig.')
b. *Hakki* ***pa****-n-****akeik****-h-e.*
banana **cut-**1SG.OBJ**-put-**REAL-3SG.SBJ
'He cut and put aside some bananas for me.' ('He cut put me bananas.')

Foley (2000: 377) suggests that, in certain languages, "[a]s the semantic contrasts between the auxiliaries bleached out..., the system evolve[d] into no more than transitivising morphology, as is typical of the...languages of Madang Province or the Huon Peninsula". Relics of the older system remain insofar as different verb roots select a different transitivising suffix from the auxiliary, with the object marker preceding the transitivising suffix, as in (22) from Selepet (Finisterre-Huon), where *-ihi-* 'give' transitivises *pene-* 'join' and *oho-* 'hit' transitivises *tn-* 'help' (McElhanon 1973):

(22) a. ***pene****-n-****ihi****-a-p* [Selepet]
join-1SG.OBJ**-give-**IMM.PAST-3SG.SBJ
'He joined me' (lit. 'he join gave me')
b. ***tn****-n-****oho****-a-p*
help-1SG.OBJ**-hit-**IMM.PAST-3SG.SBJ
'He helped me' (lit. 'he help hit me')

Some languages have gone further and fused the auxiliary verb and the object pronominal into a single suffix. Thus in Tauya (MacDonald 1990) the transitivising suffix is *-fe*, placed after the object marker.

(23) ***ʔumu*** *nen-****fe*** [Tauya]
die 3PL.OBJ**-TR**
'Kill them.'

It is possible that in a number of TNG groups constructions with auxiliary verbs have evolved independently from serial verb constructions in which the final verb has grammaticised.

In some TNG languages agent NPs carry a marker that can loosely be called

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

'ergative' because it occurs only with the agent of a transitive verb. Foley (1986: 106) states that in various languages the development of an ergative marker "has resulted from the spread of a peripheral case-marker to the actor…in order to meet certain grammatical needs". However, this marker is not a typical ergative in that it is optional and its purpose is generally to attribute a special semantic feature to the agent, e. g. to emphasize that the action was volitional or to disambiguate between the roles of two animate participants, either of which could be interpreted as the agent or the undergoer. Thus, in (24) from Dani (Bromley 1981, cited by Foley 2000: 374), *palu* 'python' has an ergative marker because, contrary to the normal state of affairs, the python and not the man is the eater. If the ergative marker were absent the sentence would be read as meaning 'the man ate the python'.

(24)	*ap*	*palu-nen*	*na-sikh-e.*	[Dani]
	man	python-ERG	eat-REM.PAST-3SG.SBJ	
	'The python ate the man'			

NPs standing in a peripheral relation to the verb typically carry case-marking affixes. There is usually some conflation of the peripheral cases, with the same marker used for two or more. Foley (1986) provides a typology of the various ways in which four peripheral cases, INS(trumental), ABL(ative), LOC(ative), and ALL(ative) are conflated. (We leave Dative case aside for the moment.) A quaternary system, in which all four cases carry distinct markers is found in, e. g. Kâte, Selepet and Kunimaipa. A binary system in which LOC and ALL are represented by a single form and INS and ABL by another form, is found in Dani. Another sort, in which ALL and LOC are conflated and ABL and INS are conflated, occurs in Fore. A third type, which ABL, LOC and ALL are marked by one form and INS by another, is found in Kewa and other Engic languages. No examples of a tertiary system have been recorded.

Reesink (2012) reports on a comparative study of how 'give' events are expressed in Papuan languages, with particular attention to such questions as whether the Recipient or the Gift is the direct object and whether verbs of giving are always ditransitive. He finds that in the overwhelming majority of TNG (and other Papuan) languages the direct object of 'give' is the Recipient. That is to say, when framing descriptions of 'give' events, there is a strong preference for a 'human interaction' perspective over an 'object manipulation' perspective. Only three of 33 TNG languages in his sample (Kaluli, Suena and Wambon) have the Gift as the only choice for direct object.

A few languages index both direct and indirect object on the verb. Thus, Telefol and Mian (both Ok group) and Amele (Madang) have affixation for Recipient and Gift, as well as for Giver.

Reesink finds that 'give' verbs are not universally ditransitive. Some TNG languages split 'give' events into sub-events, expressing them by a two clause construction, of the form 'X get/take Y, X gives to Z', as in Koiari (Dutton 2003):

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

(25) *hama* *mi-me* *da* *mo-mi.* [Koiari]
hammer get-SS.IMM.SEQ 1SG give-SF.OBJ'
'Give me the hammer.' (lit. 'Get hammer and give (to) me.')

Some languages express 'benefactive events (e. g. 'X makes something for Y') by means of a biclausal construction ('X makes something, X give Y'), e. g. Kobon (Davies 1981: 112):

(26) *nipe* *wim* *g-əm* *ip* *ɲ-nab.* [Kobon]
3SG.SBJ bow make-**SS.3SG** **1SG.OBJ** give-**FUT.3SG**
'He is making a bow for me.' (lit. 'he is making a bow, he will give (it) to me.')

In other languages the biclausal benefactive construction has been compressed into a serial verb construction, with 'give' as the final verb.

Foley (1986, 2000) notes that dative case nominals, denoting recipient or beneficiary, tend to alternate between core and peripheral status. This is the situation in Barai, Fore, Dani, and the Hua dialect of Yagaria. Thus, Hua (Haiman 1980b) has both a biclausal benefactive and a single clause benfactive in which the beneficiary is marked by a suffix on the dative NP. Compare the following pair of sentences:

(27) *Zuʔ* *ki-na* *d-te.* [Hua]
house build-3SG 1SG.OBJ-put.3SG.DECL
'He built me a house.' (lit. 'He built a house and put (it) to me.')
b. *Dgai-si* *zu* *kie.*
1SG-BEN house build.SG.sub
'He built a house for me.'

In many languages of the Madang (Z'graggen 1980a-d) and Finisterre-Huon groups (McElhanon (1973), 'give' is expressed by a zero morpheme, with only the prefix marking person-and-number of Recipient present to indicate the missing verb root. In Amele (Roberts 1987) the verb complex consists only of affixes marking Recipient, Giver and tense, with no overt verb root.

(28) *Uwa* *ho* *eu* *it-ad-ei-a.* [Amele]
3SG pig that 1SG.IOBJ-3PL.DOBJ-3SG.SBJ-PAST
'He gave me those pigs.'

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

2.5.3.3.3 Omission of subject and object NPs in connected discourse

In a clause chain, once the identity of a subject or direct object is established (or presumed to be known) there is usually no further representation of this entity, other than by agreement suffixes. In (29) from Tauya each clause is enclosed in square brackets. Instances where the subject and/or the object are not represented by either a pronoun or a lexical NP are shown in the free English translation by including, in parentheses, pronouns that indicate the missing material.

(29) [*nono* *Ø* *imi-te-pa*] [*mai* *mene-a-te*] [Tauya]
child **3SG.OBJ** carryget-SS come.up stay-**3SG.SBJ-DS**
'(She) carried the child and (she) came up and she stayed
[*pai* *aʔate-pa*] [*nono* *win* *en-fe-pa*]
pig kill-SS child show 3PL.OBJ-TR-SS
and (they) killed the pigs and (they) showed (them) to the children
[*yene* *wawai* *wi* *en-fe-pa*] [*mene-pa*]
sacred flute show 3PL.SBJ-TR-SS stay-SS
and (they) showed (them) the sacred flutes and they stayed
[*pai aʔate-ti* *tefe-pa*] [*ʔeʔeri-pa*]
pig kill-CNJ put-SS dance-SS
and (they) killed the pigs and put (them) and (they) danced
[*toto-i-ʔa*]
cut-3PL.SBJ-INDIC
and (they) cut [(the pigs)'

The long Kalam sentence in (14) above provides another example of zero anaphora in clause chains.

2.5.3.3.4 Deriving transitive verbs

It was noted in 2.5.3.3.2 that some TNG languages, e. g. in the Madang and Finisterre-Huon groups, have an affix that derives transitive from intransitive verbs. In many TNG languages, however, there are no purely morphological means for deriving transitive verbs but resultative or cause-effect serial verb constructions provide a functional equivalent. These are cases where a transitive verb root specifying an act performed by an agent on a patient, e. g. hitting, cutting, or blowing or stepping on something, is followed by an intransitive verb root, denoting a state or process that results from this act. The surface subject of a resultative SVC is always the agent of the transitive verb. The logical subject of the intransitive verb becomes the surface object of the serial verb construction, as in the examples in (30) from Kalam. In the simplest case, resultative SVCs contain just two verbs. However, more complex resultative SVCs occur, containing two transitive verbs and/or two intransitive verbs.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

(30)	a.	*pak sug-*	(strike extinguished)	'put out (a fire)'	[Kalam]
	b.	*pak wk-*	(strike shattered)	'knock s.th. to bits, shatter s.th'	
	c.	*pug sug-*	(blow extinguished)	'blow out (a flame)'	
	d.	*puŋi ask-*	(pierce opened)	'prise s.th. open'	
	e.	*puŋi lak-*	(pierce split)	'split s.th. by wedging or levering'	
	f.	*taw pag yok-*	(step.on broken displaced)	'break s.th. off by stepping on it'	
	g.	*tb kluk yok-*	(cut gouge displaced)	'gouge s.th. out'	

2.5.3.4 Verb adjunct phrases

Most, probably all TNG languages augment their stock of verbs by means of verb adjunct phrases. In such constructions an inflected verb, usually a light verb, is preceded by a non-inflecting base which carries more specific meaning and which only occurs paired with a verb root (see 2.5.3.4). For example, in Kalam some 30 non-inflecting bases that denote particular kinds of sounds each occur paired with a single verb, *ag-* 'say, sound' to create phrasal verbs of sound-making and speaking, e. g. *si ag-* (crying say) 'cry, weep', *suk ag-* (laughing say) 'laugh', *gu ag-* (thudding say) 'thud', *gulgm ag-* (snoring say) 'snore', *mokbel ag-* (belching say) 'belch'. Such non-inflecting bases are most commonly called 'verb adjuncts' in the TNG literature, but are sometimes termed 'coverbs' or 'verbal nouns' or 'verbal auxiliaries'.

Verb adjuncts can often be translated by English gerunds or nouns but true verb adjuncts differ from nouns in that they cannot serve as subjects or direct objects of a verb, cannot be possessed, counted or otherwise modified (independently of the verb) and cannot modify a noun. They differ from clausal adverbs in that they form a tight-knit constituent with the verb, can occur only with a very few verbs, and are not gradable. However, the boundaries of the verb adjunct class are generally fuzzy. Certain common nouns behave like verb adjuncts in certain respects.

In some languages verb adjuncts can combine with only one or two light verbs, such as 'do', 'hit' or 'say', and the inflected verb contributes little or nothing to the meaning of the predicate but serves as an auxiliary to carry inflections. This is the case in Telefol, where the two light verbs are *keemin* 'do, make' and *akan'kalin* 'say, make a sound' (Healey 1965).

In other languages verb adjuncts occur with a wider range of verb roots in a semantically more or less predictable way, and the verb root serves as a kind of event classifier. In Enga at least 12 different verb roots combine with verbal adjuncts: *lengé* 'utter, '*pingí* 'do', *pingi* 'hit', *nyingi* 'hear', *miningi* 'hold, control', *kaenge* 'be (of inner states), *palenge* 'lie', *katenge* 'stand', *penge* 'go', *nenge* 'eat', *tenge* 'burn' (Lang 1975). In a number of Chimbu-Wahgi languages the main clas-

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

sifying verbs usually have the basic meanings 'hit', 'do, make, affect', 'say, speak' and 'take', although a few other verbs, such as 'give', 'lie (down)' and 'hear, feel', also appear in some collocations. In Kalam the main event classifying verbs are *g-* 'do, make', *ag-* 'make a sound, say', *ay-* 'put, stabilise, become', *d-* 'hold, take, control', and certain verbs of locomotion, such as *am-* 'go' and *tag-* 'walk about'. In the following examples from Kalam (Pawley et al. 2002) verb adjuncts and their glosses appear in bold.

(31) a. [Kalam]

suk	*ag-ya-k.*
laughing	say-3PL-REM.PAST

'They laughed.'

b.

pa-skoy	***si***	*etp-nen*	*ag-a-k?*
girl-small	**crying**	what-for	say-3SG-REM.PAST

'Why did the girl cry?'

c.

Sawan	***guglum***	*ag-ig,*	*k-j<a>p.*
Sawan	**snoring**	say-SS.SIM	sleep<PRS.PROG>3SG

'Sawan is asleep, snoring' ('S. is snoring sleeping')

d.

meg	***tug***	*ju-p-in.*
tooth	**by.hand**	extract-PFV-1SG

'I pulled out a tooth.'

e.

cn	***wsn***	*kn*	*tep*	*g-nu-k.*
we	**sleeping**	sleep/lie	well	do-1PL-REM.PAST

'We slept well.'

In some languages, the verb adunct is tightly bound to the following verb stem, with no other morphological material allowed to intervene. This is the case in Fore (Scott 1978). In others the association is looser. Thus, in Kalam interrogative pronouns, locatives and the negator can occur between adjunct and verb stem, in clauses containing a single verb stem. However, in TNG languages in general, when a verb adjunct phrase is part of a serial verb construction (2.5.3.7) this phrase is treated like a single verb, with no other material allowed between adjunct and verb root.

2.5.3.5 Experiential constructions with impersonal subject

Most well-described TNG languages make a sharp distinction between (i) bodily and mental processes controlled by an animate agent and (ii) bodily and mental processes and conditions where an inanimate force is depicted as affecting an involuntary experiencer, e. g. bleeding, sweating, sneezing, being hungry, cold, sick, feeling like laughing or vomiting, feeling afraid, angry, sad or irritated, having boils, warts or pimples. A distinctive 'experiential' construction encodes type (ii).

Such experiential constructions typically consist minimally of an object pronoun or NP representing the experiencer, followed by a nominal represent-

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

ing the bodily or mental condition or process, followed by a verb inflected for 3rd person singular subject. The verb denotes the manner in which the bodily or mental condition manifests itself (it ‘comes’, ‘falls’, ‘settles’, ‘acts’, etc.). The syntactic analysis of experiential constructions is somewhat problematic and is not identical for all TNG languages and may not even be uniform for all cases in a single language. What is common ground is that the subject is impersonal. In some languages the material denoting the bodily or mental condition (hunger, warts, sweat, cold, fear, etc.) can be analysed as a noun or noun phrase, and as the subject, with the experiencer NP as object of the verb. However, whereas in prototypical transitive constructions the order of constituents is SOV, in experiential constructions it is OSV, with the experiencer NP placed in clause-initial, topic position.

In Kalam the bodily/mental condition/ process nominal noun is, arguably, the subject of the sentence, indicated by the fact that it, and not the experiencer NP, controls switch-reference (Pawley et al. 2002). In Tauya the situation is variable: either the experiencer NP or the bodily condition NP may control switch reference (McDonald 1990). In Kalam the experiencer is always represented by a pronoun from the distinctive object set, even when the experiencer is identified by full NP.

(32) a. *Yp suk ow-p.* [Kalam]
1SG.OBJ laughter come-PFV.3SG.SB
‘I felt like laughing.’/‘I couldn’t help laughing.’

b. *Sawan nup kñk ow-p.*
Sawan 3SG.OBJ saliva come-PFV.3SG.SBJ
‘He is salivating.’/‘He feels a craving.’

c. *Yp ss yow-p.*
1SG.OBJ urine fall-PFV.3SG.SBJ
‘I feel like urinating.’/‘I need to urinate.’

d. *Ctp ydk g-p.*
1DU.OBJ tastiness do-PFV.3SG.SBJ
‘It tastes good to us (two).’

In some languages the experiencer, though clearly not the subject of the clause, is represented by an independent rather than an object pronoun.

(33) *na peng to-nom.* [Wahgi]
1SG head hit-3SG.PRS
‘I have a headache.’ (Luzbetak 1981)

(34) *na egele te-ke-mo.* [Kaugel]
1SG hunger do-PRS-3SG
‘I am hungry.’ (Blowers 1970)

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

In other languages the expression denoting the bodily process is represented by an inflecting verb (be hungry, feel cold, sweat, etc.) and the 3rd singular subject is a dummy, not otherwise represented in the clause. Tauya (MacDonald 1990) has such a class of impersonal experiential verbs that take the experiencer as the object. In that respect they are transitive. However, the verb is subjectless, being always marked for 3rd person singular.

(35) a. *ya-sepame-a-ʔa.*
1SG.OBJ-sick-3SG-INDIC
'I'm sick' (lit. 'Me it is sick')

b. *sen-ʔoninite-a-ʔa* [Tauya]
1PL.OBJ-sad-3SG-INDIC
'We are sad' (lit. 'Us it is sad')

It is noteworthy that Tauya experiential verbs typically have corresponding noun forms, e. g. *sepa-me* 'be sick' and *sepa-mo* 'sickness', *ona-me* 'be hungry' and *ono-mo* 'hunger'. In a few cases in Tauya the experiental component is represented by a noun rather than a verb, and the object pronoun attaches to an element *ʔofe*, which may be cognate with the inalienable noun *ʔofo* 'belly'.

(36) a. *Eri* *ya-ʔofe-a-ʔa.* [Tauya]
fear 1SG.OBJ-belly-3SG-INDIC
I'm afraid'

b. *yei* *ya-ʔofe-a-ʔa*
wind 1SG.OBJ-belly-3SG-INDIC
'I feel cold'

In yet other languages the expression denoting the bodily process can be treated as a verb adjunct which combines with the verb to form a phrasal verb with impersonal subject.

2.5.3.6 Constructions with existential or quasi-copular verbs

A good many TNG languages use verbs of posture 'stand', 'sit', 'lie', and sometimes other verbs like 'hang', 'carry' and 'come' as existential or quasi-copular verbs. Lang (1975) refers to these as '(noun) classifying' verbs because the choice of verb correlates with the size, shape, posture, or composition of the subject nominal referent. However, the collocation of subject nominal and verb is not completely fixed. Choice of verb usually has some flexibility according to the situation of the referent. Weri (Goilalan, Boxwell 1990) is an example of a language with an elaborate verb classifying system.

The number of existential verbs varies across languages. Asmat (Voorhoeve 1965) uses five verbs: 'stand' (tall and slender things: men, standing trees, poles), 'sit' (things that are about as high as they are broad: women, houses, carrying bags), 'lie' (things that are low to the ground or broader than they are high: reptiles, small animals, fallen trees, just risen sun or moon), 'be in the water' (objects in or on the water: fishes, canoes, rivers), 'be above' (anything above eye level:

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

flying animals, objects hanging or stored high). Kiwai uses four verbs: 'stand' (trees, mountains, food plants), 'remain' (objects in fixed position), 'lie' (persons, things lying down), 'stay, be in a place' (persons). Dom (Tida 2006) has four main existentials: 'be, abound' (for people, most animals, water, dust), 'lie' (creeping creatures, stable things such as rocks and trees), put, be' (stone, moveable things), 'say, be' (things specific to a place or existing in general, e. g. land, natural products of the land)', as well as several with more restricted use. Enga (Lang 1975) has two sets of 'existential verbs', one used with concrete nouns, the other with abstract nouns. Concrete nouns fall into seven subclasses: men and boys, large animals, such as pigs and dogs, erect trees and other plants, houses, and body parts all 'stand'; women and girls, birds, still water, insects, and sugar gliders all 'sit'; hanging or protruding objects 'hang'; crawling invertebrates or aquatic creatures, locations and orifices 'lie', referents that are internal or below the ground 'lie inside'; things that are intermittent or capable of growth, or liquids, and gas 'come', creeping and crawling things other than insects, such as reptiles, and inanimate objects placed on the ground 'put'. However, these are the unmarked pairings in Enga. The correlation of particular nouns with particular verbs is sensitive to differences in form and posture. Thus, trees 'stand' if erect, 'lie' if cut down and 'lie inside' when cut into logs and piled up.

2.5.3.7 Serial verb constructions

TNG languages typically make extensive use of one or more kinds of serial verb construction (SVC), in which two or more bare verb roots occur in sequence to express a conceptual event made up of sequence of sub-events. Typical SVCs have the key attributes of a single clause. The whole SVC is spoken in a single intonation unit. Only the final verb root in the series is inflected. The subject and TAM carried by the final verb have scope over the whole verb series.

Several kinds of SVCs, differing in grammatical and semantic details, are found in TNG languages. An important distinction is between what may be termed *compact SVCs* and *narrative SVCs*. In compact SVCs the verb roots are always contiguous and specify sub-events of a tight-knit semantic unit, typically translatable in English by a single verb or verb plus particle, e. g. Kalam *d ap* (get come) 'bring', *d am* (get go) 'take', *am d ap* (go get come) 'fetch', *d nŋ* (touch perceive) 'feel', *ñb nŋ* (eat perceive) 'taste', *tb tk* (cut sever) 'cut off'. Individual roots cannot be modified. If a negator or modifier is present it has scope over the whole SVC. Compact SVCs are, in effect, a means of enlarging the verbal lexicon and are present in all TNG languages that use SVCs.

Some languages also have a more complex type of verb serialisation: narrative serialisation. Narrative SVCs reflect discourse conventions for describing a sequence of events, often taking place in different places at different times, that together make up a familiar conceptual episode. Writing about event reports in

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Yale and Eipo, languages of the Mek group of Indonesian Papua, Heeschen (2001) observes that

> Each reference to agents and their doings is embedded in everyday routines and forms part of the known concatenation of events. …One cannot say: "My father collected pandanus nuts". One has to say "My father lived in the hamlet, he went to the mountain forests, he cut pandanus nuts, he carried them, came home, cooked them, distributed them and ate them." Guests first have to come, then you may take a pig and give it to them, and the enemies have to come and have to go somewhere and be spotted, then they may wound someone. (Heeschen 2001: 158–159)

In describing such an episode, a speaker may spread the series of events over several clauses, elaborating on details, or may condense them into a shorter account. Narrative SVCs represent the most highly condensed, formulaic versions of such narratives. Unlike a fully developed narrative account of a complex episode, a narrative SVC does not highlight any of the sub-events. Instead it merely mentions them. The sub-events are all backgrounded.

Narrative SVCs have been reported for only a few, widely scattered TNG languages, such as Yale and Eipo, Korafe of the Binanderean group (Farr 1999) and Kobon and Kalam of the Madang group. Undoubtedly they occur in a good many other TNG languages for which we lack detailed descriptions of SVCs.

The most elaborate narrative SVCs so far reported are for Kalam, where single clauses are found that contain as many as eight or nine verb roots (Pawley 1987, 2008, Pawley and Lane 1998). Among the most common kinds of narrative episodes in Kalam discourse are reports of gathering expeditions (e. g. hunting animals, collecting firewood, gathering nuts). These typically specify (i) movement by the actor to the place of searching or gathering, (ii) the act(s) of searching and gathering, (iii) movement or transport of the gathered materials back home or to a base, (iv) how the materials were disposed of (e. g. cooked and eaten, smoked and stored, cut up and distributed). If the search was unsuccessful only sub-events (i), (ii) and (iii) are mentioned. The speaker may choose to compress all the sub-events into a single SVC or may distribute them over two or more clauses. The following fragment describes a dog's hunting expeditions. Clause (i) describes the dog's movement to the place of hunting, clause (ii), which contains eight verb roots, excluding the iteration of one verb, *g* 'do', describe the acts of searching and and capture, clause (iii), which also contains eight verb roots, describes an unsuccessful hunt, and clause (iv) describes the dog's return home. Verb roots appear in bold.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

(37) (i) …*kayn ak ney awsek* ***am****-ub*, [Kalam]
dog the he alone **go-**PRF.3SG
'...the (hunting) dog, he goes out alone,

(ii) *ñn ak ognap wtsek* ***d ap tan d ap yap***
day the some pursuing **get come ascend get come descend**
g g suw*-p,*
do do bite/kill-PRF.3SG
some days he goes about chasing all over the place and makes kills,

(iii) *ñn ak ognap wt-sek* ***d ap tan d ap***
day the some pursuing **get come ascend get come**
yap g g *met* ***nŋ****-l*
descend do do not **find-**SS.PRIOR
some days after chasing (animals) back and forth and not having caught any,

(iv) *adkd katp* ***ow****-p.*
turning.back (adv.) house **come-**PRF.3SG
he comes back home.' (KHT ch.19, #28)

There is in principle no limit to the number of uninflected verbs that can occur in a Kalam narrative SVC. In practice – if we exclude iteration of verb roots to show repetition or continuity – the limit seems to be about nine or ten.

2.5.4 Adjectives

TNG languages generally have a sizeable adjective class, whose members serve two main syntactic roles: (i) as modifiers in noun phrases, (ii) as elements that combine with verbs to form complex predicates. For Middle Wahgi Ramsey (1975) lists the following semantic categories covered by adjectives: age, states of deterioration, shape and texture, size, dimensions, weight, colours, designs, temperature, dryness, hardness, strength and weakness, good and bad, straight and crooked, numerals and quantities, smells.

Kewa (Franklin 1971) shows a fairly typical range of adjectival domains that includes: (a) colours, (b) size, (c) quantity and (d) quality. In at least some languages the class of adjectives is open. An adjective can be derived from any Kewa verb by a suffix -*ne* or -*pe* and from any Kalam verb by the suffix -*ep* (variant -*eb*).

In Tauya (MacDonald 1990: 105) most Tauya adjectives not only modify nouns but are used as nouns, i. e. 'old' can be 'the old one' and 'red' 'the red one'.

Adjective + verb sequences make existential and quasi-existential assertions: as in Kalam, *yob g-* (big do) 'be big, become big', *omŋal md-* (two exist) 'be two, become two', *lkañ ay-* (red turn/become) 'turn red'.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

2.5.5 Spatial terms: place names, locatives and directionals

As well as place names, each language has ways of talking about location or direction, which is adapted to the landscape in which its speakers live. However, neighbouring languages occupying similar terrain can vary considerably in the semantic categories represented in their spatial deictics. Heeschen (1998: 143) writes as follows of the Eipo of the highlands of West Papua and their neighbours, the Yale:

> the Eipo orient themselves in their mountainous environment by an incredibly dense network of names for mountains, hills, slopes, rivers, and plains, and by distinguishing four deictic points of reference relative to ego's position. Eipo speakers mainly use the spatial deictics as a condensed and abbreviating structure in face-to-face communication: here the deictics are accompanied by a pointing gesture. During acts of orientation and…in reported speech spatial deictics are common and frequently constructed with verbs of movement and transaction….In striking contrast to the closely related Yale language, the Eipo deictics do not develop into a system of determiners or into a system of demonstratives, almost obligatorily constructed with nouns...

The basic set of spatial deictics in Eipo is remarkably small: *a-* 'here', *ei-* 'up there', *ou-, u-*'down there' and *or-, er-/*'across there' (= 'across-valley'). These bound morphemes most frequently combine with verbs, nouns, postpositions and predicativising suffixes.

