Language Contact along the Sepik River, Papua New Guinea

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Abstract. The Sepik River Basin in New Guinea is a locus of substantial linguistic diversity, with several genetically related and unrelated languages in continuous contact. The inhabitants of the area divide into “River-dwellers” (i.e., those who live on the Sepik River) and “Jungle-dwellers” (i.e., those who live in the bush). The two groups differ in their ways of subsistence, their knowledge of each other’s languages, and the impact of language contact. This article focuses on Manambu, a language of the Ndu family spoken by a warlike group of River-dwellers, and the ways its grammar has been influenced by the languages of the neighboring Jungle-dwellers, the Kwoma and the Yessan-Mayo. Lexical influence from the closely related Iatmul (also spoken by River-dwellers) is restricted to a number of ritual genres (now obsolete). Patterns of interaction between Jungle-dwellers and River-dwellers and the effects of language contact in the Middle Sepik are compared to the situation in the multilingual Vaupés area in northwest Amazonia. Different means of subsistence, life styles, and patterns of interaction are responsible for differences in contact-induced change in the two cases.

1. Introduction. Geographical proximity between groups speaking different languages is a major factor likely to promote language contact and subsequent diffusion of forms and patterns. Interaction within river basins and waterways is particularly conducive to language contact, involving multilingual communication and diffusion of linguistic features. River systems and other waterways facilitate population migration, trade, and interaction of various kinds. Not infrequently, linguistic areas are centered on river basins. Examples include the Vaupés River Basin in Brazil (Aikhenvald 1996, 2002, and references therein), and the Volta River Basin in Africa, extending from the Nigeria-Benin border as far as Côte d’Ivoire to the west and northwards into Burkina Faso (Ameka 2006; further examples are discussed by Storch [2005, 2006]).¹ Large river systems have given rise to distinctive language contact profiles across Mainland Southeast Asia (Diller 2007; Enfield 2001, 2005).

Other geographical features, such as mountains or swamps, may create barriers for communication between groups, and thus impede diffusion. One often finds relic groups of original inhabitants living high up in the mountains, forming refuge areas. The sociocultural setting of language contact involves a number of parameters, among them lifestyle, patterns of social interaction, means of subsistence, and expansion for each of the “players” in a language contact situation (see Weinreich 1953:83–110; Aikhenvald 2006a, Dixon 2002). That is, one might expect that different patterns of interethnic communication and consequently of linguistic diffusion found among people who live on the
banks of major waterways would differ from the patterns found among people who live away from rivers, in the jungle or in the mountains.

In a number of places across the world, various groups of River-dwellers coexist (and maintain a symbiotic relationship) with people of a rather different sort—Jungle-dwellers who shun canoes and hardly venture to the banks of major rivers, where they feel out of their comfort zone. One such area is a stretch of approximately two hundred kilometers of the Sepik River Basin in the Middle Sepik domain (see map 1 and table 1). The traditional inhabitants of the area—that is, those who were there before European contact—divide into these two major cultural groups: “River-dwellers” (i.e., those who live on the Sepik River) and “Jungle-dwellers” (i.e., those who live away from the river in the jungle). The two differ sharply in their means of subsistence, way of life, and, importantly, degree of knowledge of each other’s languages. Consequently, the impact of language contact is different in each group.

My major focus is on Manambu, a Ndu language spoken by a medium-size group of River-dwellers. Its complexity is likely to have been enhanced through linguistic diffusion from its Ndu-speaking neighbors (see map 2).

I begin with general reflections on possible reasons for similarities between languages (section 2). Section 3 presents a bird’s-eye view of the linguistics of the Sepik area in general, leading into a detailed discussion of Manambu in the context of the Middle Sepik languages. I then turn to the sociolinguistic background for language contact along the Sepik, outline the distinction between River-dwellers and Jungle-dwellers, and provide an overview of the ethnohistory of the area (section 4). In section 5, I turn to the linguistic consequences of Manambu’s contact with Jungle-dwellers, and in section 6 to its contact with River-dwellers. The final section briefly compares language contact between River-dwellers and Jungle-dwellers along the Sepik with that seen in the Vaupés River Basin, and offers some conclusions.

2. Preamble: reasons for similarity between languages. The New Guinea region is the most linguistically diverse and complex area in the world, with over one thousand languages spoken in an area of about nine hundred thousand square kilometers. About three to four hundred languages spoken there belong to the Austronesian family. Other, non-Austronesian, languages are often referred to as “Papuan” (see Foley 1986:1–3; Aikhenvald and Stebbins 2007). The term “Papuan” is a rough denomination that covers over sixty genetically unrelated language families and a fair number of isolates in the area.