Speakers of Middle Wahgi occupy the wide, relatively flat valley of the Wahgi River, with steep ranges rising in the distance on each side. They have several sets of spatial deictics. One set relates to river flow: down-river vs the head of the river, at the edge of the river, on the other side of the river. Another set distinguishes directions relative to the sun's diurnal path: east, west, north, south. Another set refers to relative distance in a given compass direction e. g. (for east) far to the east, too far to see, east at about the limit of the horizon, east within close range, or no further than the horizon, east close at hand, e. g. in the same house

Kalam speakers mainly live in V-shaped mountain valleys, and use a morphologically complex set of directional locatives consisting of prefixes marking distance, visibility, position in relation to speaker/hearer/3rd person, approximate location followed by bases denoting direction of river flow or relative height (altitude).

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Table 9: Directional roots with prefixes in Kalam

Prefix		Directional	
eb-, b-	location	*-i*	'here, near speaker'
ka-	'in direction of addressee'	*-doŋ*	'across-river, across-valley',
nuk-	'near but out of sight'	*-im*	'down-river, down-valley'
bk-	'middling distance, not far'	*-neŋ*	'up-river, up-valley'
sŋ-	'approximate, about'	*-yaŋ*	'down, below'
ak-	'distant'	*-yoŋ*	'up, above'
ku-	'towards'	*-yaŋ*	'down, below'
		-ok, -ak	'somewhere there'

2.5.6 Negators and question markers

Negation in verbal clauses is generally marked by a prefix or proclitic to the verb or to a verb adjunct phrase. In some languages the negator is tightly bound to the verb. In others, other material, such as object pronouns, can intervene.

In many languages the basic shape of the negator is *mV* (where the vowel is most often *a),* e. g. Angaatiha (Angan), Apalɨ, Waskia and Kalam (Madang), Kâte and Kombe (Finisterre-Huon) or *na* or *naa*, e. g. Awara (Finisterre-Huon), Enga, Ku Waru, Middle Wahgi (Chimbu-Wahgi), Oksapmin. On these distributional grounds both *ma and *na may both be attributed to a very early stage of TNG. However, the fact that negatives of the form *mV* and *nV* are widespread across language families of the world raises the possibility of independent parallel development within TNG.

2.5.7 Interrogative mood markers

A polar (yes-no) interrogative mood marker is always present, usually as a suffix or enclitic to the predicate. In disjunctive interrogative sentences the question marker generally occurs in both disjuncts, as in Engan (Lang 1973) where the marker is *-pe* or *-pi*, suffixed to the verb.

(38) *Baá p-e-á-pe pánde ná-p-e-a-pe?* [Engan]
3SG go-PAST-SG-Q or NEG-go-PAST-Q
'Did he go or didn't he go?'

Languages vary as to which other kinds of question markers occur. Thus, Waskia (Ross and Paol 1978) has a tag question marker, which forms a question from a declarative. Both tag and polar questions in Waskia are spoken with rising intonation. Kalam has a tag question marker, used when a positive answer is expected.

Yagaria has what (Renck 1975) terms a 'conditional' interrogative, an expression of uncertainty, used when a negative answer is expected. Yagaria also has

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

a polite interrogative, used when greeting someone who is leaving or arriving, and expressed as front vowel allomorph of the verb stem. Dom (Tida 2006) has a dubitative interrogative speculating as to alternative possibilities ('I wonder if/whether').

2.5.8 Conjunctions

TNG languages generally make little use of free form conjunctions to show sequential, conditional and causal relations. The principal devices for connecting clauses are the suffixes carried by medial verbs (see 2.5.3.2.3, 2.5.3.7).

2.5.9 Tail-Head linkage

Tail-head linkage is the name for a discourse pattern in which the last verbal predicate of a clause is repeated in the next clause as the initial predicate of a new clause chain. For example, in the following passage from Kombai (Greater Awyu, de Vries 2005: 364), *khumolei* 'he died' from the end of the first clause is repeated as the beginning of the second:

(39) a. *Kha-negena* / *refe* *fe* [Kombai]
go.3SG.NFIN.UNTIL.DS year one
büwene-n-a / *khumolei.#*
finished.3SG.NFIN-TR-DS die.3SG.NFIN
'It went on during one year and then he died.'
b. *Khumolei-n-a* / *ifamano.#*
die.3SG.NFIN-TR-DS bury.3PL.NFIN
'He died and they buried him.'

The #-sign in (39) marks a falling contour, contrasting with the intonation of the head clause, a rising contour followed by a pause (/). The intonational pattern betrays one of the suggested functions of tail-head linkage, namely to signal breaks/chains and to allow the speaker/hearer some processing time. Tail-head linkage is common in TNG as well as non-TNG languages of New Guinea. If a language has medial verb forms, typically the medial forms are used in the repeated element. In the majority of cases tail-head linkage involves repetition of just the verb or serial verb construction that forms the head of the previous clause. When the final clause contains nominals, they may be included in the recapitulation and sometimes nominals are inserted in the head clause that do not occur in the tail clause (Farr 1999: 204). Tail-head linkage occurs foremostly in narratives, but is not restricted to that genre (de Vries 2005: 365).

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

2.6. Lexicon and lexical semantics

2.6.1 Introduction

This section comments briefly on the size and composition of the lexicon in TNG languages and, for a few selected domains, on lexical semantics, i. e. the meanings of lexicalised expressions, whether they be single words or multiword expressions.

Obtaining reliable data on lexical semantics for TNG languages is not easy. Treatment of word meanings and their relations is the weakest part of most descriptions. For example, dictionaries often fail to provide accurate definitions of generic terms and of relations between generics and specifics. The reader who finds a term defined 'tree (generic)' is seldom told whether the generic includes palms, pandans or woody vines. A term may be glossed 'possum' without any indication of whether it applies to all species of cuscuses, ringtails, and petaurids found in the area. In any case, a cross-linguistic study of any one semantic field would be a major undertaking. The notes that follow touch on just a few domains.

2.6.2 On the size and composition of TNG lexicons

Even though the question 'how many lexical items does a particular language have?' is not answerable in a precise way, some observations may be made on the size and composition of the lexicons of TNG languages.

The term 'lexical item' is itself imprecise. Is *run* the same lexical item in *run in a stocking, run of luck, marathon run, chicken run, salmon run*, *run on the bank, a run in baseball or cricket,* etc.? The best measure of the number of lexical units recorded in a dictionary is by sense units, i. e. form-meaning pairs that are given separate definition from other such pairs (Cruse 1986). Insofar as the uses of *run* mentioned above all require separate definition, they count as separate lexical units. Although distinguishing sense units can itself be problematic (boundaries within a spectrum of senses are often fuzzy), lexical units of this kind provide a more accurate measure of the lexical resources of a language than lexicographers' 'entries' or 'headwords', because dictionaries vary considerably in their organisation of entries and in their handling of polysemy.

There are published bilingual dictionaries with more than 5,000 lexical units of just a few TNG languages. The most extensive are probably those listed below. The figures refer to that part of the dictionary where the headwords are in the TNG language and the definitions are in a European language. Estimates are approximate.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Table 10: Approximate number of lexical units in larger dictionaries of TNG languages

TNG language	No. lexical units	Reference
Kâte	15,400	Flierl and Strauss 1977
Kalam	14,000	Pawley and Bulmer 2011
Eipo	8,800	Heeschen and Schiefenhövel 1983
Kyaka Engan	8,000	Draper and Draper 2002
Korafe-Yegha	8,000	Farr and Farr 2008
Telefol	7,500	Healey and Healey 1977
Yale	7,000	Heeschen 1992
Middle Wahgi	5,900	Ramsey 1975
Selepet	5,800	McElhanon and McElhanon 1970
Baruya	5,000	Lloyd 1992

Given the certainty that each of these dictionaries is far from exhaustive, the indications are that most TNG languages spoken by sizeable communities contain more than 10,000 lexical units. However, it should be kept in mind that measuring the size of a language's lexicon is not an exact science. Sense distinctions are often fuzzy. Furthermore, the limits of the lexicon are unclear for a number of reasons. One is that speech communities generally have lexical repertoires that overlap two or more languages and it is not easy to decide where the boundaries lie. (Are *bon voyage*, *coup d'état, Blitzkrieg, Schadenfreude* and *glasnost* all part of the lexicon of English?) Speakers of TNG languages today borrow thousands of expressions from other languages (in Papua New Guinea, chiefly Tok Pisin, and English) – terms for various domains of modern technology, government, law, health and medicine, games and sports, and so on, which speakers integrate to a lesser or greater degree, phonologically and grammatically, into their mother tongue. The dictionaries cited in the table above do not attempt anything like a full coverage of recently borrowed expressions.

Yet another reason is that in many (possibly most) languages the bulk of the lexicon consists of phrasal expressions (compounds and phrases), which are standard pairings of a conventional concept with a particular form. However, conventionalisation is a matter of degree. Few dictionaries attempt anything like an exhaustive coverage of phrasal expressions.

With respect to the different major parts of speech, the main variation in size of lexicon among TNG languages concerns the number of verb roots. In some languages the class of verb roots is open, with at least several hundred members recorded. In others verb roots are a closed class. Chimbu-Wahgi languages are reported to have closed inventories of verb roots ranging from 60 to 150, although few sources give precise estimates: Ramsey (1975) lists 104 for Middle Wahgi, Tida (2006) reports 140 for Dom. Kalam and the closely related Kobon language each have closed inventories of about 130 verb roots. Some of these, especially

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

the high frequency ones, are highly polysemous. In Kalam the 130 or so verb roots subsume about 400–450 sense units.

However, it would be a serious error, for any language, to equate the number of lexicalised verbal expressions with the number of verb roots (or even the number of their sense units). TNG languages typically supplement the verb root lexicon with two kinds of phrasal expressions:

(i) Verb adjunct + verb expressions. In these a light verb, one with very broad meaning, collocates with a 'verb adjunct' that carries more specific meaning (see 2.5.3.4).

(ii) Serial verb collocations (see 2.5.3.7).

In a number of the larger TNG dictionaries listed above the number of verbal headwords, including compounds and phrasal expressions, is around 2,000. For example, Heeschen (1992: 23) notes that in his dictionary of Yale there are 581 primary verbs (verb roots), 677 verb adjunct collocations and 786 compound verbs, yielding a total of around 2000 verbal lexical items (leaving aside distinctions between sense units). The number of sense units, of course, would be considerably higher.

As in all languages of the world for which analysis has been done, a few high frequency verbs dominate text counts. In Kalam, for instance, 15 verb roots account for 90 percent of verb tokens in text; 35 verb roots account for more than 98 % of tokens.

2.6.3 Semantics of nouns

2.6.3.1 Some nominal polysemies

Laycock (1986) investigated what he calls 'semantic conflations' in a sample of Papuan languages. He uses 'conflation' to cover both clear cases of polysemy, where a word in a language has two or more distinct senses, and cases where a word has a semantic range that possibly represents a single concept in that language but which in *some* languages of the world is represented by two or more distinct lexical items. His sample includes four TNG languages from disparate subgroups: Selepet, of the Finisterre-Huon group, Yagaria of the Goroka group, Foi, spoken in the Southern Highlands of Papua New Guinea, and Momuna (Somahai), of West Papua. To these we have added data from a few other languages.

Some of the conflations mentioned by Laycock are:

(40) a. [man, husband], [woman, wife]. Usual, but not universal, in TNG.
b. [bird, bat]. In some TNG languages the category bird-and-bat excludes the cassowary, a bird extremely distinctive in form and behaviour.
c. [hair, fur, feather, leaf]. Foi and Kalam conflate all these concepts. Somahai and Yagaia conflate all except 'leaf'.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

d. [tree, firewood, fire]. Found in Foi and Kalam, and in many other languages.
e. [water, river]. Usual, possibly ubiquitous, in TNG.
f. [bark, skin of animal, peel or skin of fruit]. Attested in all languages in the sample.
g. [bark, skin, body]. Attested at least in Foi and Kalam. Data on ‘body’ are lacking for some languages.
h. [egg, fruit, seed and certain other objects which are round, such as kidney, eye, heart.] Attested in various Chimbu-Wahgi languages (Osmond 2001) and in Kalam, Selepet, Somahai, Kâte, Kewa, Fore and Yale.
i. [hand, foreleg of quadruped, wing]. The first two concepts are typically conflated but the full conflation, including ‘wing’ occurs only in Foi.
j. [heart, seat of emotions]. Occurs in Foi and Momoona. In Kalam the seat of the emotions can be either the liver or the stomach/guts.
k. [blood, red]. Found in Yagaria and Kalam.
l. [garden, work], [to make gardens, to work].
m. [joint, elbow, knee]. Conflated at least in Yagaria, Foi.

Other common conflations, not mentioned by Laycock, include:

(41) a. [milk, sap, semen, white of egg, bone marrow]
b. [nose, face]
c. [teeth, internal mouth]
d. [leg, foot, hindleg]
e. [finger, toe]
f. [father, owner; mother, owner]

2.6.3.2 Multiword nominal expressions

Certain concepts that are expressed by a simple noun in many languages of the world are expressed in many TNG languages by nominal compounds, e. g. woman-man ‘person, people’, girl-boy ‘child, children’, mother-father ‘parents’, lips-nose ‘face’, mother’s brother-father’s brother ‘uncles’. Nominal compounds are not restricted to two-constituent terms. A few have three or more coordinate constituents. Examples in (42) are from Kewa (Franklin 1971) and (43) from Kalam (Pawley and Bulmer 2011).

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

(42) a. *oná-áá* b. *nogó-naakí* c. *íní-ágaa* [Kewa][18]
woman-man girl-boy eyes-mouth
'people' 'children' 'face'
d. *kí-kómaa* e. *pádi-rááni* f. *mená-irikai*
hand-upper.arm edible.pitpit-cress pig-dog
'(whole) arm' '(green) vegetables' '(large?) animals

(43) a. *bin-b* b. *ña-pañ* [Kalam]
woman-man son-daughter
'person, people' 'child, children'
c. *aps-basd* d. *ami-gon* *bapi-gon*
grandmother-grandfather mother-children father-children
'grandparents' 'nuclear family, parents and children'
e. *kmn-as* f. *kaj-kayn-kobti*
game.mammal-small.wild.mammal pig-dog-cassowary
'wild mammals' 'large animals'
g. *kmn-kaj-kobti* h. *mñ-mon*
game.mammal-pig-cassowary vine-tree
'animals that provide ceremonially valued meat' 'land, country, territory, world'
i. *kneb ameb owep wog wati gep*
sleeping going coming garden fence making
'everyday activities'

2.6.3.3 Taxonomies in the nominal lexicon

Only for a few TNG languages has there been systematic analysis of taxonomies in the nominal lexicon and then only for a few semantic domains. Such research has generally been done by anthropologists rather than linguists. In particular, the classification of fauna by Kalam speakers has been extensively studied by Ralph Bulmer and his associates (e. g. Bulmer 1967, 1970, 1974, 1978, Bulmer and Menzies 1972–1973, Bulmer et al. 1975, Bulmer and Tyler 1968, Majnep and Bulmer 1977, 2007). Bulmer found that Kalam taxonomies of different groups of animals are fairly shallow – the number of levels varies from one to four, i. e. there are primary, secondary, tertiary and quaternary level taxa.

The Kalam distinguish between primary taxa partly on biological attributes (morphology, behaviour) and partly on social factors (beliefs, ritual restrictions on cooking or eating, etc.). Thus 'dirty rats' form a primary taxon contrasting with all other animals. Kalam excludes cassowaries from the 'birds and bats' category

[18] In Kewa orthography *a* represents /ə/ and *aa* represents /a/. The acute accent represents tone.

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

(Bulmer 1967). Not only are cassowaries flightless, very large, and dangerous, but they are prominent in Kalam mythology as 'cross-cousins' of humans and there are complex restrictions in the manner in which they can be killed and cooked.

In the case of the primary taxon *yakt* 'birds and bats' most secondary taxa (immediate subtaxa of *yakt*) are terminal taxa, e. g. the white cockatoo is *(yakt) wtay*, with no further subdivisions, but in about 30 percent of cases the secondary taxa have two or named divisions among themselves (tertiary taxa), e. g. *maldapan* 'berrypeckers' are divided into four named subtaxa and *pow* 'owlet-nightjars' into three. And one or two of these tertiary taxa are further subdivided into quaternary taxa.

All wild mammals fall into one or another of three primary taxa: *kmn*, *as* and *kopyak*. *Kmn* 'game mammals' are the larger wild mammals: tree kangaroos, wallabies, cuscuses, ringtail possums, giant rats, and bandicoots. All are hunted by men. *As* are small wild mammals, such as most bush-rats and small marsupials such as sugar gliders and pygmy possums. Ground-dwelling *as* are collected by women. The primary taxon *kopyak* is restricted to 'dirty rats', those found in or near homesteads, graves, latrine areas and other unclean places. These three primary taxa contrast with all other Kalam primary taxa applied to living creatures, such as *yakt* 'flying birds and bats', *kobti* 'cassowaries', *kaj* 'pigs', *kayn* 'dogs', *soyŋ* 'certain snakes' and *yñ* 'skinks'. When cattle, horses and goats were first encountered by the Kalam, they were classified as kinds of *kaj* 'pig'.

In the case of plants, the two primary taxa with most secondary taxa are *mon* 'trees and shrubs' and *mñ* 'vines and robust creepers'. Palms and pandans are not considered to be *mon*. It is fairly common to find three-level contrasts in taxonomies for trees, e. g. *bljan* '*Macaranga* spp.' is a *mon* that has four named kinds, distinguished by shape and size of their leaves and by their uses.

There is no simple lexeme whose meaning unites any two or more of the primary taxa of Kalam animals. However, a number of compound nominals exist that group together two or more primary taxa (see 2.6.3.2 for *kmn-as*, *kaj-kayn-kobti*, etc.).

2.6.4 Verb polysemies

As with nouns, there has been little comparative study of the semantics of verb roots. Unsurprisingly, the most frequently used verbs tend to be highly polysemous. Between them the 130 or so verbs of Kalam have more than 400 senses (a total that pales in comparison to English, where for the most frequent ten verb roots dictionaries distinguish more than 500 senses).

Certain polysemies are widespread. The verb 'say' is generally used to express not only internal speech but also intention and wanting, when it follows a verb in hortative mood. The verb root 'hold' also has senses 'obtain', 'take', 'possess', 'control', 'stop', 'lie down' also has the sense 'sleep', 'hit' also means 'kill (by striking)', 'die' also means 'be unwell, paralysed, numb, stop functioning, be extinguished'.

Laycock notes just a few verb 'conflations' occurring in his sample:

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

(44) a. [fall over, fall from a height]. Conflated in Foi, Somahai and Kalam.
b. [know, understand, hear, feel, experience]. Selepet, Yagaria and Kalam conflate these. Kalam has a single verb of perception whose semantic range, besides those concepts just mentioned, includes be awake, be conscious or aware, see, hear, smell, feel, as well as think, remember, and test (i. e. try in order to experience)].

2.6.5 Numerals and counting systems

One semantic domain which has been the subject of detailed comparative study is numerals and counting systems (Kluge 1938, Galis 1960, Laycock 1975, Lean 1991, 1993, Smith 1988). Since sufficient data on numerals are available for many languages, more precise generalizations are possible for this domain.

A plethora of counting systems are attested in Trans New Guinea languages. The most widespread system, which we may call 'restricted', has conventionalized expressions only for two exact numbers 'one' and 'two', and only ad hoc combinations for higher numbers. About half of all TNG languages are attested with or can be inferred to have had such a system before the onset of Tok Pisin. For example, Ray (1912: 313–314) reports a restricted system for Fuyuge, a Goilalan language. The restricted systems with ad hoc expressions shade into conventionalized systems with a 2–5-10–20 base structure. That is, 3 and 4 are formed by additions of 2 and 1; 5 is not formed using a combination involving 2, but typically means 'one hand'; 6–9 are formed by additions of 5 with the lower numerals, reaching 10 which is 'two hands' or something tantamount; 10–19 are then formed using the appropriate number of hands and feet and additions of the lower numbers, making 20 as 'one man'. About one quarter of the TNG languages are attested with 2–5-10–20 systems where there is no strong reason to doubt their conventionalization. For example, Ingram (2001: 83–86) reports a 2–5-10–20 system for Anamuxra, a Madang language. Another common system, also found in about one quarter of the TNG languages, is a 5–10–20 system which is like the previous one except 3 and 4 are not formed by combinations with 1 and 2. Kovai (Smith 1988), a Finisterre-Huon language, exhibits a 5–10–20 system. Three other systems are attested in TNG languages, viz. base-4 systems in Melpa and Kewa (Vicedom & Tischner 1943–1948), base-6 systems on Kolopom island (Drabbe 1948), and decimal systems in Paniai Lakes (Le Roux 1950: 531) and the disputed TNG Timor-Alor-Pantar languages (in both these cases there are Austronesian loanwords).

Another kind of counting system is associated with the TNG family is the so-called body-tally system which is present in about 60 TNG languages. In a body-tally system counting begins by touching (and usually bending) the fingers of one hand, moves up the arm to the shoulders and neck, and in some systems, to other parts of the upper body or the head. A central point, such as the base of the neck, serves as the half-way point. Once this is is reached the counter continues, touch-

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

ing the corresponding points on the other side until the fingers are reached. Once a cycle of body-part counting is complete, a new cycle can begin, either moving in the opposite direction to the first cycle, or in the same direction. Body-tally systems can be sharply distinguished from 5–10–20 systems using hands and feet in that body-tally systems proceed from one side of the body to the other and make use of other body parts than hands and feet. While 5–10–20 systems using hands and feet occur abundantly across the world's languages, body-tally system are only attested in New Guinea and Australia (Lean 1993). Body-tally systems always coexist with a restricted system (usually) or a base-4 system (in Kewan languages). The number of points on the body that are tallied varies. Laycock found that in a sample of Papuan languages the number of points distinguished in upper body counting systems ranged from 19 to 47. Table 11 below, expanding on the one in Laycock (1975), shows the particular body parts used in six different TNG languages.

Table 11: Body part counting systems in six TNG languages

	Kewa	Gende	Telefol	Kalam	Enga	Eipo
little finger	1	1	1	1	1	1
ring finger	2	2	2	2	2	2
middle finger	3	3	3	3	3	3
index finger	4	4	4	4	4	4
thumb	5	5	5	5	5	5
heel of palm	6	–	–	–	–	–
palm	7	–	–	–	–	–
wrist	8	6	6	6	–	6
forearm	9	7	7	7	6	7
radius	10	–	–	–	–	–
ulna	11	–	–	–	–	–
inner elbow	12	–	8	8	7	8
lower upper arm	13	8	–	–	–	–
biceps	–	–	9	9	–	9
upper upper arm	14	9	–	–	–	–
edge of shoulder	15	–	–	–	–	–
top of shoulder	16	10	10	10	8	10
neck muscle/clavicle	17	11	–	11	9	–
side of neck	18	12	11	–	–	11
side of jaw	19	–	–	–	–	–
ear	20	13	12	–	10	12
cheek/temple	21	14	–	–	11	–
eye	22	15	–	13	–	–
corner of eye	23	–	–	–	–	–
crown of head	24	–	–	–	–	13
top of breastbone	–	–	–	12	–	–
nose-bridge	24	16	14	–	12	–
TOTAL	**47**	**31**	**27**	**23**	**23**	**25**

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The way in which body-tally systems are integrated into spontaneous discourse varies. Michel (1983: 102) found that the Eipo (speakers of a Mek language) normally used inexact descriptions of quantity rather than the extant body-tally system. De Vries (1998) observed that the conventional touching gestures were an obligatory part of the use of bodypart nouns as numerals in Korowai, and that a morpheme meaning 'amount' is necessary when using body-tally numerals in a noun phrase (as opposed to the parallel restricted system, whose two numerals modify their nouns without an 'amount'-morpheme). But, e. g. in Kalam, body-part numbers can serve as adjectives, e. g. *takn wajtem* (moon + shoulder/10) ‘tenth month, October’. Body-tally systems occur in non-TNG languages of New Guinea as well as in TNG languages.

Map 2.2 shows the incidence of attested body-tally systems (dotted areas) along with the contours of the languages counted in this chapter as being probable members of TNG. If a body-tally system was present in the deepest proto-language of the presumed TNG member languages, it is difficult to explain why the system was retained with the geographical concentration intuitively apparent in the map. Given the fact that body-tally systems are attested in neighbouring non-TNG languages to the north and south, diffusion rather than descent is probably the more important factor in the spread of such systems. The Ok subgroup of languages are at the centre of the distribution of such systems and every Ok language is attested with such a system. Thus a parsimonious hypothesis is that body-tally systems appeared first in proto-Ok and subsequently spread in random directions.

Little comparative work has been done on mathematical concepts in TNG languages other than numeration, e. g. length and distance, area, volume and mass, shapes, groupings, the passage of time and temperature. A few remarks will be made about time words in 2.6.7 and about spatial terms in 2.6.8.

2.6.6 Colour terms

Some TNG languages use the term for ‘skin, bark’ as a general term for ‘colour’. Others appear to lack a general term.

Heider (1972) and Davidoff et al. (1999) report that Dugum Dani speakers distinguish only ‘light’ and ‘dark’ as basic colour terms. However, the problematic notion ‘basic (monolexemic, high frequency) colour term’ is an inadequate tool for investigating colour vocabulary, one that is bound to yield a highly impoverished account of the total range of lexical distinctions commonly made in a language. Thus we find misleading claims in popular science journals such as “The Dani… a stone-age Melanesian people… [have] only two terms for describing colour” (Davidoff et al. 1999: 203).

We have found reliable, systematic treatments of the full range of colour terms for two TNG languages: Kalam (Bulmer 1968) and Middle Wahgi (Ramsey 1975).

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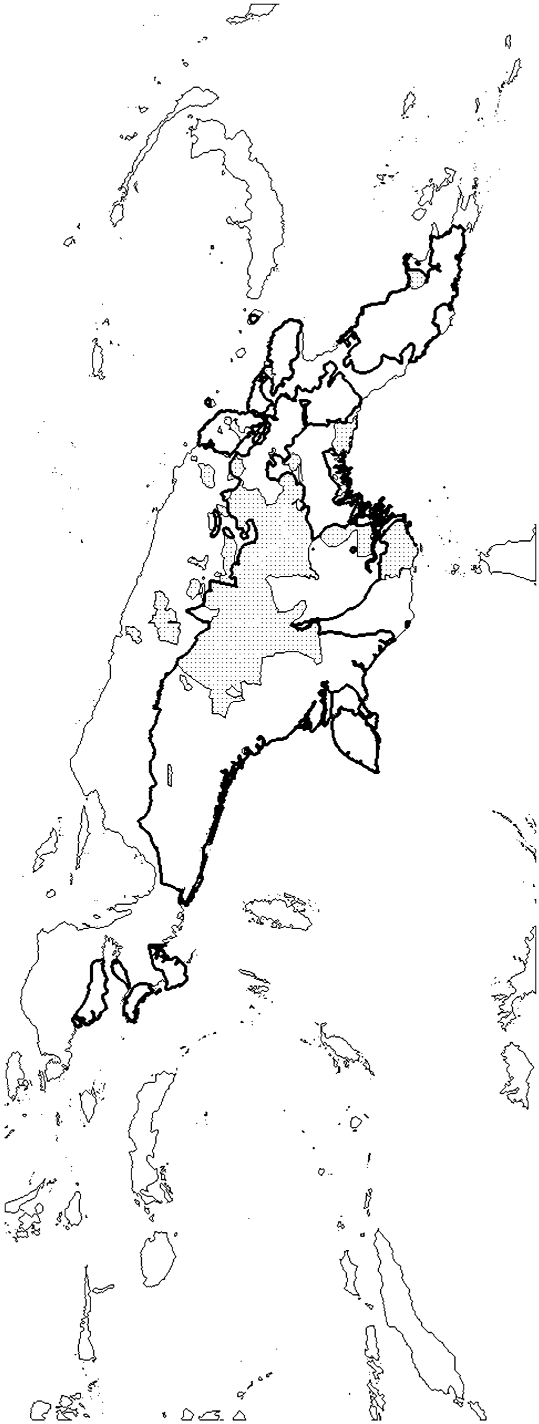
Heruntergeladen am | 16.10.19 13:48



Map 2.2: The incidence of body-tally systems in New Guinea (shaded areas) mapped onto the contours of possible TNG member families.

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Angemeldet
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Middle Wahgi distinguishes 14 colour terms, though there is overlap between a few: *kuru* 'white, shades of off-white', *nganimb* 'black', *jipił to*- 'be bluish-black', *numb* 'nearly black; a plant used for dyeing string a dark grey', *muk* 'true blue', *manngił* 'blue-green', *kolnga* 'green; new; alive; raw, not fully cooked', *balu* 'light brown, rust-coloured', *bang* 'brown, red, orange, pink', *galngin* 'brown', *jilni* 'yellowish brown', *bulni* 'yellow; yellow dye from a plant' (overlapping with *gi ni*- 'be yellow, bright' and *gispe kerem* 'yellow, yellow-orange'). In addition, Middle Wahgi distinguishes three kinds of contrasting colour patterns: *pepe* 'striped', *mon punduk pandil ni pa*- 'be spotted, speckled', *ngingan ni sim* 'variegated colours, mottled'. Kalam subsumes these three patterns under a single term.

Kalam speakers also distinguish 14 colour categories which, ideally at least, are not subsumable under any other superordinate term: *tud* 'white, light coloured', *sum* 'grey, esp. of hair', *tun* 'light grey; ash', *mosb* 'black, dark coloured', *lkañ* 'red/purple; blood', *pk* 'orange/bright reddish-brown/bright yellowish-brown/rich yellow; ripe', *sml* 'rather bright red-brown/yellow brown', *waln* 'yellow', *mjkmab* 'green', *ksk* 'pale green, yellow-green; unripe (of fruit)', *lban* 'rich green, sheeny; succulent or mature (of foliage)', *gs* 'dull brown, green or olive', *mlp* 'straw-coloured; withered (of foliage)', *muk* 'blue', *sŋa*k 'blue-grey, as blue-grey clay'. In addition there is a term for contrasting colours: *kl* 'striped, spotted, mottled'.

It can be seen that in both languages many of the colour terms are polysemous, also referring to kinds of substances or to properties other than colour. In addition several of these colour categories have named subcategories. Bulmer carefully records the range of application of each term to different referents (which terms apply to human skin, to bird plumage, to stones, to soil, etc.) We lack comparable data for other TNG languages.

2.6.7 Time words

It is common to have a set of lexical items expressing numbers of days in the past or present. In some languages as many as ten days are distinguished, as in Middle Wahgi (Ramsey 1975), which has: *pi*, *opi* 'today', *tołpa* 'tomorrow', *tał* 'day after tomorrow', *tolnge* 'yesterday', *tolnge tał* 'day before yesterday', and the following, which can refer either to the past or the future: *toi* '4th day, i. e. 3 days from today', *amb tupułł* '5th day', *yi tupuł,* '6th day', *kinwał '*7th day', *manwał* '8th day', *mołwał* '9th day', *kialwał* '10th day'.

Kalam (Pawley and Bulmer 2011) has the following contrasts: *mñi* 'today', *toy* 'tomorrow', *(toy) menk* 'day after tomorrow', *toytk* 'yesterday', *menk atk* 'day before yesterday', *goson* '3 days from today', *goson atk* '3 days ago', *ason* '4 days from today', *ason atk* '4 days ago', *goson ason* '5 days from today', *goson ason atk* '5 days ago'.

Seasons are typically distinguished by the position of the sun and by other environmental events (wet and dry seasons, time when food is scarce, time of

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Heruntergeladen am | 16.10.19 13:48

harvest, time when pandanus nuts ripen, etc. Middle Wahgi has terms for 13 new-moon cycles for a year. Comparable data on moon cyles for other languages is lacking.

2.6.8 Rhyming compounds or ***helter-skelter*** and ***fiddle-faddle*** expressions

Rhyming compounds are present in widespread TNG languages. A prototypical rhyming compound, English *helter-skelter*, *fiddle-faddle,* consists of two phonological words, a base and a rhyming word, that are identical in form except for one or two elements in the first syllable. At least one of the words has no meaning by itself. Such compounds have been reported for Korafe (C. Farr p.c., Farr and Farr 2008) of the Binanderean group, Middle Wahgi (Ramsey 1975) and Ku Waru (A. Rumsey p.c.) of the Chimbu-Wahgi group, Kâte (Flierl and Strauss 1977) and Selepet (McElhanon and McElhanon 1970) of the Finisterre-Huon group, Kalam (Pawley 2010) and Koromu (C. Priestley p.c.) of the Madang group, Kewa (K. Franklin p.c.) of the Engic group and Grand Dani of the Dani group. It appears that in TNG languages most rhyming compounds belong to the verb adjunct word class, always occurring partnered by a verb. However, detailed descriptions are scarce. Only for Kalam is there a detailed account.

More than 200 rhyming compounds have been recorded for English and more than 60 for Kalam. It is striking that these two languages agree quite closely on the phonological structure of such expressions. It is no less striking that the range of meanings carried by rhyming compounds is very similar in English and TNG languages. This range of semantic types consists mainly of (i) disorderly arrangement, (ii) irregular manner of movement, (iii) onomatopoeia, (iv) deceit or trickery. These agreements suggest universal cognitive processes are at work.

In both Kalam and English there are two main phonological types, differing in the kind of change made in the first syllable of the rhyming word: In type A, the base word either (i) begins with a consonant which is replaced by a different consonant or a consonant cluster in the rhyming word, e. g. Kalam *gadal-badal* [ŋgándálmbándál] 'placed in a disorderly manner, criss-cross, higgledy-piggledy', *gley-wley* [ŋgɨléywuléy] 'rattling, clattering', and English *higgledy-piggledy, hocus-pocus*, or (ii) begins with a vowel, to which a consonant or consonant cluster is added in the rhyming word, e. g. Kalam *adk-madk* [ándɨkmándɨk] 'turned over, reversed' and *ask-mask* [ásɨkmásɨk] 'ritually restricted', and English *argy-bargy*, *airy-fairy*). In type B the base always begins with a CV syllable, and in the rhyme the V is replaced by a different (usually more resonant) vowel. Kalam examples are *ñugl-ñagl* [ɲúŋgɨlɲáŋgɨl] 'sound of evening chorus of insects and frogs' and *gtiŋ-gtoŋ* [ŋgɨríŋgɨróŋ] 'loud noise, din, racket', English *dilly-dally*, *flip-flop*. The more limited evidence for other TNG languages is generally consistent with this typology, e. g. the Middle Wahgi verb adjuncts *dałem-małem* and *kisał-misał*, both meaning 'disobedient', fit type A. Engan *kombélya-kambélya* 'striped' fits type B.

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Telefol *fágálik-fágálaak* ‘mess’ differs in placing the variable vowel in the final syllable.

2.6.10 Pandanus avoidance language

A number of New Guinea highlands communities use an elaborate avoidance language when gathering and processing the nutritious nuts of the mountain pandanus (*Pandanus brosimus, P. julianettii*), which grows in the high mountain forest above 2000 metres. Although detailed accounts of the pandanus language are available only for Kewa (Franklin 1972) and Kalam (Pawley 1992, Pawley and Bulmer 2011) there are reports of such a language in various other highlands communities. For the Kewa, control of the nature spirits and wild animals in the forest appears to be the main reason for using a special language. The Kalam say that using ordinary language when gathering pandanus nuts will cause the nuts to become watery and damaged. There is archaeological evidence that mountain pandanus nuts have been an important source of food in montane New Guinea for tens of millennia and it is likely that such special avoidance languages have a very long history.

Kalam pandanus language retains the phonology and grammar of ordinary language but the entire lexicon (excluding grammatical morphemes) is replaced. The pandanus language lexicon is, however, severely reduced, perhaps to fewer than 1000 lexical units, with a heavy reliance on generic terms. Thus, whereas ordinary Kalam has distinct names for nearly 200 bird taxa, in pandanus language a single monolexemic generic, *wjblp* ‘bird’, is used to refer to all kinds of birds. To make more specific distinctions one must speak of, e. g. ‘the big *wjblp*’ (cassowary), and so on. Kewa pandanus language shows a few grammatical differences, as well as lexical replacement and reduction.

2.7 Reconstructing Proto Trans New Guinea and later stages

2.7.1 Introduction

Reconstruction of Proto Trans New Guinea (pTNG) is still at an embryonic stage. More progress has been made in reconstructing phonology and lexicon than morphology.

For practical reasons most of the pTNG reconstructions so far have been arrived at using a top-down strategy, i. e. by comparing languages from distantly related low-order subgroups. More than 40 low-order subgroups, many of them about as internally diverse as Romance or Germanic, have been identified. Most of their member languages remain very poorly described and this situation is likely to persist for decades. In the case of very small subgroups, there is the additional problem that there are not enough internal witnesses to resolve disagreements.

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Heruntergeladen am | 16.10.19 13:48

In spite of these impediments, phonological and lexical reconstructions have been attempted, with some success, for a number of low-order interstages of TNG and groups sometimes assigned to TNG. Pioneering studies were carried out by Healey (1964, 1970) for the Ok and Awyu-Dumut groups, Voorhoeve (1980) for Asmat, Hartzler and Gregerson (1987) for Sentanic, Franklin (1987) for Engan, and Schapper et al. (2012) and Holton et al. (2012) for Timor-Alor-Pantar. In the last few years a number of fine-grained comparative studies of low-order TNG subgroups have been undertaken, chiefly, Daniels (2006, 2010, 2015) on Sogeram, Dutton (2010) on Koiarian, Smallhorn (2011) on Binanderean, Suter (forthcoming) on Huon, Voorhoeve (2001) on Awyu-Dumut, de Vries et al. (2012) and Wester (2014) on Greater Awyu, Loughnane and Fedden (2011) on the relationship between Oksapmin and the Ok group and van den Heuvel and Fedden (2014) on the (non-)subgrouping of Ok-Oksapmin and Greater Awyu. But these low-order interstages have a relatively shallow time depth, and are so far removed from pTNG itself that in most cases they provide only a very modest amount of help in the task of reconstructing pTNG. And circumstances have made it difficult to reconstruct interstages that are intermediate between pTNG and the low-order proto-languages. For one thing, very few intermediate level subgroups have been securely identified.

Foley (1986) questioned the feasibility of top-down reconstruction in Papuan language families. He suggested that it is not useful to apply the comparative method to the lexicon of such families, except when the languages are quite closely related, say, as the languages of the Germanic family or the Romance family are – with a common ancestor spoken no more than about 2000 years ago (Foley 1986: 213, 228). He points to demographic and social factors that make Papuan languages particularly difficult subjects for the comparative method at greater time depths.

> Papuan language families are small and are generally spoken in small areas. The languages are usually contiguous, and have been so for millennia. None of the particular historical and geographical patterns necessary for the smooth application of the comparative method obtain in Papuan languages. Rather… Papuan languages normally exhibit a pattern of enormous cross-influence in all areas; so in no sense can the assumption that the daughter languages develop independently be taken as viable in this context. As the comparative method, with its sorting of cognates from borrowing, is deeply grounded in the family tree model, its application to Papuan languages is no mean problem, and suggests that some major rethinking of the method itself may be needed for these languages. (Foley 1986: 209–210)

Distinguishing borrowings from directly inherited forms is certainly a recurrent problem in TNG comparative work. However, high levels of borrowing within the TNG family do not present challenges that are *qualitatively* different from those that historical linguists applying the comparative method have always faced. But it must be conceded that detecting borrowings between sister languages will seldom

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be possible in comparative work that is exclusively top-down. That will require fine-grained research, beginning with low-order subgroups.

In the meantime, reconstructions of pTNG obtained by top-down comparisons must be regarded as no more than first approximations, to be refined by further research.

2.7.2 pTNG segmental phonology

The following consonant and vowel phonemes have been reconstructed for pTNG, based on correspondences between representatives of several diverse subgroups (Pawley 1995, 1998, 2001, 2012). The symbols for particular proto-phonemes should not be taken to have constant phonetic values. As noted in section 4, many TNG languages show considerable allophonic variation, especially in obstruent phonemes.

Table 12: pTNG segmental phonemes[19]

Consonants:

	bilabial	apical	palatal	velar
oral obstruents	p	t, s		k
prenasalised obstruents	mb	nd	ɲʤ <ñj>	ŋg
nasals	m	n	ɲ <ñ>	ŋ
lateral		l		
glide	w		j <y>	

Vowels:

	front	central	back
high	i		u
mid	e		o
low		a	

The reconstructed consonants and vowels in Table 12 are not an exhaustive list of the sets of distinct or partially distinct correspondences represented in the data. These symbols simply represent a list of best-attested correspondence sets, which yield a plausible phonological system. There remains a large residue of more problematic correspondence sets to be dealt with. Some of these problematic correspondences should be amenable to explanation in terms of natural processes of sporadic change (assimilation, dissimilation, etc.).

19 The bracketed orthographic forms are the traditional representation of pTNG phonemes. The precise phonetic realisation of the palatal prenasalised obstruent is not known.

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The nasals *m and *n are well attested, being regularly reflected in dozens of cognate sets in both word initial and medial position and, to a lesser extent in final position. These are the two most stable phonemes in terms both of continuity of contrasts with other phonemes and continuity of phonetic character. *ŋ looks fairly secure even though there are only three or four good cognate sets supporting it. Some TNG languages have a fourth nasal consonant, palatal [ɲ], and a prenasalised palatal affricate, [ɲʤ], although these may be post pTNG developments.

Two series of obstruents can be distinguished: an oral series *p, *t, *s, *k, and a prenasalised series *mb, *nd, *ŋg and possibly *ɲʤ (traditionally represented as *ñj). While these two series of obstruents may be described as underlyingly voiceless vs voiced, claiming a voiced vs voiceless opposition at the phonetic level is problematic, because in many contemporary languages /p, t, k/ have voiced allophones [β], [r] and [ɣ] intervocalically, while in a few languages /mb, nd, ɲʤ, ŋg/ have final allophones [mp, nt, ɲʧ, ŋk] in word-final position. It is unclear whether pTNG had a distinct rhotic phoneme, such as a flapped [r] or whether [r] was an allophone of *t.

pTNG is reconstructed as having five vowels: two front unrounded (*e, *i), two back rounded (*o, *u) and one low central (*a). The three vowels *a, *i, *u are well attested, *e and *o much less so. It is possible that there were additional vowels but no very clear patterns of correspondences have yet emerged among the residues of material that do not fit the five vowel correspondences.

2.7.1.2 Syllable and phonological word structure

It is likely that pTNG syllables had the shape (C)V initially, CV medially, and, in word-final position, CV(C). Phonemic consonant clusters were probably not allowed within a phonological word, phonetic clusters of homorganic nasal + obstruent being interpreted as unit phonemes. Nor were vowel clusters allowed, if we analyse the semi-vowels w and y as consonants. Phonological words had the shapes (C)V, (C)VC, (C)VCV, (C)VCVC, (C)VCVCV, and so on.

Lexical bases (morphemes) could consist of one or more syllables, e. g. *na- ‘eat’, *nVŋg- ‘know’, *imbi ‘name’, *niman ‘louse’, *takVn[V] ‘moon’, *maŋgat[a] ‘teeth’, *kumbutu ‘wind’, *(ŋg,k)andapu ‘skin, bark’. Many verb stems were monosyllabic.

The phonemic status of prosodic features (tone, pitch-accent, stress) in pTNG remains uncertain.

2.7.1.3 Putative reflexes of pTNG consonants and vowels in Kalam

Space does not allow anything more than a fragmentary exemplification of the evidence for pTNG phonology. The following are putative reflexes of pTNG consonants and vowels in one daughter language, Kalam.

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Heruntergeladen am | 16.10.19 13:48

2.7.1.3.1 Obstruents

**mb* > *b* (realised as [mb] initially and medially, [mp] finally): *mbapa 'father' > *bapi*, *ambi 'man' > *b*, *sambV 'cloud' > *seb*, *imbi 'name' > *yb*, *kamb(a,u)u[na] 'stone' > *kab*, *si(m,mb)u 'guts' > *sb*
**mb* > *m* in at least one case: *mbalaŋ 'flame' > *malaŋ*, *maŋlaŋ*. Note also *(mb,m)elak 'light, lightning' > *melk* 'light'
**p* > *p* initially and medially (realised as [ɸ] initially, [β] medially): *panV 'female' > *pañ*, *apus(i) 'grandparent' > *aps* 'grandmother, *mapVn 'liver > *mapn*
**nd* > *d* [nd] medially: *mund-maŋgV 'heart' > *mudmagi*, *kindil 'root' > *kdl*
**t* > *t* initially and finally (realised as [t] initially, [r] elsewhere): *takVn[V] 'moon' > *takn*, *tuk- 'cut' > *tk-* 'sever', *tu 'axe' > *tu*, *tumuk or *kumut 'thunder' > *tumuk,* *-it '2/3 dual verbal suffix' > *-it*
**t* > zero medially or finally in one case: *maŋgat[a] 'teeth' > *meg*
**s* > *s* initially and medially: *sambV 'cloud' > *seb*, *si(m,mb)i 'guts' > *sb*, *apus(i) 'grandparent' > *aps* 'grandmother'
**ŋg* > *g* [ŋg] medially and [ŋk] finally: *maŋgat[a] 'teeth' > *meg*, *maŋgV 'round object, egg' > *magi*. In one case **g* has varying reflexes in different dialects of Kalam: *nVŋg- 'see' > *ng-, nŋ-* in Ti dialect, but *nŋ-* in Etp dialect.
**k* > *k* ([ɣ] medially, [k] elsewhere): *kambu[na] 'stone' > *kab*, *k(aw,o)nan 'shadow' > *kawnan*, *kinV- sleep' > *kn-*, *kumV- 'die' > *kum-*, *kakV- 'carry on shoulder' > *kak-*, *muk 'milk' > *muk* (Ti dial. *mok*), *muk 'brain' > *muk*, *takVn[V] 'moon' > *takn*, *tuk- 'cut' > *tk-* 'sever'

2.7.1.3.2 Nasals

**m* > **m*: *maŋgV 'egg' > *magi*, *ma- 'not' > *ma-,* *muk 'milk' > *muk*, *mk*, *mVna- 'be' > *md-*, *am(a,i) 'mother' > *ami*, *kumV- 'die' > *kum-*, *niman 'louse' > *iman*
**n* > *n* : *nVŋg- 'see' > *ng-*, *nŋ-*, *kin(i,u)[m]- 'sleep' > *kn-*, *niman 'louse' > *iman*, *takVn[V] 'moon' > *takn*, **wani* 'who?' > *an*
**n* > *ñ* in a few words: *nV 'child' > *ñi* 'son', *panV 'female' > *pañ* 'daughter', *nok 'water > *ñg*; in one case *n > *d*: *mVna- 'be' > *md-*
**ŋ* > *ŋ.* Attested only in medial and final position: *nVŋg- 'see' > *ng, nŋ-,* *ŋaŋa 'baby' > *-ŋaŋ,* *mbalaŋ 'flame' > *malaŋ, maŋlaŋ*

2.7.1.3.3 Other resonants

**l* > *l* (retroflex lateral flap): *mbalaŋ 'flame' > *malaŋ, maŋlaŋ,* *[mb, m]elak 'light, brightness' > *melk,* *kindil 'root' > *kdl*

**w* > *w* although good cognate sets are few: *k(aw,o)nan 'shadow/spirit' > *kawnan*, **walaka* 'testicles' > *walak*

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

**y* > *y* but relevant cognate sets are few: *yaka[1] > *yakt* 'bird' , *aya 'sister' > *ay*

2.7.1.3.4 Vowels in stressed position

The most common Kalam outcomes of pTNG vowels are as follows:

**a* usually gives *a*: *am(a,i) 'mother' > *ami*, *kakV- 'carry' > *kak-*, *maŋgV 'compact round object' > *magi*, *ma- 'negative' > *ma-*, *niman 'louse' > *iman*, *ŋaŋa 'baby' > *-ŋaŋ*, *takVn[V] 'moon > *takn*

However, **a* > *e* in the following cases: *maŋgat[a] 'teeth' > *meg*, *sambV 'cloud' > *seb*

**i* usually gives *i* (written *y* in some contexts): *imbi 'name' > *yb* [yimp], *niman 'louse' > *yman*

**u* usually gives *u:* *kumV- 'die' > *kum-,* *tumuk/kumut 'thunder > *tumuk*, *-un 1st plural subject' > *-un*

pTNG **e* and **o* are not well attested in Kalam. There is one reflex of **e* and none of **o*: *[mb, m]elak 'light, brightness' > *melk*

Certain pTNG vowels are, under unknown conditions, reflected in Kalam by a short high central vowel [ɨ] which can be analysed synchronically as a non-phonemic transitional vocoid between consonants. Examples: *[mb,m]elak 'light, brightness' > *melk* [melɨk]*,* *kin(i,u)[m] 'sleep' > *kn* [kɨn]*,* *si(m,mb)i 'guts' > *sb* [sɨmp], *sisi > *ss* [sɨs] 'urine'.

Final syllables (-V, -VC) in pTNG disyllables and trisyllables are sometimes lost in Kalam: *imbi 'name' > *yb* [yimp], *maŋgat[a] 'teeth' > *meg* [meŋk], *apus[i] 'grandparent' > *aps* [aβɨs]'grandmother, *si(m,mb)i 'guts' > *sb* [sɨmp], *takVn[V] 'moon' > *takn* [taɣɨn]

2.7.2 Lexical reconstruction

Almost 200 etyma have been attributed to an early stage of TNG (eTNG) because they are reflected in two or more subgroups that are not known to belong to a higher-order subgroup of TNG (Pawley 2011). It is likely that some of these etyma will turn out not to be valid, because the putative cognate sets on which they are based involve borrowing or chance resemblances.

Of the 188 eTNG reconstructions examined, 100 are found in both the eastern and western halves of New Guinea. For present purposes the dividing line between eastern and western New Guinea approximates the border between Papua New Guinea and Provinsi Papua and groups that straddle the political border, such as the Ok and Marindic groups, are assigned to the western half.

The geographic distribution of the remaining lexical reconstructions shows a strong eastern bias. Eighty-four reconstructions have reflexes in subgroups confined to the eastern half of New Guinea. Just four reconstructions are attested

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

only in western New Guinea. This bias probably reflects two factors: (i) there are considerably more TNG languages in the eastern half of New Guinea than in the western half, (ii) a more diligent search has been carried out among eastern languages than among western languages.

No one TNG language today retains more than a very small proportion of the set of eTNG reconstructions. The largest number of reflexes so far noted for any one language is around 40, for Kalam. In some putative TNG languages for which data are scanty, it is difficult to find more than four or five reflexes. Even for languages with good dictionaries one can often find only 20 or so.

Now 20 reflexes, or even 100, are not enough to work out in detail the phonological development of a language from pTNG to the present. However, between them, the various members of a sizeable subgroup will have more reflexes than any single language. In such cases, it is sometimes possible to use the sound correspondences exhibited by members of the subgroup to extend the range of correspondences between pTNG and any one contemporary language.

The following is a list of lexical reconstructions attributed to pTNG or to later but still early stages. This list comprises most of the reconstructions, given with supporting cognate sets in Pawley (2011). The items are grouped by fields of meaning. There are about 37 verbs, 9 adjectives, 41 body-part nouns, 11 kin terms, 6 nouns denoting other human statuses, 29 nouns denoting inanimate world things, 5 terms for artefacts, 8 terms for intangible cultural concepts, 4 terms for insects, 7 for birds and bird parts, 11 for plants and plant parts, some 10 forms for independent pronouns, 6 subject-marking suffixes to verbs, and a few other words.

Of the reconstructions listed, perhaps two thirds occur in widely distributed subgroups and can be attributed to a very early stage of TNG with considerable confidence. Others can be attributed to fairly early interstages on the grounds that they occur in at least two major subgroups that are not contiguous.

What makes a set of putative cognates likely to be the outcome of common heritage rather than diffusion? Conformity to regular sound correspondences is one indicator. (However, in many cases the sound correspondences have not been established.) A wide but discontinuous geographic distribution is a second measure. A third indicator is the nature of the meaning(s) represented in the cognate set. Almost all the reconstructions cited here refer to ‘basic’ semantic concepts, denoting body parts (e. g. head, nose, eye, ear, tongue, teeth, hand/arm, foot/leg, bone), terms for kinship relations (e. g. mother, father) and human age-gender status (man, woman), salient elements of the inanimate and animate environment (e. g. rock, water, cloud, moon, tree, ashes, louse, fly, mosquito) and some verbs and adjectives denoting everyday activities and processes and states (be/stay, die, eat, sleep, stand, see/know, hit, blow, spit, burn) or important attributes (old, new, long, short, straight, cold, dry), and pronouns (on which see 2.7.3 and 2.7.4). Although terms for these kinds of concepts are not impervious to borrowing, comparative studies around the world have shown that they are less likely to be borrowed than

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Heruntergeladen am | 16.10.19 13:48

terms for culture-specific concepts such as names of domesticated plants, weapons and tools, ornaments, and magico-religious concepts (Tadmor et al. 2010).

Many reconstructed forms show indeterminacies in one or more segments, because reflexes have irregular correspondences that cannot readily be explained. This is especially common in the vowels and obstruents, less so in the case of nasals. In eTNG *niman 'louse', for example, all five of the reconstructed segments are secure but in eTNG *k(a,o)nd(a,o)[C] 'foot' the vowels in both the syllables are indeterminate between *a and *o and it is unclear whether a final consonant should be reconstructed. Such indeterminacies are to be expected in reconstructing an ancestral stage that existed many thousands of years ago. In a detailed account of each reconstructed lexical item one could assign an approximate confidence level ranking to each segment.