A major problem with comparative linguistics in the New Guinea area has been the misguided assumption that any linguistic similarity indicates a genetic link. A prime example of this approach is Laycock and Z’graggen (1975) (for criticism, see Aikhenvald 2004, 2006a:596–97; Foley 2005a). Surface similarities are also sometimes taken as evidence of borrowing; an example is discussed in appendix 1.
Map 1. Languages of the Middle Sepik and their approximate locations (language names are given in capital letters; names of Ndu languages are underlined). Adapted from a map by Andrew Hardy.
Table 1. Languages of the Middle Sepik and Their Affiliation

<table>
<thead>
<tr>
<th>LANGUAGES</th>
<th>AFFILIATION</th>
</tr>
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<tbody>
<tr>
<td>Abelam-Woera</td>
<td>Ndu</td>
</tr>
<tr>
<td>Boiken (Yangoru, Island, Coastal)</td>
<td>Ndu</td>
</tr>
<tr>
<td>Gala</td>
<td>Ndu</td>
</tr>
<tr>
<td>Iatmul</td>
<td>Ndu</td>
</tr>
<tr>
<td>Manambu</td>
<td>Ndu</td>
</tr>
<tr>
<td>Sawos (or Malingwat) = Jungle-Dwelling</td>
<td>Ndu</td>
</tr>
<tr>
<td>Yelogu</td>
<td>Ndu</td>
</tr>
<tr>
<td>Alamblik</td>
<td>Sepik Hill</td>
</tr>
<tr>
<td>Bahinemo</td>
<td>Sepik Hill</td>
</tr>
<tr>
<td>Kaningara</td>
<td>Sepik Hill</td>
</tr>
<tr>
<td>Kapriman (or Sare)</td>
<td>Sepik Hill</td>
</tr>
<tr>
<td>Chambri</td>
<td>Lower Sepik</td>
</tr>
<tr>
<td>Yimas</td>
<td>Lower Sepik</td>
</tr>
<tr>
<td>Arapesh</td>
<td>Arapesh family, ?Torricelli phylum</td>
</tr>
<tr>
<td>Kambot</td>
<td>Grass</td>
</tr>
<tr>
<td>Kwoma</td>
<td>Kwoma-Nukuma</td>
</tr>
<tr>
<td>Yessan-Mayo</td>
<td>Tama</td>
</tr>
<tr>
<td>Chenapian</td>
<td>isolate</td>
</tr>
<tr>
<td>Iwam</td>
<td>isolate</td>
</tr>
<tr>
<td>Wogamusin</td>
<td>isolate</td>
</tr>
<tr>
<td>Yerakai</td>
<td>isolate</td>
</tr>
</tbody>
</table>

What are the reasons for similarities between languages? Linguistic categories can be similar because they are universal. For instance, every language has some way of asking a question or framing a command. Occasionally, two languages share a form and meaning combination by pure coincidence. Goemai (Angas-Goemai subgroup of Chadic, Afroasiatic [Birgit Hellwig p.c. 2006]) and Manambu, a Ndu language of the Sepik area, happen to use a:s for 'dog'. The word for 'tail' in Kwoma, from the Sepik area, is kinyi 'tail', and that in Manambu is geñ—a spurious similarity with Yidiñ (Australian) gini 'penis' is striking. And numerous languages of the world have a negator ma, just as in Manambu. Similarities due to universal properties of language are of interest for general linguistics, while chance coincidences are no more than curious facts. These two kinds of similarities tell us nothing about the history of languages or their speakers.

This is in contrast to other types of similarities, such as those due to genetic inheritance, those due to contact, and interactions thereof. The fact that Kwoma, a neighbor of Manambu, uses the form as(a) for 'dog' is likely to be more informative than a spurious coincidence between Manambu and Goemai.

A shared feature may be based on common linguistic origin. The languages can then be shown to have descended from the same ancestor (this is achieved by using the rigorous procedures of historical and comparative linguistics). Aikhenvald (2008d) is such a study for Ndu languages.
Map 2. Location of Manambu-speaking villages Avatip, Malu, and Yuanab (Yambon) (language names are given in capital letters). Adapted from a map by Andrew Hardy and reprinted from Aikhenvald, *The Manambu Language of East Sepik, Papua New Guinea* (2008) by permission of Oxford University Press.
It is known that related languages "will pass through the same or strikingly similar phases"; such "parallelisms in drift" account for additional similarities between related languages, even for those "long disconnected" (Sapir 1921:72). Independent, albeit parallel, developments of this sort are another option for explaining why related languages share a feature—for instance, why the Proto-Ndu plural marker *bad developed a meaning of 'associative plural' in Manambu, and also in Abelam-Wosera. Similarly, Yelogu and Boiken, two Ndu languages not in contact with each other, share the process of lenition of the word-initial *k > h before a labial (Yelogu hobui, Manambu kobwi 'flying fox'; Yangoru dialect of Boiken hwa, Manambu and Iatmul kwa- 'lie, stay'; Yelogu homui, Manambu kami; Iatmul ka:mi 'fish').