The conventions used to represent indeterminacies are exemplified by the following:

*m(i,u)ndu 'nose'	indeterminate between *mindu and *mundu
*maŋgat[a] 'mouth, teeth'	indeterminate between *maŋgat and *maŋgata
*takVn[V] 'moon'	indeterminate between *takVn and *takVnV
*(m,mb)elak 'lightning'	indeterminate between *melak and *mbelak
*maŋgV 'round object'	V is indeterminate between three or more vowels
*(mb,p)(i,u)t(i,u)C 'fingernail'	first consonant indeterminate between mb and p, first and second vowels both indeterminate between i and u. C is indeterminate between three or more consonants
*L	indeterminate between *l and *t

Table 13: Some pTNG and early TNG lexical reconstructions organised by semantic fields

body parts:	
arm, forearm	*mbena
belly, internal organs	*mundun
blood	*ke(nj,s)a
bone	*kondaC
brain	*muk[V]
breast	*amu
buttocks	*simbi + modifier
cheek	*mVkVm
claw, hand	*sikal or *sakil
ear	*kand(i,e)k[V]
excrement 1	[same as 'guts']
excrement 2	*ata
eye 1 (cf. egg 2)	*(ŋg,k)iti-maŋgV
eye 2	*ŋg(a,u)mu
eye 3	*nVpV
fingernail	*(mb,p)(i,u)t(iu)C

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

foot, lower leg	*k(a,o)nd(a,o)[C]
forehead, head	*mVtVna
guts, intestines, bowels	*sim(i,u), *simbi
hair 1	*(nd,s)umu(n,t)[V]
hair 2, leaf	*iti
head 1	*kV(mb,p)utu
head 2	*mVtVna
heart 1 (cf. belly, egg 2)	*mundu-maŋgV
heart 2	*simu
heart 3	*kamu
knee	*(ŋg,k)atuk
leg 1	*k(a,o)nd(a,o)[C]
leg 2, calf	*kitu
liver	*[ma]pVn
milk, sap	*muk
mouth, teeth	*maŋgat[a]
navel	*simu + modifier
neck 1	*k(a,e)(nd,t)ak
neck 2, nape, side of	*kuma(n,ŋ)[V]
nose	*mundu
penis	*mo
saliva	*si(mb,p)at[V]
shoulder	*kinV
skin	*(ŋg,k)a(nd,t)apu
testicles	*walaka
tongue 1	*mbilaŋ
tongue 2	*me(l,n)e
tooth 1	(see mouth)
tooth 2	*titi
urine	*[si]si, *siti, *pisi

kin terms:

brother, older	*[mb]amba
father	*apa, *mbapa
grandparent	*apus[i]
husband, man	*ambi
mother, free form	*am(a,i,u)
mother, bound form	*na-
sibling, older	*nan(a,i)
sibling, older same sex	*[mb]amba
sister	*aya

age-gender and other social categories

baby	*ŋaŋa
boy	*nV
man, husband	*ambi
orphan, widow & child	*mbeŋga-masi
woman, female	*panV

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

birds, bird parts:	
bird 1	*n[e]i
bird 2	*yaka[i]
cassowary	*ku[y]a
egg 1	*mun(a,e,i)ka
egg 2, fruit, seed	*maŋgV
tail	*a(mb,m)u
wing	*mbutu
insects:	
butterfly	*apa[pa]ta
fly	*ŋgambu
louse	*niman, *iman
mosquito	*kasin
plants, plant parts:	
bark	*ka(nd,t)ap[u]
casuarina	*kal(a,i)pV
fruit, seed (cf. egg 2)	*maŋgV
leaf 1, hair	*iti
leaf 2	*sasak
root	*kindil
sap, milk	*muk
taro	*mV
tree, wood	*inda
inanimate world:	
ashes 1	*sumbu
ashes 2	*kambu-sumbu
ashes 3	*la(ŋg,k)a
cloud 1, sky	*samb[V]
cloud 2	*ka(mb,p)utu
fire 1	*k(a,o)nd(a,u)p
fire 2	*inda
fire 3	*kambu
flame	*mbalaŋ
ground 1	*man[a]
ground 2	*maka[n]
lightning, light	*(mb,m)elak
moon 1	*takVn[V]
moon 2	*kal(a,i)m
morning	*k(i,u)tuma + X
night	*k(i,u)tuma
sand	*sa(ŋg,k)asiŋ
sky 1, cloud	*samb[V]
thunder, sky 2	*kumut, *tumuk
smoke 1	*kambu(s,t)(a,u)
smoke 2	*kambu-la(ŋg,k)a
stone 1	*kamb(a,u)na

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

stone 2	*[na]muna
sun 1	*kamali
sun 2	*ketane
water 1	*ok[V]
water 2	*nok
wind 1	*kumbutu
wind 2, breeze	*pinVm
artefacts:	
axe	*tu
fence	*wati
netbag 1	*kun
netbag 2	*at(i,u)
string, rope	*asi
intangible cultural concepts:	
instructions, language, word, speech	*mana
mind, thought	*n(o,u)man
name 1	*imbi
name 2, who	*wani
shadow, spirit	*k(aw,o)nan
song, type of	*saŋ
witchcraft	*kum
independent pronouns (for subject, object, possessor):	
1 singular	*na
2 singular	*ŋga
3 singular	*ya
3 singular	*wa
1 plural	*ni, *nu
1 plural	*ni
2 plural	*ŋgi, *ki
1 dual	*niLi, *nuLi
2 dual	*ŋgiLi, *kiLi
3 dual	*iLi
verbal suffixes marking person-number of subject:	
1 singular	*-Vn
2 singular	*-an
1 dual	*-uL
2/3 dual	*-iL
1 plural	*-un
1 singular different subject	*-pa
verbs:	
be (live, stay, sit)	*mVna-
bite	*s(i,u)-
blow	*pu + verb
break	*pa(ŋg,k)-

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

burn	*nd(a,e,i)-
burn, light a fire	*ki-
carry (on back, shoulder)	*kak(i,u)-
come	*me-
cook	*andu-
cut, chop	*tVk-
die	*kumV-
do, make	*ti-
dream	*kina(mb,p)-
eat, drink	*na-
fly, flutter	*putu(putu)-
give	*mV-
go 1	*pu-
go 2	*yata-
hit	*tu-
know, hear, see	*nVŋg-
laugh	*ŋgiti (+ verb)
live, be, sit	see ‘be’
put	*(m,p)a(l,t)V-
say, speak	*nde-
see, know, perceive	*nVŋg-
shoot	*tVmV-
sleep 1, lie down	*kin(i,u)[m]
sleep 2	*p(e,i)t(e,i)o-
speak, talk	*nde-
spit	*kasipa-
stand	*t(a,e,i)k[V]-
swell	*su + verb
take	*(nd,t)a-
tie	*ndiŋga-, *ndaŋgi
turn (oneself)	*mbuli[ki] + verb
urinate	*X + *si- (urine + verb)
vomit	*mVŋ[g]V ti-
adjectives:	
blue	*muk[V]
cold	*kukam(o,u)
dry	*ŋgatata
full	*t(o,u)k(i,u) ti-
heavy	*kenda
long	*k(o,u)t(u,i)p
new	*kVtak
short	*tumba
straight	*tutu[tu]ku

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

conjunctions:

and	*ito

negatives:

not	*ma- (+ verb)

numerals:

two	*ta(l,t)(a,e)

2.7.3 Grammatical paradigms: Independent pronouns

The most complete grammatical paradigm so far reconstructed for pTNG is that of the independent or free pronouns (cf. 2.5.1.2.1). As noted in section 2.2, a set of pronoun reconstructions was adumbrated in the 1970s (Wurm 1975d, Voorhoeve 1975, 1980), but the pronominal evidence was not systematically tabulated and analysed until Malcolm Ross took up the matter (Ross 1995, 2000a, 2005a). Here we will only summarise Ross's reconstructions.[20] Note the pattern whereby the consonant remains constant in the corresponding persons, with the singular/plural contrast marked by vowel variation: *a (singular) vs *i (plural).

Table 14 pTNG free pronouns

	1st person	2nd person	3rd person
singular	*na	*ŋga	*wa, *[j]a
plural (i-grade)	*ni	*ŋgi, *ki	*i
(u-grade)	*nu		
plural	*ɲʤa		

Among the cognate sets of free pronouns we also find evidence for reconstructing dual pronouns. Ross (2000a: 77, 158–160) refers to a dual suffix *-li or *-ti and a plural suffix *-n[V], although he does not say whether these could be combined with all the singular pronominal roots. Languages in several widely scattered subgroups have dual pronouns that reflect such a suffix. And among languages that lack a dual/plural contrast there are some whose plural pronouns appear to reflect ancient dual forms. There is support from another quarter for a dual/plural contrast in the free form pronouns. We refer to the verbal suffixes which mark person-and-number of the subject of the verb. Some of the pTNG verbal suffixes (2.7.4.1) appear ultimately to be cognate with the pTNG free form pronouns.

20 We write *wa for Ross's *ua '3SG, on the assumption that pTNG did not allow vowel clusters.

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

Ross also tentatively reconstructs pTNG collective number suffixes *-pi- (dual) and *-m- (plural) which functioned as inclusive when used in the first person. However, the collective suffixes might not be as old as pTNG because reflexes are limited to parts of the highlands of Papua New Guinea.

2.7.4 Verb morphology

2.7.4.1 Suffixes marking person-and-number of independent verbs

It is possible to reconstruct a partial paradigm of suffixes marking subject person-and-number of independent verbs for an early stage of TNG, ancestral at least to several disparate subgroups found in northeast New Guinea: (i) Madang, (ii) Finisterre-Huon, and (iii) Kainantu-Goroka. Following Suter (1997) we will refer to the immediate common ancestor of these three groups as Proto Northeast New Guinea (pNENG), without implying that such a stage was necessarily distinct from pTNG.

Languages of each of the three subgroups characteristically have several sets of suffixes in independent verbs, each of which (a) mark person-and-number of the subject, (b) generally distinguish singular and plural (and often dual) numbers, and (c) do not distinguish between 2nd and 3rd person suffixes at least in the dual number. Each set is associated with one or more markers of tense, aspect or mood. Some (not necessarily all) tense-aspect-mood (TAM) markers occur as the final or outer suffix on the verb, following the subject suffixes. In some cases the categories of subject and TAM are syncretic, i. e. are represented by portmanteau suffixes. The phonological interactions between subject and TAM markers, and between suffixes and roots, is one of several factors leading to morphological change and the restructuring of paradigms in TNG languages, complicating the task of reconstructing verb morphology.

Table 15 gives reconstructions of verbal suffixes marking subject in the proto-languages of each of the three groups, based on evidence presented in Pawley (2000).

Table 15: Reconstructed verbal suffixes marking subject in Proto Madang, Proto Finisterre-Huon and Proto Kainantu-Goroka

	1SG	2SG	3SG	1DU	2/3DU	1PL	2/3PL
proto Madang	*-in	*-an,*-i	*-a,*-an	-*-u(l,t)	*-i(l,t)	*-un	*-ai,*-i
proto FH	?	*-an	*-a,*-i	*-u(l,t)	*-i(l,t)	*-un	*-e,*-i
proto KG	*-u	*-an	*-ai,*-i	*-ur	?	*-un	*-a

Most of the Proto Madang reconstructions are quite well supported. There is a pattern in pMadang whereby 1SG and 1PL suffixes differ in the vowel, while keeping constant the consonant, *n.* The dual pronouns share a consonant, *t*, while

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Angemeldet
Heruntergeladen am | 16.10.19 13:48

showing a vowel contrast between 1DU and 2/3DU. Problems lie in the 3SG, 2PL and 3PL forms. The form **-a* is widely reflected as a 3SG marker. Only two Madang languages, both of the South Adelbert Range subgroup, show *-i*, but *-i* is common as a 3SG marker in certain other TNG groups outside of Madang. Many languages do not distinguish the 2PL and 3PL suffixes and there is some evidence for reconstructing both **-ai* and **-i* for 2/3PL. However, a fair number do distinguish 2PL from 3PL and there is some evidence for a distinct 2PL form, possibly **-(m)an*.

The (very tentative) reconstructions for Proto Finisterre-Huon show correspondences with Madang forms in all except 1SG. Reconstructed Proto Kainantu-Goroka verbal suffixes show probable cognates with the Madang and Finisterre-Huon paradigms in the 2SG, 3SG, 1DU and 1PL forms.

Agreements between the three North-East New Guinea subgroups cited above allow partial reconstruction of a pNENG paradigm as in Table 16. In the case of the 1SG and 2SG forms, agreements with TNG languages outside of the three NENG groups help to resolve indeterminacies.

Table 16: Proto North-east New Guinea verbal suffixes marking subject

1SG	2SG	3SG	1DU	2/3DU	1PL	2PL	3PL
*-Vn	*-an	*-a,*-i	*-u(l,t)	*-i(l,t)	*-un,*-i	*-ai,*-i,*-a	*-ai

What of TNG groups other than Madang, Finisterre-Huon and Kainantu-Goroka? This question awaits further research but for a few subject-marking suffixes there are some promising agreements. For example:

Angan:	Baruya	1DU *-olo*, 2DU *-ilo*, 1PL *-ono*
Chimbu-Wahgi	Kuman	1SG *-i*, 2SG *-in*, 2DU *-buri*, 1PL*-mun*, *-umun*
	Salt-Yui	1SG/1PL *-i*, 2SG/2PL *-n*, 1DU *-bil*, 2DU *-bil*, 3DU *-bil*
	Golin	1SG *-bin*, 2SG *-n*, 1/2/3DU *-bil*
Binanderean:	Orokaiva	1SG *-n*, 3SG *-i*
	Korafe	1SG *-n*
	Suena:	1SG *-n*, 3SG *-i*
Dani	G.V Dani	1SG *-i-*, *-y*, 2SG *-n*, 3SG/PL *-a,* 1PL *-u*, *-o*

These resemblances, together with the NENG material, suggest a very tentative reconstruction of a partial paradigm for pTNG:

Table 17: pTNG verbal suffixes marking subject

1SG	2SG	3SG	1DU	2/3DU
*-Vn	*-Vn	*-a,*-i	*-u(l,t)	*-i(l,t)

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Two of the subject-marking suffixes attributed to pMadang show an interesting resemblance to pTNG free form pronouns. pMadang **-in* '1SG' and **-un* '1PL' resemble pTNG **ni* '1PL' (*i*-grade) and **nu* '1PL' (*u*-grade), the formal difference being a metathesis of the consonant and vowel. One might speculate that the pMadang verbal suffixes are ultimately derived from free form pronouns which underwent metathesis after suffixation, with **ni* > **-in*, and **nu* > **-un*. In certain contemporary TNG languages we find parallel cases where several of the subject suffixes of one paradigm differ from those of another paradigm in that the order of consonant and vowel are reversed. By extension we may suppose that there were pTNG free form dual pronouns that contained (or consisted of) cognates of the dual subject suffixes but with the order of C and V reversed, i. e. **(t,l)u* '1DU' and **(t,l)i* '2/3DU'.

2.7.4.2 Pronouns marking object

Suter (2012) has shown that pTNG had a set of pronouns preposed to the verb marking the object of transitive verbs. Reflexes of these pronouns in most contemporary languages are either proclitics or (more commonly) prefixes. Clitic pronouns in a particular language generally closely resemble its independent pronoun forms. Prefixed forms often show considerable allomorphy, e. g. the unstressed vowel of the prefix assimilates to the first vowel of the verb root.

Suter (2012) is able to reconstruct pTNG object prefixes for four person-and-number distinctions, with cognate reflexes in such diverse subgroups as Gorokan, Finisterre-Huon, Ok and Dani. The following table gives reflexes of the pTNG verb root *tu 'hit' with object prefixes in a sample of daughter languages from the Huon Peninsula (HP), Finisterre-Saruwaged (FS), Ok and Dani groups. Forms in parentheses are not cognate with the reflexes of the pTNG etymon at the head of the column.

Table 18: pTNG *tu 'hit' with object prefixes and their reflexes (after Suter 2012: 52)

Language	Subgroup	Meaning	1SG	2SG	3SG	3PL
pTNG		hit	*na=tu	*ga=tu	*wa=tu	*ya=tu
Ono	HP	shoot	*nato*	*gato*	*(yato)*	*(egotat)*
Nomu	HP	shoot	*nito*	*gito*	*(yoto)*	*yeito*
Yau	FS	hit	*not*	*got*	*wot*	*(top)*
Gwahatike	FS	shoot	*nur*	*gur*	*ur*	*yur*
Mian	Ok	hit	*nalo*	*kalo*	*walo* (F)	*yalo*
G.V. Dani	Dani	hit	*nat*	*hat*	*wat*	*(inat)*
W. Dani	Dani	hit	*noot*	*koot*	*wat*	*(inoot)*

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2.7.4.3 Medial vs final verb morphology

Given their wide distribution across TNG groups, it is very likely that the essential structural distinctions between medial and final verbs outlined in section 2.5.1 above were present in pTNG. However, this supposition can only be confirmed by discovering sets of cognate suffixes marking same subject, different subject and relative tense. Little work has been done in this domain. An exception is Suter (1997), who reconstructs **-pa* ‘1st person singular different subject’ as a medial verb suffix for an early stage of TNG, ancestral to three Northeast New Guinea groups.

2.8 On the origins and spread of the Trans New Guinea family

2.8.1 Introduction

Among all the Papuan language families Trans New Guinea stands out as having a much wider distribution than any other. It also stands out for its extreme internal diversity – it contains many putative subgroups that show few lexical resemblances with one another.

The creation of a large language family is not just a linguistic event, to be viewed solely in terms of linguistic systems and change, and of divisions and contacts among such systems. It is a chapter in human history. When an ancestral language gives rise to hundreds of daughter languages over several millennia it is bound to be the result of diverse forces, social, environmental, economic, technological, demographic, etc., that at certain times drove the expansion of particular linguistic communities and at other times divided or diminished them. For example, New Guinea is a very large island, some 2,300 kilometers from east to west, with a continuous mountain chain running along the centre from the neck of the Bird’s Head in the west almost to the eastern tip. And unusually for New Guinea, where Papuan language families are generally confined to small areas, the entire central cordillera is dominated by farming peoples speaking languages of a single family, Trans New Guinea. These peoples occupy not only the few large, broad mountain valleys, but also many narrow, steep-sided valleys. Gardens are planted up to 2,500 metres in some regions and the lower slopes of the inhabited valleys are now largely deforested due to millennia of slash and burn agriculture. What factors made the TNG expansion along the highlands possible? When and where did it begin? How long did it take? Were there permanent populations in parts of the highlands before the TNG dispersal or was the expansion largely into uninhabited lands? What changes in climate and vegetation cover, and what technological innovations may have influenced the timing and directions of the expansion?

To have any chance of answering such questions we must seek the testimony of various other historical disciplines, such as archaeology, ethnology, palaeobot-

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any, geomorphology, climatology and biological anthropology. This section will briefly review evidence from a range of disciplines that bears on the origins and development of the TNG family.

2.8.2 On the chronology and causes of the Trans New Guinea dispersal

A number of pertinent observations can be made regarding the chronology of the TNG dispersal. The New Guinea area has many language families and isolates which on present evidence cannot be shown to be related. Ross (2000a, 2005) counts 23 such families and 13 isolates, but other estimates, e. g. Foley (2000), Ethnologue (Lewis et al. 2013) or Glottolog 2.1 (Nordhoff et al. 2013), have about twice as many. Regardless of the exact number, this is an order of diversity much greater than that of Europe and arguably greater than is found in the whole of Africa.

As Map 2.1 shows, each of the non-TNG families and isolates are all quite localised. There are two main regions in New Guinea dominated by non-TNG languages. The largest occupies a considerable part of northern New Guinea, from the Sepik-Ramu basin west as far as the Bird's Head. This region harbours at least 15 language families in an area no larger than Britain. A second area of high diversity lies in the southern lowlands of central New Guinea, between the Digul River and the Gulf of Papua, where at least three families and some isolates are located.

How did this distribution of language families come about? First, the various Papuan language families of Melanesia probably developed within Melanesia itself. At any rate, none have known relatives outside of Melanesia, apart from those of Halmahera and the Timor area where the Papuan families are probably intrusive from New Guinea. Second, there has been plenty of time for a plethora of language families to develop in Melanesia. Archaeological research has shown that western Melanesia was first settled in the Pleistocene – New Guinea, New Britain and New Ireland more than 40,000 years ago and Bougainville at least 28,000 years ago (Allen and Gosden 1996, Pavlides and Gosden 1994, Specht 2005, Spriggs 1997, Summerhayes et al. 2010). It appears that, of all the indigenous language families of Melanesia, only one is a recent arrival: Austronesian. Archaeological dates for the first appearance of an Austronesian-associated material culture in northwest Melanesia cluster around 3400–3300 BP (Specht 2005). Within a few centuries this culture, known as Lapita, spread from the Bismarck Archipelago across the southwest Pacific as far east as Tonga and Samoa.

Data from population genetics (Friedlander 2007) indicate initial settlement of Australia and western Melanesia between 50,000 and 25,000 years ago by one or a few already related populations. There is no sign of further genetic influence from outside this region until the Holocene, when there was a rapid spread of peoples from East Asia to Melanesia, Polynesia and Micronesia. The East Asian genetic signal is strongest in Polynesia and Micronesia.

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What survives of the tool kits and habitation sites from the pre-20,000 BP period in the New Guinea area suggests that the people were broad spectrum foragers, hunting and gathering a range of animals and plants. There were no sedentary settlements, only camps and seasonal bases. The first settlers relied heavily on the rich food resources to be found on the seashore (Allen 2000) but people soon pressed inland, exploring the uplands. During the late Pleistocene, when temperatures were about 4 degrees cooler than today, the valleys in the central highlands of New Guinea contained extensive grasslands which were home to a considerable mega fauna. As early as 40,000 BP people were seasonal visitors to parts of the highlands, coming to hunt game and harvest mountain pandanus nuts (Evans and Mountain 2005, Summerhayes et al. 2010).

Third, TNG is essentially a family of the New Guinea highlands whereas the non-TNG families are found in the lowlands. This distributional pattern suggests that most pockets of Papuan languages in New Guinea that do not belong to the TNG family belong to long-established lowlands families that managed to resist the TNG expansion.

If TNG languages were unable to replace non-TNG families in much of the lowlands of New Guinea, what enabled them to completely dominate the highlands? Answers to this question are suggested by evidence from palaeobotany and archaeology. During the Pleistocene the climate in the highlands was several degrees colder than now and human occupation was probably limited to seasonal foraging. After about 14,000 BP the climate warmed by several degrees and the highland grasslands were replaced by dense forests, dominated by Nothofagus, making the region harder to penetrate and unfriendly to foragers. To render the highlands habitable at this time it would have been necessary to clear or burn areas of forest.

Around 10,000 years ago highlands landscapes began to be modified by humans, with a marked increase from about 5,000 years ago (Hope and Haberle 2005). There is strong evidence for some form of shifting agriculture as early as 10,000 BP in fertile swamplands at Kuk, in the Upper Wahgi Valley (Denham et al. 2003, Denham 2005, Golson 1991, Golson et al. in press). This earliest phase of the Kuk swamp sequence indicates shifting cultivation on the wetland edge, with pits, stakeholes, postholes, runnels, consistent with planting and tethering. At that time the Kuk site seems to have presented a more favourable environment for habitation than other Highland valleys. Denham et al. (2003: 190) write that "[u]nlike other valleys in the uplands, the grasslands within the Kuk swamp catchment did not succumb to the forest advance at the onset of the Holocene. Instead, the grasslands and fern flora increased at the expense of forest between 10,200 and 7,400 [years ago] under the influence of periodic fire episodes and probably anthropogenic clearance." The main cultivated plants are thought to have been Colocasia taro and bananas. Starch grains of *Colocasia esculenta* and Musa bananas are present as phaetoliths. Colocasia is a lowlands plant but Denham argues that it had spread naturally into the highlands by 10,000 BP.

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In phase 2 at Kuk, dated to 6900–6400, there was mounding and draining of wetland soils, consistent with intensive cultivation, implying a high dependence on food production relative to foraging. A higher incidence of taro and bananas remains are present, and in a grassland environment it is unlikely that bananas would have grown wild in such frequency. In phase 3, dated to 4350–3980 BP, there are sequential ditch networks linking major drainage channels.

The shift from a foraging to a primarily agricultural economy may have taken place over many millennia at Kuk. As to how fast and far agriculture spread in New Guinea in the period 10,000 to 3000 BP, the archaeological evidence at present is skimpy. There are several sites in the Upper Wahgi Valley with well-dated drainage systems older than 3000 BP (Denham 2002). These remain the only New Guinea sites of this kind with secure dates for agriculture although there is another early site at Yeni swamp in the lower Jimi Valley with signs of drainage structures at 5000 BP (Gorecki and Gillieson 1989). Pollen analysis shows that reduction in forests due to burning is first evident in the Tari Basin in the southern Highlands of Papua New Guinea , where it is first evident only at 1,700 BP (Hope and Haberle 2005). However, Golson (1991: 487) observes that pollen cores from the Kelala swamp in the Baliem Valley record an almost "continuous vegetation history from beyond 7000 [BP] to the present, reflecting progressive human impact by way of agriculture through the increasing representation of secondary forest taxa and associated changes… This new evidence from the Baliem is the strongest independent support for the claims of 9000 year old agriculture based on Kuk."

2.8.3 Was the TNG expansion powered by agriculture?

It is unlikely that the TNG family would have achieved its present wide distribution unless its speakers possessed cultural advantages that enabled them to build up populations that could (a) expand fairly rapidly along the central cordillera of New Guinea, and (b) maintain continuous habitation of the major highlands valleys, through periods of change in climate, vegetation and fauna. Was the initial spread of TNG languages associated with the development of plant domestication?

At present the connection between the advent of agriculture and the dispersal of TNG is no more than circumstantial. We lack a mass of linguistic evidence that directly points to knowledge of farming by speakers of pTNG or early stages of TNG. At this stage a term for 'taro' (something like *ma) is about the only relevant lexical reconstruction that can be tentatively attributed to early TNG because of its wide distribution. But as the term *ma 'taro' stands alone, instead of being embedded in a full terminology for parts of the plant and practices associated with its cultivation, diffusion cannot be ruled out. We know of no other widely distributed cognate sets for names of plants and their parts and for implements and processes associated with their cultivation. There are some names for plants and other enti-

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ties that have spread recently (Hays 2005) but these do not count in the search for early TNG words.

The very high degree of lexical diversity within TNG suggests a date for the dissolution of pTNG that is consistent with the earliest dates for agriculture in the highlands, referred to in 8.2. The breakup of the family was early enough for it to be far more diverse, lexically, than either Indo-European or Austronesian, two families whose initial breakup can be dated with some confidence as occurring more than 5,000 years ago. Pairs of languages drawn from the most lexically diverse branches of Nuclear Indo-European (i. e. excluding Hittite and Tocharian) share between 10 and 20 percent of cognates in a 200 item basic vocabulary list (Dyen et al. 1992). The figures across high-order subgroups of Austronesian are similar (Dyen 1965, cf. Blust 2000). By contrast, for pairs of languages drawn from different core TNG subgroups (excluding subgroups that are close neighbours) the percentage of putative cognates is consistently below five. This measure would place the breakup of pTNG as occurring as early as 10,000 BP. While one might speculate that the rate of lexical replacement has tended to be much higher in TNG languages than in Indo-European or Austronesian, it seems unlikely that that would have been the case in every one of the core subgroups.

Most of the core subgroups of TNG are located in high valleys (1500m and above) along the cordillera that runs for more than 2000 kilometers along the centre of New Guinea. A minority are located in lowlands and mountain ranges situated to the north and south of the central cordillera. Such a distribution of subgroups indicates that parts of the central highlands were settled very early by TNG speakers.

Can we say, on linguistic grounds alone, which parts were settled earliest? Measured in terms of the density of high-order subgroups, the region of greatest diversity is that area of Papua New Guinea between the Strickland River in the west and the Eastern Highlands province in the east, together with Madang Province and the Finisterre Ranges and Huon Peninsula Province to the north. It is safe to say that this was a very early area of TNG expansion. Whether it was the *primary* dispersal centre is another matter. It is true that the highlands in West Papua and the far west of Papua New Guinea contain fewer high-order subgroups. That is not to say, however, that TNG languages have not been present in this region for as long, or almost as long as they have been in the eastern highlands. Without a better understanding of the high-order subgrouping than exists for the family at present we cannot on linguistic grounds alone confidently identify its primary dispersal centre.

Where the shift from an economy based primarily on foraging to one based primarily on intensive agriculture did occur it must have brought about changes in patterns of settlement and social organisation as well as material culture. Agriculturalists are sedentary, tied to the land they have cleared, tilled, planted and fallowed. There is potential for faster population growth, larger social units and

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social hierarchy and for the making of 'heavy' artefacts, such as substantial houses, elaborate carvings and large containers. Ethnographic evidence suggests that the shift to intensive agriculture occurred faster in certain regions than others, the broad, fertile highland valley floors being among the first.

At this stage it is not clear how far comparative work will enable lexical reconstructions for early stages of TNG to extend into the domain of material culture, including the cultivation of plants. As yet no historical linguist has undertaken a thorough, New Guinea-wide search for cognates in this domain; however, extensive data sets have been assembled by an anthropologist (Hays 2005). The job is made harder by major gaps in the descriptive sources. It is also slowed by the lack of manpower – only a handful of linguists are active in TNG historical studies.

The possible directions of spread of TNG languages have been constrained by a number of geographic factors, including sea level shifts. Since the height of the last ice age, around 21,000 years ago, the coastlines of New Guinea, particularly on the southern side, have changed a good deal. Chappell (2005) gives a recent assessment of the major changes. After 21,000 BP the Sahul-Arafura shelf which linked Australia and New Guinea was gradually flooded by rising seas, with the last land connections (through Torres Straits) inundated shortly before 8,000 BP. By 6,000 BP rapid changes to the New Guinea coastline ceased, with changes since then largely confined to the progradation of coastal plains and deltas.

Chappell refers to significant gradual changes in two regions over the last six millennia. During the mid Holocene much of what is now the Sepik-Ramu coastal plain was below sea level. A shallow sea extended inland, at its maximum possibly as far as Ambunti (Swadling 1997) and almost certainly west of the confluence of the Yuat and Sepik. According to Chappell the inland sea reached its maximum extent about 5500–6500 BP, then contracted gradually under deposits of alluvial soils from the Sepik and Ramu river systems. This inland sea would have separated the central highlands from higher-lying areas of northeast New Guinea in what are now the Sepik and Sandaun Provinces. It is noteworthy that TNG languages are largely absent from the Sepik-Ramu coastal plain and contiguous higher-lying areas.

The other region showing significant coastline changes during the last few millennia is the Fly-Digul Platform in southern New Guinea. The low-lying Digul River region, which forms the western half of this platform, was invaded by the sea and inundated at about 6,000 BP, as was the delta and narrow floodplain of the Fly River. It appears that most of the swampy Digul lowlands has been established over the past few millennia as a result of slow isostatic emergence. Two groups of TNG languages are now spoken in the Digul lowlands, Asmat-Kamoro and Awyu-Dumut (Voorhoeve 2001, 2005). These groups, and especially Asmat, may have expanded within the past three millennia into areas of swampy land that were previously below sea level.

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2.8.4 Borrowing

Austronesian loanwords in TNG languages are a possible indicator of the age of some TNG subgroups. Austronesian speakers first moved into northwest Melanesia about 3500–3300 BP. It follows that if Austronesian loanwords were already present in a certain TNG interstage (an intermediate proto language) that the breakup of that interstage must postdate contact with Austronesian speakers.

Most of the Austronesian languages now present on the north coast of the New Guinea mainland and offshore islands are closely related and probably arrived there only within the past 1,500–2,000 years (Ross 1988). However, there is some evidence (Ross 1988: 21) of lexical borrowing from Austronesian sources by TNG languages of the north coast of New Guinea that predates these more recent arrivals. What dates the loans as early is that they retain original Oceanic root final consonants, whereas these consonants have been lost in all contemporary Oceanic languages of the north coast of New Guinea. Loans showing such final consonant retentions appear to be restricted to certain branches of the Madang subgroup of TNG.

McElhanon and Voorhoeve (1970) and Lynch (1982) pointed to possible early TNG borrowings from Austronesian languages, including items of basic vocabulary that are more or less widespread among TNG languages. On closer study the case for early Austronesian borrowings in TNG basic vocabulary appears to be weak, as Chowning (1987) has argued with some force. There are, however, a few clear cases of widespread loans in cultural vocabulary, e. g. words for 'pig' ultimately derived from POc **boRok* 'pig' are found in many Papuan languages.

References

Adams, Karen, Linda Lauck, Jelle Miedema, F. Welling, Wim A.L. Stokhof, Don A.L. Flassy, Hiroko Oguri, Kenneth Collier, Kenneth Gregerson, Thomas R. Phinnemore, David Scorza, John Davies, Bernard Comrie, and Stan Abbott
1985 *Papers in New Guinea Linguistics No. 22*. Canberra: Pacific Linguistics.

Anceaux, Johannes Cornelis
1958 Languages of the Bomberai Peninsula: Outline of a linguistic map. *Nieuw-Guinea Studiën* 2: 109–121.

Anfert'ev, A.N. (ed.)
1951 *Stat'i i materialy po antropologii i ètnografii narodov Okeanii* (Sobranie sočinenij v šesti tomax 3: 1). Moscow: Nauka.

Anonymous
1913 Vocabularies of native languages spoken in East-Central Division. *Papua Annual Report* 1912–1913: 172–172.

Anonymous
1914a Vocabularies of languages spoken by the people of the Gwoiru mountains, and the Kanamara people on the main range and from Paiwa, Goodenough Bay, N. E. D. *Papua Annual Report* 1913–1914: 184–184.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Anonymous
1914b Vocabularies of native languages spoken in East-Central Division. *Papua Annual Report* 1913–1915: 191–194.
Anonymous
1914c Vocabulary of the language spoken by the Kwateva tribe, between the Gwoira range and Lakwa, Collingwood Bay, North-Eastern Division. *Papua Annual Report* 1913–1914: 185–187.
Anonymous
1902 Vocabulary of Iaibu. *Annual Report of British New Guinea* 1900–1901: 154–157.
Arka, I Wayan
2012 Projecting morphology and agreement in Marori, an isolate of southern New Guinea. In: Evans and Klamer (eds.), 150–173.
Årsjö, Sören and Britten Årsjö
2005 Phonology and orthography essentials: Konai (Kalai) language (Western Province Papua New Guinea). In: Parker (ed.), 211–260.
Aufenanger, Heinrich
1952 *Vokabular und Grammatik der Gende-Sprache in Neuguinea.* Posieux: Anthropos Institut.
Aufenanger, Heinrich
1953 *Vokabular und Grammatik der Nondugl-sprache in Zentral-Neuguinea.* Posieux: Anthropos Institut.
Auri, Piter, Peter R. Dommel and Markus Pokoko
1991 *Kaureki a Opoksel (Percakapan-percakapan Dalam Bahasa Kaure: Kaure Conversations).* Jayapura: University of Cenderawasih and Summer Institute of Linguistics.
Austing, John.
n.d. Ömie dictionary. MS. Ukarumpa: SIL-PNG.
Austing, John F. and Randolph Upia
1975 Highlights of Ömie morphology. In: Dutton (ed.), 513–598.
Baak, Connie, Mary Bakker and Dick van der Meij (eds.)
1995 *Tales from a Concave World. Liber Amoricum Bert Voorhoeve*. Department of Languages and Cultures of South-East Asia and Oceania, Leiden University.
Baird, Louise
2008 *A Grammar of Klon: a Non-Austronesian Language of Alor, Indonesia*. Canberra: Pacific Linguistics.
Barclay, Peter
2008 *A Grammar of Western Dani*. München: Lincom.
Barker, Fay and Janet Lee
1985 *Waskia Diksenari.* Ukarumpa: SIL-PNG.
Bee, Darlene
1965 Usarufa: A descriptive grammar. PhD thesis: Indiana University.
Bee, Darlene
1973 Usarufa: A descriptive grammar. In: McKaughan (ed.), 225–323.
Bee, Darlene
2008 Binumarien grammar essentials for translation. MS. Ukarumpa: SIL-PNG.
Berghäll, Liisa
2010 Mauwake reference grammar. PhD thesis: University of Helsinki.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Bergmann, Heinrich Friedrich Wilhelm
1953 *Grammar of the Kuman Language*. Ega Chimbu: Lutheran Mission.
Berry, Keith and Christine Berry
1987 A survey of the South Bird's Head Stock. *Workpapers in Indonesian Languages and Cultures* 4: 81–117.
Berthold, Falko
2008 A sketch grammar of Melpa. MA thesis: Universität Leipzig.
Bidri, Midim, Ivy Lindsay and Grahame Martin
1981 *Godte gi amkari titrum ine [Suki New Testament]*. Port Moresby: Bible Society of Papua New Guinea.
Blevins, Juliette and Andrew Pawley
2010 Typological implications of Kalam predictable vowels. *Phonology* 27(1):1–44.
Blowers, Bruce L. and Ruth Blowers
1970 Kaugel verb morphology. *Papers in New Guinea Linguistics No. 12,* 37–60, Canberra: Pacific Linguistics.
Blust, Robert
2000 Why lexicostatistics doesn't work: the 'universal constant' hypothesis and the Austronesian languages. In: Colin Renfrew, April McMahon and Robert L. Trask (eds.), *Time Depth in Historical Linguistics,* 311–331. Cambridge: McDonald Institute for Archaeological Research.
Boelaars, Jan H. M. C.
1950 *The Linguistic Position of South-Western New Guinea*. Leiden: E. J. Brill.
Boush, Al
1975 Tifal grammar essentials. MS. Ukarumpa: SIL-PNG.
Boxwell, Maurice
1967 Weri pronoun system. *Linguistics* 29: 34–43.
Boxwell, Maurice
1990 Co-referentiality through nominal elements in Weri. PhD thesis: Macquarie University.
Bradshaw, Robert L.
2007 *Fuyuge Grammar Sketch*. Ukarumpa: SIL-PNG Academic Publications.
Bradshaw, Robert L.
2012 *Doromu-Koki Grammar Sketch.* Ukarumpa: SIL-PNG Academic Publications.
Bromley, Myron H.
1966–1967 The linguistic relationships of Grand Valley Dani: A lexicostatistical classification. *Oceania* 37: 286–305.
Bromley, Myron H.
1981 *A Grammar of Lower Grand Valley Dani.* Canberra: Pacific Linguistics.
Brongersma, Leo Daniël and G. F. Venema
1960 *Het Witte Hart van Nieuw-Guinea: Met de Nederlandse Expeditie naar het Sterrengebergte [The White Heart of New Guinea: With the Dutch Expedition to the Star Mountains]*. Amsterdam: Scheltens and Giltay.
Brown, Herbert A.
1972 The Elema languages: A comparative study of the Toaripi, Orokolo and their related dialects. PhD thesis: University of London.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Brown, Herbert A.
1973 The Eleman Language Family. In: Franklin (ed.), 281–376.
Brown, Janessa L.
2009 A brief sketch of Urama grammar with special consideration of particles marking agency, aspect and modality. MA thesis: University of Calgary.
Brumbaugh, Robert Conrad
1980 A secret cult in the West Sepik Highlands. PhD thesis: State University of New York at Stony Brook.
Buchanan, W. E.
1899 Dialect used by the Kokila, Owalla, Seramino, and Demori natives. *Annual Report of British New Guinea* 1897–1898: 130–130.
Bugenhagen, Robert D.
1994 Language change on Umboi island. In: Tom Dutton and Darrell T. Tryon (eds.), *Language Contact and Change in the Austronesian World*, 43–108. Berlin: Mouton de Gruyter
Bulmer, Ralph N.H.
1967 Why is the cassowary not a bird? A problem of zoological taxonomy among the Karam of the New Guinea highlands. *Man* 2(1): 5–25.
Bulmer, Ralph N.H.
1968 Kalam colour categories. *Kivung* 1(3): 120–133.
Bulmer, Ralph N.H.
1974 Folk biology in the New Guinea highlands. *Social Science Information* 13(4/5): 9–28.
Bulmer, Ralph N.H. and J.I. Menzies
1972–1973 Kalam classification of marsupials and rodents. *Journal of the Polynesian Society* 81(4): 472–499, 82(1):86–107.
Bulmer, Ralph N.H. and Michael Tyler
1968 Karam classification of frogs. *Journal of the Polynesian Society* 77(4): 621–639.
Bulmer, Ralph N.H., J.I. Menzies and F. Parker
1975 Kalam classification of reptiles and fish. *Journal of the Polynesian Society* 84(3): 267–308.
Bunn, Gordon
1965 *Golin Dictionary.* Ukarumpa: SIL-PNG.
Bunn, Gordon
1974 *Golin Grammar.* Ukarumpa: SIL-PNG.
Burung, Willem
2007 *The Phonology of Wano.* Dallas: SIL International.
Campagnolo, Henri
1973 La langue des Fataluku de Lórehe (Timor Portugais). PhD thesis: Université René Descartes, Paris.
Campagnolo, Henri
1979 *Fataluku I: Relations et Choix: Introduction Méthodologique à la Description d'une langue "non-Austronésienne" de Timor Oriental.* Paris: SELAF.
Campbell, Lyle and William J. Poser
2008 *Language Classification: History and Method.* Cambridge: Cambridge University Press.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Capell, Arthur
1948–1949 Distribution of languages in the Central Highlands, New Guinea. *Oceania* 19: 104–129, 234–253, 349–365.
Capell, Arthur
1951–1952 Languages of Bogia District, New Guinea. *Oceania* 22: 130–147, 178–207, 317–317.
Capell, Arthur
1962 *Linguistic Survey of the South-Western Pacific.* (New and revised edition.) Noumea: South Pacific Commission.
Capell, Arthur
1969 *A Survey of New Guinea Languages*. Sydney: University of Sydney.
Capell, Arthur
1976 Austronesian and Papuan "mixed" languages: General remarks. In: Stephen A. Wurm (ed.), *New Guinea Area Languages and Language Study. Vol 2. Austronesian Languages,* 527–579. Canberra: Pacific Linguistics.
Capell, Arthur, A. Healey and D. Wilson (eds.)
1969 *Papers in New Guinea Linguistics No. 9*. Canberra: Pacific Linguistics.
Carlson, Terry
1991 Tainae grammar essentials. MS. Ukarumpa: SIL-PNG.
Carr, Philip J.
1991 Foyafoya (Bibisa, W.P. at Kamusi), Hoyahoya (Matakaia, W.P. at Gagoro), Hoyahoya/Hoiahoia (Ukusi-Koperami, W.P. two young men visiting Torobina). Manuscript.
Carrington, Lois
1996 *A Linguistic Bibliography of the New Guinea Area*. Canberra: Pacific Linguistics.
Carter, John, Katie Carter, John Grummitt, Bonnie MacKenzie and Janell Masters
2012 *A Sociolinguistic Survey of the Mur Village Vernaculars.* Dallas: SIL International.
Chalmers, James
1897 Vocabularies of the Bugilai and Tagota dialects, British New Guinea. *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 27: 139–143.
Chance, Sydney H.
1926 Vocabulary of Ipikoi. *British New Guinea Annual Report* 1925–1926: 91–91.
Chappell, John
2005 Geographic changes in the Papuan past. In: Pawley et al. (eds.), 525–540.
Chinnery, E. W. P. and W. N. Beaver
1915 Language groups: Mambare and Kumusi Divisions, Papua. *Papua Annual Report* 1914–1915: 158–187.
Christensen, Steve
1995 Yonggom grammar essentials. MS. Ukarumpa: SIL-PNG.
Chowning, Ann
1987 The supposed Austronesian content of the Trans-New Guinea Phylum. In: Laycock and Winter (eds.), 119–125.
Claassen, Oren R. and Kenneth A. McElhanon
1970 Languages of the Finisterre Range. *Papers in New Guinea Linguistics No. 11*, 45–78. Caberra: Pacific Linguistics

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Clifton, John M.
1995 A grammar sketch of the Kaki Ae language. In: Albert J. Bickfield (ed.), *Work Papers of the Summer Institute of Linguistics, University of North Dakota Session,* 33–80. Grand Forks, North Dakota: SIL

Colburn, Michael A.
1984 The functions and meanings of the Erima deictic articles. In: Ross, M., Siegel, J., Blust, R., Colburn, M. and Seiler, W. (eds.), *Papers in New Guinea Linguistics No. 23,* 209–272. Canberra: Pacific Linguistics.

Collier, Kenneth J. and Kenneth J. Gregerson
1985 Tabla verb morphology. In: Adams et al. 155–172.

Comrie, Bernard A.
1986 Haruai verb structure and language classification in the Upper Yuat. *Language and Linguistics in Melanesia* 17: 140–160.

Comrie, Bernard A.
1989 Genetic classification, contact, and variation. In: T.J. Walsh (ed.), *Synchronic and Diachronic Approaches to Linguistic Variation and Language Change* (Georgetown University Round Table on Languages and Linguistics 1988), 81–93. Washington, D.C.: Georgetown University Press.

Connolly, Bob and Robin Anderson
1987 *First Contact*. Penguin Books.

Conrad, Robert J. and Ronald K. Lewis
1988 Some language and sociolinguistic relationships in the Upper Sepik region of Papua New Guinea. In: Smith et al. 243–273.

Cook, Edwin A.
1966 Narak: Language or dialect? *Journal of the Polynesian Society* 75: 437–444.

Cott, Sara Van and Juliann Spencer
2010 *A sociolinguistic survey of Setaman [stm].* Dallas: SIL International.

Cowan, H. K. J.
1953 *Voorlopige Resultaten van een Ambtelijk Taalonderzoek in Nieuw-Guinea [Tentative Results of a Governmental Linguistic Study in New Guinea]*.'S-Gravenhage: Martinus Nijhoff.

Cowan, H. K. J.
1965a *Grammar of the Sentani Language with Specimen Texts and Vocabulary.* The Hague: Martinus Nijhoff.

Cowan, H. K. J.
1965b The Oirata language. *Lingua* 14: 360–370.

Cridland, E.
1924 Vocabulary of Mahigi. *British New Guinea Annual Report* 1923–1924: 58–58.

Cruse, D.A.
1986 *Lexical Semantics.* Cambridge: Cambridge University Press.

Damal people and CMA
1988 *Haik-A Ongam Kal: Perjanjian Baru Dalam Bahasa Damal [Haik-A Ongam Kal: The New Testament in Damal]*. Jakarta: Lembaga Alkitab Indonesia.

Dangepnana, John, Donald R. Davis and Susan R. Quigley
2012 Wantoat Trilingual Dictionary – Wantoat to Tok Pisin and Wantoat to English. MS.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Daniels, Don
2010 A preliminary phonological history of the Sogeram languages of Papua New Guinea. *Oceanic Linguistics* 49(1): 163–193.
Daniels, Don
2012 Gants lexicon. Computer file. Department of Linguistics, University of California at Santa Barbara.
Daniels, Don
2013a Gants grammar sketch. Computer file. Department of Linguistics, University of California at Santa Barbara.
Daniels Don
2013b Manat grammar sketch. Computer file. Department of Linguistics, University of California at Santa Barbara.
Daniels, Don
2013c Aisi grammar sketch. Computer file. Department of Linguistics, University of California at Santa Barbara
Daniels, Don
2015 A reconstruction of Proto-Sogeram phonology, lexicon and morphosyntax. PhD thesis: University of California at Santa Barbara.
Daniels, Don
2016 Magɨ: an undocumented language of Papua New Guinea. *Oceanic Linguistics* 55(1): 199–224.
Davidoff, Jules, Ian Davies and Debi Roberson
1999 Colour categories in a stone-age tribe. *Nature* vol. 398, 18 March: 203–204.
Davies, John
1981 *Kobon.* Amsterdam: North-Holland,
Davies, John
1985 Kobon-English, English-Kobon dictionary. MS. Ukarumpa: SIL-PNG.
Davies, John
1987 Kobon syntax. PhD thesis: University of Cambridge.
Davies, John and Bernard Comrie
1985 A linguistic survey of the Upper Yuat. In: Adams et al., 275–312.
Davis, Donald R.
1964a Wantoat verb stem classes and affixation. In: Elson (ed.), 131–180.
Davis, Donald R.
1964b Wantoat clauses. MA thesis: Indiana University.
Davis, Donald R.
1994 Wantoat organised phonology Data. MS. http://www.sil.org/pacific/png/abstract.asp?id=928474542364
de Bruijn, J. V.
1941 Verslag van een Tocht naar Beura, het Stroomgebied van de Beurong en Lelop, het Stroomgebiet van de Ielorong in Centraal Nieuw Guinea door den Controleur der Wisselmeren van 9 Juni 1941 tot 7 Augustus 1941 [Report of a Survey Trip to Beura, the Beurong and Lelop Watersheds, the Ielorong Watershed in Central New Guinea by the Wissel Lakes Administrator the 9th of June 1941 to the 7th of August 1941]. Nationaal Archief, Den Haag, Ministerie van Koloniën: Kantoor Bevolkingszaken Nieuw-Guinea te Hollandia: Rapportenarchief, 1950–1962, nummer toegang 2.10.25, inventarisnummer 256.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Deibler, Ellis W.
1973 Gahuku verb structure. PhD thesis: University of Michigan.

Deibler, Ellis W.
1976 A Gahuku-Yaweyuha comparative grammar. MS.

Deibler, Ellis W.
2008 *Dictionaries of Alekano - English and English - Alekano Compiled by Wanimapi*. Ukarumpa: SIL-PNG.

Dempwolff, Otto
1905 Beiträge zur Kenntnis der Sprachen von Deutsch-Neuguinea. *Mittheilungen des Seminars für Orientalische Sprachen* 8(1): 182–254.

Denham, Tim
2002 Archaeological evidence for mid-Holocene agriculture in interior New Guinea: a critical review. *Archaeology in Oceania* 38(3): 159–176.

Denham, Tim
2005 Disjuncture or emergence? Implications of the shift from curvilinear to rectilinear cultivation practices in the Wahgi Valley, Western Highlands Province, Papua New Guinea. In: Pawley et al. (eds.), 329–361.

Denham, Tim P., Simon G. Haberle, C. Lentfer, T. Fullagar, J. Field, M. Therin, N. Porch and B. Winsborough
2003 Origins of agriculture at Kuk Swamp in the Highlands of New Guinea. *Science* 201: 189–193.

de Josselin de Jong, Jan Petrus Benjamin
1937 *Studies in Indonesian Culture I: Oirata, a Timorese Settlement on Kisar*. Amsterdam: Amsterdam: Noord-Hollandsche Uitgevers-Maatschappij.

de Vries, Lourens
1993 *Forms and Functions in Kombai, an Awyu Language of Irian Jaya*. Canberra: Pacific Linguistics.

de Vries, Lourens
1996 Notes on the morphology of the Inanwatan language. In: Ger P. Reesink (ed.), *Studies in Irian Languages Part I*. 97–127. Jakarta: Universitas Katolik Indonesia Atma Jaya.

de Vries, Lourens
1998 Body part tally counting and Bible translation in Papua New Guinea and Irian Jaya. *The Bible Translator (Practical Papers)* 49(4): 409–415.

de Vries, Lourens
2002 An Introduction to the Inanwatan language of Irian Jaya. In: Alexander K. Adelaar and Robert Blust (eds.), *Between Worlds: Linguistic Papers in Memory of David John Prentice,* 77–94. Canberra: Pacific Linguistics.

de Vries, Lourens
2004 *A short grammar of Inanwatan: an endangered language of the Bird's head of Papua, Indonesia*. Canberra: Pacific Linguistics.

de Vries, Lourens
2005 Towards a typology of tail-head linkage in Papuan languages. *Studies in Language* 29(2): 363–384.

de Vries, Lourens
2012 Speaking of clans: Language in Awyu-Ndumut communities of Indonesian West Papua. *International Journal of the Sociology of Language* 214: 5–26.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

de Vries, Lourens and Robinia de Vries-Wiersma
1992 *The Morphology of Wambon of the Irian Jaya Upper-Digul Area*. Leiden: The KITLV Press.
de Vries, Lourens and Gerrit J. van Enk
1997 *The Korowai of Irian Jaya: Their Language and its Cultural Context.* Oxford: Oxford University Press.
de Vries, Lourens, Ruth Wester and Wilco van den Heuvel
2012 The Greater Awyu language family of West Papua. In: Hammarström and van den Heuvel (eds.), 269–312.
Doble, Marion L.
1960 *Kapauku-Malayan-English Dictionary.* The Hague: Nijhoff.
Doble, Marion L.
1962 Essays on Kapauku grammar. *Neu Guinea Studiën* 6: 152–155, 11–218, 279–298.
Doble, Marion L.
1987 A description of some features of Kapauku language structure. *Oceanic Linguistics* 26(1–2): 55–113.
Dommel, Peter R. & Gudrun E. Dommel
1991 Kaure phonology. *Workpapers in Indonesian Languages and Cultures* 9: 1–68.
Donohue, Mark
1997a Tone systems of New Guinea. *Linguistic Typology* 1: 347–386.
Donohue, Mark
1997b Inverse in Tanglapui. *Language and Linguistics in Melanesia* 27: 101–118.
Drabbe, Petrus
1949a Aantekeningen over twee talen in het centraal gebergte van Nederlands Nieuw-Guinea [Notes on two languages in the Central Highlands of Dutch New Guinea]. *Bijdragen tot de Taal-, Land- en Volkenkunde van Nederlandsch-Indië* 105: 423–444.
Drabbe, Petrus
1949b Bijzonderheden uit de Talen van Frederik-Hendrik-Eiland: Kimaghama, Ndom en Riantana [Particularities from the languages of Frederik-Hendrik Island: Kimaghama, Ndom and Riantana]. *Bijdragen tot Taal-, Land- en Volkenkunde* 105: 1–24.
Drabbe, Petrus
1950a Twee dialecten van de Awju-taal [Two dialects of the Awyu language]. *Bijdragen tot de Taal-, Land- en Volkenkunde* 106: 92–147.
Drabbe, Petrus
1950b Talen en dialecten van Zuid-West Nieuw-Guinea [Languages and dialects of Southwest New Guinea]. *Anthropos* 45: 545–574.
Drabbe, Petrus
1952 *Spraakkunst van het Ekagi: Wisselmeren Ned. N. Guinea [A Grammar of Ekagi: Wissel Lakes, Dutch New Guinea]*. The Hague: Martinus Nijhoff.
Drabbe, Petrus
1953 *Spraakkunst van de Kamoro-Taal [A Grammar of the Kamoro language]*. 'S-Gravenhage: Martinus Nijhoff.
Drabbe, Petrus
1954a *Comparative Vocabulary 100 words in 24 languages*. Posieux/Fribourg: Instituut Anthropos.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Drabbe, Petrus
1954b *Talen en dialecten van zuid-west Nieuw-Guinea [Languages and Dialects of Southwest New Guinea]*. Posieux/Fribourg: Instituut Anthropos.
Drabbe, Petrus
1955 *Spraakkunst van het Marind: Zuidkust Nederlands Nieuw-Guinea [A Grammar of Marind: South Coast of New Guinea].* Wien-Mödling: Drukkerij van het Missiehuis St. Gabriël.
Drabbe, Petrus
1957 *Spraakkunst van het Aghu-Dialect van de Awju-Taal [A Grammar of the Aghu Dialect of the Awyu language]*. The Hague: Martinus Nijhoff.
Drabbe, Petrus
1959a *Dictionary of the Asmat Language*. Syracuse, Indiana: Our Lady of the Lake Press.
Drabbe, Petrus
1959b *Grammar of the Asmat Language*. Syracuse, Indiana: Our Lady of the Lake Press.
Drabbe, Petrus
1959c *Kaeti en Wambon: twee Awju-dialecten [Kaeti and Wambon: Two Awyu Dialects]*. 'S-Gravenhage: Martinus Nijhoff.
Drabbe, Petrus
1959d *Spraakkunst der Moni-Taal [A Grammar of the Moni Language]*. Hollandia: P. Drabbe.
Drabbe, Petrus
1963a *Drie Asmat-Dialecten [Three Asmat Dialects]*. The Hague: Martinus Nijhoff.
Drabbe, Petrus
1963b *Woordenlijst van Kawenak, Keenok, Keenakap, Kaünak en Kaweinag [Wordlist of Kawenak, Keenok, Keenakap, Kaünak and Kaweinag].* In: Drabbe 1963a, 212–233.
Draper, Norm and Sheila Draper
2002 *Dictionary of Kyaka Enga, Papua New Guinea.* Canberra: Pacific Linguistics.
Dubert, Raymond and Marjorie Dubert
1978 Biangai lower levels of grammar. MS.
Dutton, Tom
1969 *The Peopling of Central Papua: Some Preliminary Observations.* Canberra: Pacific Linguistics.
Dutton, Tom
1970 Notes on the languages of the Rigo Area of the Central District of Papua. In: Wurm and Layock (eds.), 879–983.
Dutton, Tom
1971 Languages of South-East Papua. In: Dutton et al. (eds.), 1–46.
Dutton, Tom
1975a A Koita grammar sketch and vocabulary. In: Dutton (ed.), 281–412.
Dutton, Tom
1975b South-Eastern Trans-New Guinea Phylum languages. In: Wurm (ed.), 613–664.
Dutton, Tom (ed.)
1975c *Studies in Languages of Central and South-east Papua.* Canberra: Pacific Linguistics.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Dutton, Tom
1979 Simplified Koriki: A second trade language used by the Motu in the Gulf of Papua. *Kivung* 12(1): 3–73.
Dutton, Tom
1982 Borrowing in Austronesian and non-Austronesian languages of coastal south-east mainland Papua New Guinea. In: Amran Halim, Lois Carrington and Stephen A. Wurm (eds.), *Papers from the Third International Conference on Austronesian Linguistics, Vol 1: Currents in Oceanic,* 109–177. Canberra: Pacific Linguistics.
Dutton, Tom
1996 *Koiari*. München: Lincom.
Dutton, Tom
1999 From Pots to people: Fine-tuning the prehistory of Mailu Island and neighbouring coast, South-East Papua New Guinea. In: Roger M. Blench and Matthew Spriggs (eds.), *Archaeology and Language, III*. 90–108. London and New York: Routledge.
Dutton, Tom
2003 *A Dictionary of Koiari, Papua New Guinea: with Grammar Notes.* Canberra: Pacific Linguistics.
Dutton, Tom
2010 *Reconstructing Proto Koiarian: The History of a Papuan Language Family.* Canberra: Pacific Linguistics.
Dutton, Tom, Clemens L. Voorhoeve, and Stephen A. Wurm (eds.)
1971 *Papers in New Guinea Linguistics No. 14*. Canberra: Pacific Linguistics.
Dwyer, Peter D., Monica Minnegal and Vance Woodyard
1993 Konai, Febi and Kubo: The northwest corner of the Bosavi language family. *Canberra Anthropology* 16(1): 1–14.
Dyen, Isidore
1965 *A Lexicostatistical Classification of the Austronesian Languages.* International Journal of American Linguistics Memoir 19. Baltimore: Waverly Press.
Dyen, Isidore, Joseph B. Kruskal and Paul Black
1992 *An Indo-European Classification: A Lexicostatistical Experiment.* Philadelphia: American Philosophical Society.
Earl, George Windsor
1853 *The Native Races of the Indian Archipelago: The Papuans.* London: Hippolyte Bailliere.
Edwards-Fumey, Deborah
2006 The verb subject prefix in Kuni. MA thesis: Universität Bern.
Egidi, Vincenzo M.
1907 La tribù di Tauata. *Anthropos* II: 675–681, 1009–1021.
England, A.C.
1902 Vocabulary of Iaibu. *Annual Report of British New Guinea 1900–1901.* 154–157.
Etherington, Paul Anthony
2002 Nggem morphology and syntax. MA thesis: Northern Territory University, Darwin.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Evans, Benjamin and Mary-Jane Mountain
2005 Pasin bilong tumbuna: archaeological evidence for early human activity in the highlands of Papua New Guinea. In: Pawley et al. (eds.), 363–386.
Evans, Bethwyn (ed.)
2009 *Discovering History through Language: Papers in Honour of Malcolm Ross*. Canberra: Pacific Linguistics.
Evans, Nicholas, Jutta Besold, Hywel Stoakes and Alan Lee
2005 *Materials on Golin: Grammar, Texts and Dictionary*. Department of Linguistics and Applied Linguistics, University of Melbourne.
Evans, Nicholas and Marian Klamer (eds.)
2012 *Melanesian Languages on the Edge of Asia: Challenges for the 21st Century.* Honolulu: University of Hawaii Press.
Ewande, Rosemary, Clement Java and Winnyfaith Nai
2004 *Godon Vuak Ma Ijin [Namiai New Testament]*. 1st edn. Orlando, FL: Wycliffe Inc.
Fabian, Grace, Edmund Fabian and Bruce Waters
1998 *Morphology, Syntax and Cohesion in Nabak, Papua New Guinea.* Canberra: Pacific Linguistics.
Fahner, Christiaan
1979 The morphology of Yali and Dani: A descriptive and comparative analysis. PhD thesis: Rijksuniversiteit te Leiden.
Farr, Cynthia J. M.
1999 *The Interface between Syntax and Discourse in Korafe, a Papuan Language of Papua New Guinea.* Canberra: Pacific Linguistics.
Farr, Cynthia J. M., Bomi Terrence Furoke and James Buyers Farr
n. d. Tafota Baruga grammar notes. MS.
Farr, James and Cynthia J.M. Farr
2008 *The Korafe-Yegha Dictionary, Oro Province, Papua New Guinea.* Ukarumpa: SIL-PNG.
Faust, Vera
2006 Oirata: A language of Kisar. MA thesis: Rijksuniversiteit te Leiden.
Fedden, Sebastian
2011 *A Grammar of Mian.* Berlin: De Gruyter Mouton.
Flassy, Don A.L.
2002 Inflections are derivations in mBahaam Maaq. In: Don A.L. Flassy and Otto I.M.S. Nekitel (eds.), *Proceedings of an International Conference on New Guinea Languages and Linguistics*, 298–327. 2nd edn. Jakarta: Balai Pustaka.
Flassy, Don A.L., Constrantinopel Ruhukael and Frans Rumbrawer
1983/1984 *Struktur Mbahaam Maaq / Bahasa Bahaam: Morfologi dan Sintaksis [The Structure of Mbahaam Maaq / The Bahaam Lanaguage: Morphology and Syntax]*. Jakarta: Departmen Pendidikan dan Kebudayaan.
Flassy, Don A. L. and Lisidius Animung
1992 *Struktur Bahasa Iha [The Structure of the Iha Language]*. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa, Departemen Pendidikan dan Kebudayaan.
Flierl, Wilhelm and Hermann Strauss (eds.)
1977 *Kâte Dictionary.* Canberra: Pacific Linguistics.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Flint, L. A.
1917–1918 Vocabulary: Name of tribe, Karami. People. Name of village, Kikimairi and Aduahai. *Commonwealth of Australia. Papua: Annual Report for the Year* 1917–1918: 96–96.
Foley, William A.
1986 *The Papuan Languages of New Guinea.* Cambridge: Cambridge University Press.
Foley, William A.
2000 The languages of New Guinea. *Annual Review of Anthropology* 29: 357–404.
Foster, Michael
1981 Timbe grammar sketch: Cohesion in Timbe texts. MS. Ukarumpa: SIL-PNG.
Franklin, Karl J.
1968a *The Dialects of Kewa.* Canberra: Pacific Linguistics.
Franklin, Karl J.
1968b Languages of the Gulf District: a preview. In: Voorhoeve, et al. (eds.), 19–44.
Franklin, Karl J.
1971 *A Grammar of Kewa, New Guinea.* Canberra: Pacific Linguistics.
Franklin, Karl J.
1972 A ritual pandanus language of New Guinea. *Oceania* 43(1): 66–76.
Franklin, Karl J.
1973a Appendices. In: Franklin (ed.), 539–592.
Franklin, Karl J.
1973b Other language groups in the Gulf District and adjacent areas. In: Franklin (ed.), 263–277.
Franklin, Karl J. (ed.)
1973c *The Linguistic Situation in the Gulf District and Adjacent Areas, Papua New Guinea.* Canberra: Pacific Linguistics.
Franklin, Karl J.
1975a Comments on Proto-Engan. In: Wurm (ed.), 263–276.
Franklin, Karl J.
1975b Isolates: Gulf District. In: Wurm (ed.), 891–896.
Franklin, Karl J.
1995 Some further comments on Kaki Ae. *Language and Linguistics in Melanesia* 26: 195–198.
Franklin, Karl J.
1997 Engan pronouns and their old endings. *Australian Journal of Linguistics* 17: 185–217.
Franklin, Karl J.
2001 Kutubuan (Foe and Fasu) and proto Engan. In: Pawley et al. (eds.), 143–154.
Franklin, Karl J. and Joice Franklin
1978 *A Kewa Dictionary: with Supplementary Grammatical and Anthropological Materials.* Canberra: Pacific Linguistics.
Franklin, Karl J. and Clemens L. Voorhoeve
1973 Languages near the intersection of the Gulf, Southern Highlands and Western Districts. In: Franklin (ed.), 149–186.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Frantz, Chester I.
1962 Grammatical categories as indicated by Gadsup noun affixes. In: James C. Dean (ed.), *Studies in New Guinea Linguistics by Members of the Summer Institute of Linguistics (New Guinea Branch).* Sydney: University of Sydney.
Frantz, Chester L.
1976 Gadsup sentence structure. In: Loving (ed.), 73–191.
Friedlaender, Jonathan S. (ed.)
2007 *Genes, Language and Culture History in the Southwest Pacific.* Oxford: Oxford University Press.
Gabelentz, Georg von der and Adolf Bernard Meyer (eds.)
1882 *Beiträge zur Kenntnis der melanesischen, mikronesischen und papuanischen sprachen.* Leipzig: S. Hirzel.
Gajdusek, D. Carleton
1980 *Territory of Papua New Guinea: Return to New Britain, Kuru Investigations in the Okapa Region, Kukukuku Studies and a Journey through Genatei, Awa, Oweina-Waisara and Pinata-Tairora Villages. December 25, 1963 to April 13, 1964.* Bethesda, Maryland: National Institute of Neurological Diseases and Stroke.
Galis, Klaas Wilhelm
1955 Talen en dialecten van Nederlands Nieuw-Guinea [Languages and dialects of Netherlands New Guinea]. *Tijdschrift Nieuw-Guinea* 16: 109–118, 134–145, 161–178.
Galis, Klaas Wilhelm
1956 *Ethnologische Survey van het Jafi-district (Onderafdeling Hollandia) [Ethnographic Survey of the Jafi-District (Hollandia Subdivision)].* Hollandia: Gouvernement van Nederlands Nieuw-Guinea.
Galis, Klaas Wilhelm
1960 Telsystemen in Nederlands-Nieuw-Guinea [Counting systems in Netherlands New Guinea]. *Nieuw Guinea Studien* 4(2): 131–150.
Garland, Susan
1980 Mountain Koiali grammar: Sentences, paragraphs, and discourses. In: Hutchisson (ed.), 107–222.
Geary, Elaine
1977 *Kunimaipa Grammar: Morphophonemics to Discourse.* Ukarumpa: SIL-PNG.
Geurtjens, Hendrik
1926 *Spraakleer der Marindineesche Taal [A Pedagogical Grammar of the Marind Language].* The Hague: Martinus Nijhoff.
Geurtjens, Hendrik
1933 *Marindineesch-Nederlandsch Woordenboek.* [*Marind-Dutch Dictionary*] Bandoeng: Nix.
Gibson, Gwen and Joy McCarthy
2002 [1967] Kanite grammar sketch. MS.
Giël, R.
1959 *Exploratie Oost-Meervlakte [Exploration of the Eastern Lakes Plain Area].* Nationaal Archief, Den Haag, Ministerie van Koloniën: Kantoor Bevolkingszaken Nieuw-Guinea te Hollandia: Rapportenarchief, 1950–1962, nummer toegang 2.10.25, inventarisnummer 13.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Goddard, Jean
1974 Notes on Agarabi grammar. In: Richard Loving (ed.), *Grammatical Studies in Three Languages of Papua New Guinea*. 75–118. Ukarumpa: SIL-PNG.
Goddard, Jean
1976 Higher levels of Agarabi grammar. In: Loving (ed.), 5–72.
Goddard, Jean
1980 Notes on Agarabi grammar. In: M. Boxwell, J. Goddard, Malcolm Ross, A. Sanders, J. Sanders and H. Davies. *Papers in New Guinea Linguistics 20,* 35–76. Canberra: Pacific Linguistics.
Godschalk, Jan Anthonie
1993 Sela valley: An ethnography of a Mek society in the eastern highlands, Irian Jaya, Indonesia. PhD thesis: Vrije Universiteit te Amsterdam.
Golson, Jack
1991 Bulmer Phrase II: early agriculture in the New Guinea highlands. In: Pawley (ed.), 484–491.
Golson, Jack, Timothy Denham & Pamela Swadling (eds.)
in press *Ten Thousand years of Gardening in New Guinea: the Kuk Site of Early Agriculture.* Terra Australis monographs, Australian National University, Canberra.
Gorecki, Paul and D.S. Gillieson
1989 *A Crack in the Spine: Prehistory and Ecology of the Jimi-Yuat River.* Cairns: James Cook University.
Gossner, Jan D.
1994 Aspects of Edolo grammar. MA thesis: University of Texas at Arlington.
Graham, Mack
1998 Dialect survey of the Kandawo language, Western Highlands Province. MS.
Gray, Rachel
2007 A sociolinguistic survey of the Domung [dev] and Yout Wam [code pending] languages. MS.
Greenberg, Joseph H.
1971 The Indo-Pacific hypothesis. In: Thomas A. Sebeok (ed.), *Current Trends in Linguistics. vol. 8. Linguistics in Oceania,* 807–871. The Hague: Mouton.
Grosh, Andrew and Sylvia Grosh
2004. Grammar essentials for the Kaluli language. MS.
Grube, Wilhelm
1895 Ein Beitrag zur Kenntniss der Kai-Dialekte. *Zeitschrift für afrikanische und orientalische Sprachen* I: 83–94, 118–131.
Haan, Johnson Welem
2001 The grammar of Adang: A Papuan language spoken on the island of Alor East Nusa Tenggara - Indonesia. PhD thesis: University of Sydney.
Hagen, Bernhard
1899 *Unter den Papua's*. Wiesbaden: C.W. Kreidel.
Haiman, John
1979 Review of Wurm (ed.) 1975. *Language* 55(4): 894–903.
Haiman, John
1980a Gimi and Siane. In: Haiman 1980b, 515–546.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Haiman, John
1980b *Hua: A Papuan Language of the Eastern Highlands of New Guinea.* Amsterdam: John Benjamins.
Haiman, John
1987 Proto-Gorokan syllable structure. *Language and Linguistics in Melanesia* 16: 1–22.
Haiman, John
1991 *Hua-English Dictionary.* Wiesbaden: Otto Harrassowitz.
Haiman, John and Pamela Munro (eds.)
1983 *Switch Reference and Universal Grammar: Proceedings of a Symposium on Switch Reference and Universal Grammar, Winnipeg, May 1981.* Amsterdam: John Benjamins.
Hammarström, Harald
2010 The status of the least documented language families in the world. *Language Documentation and Conservation* 4: 177–212.
Hammarström, Harald
2012 Pronouns and the (preliminary) classification of Papuan languages. In: Hammarström and van den Heuvel (eds.), 428–539.
Hammarström, Harald and Wilco van den Heuvel (eds.)
2012 *History, Contact and Classification of Papuan Languages.* (*Language and Linguistics in Melanesia* Special Issue 2012). Port Moresby: Linguistic Society of Papua New Guinea.
Hanke, August
1905 Die Sprachverhältnisse in der Astrolabe-Bai in Deutsch-Neuguinea. *Mittheilungen des Seminars für Orientalische Sprachen* VIII(1): 255–262.
Hanke, August
1909 *Grammatik und Vocabularium der Bongu-Sprache (Astrolabebai, Kaiser-Wilhelmsland).* Berlin: Georg Reimer.
Harris, Kyle
1990 Nend grammar essentials. In: John R. Roberts (ed.), *Two Grammatical Studies*, 73–156. Ukarumpa: SIL-PNG.
Hartzler, Margaret and Kenneth J. Gregerson
1987 Towards a reconstruction of Proto Tabla-Sentani phonology. *Oceanic Linguistics* 26: 1–29.
Hays, Terence
2005 Vernacular names for tubers in Irian Jaya: implications for prehistory. In: Pawley et al. (eds.), 625–670.
Head, June
2011 A grammar of Umbu-Ungu. Manuscript. Ukarumpa: SIL-PNG.
Healey, Alan
1964a The Ok language family in New Guinea. PhD thesis: Australian National University.
Healey, Alan
1964b *Telefol Phonology.* Canberra: Pacific Linguistics.
Healey, Alan, Ambrose Isoroembo and Martin Chittleborough
1969 Preliminary notes on Orokaiva grammar. In: Capell et al. 33–64.
Healey, Phyllis M.
1966 *Levels and Chaining in Telefol Syntax.* Canberra: Pacific Linguistics.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Healey, Phyllis, Alan Healey and W. Steinkraus
1972 *A Preliminary Vocabulary of Tifal Vocabulary with Grammar Notes.* Santa Ana, CA: SIL.
Heeschen, Volker
1978a Review of Wurm (ed.) 1975. *Anthropos* 72: 978–980.
Heeschen, Volker
1978b The Mek languages of Irian Jaya with special reference to the Eipo language. *Irian* 7(2): 3–46.
Heeschen, Volker
1982 Some systems of spatial reference in Papuan languages. In: J. Weissenborn and W. Klein (eds.), *Here and There. Cross-linguistic Studies in Deixis and Demonstration*, 81–109. Amsterdam: John Benjamins.
Heeschen, Volker
1992a *A Dictionary of the Yale (Kosarek) Language (with Sketch of Grammar and English Index).* Berlin: Dietrich Reimer.
Heeschen, Volker
1992b The position of the Mek languages of Irian Jaya among the Papuan languages: History, typology and speech. *Bijdragen tot de Taal-, Land- en Volkenkunde* 148(3/4): 465–488.
Heeschen, Volker
1998 *An Ethnographic Grammar of the Eipo Language.* Berlin: Dietrich Reimer.
Heeschen, Volker
2000 Die Yale-Sprache, eine Papua-Sprache. In: Ludger Hoffmann (ed.), *Sprachwissenschaft: Ein Reader*, 759–774. 2nd edn. Berlin: Mouton de Gruyter.
Heeschen, Volker
2001 Event formulas: sentences as minimal narratives. In: Pawley et al. (eds.), 155–173.
Heeschen, Volker and Wulf Schiefenhövel
1983 *Wörterbuch der Eiposprache: Eipo-Deutsch-Englisch.* Berlin: Dietrich Reimer.
Heider, Eleanor Rosch
1972 Probabilities, sampling and ethnographic method: the case of Dani colour names. *Man* 7: 448–466
Heineman, Paul
1998 A grammar of Lembena. MS.
Hepner, Mark
2006 Bargam grammar sketch. MS. Ukarumpa: SIL-PNG.
Hepner, Mark
2007[2002] Bargam dictionary. MS.
Hischier, Phyllis
2006 Exploration of the remote Kopayap and Urajin areas in West Papua, Indonesia: A first contact in Kopayap and Urajin. MS.
Holmes, John H.
1913 A preliminary study of the Namau language, Purari Delta, Papua. *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 43: 124–142.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Holton, Gary, Marian Klamer, František Kratochvíl, Laura Robinson and Antoinette Schapper
2012 The historical relations of the Papuan languages of Alor. *Oceanic Linguistics* 51(1): 86–122.
Holton, Gary and Laura Robinson
2014 The linguistic position of the Timor-Alor-Pantar languages. In: Klamer (ed.), 155–198.
Holton, Gary and Mahalalel Lamma Koly
2007 *Kamus Pengantar Bahasa Pantar Barat: Tubbe – Mauta – Lamma [An Introductory Dictionary of Western Pantar: Tubbe – Mauta – Lamma]*. No publisher stated.
Hooley, Bruce A. and Kenneth A. McElhanon
1970 Languages of the Morobe District. In: Wurm and Laycock (eds.), 1065–1094.
Hope, Geoffrey and Simon Haberle
2005 The history of the human landscapes of New Guinea. In: Pawley et al. (eds.), 541–554.
Hotz, Joyce M. and Mary D. Stringer
1979 *Waffa, Tok Pisin, English.* Ukarumpa: SIL-PNG.
Huber, Juliette
2011 A grammar of Makalero: A Papuan language of East Timor. PhD thesis: Vrije Universiteit Amsterdam.
Hughes, Jock
2009 *Upper Digul Survey.* Dallas: SIL International.
Huisman R.
1973 Angaataha verb morphology. *Linguistics* 110: 43–54.
Hull, Geoffrey
2005 *Fataluku.* Dili: Instituto Nacional de Linguística of the Universidade Nacional Timor Lorosa'e.
Hutchisson, Don (ed.)
1980 *Grammatical Studies in Fasu and Mt. Koiali.* Ukarumpa: SIL-PNG.
Hynum, David
2010 Ergative in Numanggang. In: Joan Hooley (ed.), *Papers on Six Languages of Papua New Guinea,* 129–156. Canberra: Pacific Linguistics.
Ikamu, Gabriel and Joong-Hwan Jo
2014 Tentative grammar description for the Tairuma language. MS. www.sil.org/pacific/png/abstract.asp?id=928474556077
Im, Youn-Shim
2005 Draft survey report on the Tebi language of Papua, Indonesia. MS. SIL.
Ingram, Andrew
2001 Anamuxra: A language of Madang Province, Papua New Guinea. PhD thesis: University of Sydney.
Inselmann, Rudolf
1941 *Nobonob – English Dictionary*. Madang: Lutheran Mission.
Irwin, Barry
1974 *Salt-Yui Grammar.* Canberra: Pacific Linguistics.
James, Dorothy and Denise Potts
1968 English-Siane dictionary. MS. Ukarumpa: SIL-PNG.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

James, Dorothy and Denise Potts
1975 Siane-English dictionary replacement. MS. Ukarumpa: SIL-PNG.
Jang, Hong-Tae
2003 Survey report on languages of southeastern foothills in Papua Merauke Regency of Papua, Indonesia. MS.
Johnston, H. L. C.
1920 Vocabulary of Eme-Eme. *British New Guinea Annual Report* 1919–1920: 120.
Johnston, H. L. C.
1921 Appendix VI: Vocabulary Kikori Station, Delta Division: Tribe, Karima, Name of village, Kibeni. *Commonwealth of Australia. Papua: Annual Report for the Year* 1919–1920: 119.
Johnston, H. L. C.
1923 Appendix IX: Vocabulary Kikori Station, Delta Division: Tribe, Barika, Name of village, Asanu. *Commonwealth of Australia. Papua: Annual Report for the Year* 1921–1922: 166.
Jore, Tim and Laura Alemán
2002 Sociolinguistic survey of the Tirio language family. Manuscript. Ukarumpa: SIL-PNG.
Kairi, T. and John Kolia
1977 Purari language notes. *Oral History* 5(10): 1–90.
Kaspruś, Aloys
1942/1945 Languages of the Mugil District, NE-New Guinea. *Anthropos* 37/40: 711–778.
Kerr, Harland B.
1967 A preliminary statement of Wiru grammar: the syntactic role and structure of the verb. MA thesis: University of Hawai'i.
Kerr, Harland B.
1975 The relationship of Wiru in the Southern Highlands District to languages of the East New Guinea Highlands Stock. In: Wurm (ed.), 277–296.
Keysser, Christian
1925 *Wörterbuch der Kâte-Sprache, Gesprochen in Neuguinea.* Berlin: Reimer.
Kim, So Hyun
2006 Draft survey report on the Sowari language of Papua, Indonesia. MS. SIL.
King, Copland
1927 *Grammar and Dictionary of the Binandele Language, Mamba River, North Division, Papua*. Sydney: D.S. Ford.
Kirch, Patrick V.
1997 *The Lapita Peoples: Ancestors of the Oceanic World.* Oxford: Blackwell.
Klamer, Marian
2010 *A Grammar of Teiwa.* Berlin: Mouton de Gruyter.
Klamer, Marian
2014 Kaera. In: Schapper (ed.), 98–146.
Klamer, Marian (ed.)
2014 *Studies in Alor-Pantar Language History and Typology*. Berlin: Language Science Press.
Kluge, Theodor
1938 *Die Zahlbegriffe der Australier, Papua und Bantuneger nebst einer Einleitung*

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

ueber die Zahl; ein Beitrag zur Geistesgeschichte des Menschen. Berlin: Steglitz.

Kratochvíl, František
2007 A grammar of Abui: A Papuan language of Alor. PhD thesis: University of Leiden.

Kratochvíl, František
2014 Sawila. In: Schapper (ed.), 275–338.

Kriens, Ron and Randy Lebold
2010 *Report on the Wildeman River Survey in Papua, Indonesia.* Dallas: SIL International.

Kriens, Ron, Randy Lebold and Jacqualine Menanti
2011 *Report on the Haju Subdistrict Survey in Papua, Indonesia.* Dallas: SIL International.

Kroneman, Dick
2004 [Unpublished Summer Institute of Linguistics survey data.] In: Wilbrink 2004a, 107.

Krosschell, J. M.
1961 *Samenvattend rapport over de detacheringsperiode aan de Casuarinenkust (Afdeling zuid-Nieuw-Guinea) [Summary report of the period of duty on the Casuarina Coast (South New Guinea Division)].* Nationaal Archief, Den Haag, Ministerie van Koloniën: Kantoor Bevolkingszaken Nieuw-Guinea te Hollandia: Rapportenarchief, 1950–1962, nummer toegang 2.10.25, inventarisnummer 438.

Kruidhof, J.
1979 *Bahasa Citak. Catatan-catatan tentang bahasa Citak seperti diucap orang Tiau [The Citak Language: Notes about the Citak Language as Spoken by the Tiau People]*. Tiau: ZGK Tiau.

Lambrecht, Philip, Alison Kassell, Margaret Potter and Sarah Tucker
2008 *The Sociolinguistic Situation of the Uyajitaya [Duk] Language.* Dallas: SIL International.

Lambrecht, Philip, Alison Kassell, Margaret Potter and Sarah Tucker
2009 *A Sociolinguistic Profile of the Waube [kop] Language Group.* Dallas: SIL International.

Lane, Jonathan
2007 *Kalam Serial Verb Constructions.* Canberra: Pacific Linguistics.

Lang, Adrienne J.
1973 *A Dictionary of Enga.* Canberra: Pacific Linguistics.

Lang, Adrienne J.
1975 *The Semantics of Classificatory Verbs in Enga (and other Papua New Guinea Languages).* Canberra: Pacific Linguistics.

Lang, Ranier
1976 Review of S.A. Wurm (ed.) 1975. *Kivung, Journal of the Linguistic Society of Papua New Guinea* 9(1): 72–80.

Lanyon-Orgill, Peter A.
1944 *A Dictionary of the Mailu language Edited and Enlarged from the Researches of the Rev. W.J.V. Saville and the Comte d'Argigny by Peter A. Lanyon-Orgill with a Foreword by Ernst Schwazenburg*. London: Luzac.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Larsen, Marlys
1984 *Orokaiva-English Dictionary*. Ukarumpa: SIL-PNG.
Larsen, Robert E. (Bud.)
1977 Orokaiva grammar. MS. Ukarumpa: SIL-PNG.
Larsen, Robert E. and Marlys Larsen
1982 *Orokaiva Legends, Lessons, and Grammar Notes.* Ukarumpa: SIL-PNG.
Larson, Gordon F.
1977 Reclassification of some Irian Jaya Highlands language families: A lexicostatistical cross-family subclassification with historical implications. *Irian* 6(2): 3–40.
Larson, Gordon F. and Mildred O. Larson
1958 Preliminary studies in the Moni language. *Bijdragen tot Taal-, Land- en Volkenkunde* 114: 406–431.
Larson, Gordon F. and Mildred O. Larson
1956 *Moni-Malay-English Dictionary.* Wisselmeren, Netherlands New Guinea.
Laycock, Donald C.
1975 A hundred years of Papuan linguistic research, Eastern New Guinea area. In: Wurm (ed.), 219–233.
Laycock, Donald C.
1986 Papuan languages and the possibility of semantic classification. *Papers in New Guinea Linguistics No. 24*, 1–10. Canberra: Pacific Linguistics.
Laycock, Donald C. and Werner Winter (eds.)
1987 *A World of Language: Papers Presented to Professor S.A. Wurm on his 65th Birthday.* Canberra: Pacific Linguistics.
Le Roux, C. C. F. M.
1950 *De Bergpapoea's van Nieuw-Guinea en hun Woongebied [The Mountain Papuans of New Guinea and their Habitat]*. Vol 2. Leiden: E. J. Brill.
Le Roux, C. C. F. M.
no date Woordenlijsten [Wordlists]. Nachlass of Le Roux, C. C. F. M., item no 30, Nationaal Archief, Den Haag.
Lean, Glendon A.
1986a *Eastern Highlands.* (*Counting Systems of Papua New Guinea 8.*) Lae: Papua New Guinea University of Technology. Draft edition.
Lean, Glendon A.
1986b *Milne Bay Province*. *(Counting Systems of Papua New Guinea 6.)* Lae: Papua New Guinea University of Technology. Draft edition.
Lean, Glendon A.
1991 *Counting Systems of Papua New Guinea.* 2nd edition*, Volumes 1 to 17.* Lae: Papua New Guinea University of Technology.
Lean, Glendon A.
1993 Counting systems of Papua New Guinea and Oceania. PhD thesis: Papua New Guinea University of Technology.
Lebold, Randy, Ron Kriens and Peter Jan de Vries
2010a *Report on the Okaba Subdistrict Survey in Papua, Indonesia.* Dallas: SIL International.
Lebold, Randy, Ron Kriens, Peter Jan de Vries and Benny Rumaropen
2010b *Report on the Assue Subdistrict Survey in Papua, Indonesia.* Dallas: SIL International.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Lebold, Randy, Ronald Kriens and Yunita Susanto
2013 *A Report on the Bamgi, Kia, and Lower Digul River Language Survey in Papua, Indonesia.* Dallas: SIL International.
Lee, Janet and Fay Barker
1985 *Waskia Diksenari – Waskia, Tok Pisin, English.* Ukarumpa: SIL-PNG.
Lee, Myung Young
2006 Draft survey report on the Emem language of Papua. MS. SIL.
Lewis, Paul M., Gary F. Simons and Charles D. Fennig
2013 *Ethnologue: Languages of the World.* 17th edn. Dallas: SIL International.
Lillie, Pat
1999 *Girawa Dictionary*. Ukarumpa: SIL-PNG.
Lloyd, Joy A.
1992 *A Baruya-Tok Pisin-English Dictionary.* Canberra: Pacific Linguistics.
Lloyd, Richard G.
1973a The Angan language family. In: Franklin (ed.), 31–110.
Lloyd, Richard G.
1973b The Angan language family: Neighbouring languages. In: Franklin (ed.), 93–94.
Lloyd, Richard G.
1989 *Bound and Minor Words in Baruya.* Ukarumpa: SIL-PNG.
Lloyd, Richard G. and Joy Lloyd
1981 The dialects of the Baruya languages. In: Phyllis Healey (ed.), *Angan Languages are Different: Four Phonologies,* 25–50. Huntington Beach California: SIL.
Loeweke, Eunice and Jean May
1980 General grammar of Fasu (Namo Me). In: Hutchisson (ed.), 5–106.
Logan, Tommy
2007 *Kasua Grammar Sketch.* Ukarumpa: SIL-PNG.
Lomas, Gabriel
1988 The Huli language of Papua New Guinea. PhD thesis: Macquarie University.
Loughnane, Robyn
2009 A grammar of Oksapmin. PhD thesis: University of Melbourne.
Loughnane, Robyn and Sebastian Fedden
2011 Is Oksapmin Ok? A study of the genetic relationship between Oksapmin and the Ok Languages. *Australian Journal of Linguistics* 31(1): 1–42.
Louwerse, John
1988 *The Morphosyntax of Una in Relation to Discourse Structure.* Canberra: Pacific Linguistics.
Loving, Richard (ed.)
1976 *Higher Level Studies of Two Papua New Guinea Related Highlands Languages.* Ukarumpa: SIL-PNG.
Loving, Richard and Aretta Loving
1975 *Awa Dictionary.* Canberra: Pacific Linguistics.
Loving, Richard and Howard McKaughan
1973 Awa. In: McKaughan (ed.), 6–174.
Luzbetak, L.J.
1956 *Middle Wahgi Phonology.* Sydney: University of Sydney.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Lynch, John
1981 Austronesian loanwords (?) in Trans-New Guinea Phylum vocabulary. *Papers in New Guinea Linguistics No. 21*, 165–180. Canberra: Pacific Linguistics.
MacDonald, George E.
1976 Dadibi grammar: Morpheme to sentence. MA thesis: University of Papua New Guinea.
MacDonald, J.
1900 Yoda valley or Koriri. *Annual Report of British New Guinea* 1898–1899. 42–42.
MacDonald, Lorna
1990 *A Grammar of Tauya.* Berlin: Mouton de Gruyter.
MacDonald, Lorna
2013 *Tauya Dictionary.* Berlin: de Gruyter Mouton.
Marshall, Lawrence
1993 *Oksapmin Dictionary.* Ukarumpa: SIL-PNG.
McElhanon, Kenneth A.
1967 Preliminary observations on Huon Peninsula languages. *Oceanic Linguistics* 6(1): 1–45.
McElhanon, Kenneth A.
1970a *Selepet Grammar: Part I: From Root to Phrase.* Canberra: Pacific Linguistics.
McElhanon, Kenneth A.
1970b The Selepet language within the Finisterre-Huon phylum (New Guinea). PhD thesis: Australian National University.
McElhanon, Kenneth A.
1970c Lexicostatistics and the classification of the Huon Peninsula languages. *Oceania* 40(3): 214–231.
McElhanon, Kenneth A.
1973 *Towards a Typology of the Finisterre-Huon Languages, New Guinea.* Canberra: Pacific Linguistics.
McElhanon, Kenneth A.
1975 North-Eastern Trans New Guinea Phylum languages. In: Wurm (ed.), 527–567.
McElhanon, Kenneth A. and Noreen A. McElhanon.
1970 *Selepet-English Dictionary*. Canberra: Pacific Linguistics.
McElhanon, Kenneth A. and Sigkepe Sogum
1976 English-Wasembo vocabulary. In: Richard Loving (ed.), *Surveys in Five Papua New Guinea Languages,* 113–119. Ukarumpa: SIL-PNG.
McElhanon, Kenneth A. and Clemens L. Voorhoeve
1970 *The Trans-New Guinea Phylum: Explorations in Deep-level Genetic Relationships.* Canberra: Pacific Linguistics.
McEvoy, Richard Steven
2008 Grammar of narrative discourse in Migabac, a Papuan (non-Austronesian) language. MA thesis: Graduate Institute of Applied Linguistics.
McKaughan, Howard
1964 A study of divergence in four New Guinea languages. *American Anthropologist* 66(4): 98–120.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

McKaughan, Howard (ed.)
1973 *The Languages of the Eastern Family of the East New Guinea Highland Stock*. Seattle: University of Washington Press.
McKaughan, Howard P. and Doreen Marks
1973 Notes on Auyana phonology and morphology. In: McKaughan (ed.), 181–189.
MacKenzie, Bonnie, Guillermo Muñoz, Juliann Spencer and Sara Van Cott
2011 *A Sociolinguistic Survey of the Wagi [fad] Language.* Dallas: SIL International.
McVinney, Paul A. and Louis J. Luzbetak
1964 *Tabare Dialect:* vol *1, Grammar.* Catholic Mission, Alexishaven, Madang.
Majnep, Ian Saem and Ralph Bulmer
1977 *Birds of my Kalam Country.* Auckland: Auckland and Oxford University Presses.
Majnep, Ian Saem and Ralph Bulmer
2007 *Animals the Ancestors Hunted: An Account of the Wild Mammals of the Kalam Area, Papua New Guinea.* Adelaide: Crawford House Australia.
Marks, Doreen
1969–1975 Kosena-English dictionary. MS. Ukarumpa: SIL-PNG.
Marks, Doreen
1974 Kosena grammar. MS. Ukarumpa: SIL-PNG.
May, Jean and Eunice Loeweke
1965 The phonological hierarchy in Fasu. *Anthropological Linguistics* 7/3(2): 89–97.
May, Jean and Eunice Loeweke
1981 Fasu (Námo-Më)-English dictionary. MS. Ukarumpa: SIL-PNG.
May, Jean and Eunice Loeweke
1985 A recommended alphabet for Maiani, Miani, Mala and Maia – four languages of the Kaukambaran language family. In: John M. Clifton (ed.), *Five Phonological Studies*, 1–25. Ukarumpa: SIL-PNG
Mecklenburg, Charlotte
1974 Phonology of Faiwol. In: Richard Loving (ed.), *Studies in Languages of the Ok Family*, 143–165. Ukarumpa: SIL-PNG.
Menanti, Jacqueline and Yunita Susanto
2001 Draft Report on the Kimaam District Survey in Papua, Indonesia. MS. SIL.
Merlan, Francesca and Alan Rumsey
1991 *Ku Waru: Language and Segmentary Politics in the Western Nebilyer Valley, Papua New Guinea.* Cambridge: Cambridge University Press.
Michel, Thomas
1983 *Interdependenz von Wirtschaft und Umwelt in der Eipo-Kultur von Moknerkon Bedingungen für Produktion und Reproduktion bei einer Dorfschaft im zentralen Bergland von Irian Jaya (West-Neuguinea), Indonesien.* Berlin: Dietrich Reimer.
Miklucho-Maclay, Nikolai von
1876 Verzeichniss einiger Worte der Papuas der Küste Papua-Kowiay in Neu-Guinea. *Tijdschrift voor Indische Taal-, Land- en Volkenkunde (TBG)* 23: 372–379.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Miklucho-Maclay, Nikolaj von
1882 Papua-Dialekte der Maclay-Küste in Neu-Guinea. In: Gabelentz and Meyer (eds.), 491–510.
Miklucho-Maclay, Nikolaj N.
1951a Neskol’ko slov dialekta Raj [Some words in the Rai dialect]. In: Anfert’ev (ed.), 184–184.
Miklucho-Maclay, Nikolaj N.
1951b Papuasskie dialekty berega Maklaya na Novoj Gvinee [Papuan dialects on the Maclay Coast in New Guinea]. In: Anfert’ev (ed.) 170–183.
Miklucho-Maclay, Nikolaj N.
1951c Spisok nekotoryx slov dialektov Papuasov berega Papua-Koviaj na Novoj Gvinee [Some words in the dialects of the Papuans of the Papua-Kowiai Coast in New Guinea]. In: Anfert’ev (ed.), 208–211.
Minter, Paul
2009 *Iyo Grammar Sketch.* Ukarumpa: SIL-PNG.
Moxness, Mike
2002 Auye grammar. MS.
Murane, Elizabeth
1974 *Daga Grammar: From Morpheme to Discourse*. Oklahoma: SIL.
Murane, John and Elizabeth Murane
1974 Daga-English and English-Daga dictionary, MS. Ukarumpa: SIL-PNG.
Nacher, Alfonso
2003/ 2004 Léxico Fataluco-Português. *Studies in Languages and Cultures of East Timor* 5: 138–196; 6: 119–177.
Nilles, J.
1969 *Kuman-English Dictionary.* Kundiawa: Catholic Mission.
Nitbani, Semuel H., Jeladu Kosmas, Sisila Wona and Hilda Naley
2001 *Struktur Bahasa Lamma [Structure of the Lamma Language]*. Jakarta: Pusat Bahasa, Departemen Pendidikan Nasional.
No Author Stated
1977 Nama gamoze gelekaká puku = Hap tok bilong Tokano na Pisin = [Phrases in Gahuku and Melanesian Pidgin]. Ukarumpa: SIL-PNG.
Nordhoff, Sebastian, Harald Hammarström, Robert Forkel and Martin Haspelmath
2013 *Glottolog 2.1.* Leipzig: Max Planck Institute for Evolutionary Anthropology. Available at http://glottolog.org.
Oates, W. and L. Oates
1968 *Kapau Pedagogical Grammar.* Canberra: Pacific Linguistics.
Olkkonen, Soini and Kaija Olkkonen
2004 *Iklis keugö könai Somba Siawari keunö: Iklis SomSi Diksönöri bohoni*. Ukarumpa: SIL-PNG.
Olson, Michael L.
1975 Barai grammar highlights. In: Dutton (ed.), 471–512.
Olson, Michael L.
1981 Barai clause junctures: Toward a functional theory of interclausal relations. PhD thesis: Australian National University.
Osmond, Meredith
2001 The semantics of *moŋ* in the Chimbu-Wahgi languages of the Central Highlands, Papua New Guinea. In: Pawley et al. (eds.), 251–259.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Pappenhagen, Ronald W.
1986 Kanasi: a brief grammar sketch. *Work Papers of the Summer Institute of Linguistics, University of North Dakota.* 30: 106–132.
Parker, Steve (ed.)
2005 *Phonological Descriptions of PNG Languages.* Ukarumpa: SIL-PNG.
Parlier, James
1970 Managalasi sentences. MS. Ukarumpa: SIL-PNG.
Parlier, Judith and James Parlier
1981 *Managalasi Dictionary*. Ukarumpa: SIL-PNG.
Parrington, Doug and Margaret Parrington
n. d. An introduction to Notu-Ewage grammar. MS. Ukarumpa: SIL-PNG.
Pawley, Andrew Kenneth
1966 The structure of Karam: A grammar of a New Guinea highlands language. PhD thesis: University of Auckland.
Pawley, Andrew
1987 Encoding events in Kalam and English: Different logics for reporting experience. In: R. Tomlin (ed.), *Coherence and Grounding in Discourse*, 329–360. Amsterdam: Benjamins.
Pawley, Andrew
1992 Kalam Pandanus Language: An old New Guinea experiment in language engineering. In: T.E. Dutton, M.D. Ross and D. T. Tryon (eds.), *The Language Game: Papers in Memory of Donald C. Laycock*, 313–34. Canberra: Pacific Linguistics.
Pawley, Andrew
1995 Clemens L. Voorhoeve and the Trans New Guinea Phylum hypothesis. In: Baak et al. (eds.), 83–122.
Pawley, Andrew
1998 The Trans New Guinea Phylum hypothesis: A reassessment. In: Jelle Miedema, Cecilia Odé, Rien A.C. Dam (eds.), *Perspectives on the Bird's Head of Irian Jaya, Indonesia,* 655–689. Amsterdam: Editions Rodopi.
Pawley, Andrew
2000 Notes on early Trans New Guinea verb morphology: reconstructing subject suffixes. MS. Dept. Linguistics, Research School of Pacific and Asian Studies, Australian National University.
Pawley, Andrew
2001 The Proto Trans New Guinea obstruents: arguments from top-down reconstruction. In: Pawley et al., 261–300.
Pawley, Andrew
2005 The chequered career of the Trans New Guinea hypothesis: Recent research and its implications. In: Pawley et al. (eds.), 67–108.
Pawley, Andrew
2008 Compact vs narrative serial verb constructions in Kalam. In: Gunter Senft (ed.), *Serial Verb Constructions in Austronesian and Papuan Languages,* 171–202. Canberra: Pacific Linguistics.
Pawley, Andrew
2009 Greenberg's Indo-Pacific hypothesis: an assesssment. In: Evans (ed.), 153–180.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Pawley, Andrew
2010 *Helter skelter* and *ñugl ñagl:* English and Kalam rhyming jingles and the psychic unity of mankind. In: Ger Reesink and Ken McElhanon (eds.), *A Mosaic of Language and Culture: Studies Celebrating the Career of Karl Franklin*, 273–293. Dallas: SIL International.
Pawley, Andrew
2011 Some Trans New Guinea etymologies. Computer file. Department of Linguistics, School of Culture, History and Language, College of Asia and the Pacific, Australian National University.
Pawley, Andrew, Robert Attenborough, Jack Golson and Robin Hide (eds.),
2005 *Papuan Pasts: Cultural, Linguistic and Biological Histories of Papuan-speaking Peoples.* Canberra: Pacific Linguistics.
Pawley, Andrew and Ralph Bulmer
2011 *A Dictionary of Kalam with Ethnographic Notes.* Canberra: Pacific Linguistics.
Pawley, Andrew, S.P. Gi, J. Kias and I.S. Majnep
2002 Hunger acts on me: the grammar and semantics of bodily and mental processes in Kalam. In: V. de Guzman and Byron Bender (eds.), *Grammatical Analysis in Morphology, Syntax, and Semantics: Studies in Honor of Stanley Starosta*, 153–185. Honolulu: University of Hawaii Press.
Pawley, Andrew and Jonathan Lane
1998 From event to grammar: serial verb constructions in Kalam. In: Anna Siewierska and Jaejung Song (eds.), *Case, Typology and Grammar*, 201–227. Amsterdam/Philadelphia: Benjamins.
Pawley, Andrew, Malcolm Ross, and Darrell Tryon (eds.)
2001 *The Boy from Bundaberg: Studies in Melanesian Linguistics in Honour of Tom Dutton.* Canberra: Pacific Linguistics.
Payne, A. M. and D. E. Drew
1966 *Kamano Language Learning Lessons*. Ukarumpa: SIL-PNG.
Payne, Audrey M. and Dorothy E. Drew
1970 Kamano grammar sketch. MS. Ukarumpa: SIL-PNG.
Peckham, Lloyd
1982 Mairasi verb morphology. *Workpapers in Indonesian Linguistics* 1: 75–96.
Peckham, Lloyd
1991a Etna Bay survey report: Irian Jaya Bird's Neck languages. *Workpapers in Indonesian Languages and Cultures* 10: 147–185.
Peckham, Lloyd
1991b Mairasi phonology. *Workpapers in Indonesian Languages and Cultures* 10: 111–145.
Peckham, Nancy, Adriana Waryengsi, Esther Fov and Mariana Oniw
1991 *Farir Mairas na'atuei = Perbendaharaan kata bahasa Mairasi = Mairasi vocabulary*. SIL
Pennington, Ryan
2013 Ma Manda phonology. MA thesis: Graduate Institute of Applied Linguistics.
Petterson, Robert
1999 *Rumu – English – Hiri-Motu Dictionary.* Palmerston North, New Zealand: International Pacific College.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Petterson, Robert
2010 *Porome Daporo Avea Buka = Porome Language Picture Dictionary*. Ukarumpa: SIL-PNG.
Phillips, Donald J.
1976 *Wahgi Phonology and Morphology.* Canberra: Pacific Linguistics.
Phinnemor, Penny and Tom Phinnemore
1986 Ono dictionary. MS. Ukarumpa: SIL-PNG.
Pilhofer, Georg
1926–1927 Formenlehre der Kâte-Sprache (Neuguinea). *Zeitschrift für Eingeborenen-sprachen* 17: 1–40.
Pilhofer, Georg
1933 *Grammatik der Kâte-Sprache in Neuguinea.* Hamburg: Verlag von Dietrich Reimer (Ernst Vohsen).
Poole, Fitz J. P.
1976 The Ais Am: An introduction to male initiation ritual among the Bimin-Kuskusmin of the West Sepik District, Papua New Guinea. PhD thesis: Cornell University.
Price, Dorothy and Veda Rigden
1988 Karkar-Yuri–English dictionary. MS. Ukarumpa: SIL-PNG.
Priestley, Carol
2009 A grammar of Koromu (Kesawai), a Papuan language spoken in Papua New Guinea. PhD thesis: Australian National University.
Quigley, Edward C.
2003 Awara phonology. MA thesis: University of North Dakota.
Quigley, Edward C. and Susan R. Quigley
2011 *The Phonology and Verbal System of Awara.* Canberra: Pacific Linguistics.
Ramsey, Evelyn
1975 *Middle-Wahgi Dictionary*. Mt Hagen: Church of the Nazarene.
Ranneft, R. Meyer
1953 Uittreksel uit het verslag van de tocht naar de Baliemrivier van 22 december 1951 tot 9 maart 1952 ondernomen door de controleur van de Wisselmeren [Snippets from the report of the trip to the Baliem river from 22 December 1951 to 9 March 1952 undertaken by the administrator of Wissel Lakes]. *Tijdschrift Nieuw Guinea* 14: 46–54.
Ray, Sidney H.
1893 The languages of British New Guinea. In: Delmar E. Morgan (ed.), *Transactions of the Ninth International Congress of Orientalists*, Vol II, 754–770. London: Committee of the Congress.
Ray, Sidney H.
1907a Grammar notes on the Binandele language spoken in the North East of British New Guinea. In: Ray (ed.), 365–374.
Ray, Sidney H.
1907b Papuan languages of the North Eastern coast. In: Ray (ed.), 362–364, 387–412.
Ray, Sidney H.
1907c Papuan languages west of the Fly River. In: Ray (ed.), 291–301.
Ray, Sidney H. (ed.)
1907d *Reports of the Cambridge Anthropological Expedition to Torres Straits. Vol. III. Linguistics.* Cambridge: Cambridge University Press.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Ray, Sidney H.
1912 A grammar of the Fuyuge language. In: Robert W. Williamson (ed.), *The Mafulu: Mountain People of British New Guinea*, 307–331, 336–344. London: MacMillan and Co.

Ray, Sidney H.
1919 The languages of Northern Papua. *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 49: 317–341.

Ray, Sidney H.
1923 The languages of the Western Division of Papua. *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 53: 332–360.

Ray, Sidney H.
1931 *A Grammar of the Kiwai Language, Fly Delta, Papua with a Kiwai Vocabulary*. Port Moresby: Edward George Baker, Government Printer.

Ray, Sidney H.
1938 The languages of the Eastern and South-Eastern Division of Papua. *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 68: 153–208.

Reesink, Ger P.
1976 Languages of the Aramia River area. In: Ger P. Reesink, L. Fleischmann, S. Turpeinen, Peter Lincoln. (eds.), *Papers in New Guinea Linguistics No. 19*, 1–37. Canberra: Pacific Linguistics.

Reesink, Ger P.
1987 *Structures and their Functions in Usan: A Papuan Language of Papua New Guinea.* Amsterdam: John Benjamins.

Reesink, Ger P.
2013 Expresssing the GIVE event in Papuan languages, a preliminary survey. *Linguistic Typology* 17(2): 217–266.

Reesink, Ger and Michael Dunn
2012 Systematic typological comparison as a tool for investigating language history. In: Evans and Klamer (eds.), 34–71.

Reesink, Ger, Ruth Singer and Michael Dunn
2009 Explaining the linguistic diversity of Sahul using population models. *PLoS Biology* 7(11): 1–9.

Reimer, Martha
1986 The notion of topic in Momuna narrative discourse. Pacific Linguistics, A-74, 181–204. Canberra: Pacific Linguistics.

Renck, G. L.
1975 *A Grammar of Yagaria*. Canberra: Pacific Linguistics.

Rice, Chris and Amy Rice
2002 Finongan organised phonology data. MS. SIL

Richert, Ernest L.
1975 Sentence structure of Guhu-Samane. In: Dutton (ed.), 771–815.

Richert, Ernest L.
n. d. An introduction to Mid-Waria grammar. MS. Ukarumpa: SIL-PNG.

Richert, Ernest and Marjorie Richert
1972 Phonology of Guhu-Samane. *Te Reo* 15: 45–51.

Rigden, Veda
n. d. Karkar grammar essentials. MS. Ukarumpa: SIL-PNG.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Riley, E. Baxter and Sidney H. Ray
1930–1931 Sixteen vocabularies from the Fly River, Papua. *Anthropos* 25: 173–193, 831–850, 26: 171–192.
Riley, E. Baxter
1931 Tirio. *Anthropos* 26: 172–192.
Robbins, Joel Lee
1998 Becoming sinners: Christian transformations of morality and culture in a Papua New Guinea society. PhD thesis: University of Virginia.
Roberts, John R.
1987 *Amele*. London: Croom Helm.
Roberts, John R.
1988 Switch-reference in Papua New Guinea languages: a syntactic or extra-syntactic device? *Australian Journal of Linguistic*s 8: 75–117.
Roberts, John
1998 *Give* in Amele. In: John Newman (ed.), *Give, a Cognitive Linguistic Study*, 1–33. Berlin: Mouton de Gruyter.
Roberts, John
1990 Modality in Amele and other Papuan languages. *Journal of Linguistics* 26(2): 363–401.
Roberts, John R.
1997 Switch-reference in Papua New Guinea: A preliminary survey. In: Pawley (ed.), *Papers in Papuan linguistics no. 3*, 101–241. Canberra: Pacific Linguistics.
Robidé van der Aa and Pieter Jan Baptist Carel
1879 *Reizen naar Nederlandsch Nieuw-Guinea Ondernomen op Last der Regeering van Nederlandsche Indie in de Jaren 1871, 1872, 1875–1876 door de Heeren P. van Crab en J.E. Teysmann, J.G. Coornengel, A.J. Langeveldt van Hemert en P. Swaan [Travels to Dutch New Guinea Undertaken for the Government of the Dutch Indies in the years 1871, 1872, 1875–1876 by P. Van Crab and J. E. Teysmann, J. G. Coornengel, A. J. Langeveldt van Hemert and P. Swaan]*. The Hague: Martinus Nijhoff.
Robinson, Laura and Gary Holton
2012 Reassessing the wider genealogical affiliations of the Timor-Alor-Pantar languages. In: Hammarström and van den Heuvel (eds.), 59–87.
Ross, Malcolm
1995 The great Papuan pronoun hunt: recalibrating our sights. In: Baak et al. (eds.), 139–168.
Ross, Malcolm
2000a Grouping the languages of the Trans New Guinea phylum: Preliminary evidence from pronouns. In: Andrew Pawley, Malcolm Ross and Meredith Osmond, Papuan languages and the Trans New Guinea phylum. MS. School of Culture, History and Language, College of Asia and the Pacific, Australian National University.
Ross, Malcolm
2000b A preliminary subgrouping of the Madang languages based on pronouns. MS. School of Culture, History and Language, College of Asia and the Pacific, Australian National University.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Ross. Malcolm
2005a Pronouns as a preliminary diagnostic for grouping Papuan languages. In: Pawley et al. (eds.), 15–65.
Ross, Malcolm
2005b Towards a reconstruction of the history of tone in the Trans New Guinea family. In: Shigeki Kaji (ed.), *Proceedings of the Symposium Crosslinguistic Studies of Tonal Phenomena: Historical Development, Tone-syntax Interface, and Descriptive Studies*, 1–31. Tokyo: Research Insitute for Languages and Cultures of Asia and Africa, Tokyo University of Foreign Studies.
Ross, Malcolm and John Natu Paol
1978 *A Waskia Grammar Sketch and Vocabulary.* Canberra: Pacific Linguistics.
Routamaa, Judy
1994 Kamula grammar essentials. MS. SIL
Rule, Joan
1965 A comparison of certain phonemes of the languages of the Mendi and Nembi Valleys, Southern Highlands, Papua. *Anthropological Linguistics* 7(5): 98–105.
Rule, Murray
1993 *The Culture and Language of the Foe: The People of Lake Kutubu, Southern Highlands Province, Papua New Guinea*. Merewether, New South Wales: Chevron Niugini.
Rumaropen, Benny
2006 Draft Survey Report on the Kapauri Language of Papua. MS. SIL.
Salisbury, Richard F.
1956 The Siane Language of the Eastern Highlands of New Guinea. *Anthropos* 51: 447–480.
San Roque, Lila
2008 An introduction to Duna grammar. PhD thesis: Australian National University.
San Roque, Lila and Robyn Loughnane
2012 Inheritance, contact and change in the New Guinea Highlands evidentiality area. In: Hammarström and van den Heuvel (eds.), 397–427.
Saunders, H. W.
1924 Kikori Station, Delta Division: Name of tribe: Dugemi, name of village: Sorobo. *Commonwealth of Australia. Papua: Annual Report for the Year* 1923–1924, 57–57.
Saville, William J. V.
1912 A grammar of the Mailu language, Papua. *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 42: 397–436.
Schapper, Antoinette
2010 Bunaq: a Papuan language of central Timor. PhD thesis: Australian National University.
Schapper, Antoinette
2014a Kamang. In: Schapper (ed.), 224–274.
Schapper, Antoinette (ed.)
2014b *Papuan Languages of Timor-Alor-Pantar: Sketch Grammars Volume I*. Berlin: Mouton de Gruyter.
Schapper, Antoinette and Rachel Hendery
2014 Wersing. In: Schapper (ed.), 340–390.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Schapper, Antoinette, Juliette Huber and Aone van Engelenhoven
2012 The historical relations of the Papuan languages of Timor and Kisar. In: Hammarström and van den Heuvel (eds.), 194–242.
Schapper, Antoinette, Juliette Huber and Aone van Engelenhoven
2014 The relatedness of Timor-Kisar and Alor-Pantar languages: A preliminary demonstration. In: Klamer (ed.), 99–154.
Schieffelin, Bambi B.
1995 The acquisition of Kaluli. In: Dan I. Slobin (ed.), *The Crosslinguistic Study of Language Acquisition*, 525–593. Mahwah, New Jersey: Lawrence Erlbaum Associates.
Schieffelin, Bambi and Steven Feld
1998 *Bosavi-English-Tok-Pisin Dictionary*. Canberra: Pacific Linguistics.
Schmidt, Wilhelm
1900 Die Sprachlichen Verhältnisse von Deutsch-Neuguinea. *Zeitschrift für afrikanische und orientalische Sprachen* 5: 354–384.
Schneuker, Carl L.
1962 *Kâte Language Handbook*. Madang, New Guinea: Lutheran Mission Press.
Scott, Graham
1973 *Higher Levels of Fore Grammar.* Canberra: Pacific Linguistics.
Scott, Graham
1978 *The Fore Language of Papua New Guinea.* Canberra: Pacific Linguistics.
Shafer, Robert
1965 Was New Guinea the graveyard of 100 South Asian and Pacific cultures? *Orbis* 14(2): 312–385.
Shaw, Daniel
1986 The Bosavi language family. *Papers in New Guinea Linguistics* 24, 45–76. Canberra: Pacific Linguistics.
Shaw, Daniel R.
1973 A tentative classification of the languages of the Mt. Bosavi region. In: Franklin (ed.), 189–215.
Silzer, Peter J. and Heljä Heikkinen-Clouse
1991 *Index of Irian Jaya Languages.* 2nd edn. Jayapura: Program Kerjasama Universitas Cenderawasih and SIL.
Sims, Anne and Andrew Sims
1982 Ketengban phonology. *Workpapers in Indonesian Linguistics* 1: 50–74.
Smallhorn, Jacinta
2009 Binanderean as a member of the Trans New Guinea family. In: Evans (ed.), 205–222.
Smallhorn, Jacinta
2011 *The Binanderean Languages of Papua New Guinea.* Canberra: Pacific Linguistics.
Smith, Geoffrey P.
1988 Morobe counting systems. *Papers in New Guinea Linguistics No. 26*, 1–132.
Smith, Geoffrey P.
1990 *Susuami: An Angan Language of the Upper Watut Valley, Morobe Province, Papua New Guinea.* Lae: Department of Language and Communication Studies, Papua New Guinea University of Technology.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Smith, Geoff P.
1992 Survival and Susuami: A ten year perspective. *Language and Linguistics in Melanesia* 23: 51–56.
Smith, Geoffrey P., Tom Dutton, Clemens L. Voorhoeve, Stephen Schooling, Janice Schooling, Robert Conrad, Ron Lewis, Stephen A. Wurm and Theo Baumann (eds.)
1988 *Papers in New Guinea Linguistics No. 26*. Canberra: Pacific Linguistics.
Smith, Jean and Pamela Weston
1974 Notes on Mianmin grammar. In: Richard Loving (ed.), *Studies in Languages of the Ok Family.* 35–142. Ukarumpa: SIL-PNG.
Smith, Jean and Pamela Weston
1986 *Mianmin – English English – Mianmin Tok Pidgin – Mianmin dictionary*. Ukarumpa: SIL-PNG.
Smits, Leo and Clemens L. Voorhoeve
1994 *The J. C. Anceaux Collection of Wordlists of Irian Jaya Languages B: Non-Austronesian (Papuan) languages (Part I).* Leiden-Jakarta: Department of Cultures and Languages of Southeast Asia and Oceania.
Smits, Leo and Clemens L. Voorhoeve
1998 *The J.C. Anceaux Collection of Wordlists of Irian Jaya Languages B: Non-Austronesian (Papuan) languages (Part II).* Leiden-Jakarta: Department of Cultures and Languages of Southeast Asia and Oceania.
Sohn, Myo-Sook
2006 Report on the Muting District Survey. Dallas: SIL International.
Southwell, Neville
1979 Komba grammar sketch. MS. Ukarumpa: SIL-PNG.
Southwell, Neville and Gwyneth Southwell
1972 Komba and paragraph types. MS. Ukarumpa: SIL-PNG.
Spaulding, Craig and Pat Spaulding
1994 Phonology and grammar of Nankina. MS. Ukarumpa: SIL-PNG.
Specht, Jim
2005 Revisiting the Bismarcks: some alternative views. In: Pawley et al. (eds.), 235–287.
Speece, Richard F.
1988 Phonological processes affecting segments in Angave. *Language and Linguistics in Melanesia* 17(1/2): 1–139.
Spriggs, Matthew
1997 *The Island Melanesians.* Oxford: Blackwell.
Stefaniw, Roman
1987 A comparison of Imbongu grammar with the Kaugel grammar essentials. MS. Ukarumpa: SIL-PNG.
Steinhauer, Hein
1995 Two varieties of the Blagar language. In: Baak et al. (eds.), 265–296.
Steltenpool, J. and Petrus van der Stap
1959 *Leerboek van het Kapauku [A Pedagogical Grammar of Kapauku].* Hollandia: Office of Aboriginal Welfare.
Stewart, Jean
n. d. Aekyom language write-up: Morphophonemic, phonetic and grammar statements. MS.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Stewart, Pamela J., Andrew J. Strathern and Jürgen Trantow
2011 *Melpa-German-English Dictionary*. Pittsburgh: University Library System.
Stokhof, W. A. L.
1975 *Preliminary Notes on the Alor and Pantar Languages (East Indonesia).* Canberra: Pacific Linguistics.
Stokhof, W. A. L. (ed.)
1982 *Holle Lists: Vocabularies in Languages of Indonesia, Vol.5/1: Irian Jaya: Austronesian Languages; Papuan Languages, Digul Area.* Canberra: Pacific Linguistics.
Stokhof, W. A. L.
1987 A short Kabola text (Alor, East Indonesia). In: Laycock and Winter (eds.), 631–648.
Strange, David
1972 Upper Asaro noun inflection. MS. Ukarumpa: SIL-PNG.
Strauss, Hermann
n. d. Grammatik der Melpa-Sprache. MS.
Stringer, M. and J. Hotz
1969–1971 Waffa syntax: Verbs and verb phrases + clauses. MS. Ukarumpa: SILPNG.
Strong, W. M.
1911 Notes on the languages of the north-eastern and adjoining divisions. *Annual Report for the year ending 30th June* 1911, 767–781.
Stucky, Al[fred] and Dellene Stucky
1970 Nii grammar essentials for translation. MS. Ukarumpa: SIL-PNG.
Summerhayes, Glenn R., Leavesley, M., Fairbairn, A., Mandui, H., Field, J., Ford, A. and Fullagar, R.
2010 Human adaptation and use of plants in highland New Guinea 49,000–44,000 years ago. *Science* 330: 78–81.
Susanto, Yunita.
2004 *Report on the Mapi River Survey South Coast of Irian Jaya.* Dallas: SIL International.
Suter, Edgar
1997 A comparative look at the dual and plural forms of inflections and pronouns in Northeast New Guinea. *Languages and Linguistics in Melanesia* 28: 17–68.
Suter, Edgar
2012 Verbs with pronominal object prefixes in Finisterre-Huon Languages. In: Hammarström and van den Heuvel (eds.), 23–58.
Suter, Edgar
forthcoming Comparative morphology of the Huon Peninsula languages (Papua New Guinea). PhD thesis: University of Cologne.
Swading, Pamela
1997 Changing shorelines and cultural orientations in the Sepik-Ramu: implications for Pacific prehistory. *World Archaeology* 29: 1–14.
Thomson, N. P.
1975 Magi phonology and grammar – fifty years afterwards. In Dutton (ed.) 1975c, 599–666.
Tadmor, Uri, Martin Haspelmath and Bradley Taylor
2010 Borrowability and the notion of basic vocabulary. *Diachronica* 27(2): 226–246.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Tida, Syuntarô
2006 A grammar of the Dom language: A Papuan language of Papua New Guinea. PhD: University of Kyoto.
Tida, Syuntarô
2011 Higasi Simbû Syogo Sabugurûpingu ni Mukete [Towards a subgrouping of East Simbu languages]. *Tikyûken Gengo Kizyutu Ronsyû* 3: 153–182.
Tida, Syuntarô
2012 Tonal evidence for subgrouping the Simbu dialects. Paper presented at the symposium on History, contact and classification of Papuan languages, 2–3 Feb 2012, Amsterdam.
Tipton, Ruth A.
1982 *Nembi Procedural and Narrative Discourse.* Canberra: Pacific Linguistics.
Toland, Norma and Donald Toland
1991 *Reference Grammar of the Karo/Rawa Language*. Ukarumpa: SIL-PNG.
Trefry, David
1969 *A Comparative Study of Kuman and Pawaian.* Canberra: Pacific Linguistics.
Troolin, David
1998 Turaka Preallocation Survey Report [Ethnologue code – TRH]. Ukarumpa: SIL-PNG.
Troolin, Dave and Sarah Troolin
2005 Sam (Songum, Songumsam) language [Madang Province]. In: Parker (ed.), 39–48.
Tupper, Ian
2007a Endangered languages listing: ABAGA [abg]. www.pnglanguages.org/pacific/png/show_lang_entry.asp?id=abg accessed 1 May 2007.
Tupper, Ian
2007b Endangered languages listing: ABOM [aob]. www.pnglanguages.org/pacific/png/show_lang_entry.asp?id=aob accessed 1 May 2007.
Tupper, Ian
2007c Endangered languages listing: TURUMSA [tqm]. www.pnglanguages.org/pacific/png/show_lang_entry.asp?id=tqm accessed 1 May 2007.
Unevangelized Fields Mission
1956 *Jesu'ba Woituwoituda*. Unevangelized Fields Mission.
Unevangelized Fields Mission
1966 *John'ba Lagitada Magata*. Unevangelized Fields Mission.
Usher, Timothy
2015a Awyu. A section of "Newguineaworld": Classification and reconstruction of Papuan language families. MS. http://sites.google.com/site/newguineaworld/families/trans-new-guinea/central-west-new-guinea/digul-river-ok/digul-river/central-digul-river/awyu accessed 29 March 2015.
Usher, Timothy
2015b Ok. A section of "Newguineaworld": Classification and reconstruction of Papuan language families. MS. http://sites.google.com/site/newguinea-world/families/trans-new-guinea/central-west-new-guinea/digul-river-ok/ok accessed 29 March 2015.
Usher, Timothy and Edgar Suter
2015 The Anim languages of Southern New Guinea. *Oceanic Linguistics* 54(1): 110–142.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Van Arsdale, Peter
1974 Report of an expedition to the interior Asmat and Cicak regions of Irian Jaya, Indonesia (Catalina, Vriendschap, Kolff, and Upper Eilanden Rivers). MS.
Van Arsdale, Peter W.
1987 First contact with New Guinea primitives: Expedition conceals discovery to prolong culture. *Explorer's Journal* 65(1): 14–21.
van den Heuvel, Wilco and Sebastian Fedden
2014 Greater Awyu and Greater Ok: inheritance or contact? *Oceanic Linguistics* 53(1): 1–35.
van der Stap, Petrus A. M.
1966 Outline of Dani morphology. ’S Gravenhage: Martinus Nijhoff.
van Nouhuys, J. W.
1912 Eerste Bijdrage tot de kennis van de Taal der "Pĕsĕgem" van Centraal Nieuw-Guinea. *Bijdragen voor de taal-, land- en volkenkunde van Nederlandsch Indië* 66: 266–273.
Verbeek, R. D. M.
1914 De eilanden Alor en Pantar: Residentie Timor en onderhoorigheden [The Alor and Pantar Islands: Timor Residency and Associated Territories]. *Tijdschrift van het Koninklijk Aardrijkskundig Genootschap* 31(1): 70–102.
Versteeg, H.
1983 Zijn stam en taal [Tribe and Language]. In: Tjerk Sijbe de Vries (ed.), *Een Open Plek in het Oerwoud: Evangelieverkondiging aan het Volk van Irian Jaya*, 21–25. Groningen: Vuurbaak.
Vicedom, G. F. and H. Tischner
1943–1948 *Die Mbowamb: Die Kultur der Hagenberg-Stämme im Östlichen Zentral-Neuguinea.* 3 vols. Hamburg: Kommissionsverlag Cram, de Gruyter and Co.
Vincent, Alex R. and Lois E. Vincent
1962 Introductory notes on Tairora verb morphology. In James C. Dean (ed.), *Studies in New Guinea Linguistics by Members of the Summer Institute of Linguistics (New Guinea Branch),* 4–27. Sydney: University of Sydney.
Vincent, Alexander
1973 Notes on Tairora noun morphology. In: McKaughan (ed.), 530–546.
Vincent, Lois E. and Anisi Kaave
2010 *Tairora-English Dictionary*. Orlando, FL: Wycliffe Inc.
Voorhoeve, Bert
2005 Asmat-Kamoro, Awyu-Dumut and Ok: An enquiry into their linguistic relationship. In: Pawley et al. (eds.), 145–166.
Voorhoeve, Clemens L.
1965 *The Flamingo Bay Dialect of the Asmat Language*.’S Gravenhage: Martinus Nijhoff.
Voorhoeve, Clemens L.
1968 The Central and South New Guinea Phylum: A report on the language situation in South New Guinea. In: Voorhoeve et al. (eds.), 1–17.
Voorhoeve, Clemens L.
1970 Some notes on the Suki-Gogodala subgroup of the Central and South New Guinea Phylum. In: Wurm and Laycock (eds.), 1245–1270.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Voorhoeve, Clemens L.
1971 Miscellaneous notes on languages in West Irian, New Guinea. In: Dutton et al. 47–114.
Voorhoeve, Clemens L.
1975a Central and western Trans-New Guinea Phylum languages. In: Wurm (ed.), 345–460.
Voorhoeve, Clemens L.
1975b *Languages of Irian Jaya, Checklist: Preliminary Classification, Language Maps, Wordlists.* Canberra: Pacific Linguistics.
Voorhoeve, Clemens L.
1980 *The Asmat Languages of Irian Jaya.* Canberra: Pacific Linguistics.
Voorhoeve, Clemens L.
1985 Some notes on the Arandai language. *Irian* 8: 3–40.
Voorhoeve, Clemens L.
2001 Proto Awyu-Dumut phonology II. In: Pawley et al. (eds.), 345–360.
Voorhoeve, Clemens L., Karl J. Franklin and G. Scott
1968 *Papers in New Guinea Linguistics No. 8.* Canberra: Pacific Linguistics.
Wacke, K. 1930–1931 Formenlehre der Ono-Sprache (Neuguinea). *Zeitschrift für Eingeborenensprachen* 21: 161–208.
Wade, Martha
1987 A survey of the grammatical structures and semantic functions of the Apali (Emerum) language. MS. Madang: Pioneer Bible Translators.
Wade, Martha
1997 Switch reference and control in Apalɨ. *Language and Linguistics in Melanesia* 28: 1–16.
Wade, Martha.
n.d. Dictionary of the Apalɨ language. MS. Madang: Pioneer Bible Translators.
Wakidi, Tarno, Yosep Hayon and A. M. Mandaru
1989 *Morfo-Sintakis Bahasa Blagar [Morphosyntax of the Blagar Language].* Departemen Pendidikan dan Kebudayaan.
Wambaliau, Theresia
2006 Draft Laporan Survei pada Bahasa Kosare di Papua, Indonesia [Draft Survey Report on the Kosare Language in Papua, Indonesia]. MS. SIL.
Wambaliau, Theresia
2004 Draft Laporan Survei pada Bahasa Towe di Papua, Indonesia [Draft Survey Report on the Towe Language in Papua, Indonesia]. MS. SIL.
Webb, Thomas
1974 Urii phonemes. In: Richard Loving (ed.), *Phonologies of Four Papua New Guinea Languages,* 45–96. Ukarumpa: SIL-PNG.
Webb, Ross and Lyndal Webb
1974 [revised ed. 1996] Tuma-Irumu dictionary. MS. Ukarumpa: SIL-PNG.
Wegmann, Urs
1996 Yau dictionary. MS. Ukarumpa: SIL-PNG.
Weimer, Harry
1978 Comparative grammar of 5 Yareban family languages. MS.
Weimer, Harry and Natalia Weimer
1972 Yareba phonemes. *Te Reo* 15: 52–57.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Weimer, Harry and Natalia Weimer
1975 A short sketch of Yareba grammar. In: Dutton (ed.) 1975c, 667–729.
Weisenburger, Linda, Mavis Price, Susan Richardson, Edwin Richardson, Eunice Loeweke, Jean May and Barbara Hardin
2008 *Maia - English - Tok Pisin Dictionary*. Ukarumpa: SIL-PNG.
Wells, Margaret A.
1979 *Siroi Grammar.* Canberra: Pacific Linguistics.
West, Dorothy
1973 *Wojokeso Sentence, Paragraph, and Discourse Analysis.* Canberra: Pacific Linguistics.
Wester, Ruth
2014 A linguistic history of Awyu-Dumut; morphological study and reconstruction of a Papuan language family. PhD thesis: Vrije Universiteit Amsterdam.
Whitehead, Carl R.
2004 A reference grammar of Menya, an Angan language of Papua New Guinea. University of Manitoba doctoral dissertation.
Wilbrink, Ans
2004a Appendices. In: Wilbrink 2004b, 97–219.
Wilbrink, Ans
2004b The Kopkaka of Papua. Provisional notes on their language, its language affiliation and on the Kopkaka culture. MA thesis: Vrije Universiteit Amsterdam.
Williams, Franklin E.
1940 Provisional notes on the Augu language. *Annual Report of British New Guinea* 1938–1939: 52–67.
Wilson, Darryl
1969 The Binandere language family. In: Capell et al., 65–86.
Wilson, Darryl
1974 *Suena Grammar.* Ukarumpa: Summer Insitute of Linguistics.
Wilson, Darryl
1980 A brief comparative grammar of Zia and Suena. MS. Ukarumpa: SIL-PNG.
Wilson, John D.
1986 Steps towards knowledge: Male initiation practised by the Yali of the Heluk Valley in the Jayawijaya Mountains of Irian Jaya. *Irian* 14: 3–13.
Wilson, John D.
1988 Scripture in an oral culture: The Yali of Irian Jaya. MA thesis: University of Edinburgh.
Wilson, Jonathan P.
1996 Binandere nominal structures. MA thesis: University of Texas at Arlington.
Wilson, Jonathan P.
2002 Binandere verbal structures. Manuscript. Ukarumpa: SIL-PNG.
Woodward, Lance B.
1973 Maring sentences. In: Alan Healey (ed.), *Three Studies in Sentence Structure*, 5–20. Ukarumpa: SIL-PNG.
Woodward, Lance B.
1988 Maring dictionary. MS. Ukarumpa: SIL-PNG.
Wurm, Stefan
1951 *Studies in the Kiwai Languages, Fly Delta, Papua, New Guinea.* Wien: Herold.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Wurm, Stefan
1960 The changing linguistic picture of New Guinea. *Oceania* 31(2): 121–136.
Wurm, Stephen A.
1961 The linguistic situation in the Highlands Districts of Papua and New Guinea. *Australian Territories* 2: 14–23.
Wurm, Stephen A.
1964 Australian New Guinea highlands languages and the distribution of their typological features. *American Anthropologist* 66(4): 77–97.
Wurm, Stephen A.
1965 Recent comparative and typological studies in Papuan languages of Australian New Guinea. *Lingua* 15: 373–399.
Wurm, Stephen A.
1971 Notes on the linguistic situation of the Trans-Fly area. In: Dutton et al., 115–172.
Wurm, Stephen A.
1973 The Kiwaian language family. In: Franklin (ed.), 217–260.
Wurm, Stephen A. (ed.)
1975 *New Guinea Area Languages. Vol. 1. Papuan Languages and the New Guinea Linguistic Scene.* Canberra: Pacific Linguistics.
Wurm, Stephen A.
1975a The Central and Western areas of the Trans-New Guinea Phylum: The Trans-Fly (Sub-Phylum-Level) Stock. In: Wurm (ed.), 323–344.
Wurm, Stephen A.
1975b Eastern Central Trans-New Guinea Phylum languages. In: Wurm (ed.), 461–526.
Wurm, Stephen A.
1975c The application of the comparative method to Papuan languages: General and Highlands. In: Wurm (ed.), 237–261.
Wurm, Stephen A.
1975d Personal pronouns. In: Wurm ed., 191–217.
Wurm, Stephen A.
1982 *Papuan Languages of Oceania.* Tübingen: Gunter Narr.
Wurm, Stephen A. and Shiro Hattori
1981–1983. *Language Atlas of the Pacific Area*. vol. 1, 1981, volume 2, 1983. Canberra: Australian Academy for the Humanities in collaboration with the Japanese Academy.
Wurm, Stephen A. and Donald C. Laycock
1961–1962 The question of language and dialect in New Guinea. *Oceania* 32: 128–143.
Wurm, Stephen A. and Donald C. Laycock (eds.),
1970 *Pacific Linguistic Studies in Honour of Arthur Capell* Canberra: Pacific Linguistics.
Wurm, Stephen A. and Kenneth A. McElhanon
1975 Papuan language classification problems. In: Wurm (ed.), 143–164.
Wurm, Stephen A., Clemens L. Voorhoeve and Kenneth A. McElhanon
1975 The Trans New Guinea Phylum in general. In: Wurm (ed.), 299–322.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

Xiao, Hong
1990 A genetic comparison of Hua, Awa and Binumarien. *Language and Linguistics in Melanesia* 21: 143–166.
Yarapea, Apoi Mason
2006 Morphosyntax of Kewapi. PhD thesis: Australian National University.
Young, Robert E.
1964 The primary verb in Bena-bena. In: Elson (ed.) 1964, 45–83.
Young, Robert E.
1971 *The Verb in Bena-bena: Its Form and Function.* Canberra: Pacific Linguistics.
Z'graggen, John A.
1971 *Classificatory and Typological Studies in Languages of the Madang District.* Canberra: Pacific Linguistics
Z'graggen, John A.
1975a Comparative wordlists of the Gulf District and adjacent Areas. In: Richard Loving (ed.), *Comparative Wordlists I*. 5–116. Ukarumpa: SIL-PNG. (Rearranged version of Franklin ed. 1973: 541–592) with typographical errors.)
Z'graggen, John A.
1975b *The Languages of the Madang District, Papua New Guinea.* Canberra: Pacific Linguistics.
Z'graggen, John A.
1975c The Madang-Adelbert Range Sub-Phylum. In: Wurm (ed.), 569–612.
Z'graggen, John A.
1980a *A Comparative Word List of the Mabuso Languages, Madang Province, Papua New Guinea.* Canberra: Pacific Linguistics.
Z'graggen, John A.
1980b *A Comparative Word List of the Northern Adelbert Range Languages, Madang Province, Papua New Guinea.* Canberra: Pacific Linguistics.
Z'graggen, John A.
1980c *A Comparative Word List of the Rai Coast Languages, Madang Province, Papua New Guinea.* Canberra: Pacific Linguistics.
Z'graggen, John A.
1980d *A Comparative Word List of the Southern Adelbert Range Languages, Madang Province, Papua New Guinea.* Canberra: Pacific Linguistics.
Zöller, Hugo
1891 *Deutsch-Neuguinea und meine Ersteigung des Finisterre-Gebirges*. Stuttgart: Union Deutsche Verlagsgesellschaft.

Bereitgestellt von | De Gruyter / TCS
Angemeldet
Heruntergeladen am | 16.10.19 13:48

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