Alternatively, shared features may result from geographic proximity, contact, and borrowing. If two or more languages are in contact, with speakers of one language having some knowledge of the other, they come to borrow linguistic features and forms of all kinds. The extent of this varies, but no feature is absolutely immune to borrowing. The likelihood of borrowing, or transfer, of a grammatical feature or of a form is determined by a complex interaction of sociolinguistic factors and an array of linguistic and usage-based factors (see Aikhenvald 2006a, and references therein).

Languages that are not in contact with each other may have borrowed the same form, or the same pattern, from some common source, or from different sources (for the notion of shared substrata, see Tosco 2000). The fact that numerous languages of the Sepik area share the term yaki for tobacco (Yimas yaki, Arafundi Pidgin yaki, Alambak Pidgin yagi [Foley 2005b], Karawari and Awiyakay yaki) does not imply that they were in actual contact with Iatmul, the ultimate source for this form. The form yaki could have been borrowed into Yimas and Karawari independently from an Iatmul-based pidgin (or more than one such pidgin), given the importance of Iatmul as a trade language. Awiyakay may have borrowed this form from Karawari (Darja Hoenigman p.c. 2007), from a Iatmul-based pidgin, or from another, unidentifiable, source. Manambu has the same form, shared with Iatmul, and this could be either a common inheritance or, again, a loan. (For an alternative hypothesis, see Riesenfeld 1951.)

A shared commonality can be due to the interaction of all these factors. Yet another possibility is reinforcement, or lexicogrammatical accommodation, whereby a form existing in one language is adjusted to one found in a neighboring language (e.g., see Aikhenvald 2006a:26, 35). For instance, the form waasa 'dog' is found in Abelam. This form is cognate to Manambu as(a) and Yelogu as. (Iatmul, Yengoru, and Kwusaun Boiken, which are also Ndu languages, share a form wara 'dog', possibly borrowed into Yessan-Mayo as wala). However, the loss of w in Manambu cannot be explained. The form asa in Kwoma looks suspiciously similar; I hypothesize that Manambu may have had a form **was(a) that was later "adjusted" to become more similar to the form in adjacent Kwoma. I return to this in section 5.1.2.
Teasing apart similarities due to genetic inheritance and those due to borrowing of varied kinds is one of the hardest problems in comparative linguistics. As Dench put it,

we should leave open the possibility that all questions may turn out to be undecidable. It may not be possible to show conclusively for any particular innovation that it results from genetic inheritance rather than that it is motivated by contact with another language. If enough such cases occur, then the suspicion we might attach to any putative inherited innovation will mount and we should become increasingly sceptical of any suggested genetic classifications. [2001:113–14]

Long-term divergent development can, of course, obscure the erstwhile genetic relations. In Sapir’s words, “may it not be, then, that many instances of morphological similarity between divergent languages of a restricted area are merely the last vestiges of a community of type and phonetic substance that the destructive work of diverging drifts has now made unrecognizable?” (1921:204). We may never be able to answer this sort of question.

If one language is significantly different from its proven genetic relatives, one can hypothesize that language contact may be responsible. And if two languages are (or have been) in contact and share certain features, one immediately suspects that these features have been transferred from one to the other. Our suspicion will be strengthened if the two languages are genetically unrelated, and the features they share are typical of the family to which one of them belongs. For instance, numerous features of the Austronesian languages of the Siasi subgroup (spoken in the interior of West New Britain [Thurston 1987]) differentiate them from other Siasi languages, and are shared with Anêm, a non-Austronesian neighbor. And Tariana, the only Arawak language spoken in the multilingual Vaupés area in the Brazilian part of northwestern Amazonia, shares a striking number of structural features with unrelated Tucanoan languages spoken in the same area. Such features can thus be attributed to language contact. This is a basic rule of thumb for disentangling inherited features and features acquired through language contact (see Aikhenvald 2006a).

With this in mind, I now turn to the problems of identifying the effects of contact-induced change in the middle Sepik River Basin of New Guinea.

3. The nature of linguistic diversity along the Sepik River.

3.1. General picture. The Sepik River is the largest river system in Papua New Guinea. It has a catchment of 77,700 square kilometers, and runs 1,126 kilometers from its sources in the mountains to the sea. The Sepik is navigable for almost its entire length. It varies in its width from three or four meters to seven hundred meters, and frequently shifts its course. Mudbanks lined with wild sugarcane and reeds appear where the river curves. The inland terrain is
full of swampy forest with sago palm—an important food source—in its understorey.

The extreme genetic diversity among the non-Austronesian languages in New Guinea, with numerous families interspersed with isolates, remains a puzzle for comparative linguists. The languages of New Guinea have suffered, perhaps more than those of any other area in the world, at the hands of “lumpers,” with their attempts to put languages together into “stocks,” “macrostocks,” and “phyla” based on just a few look-alikes. Laycock and Z’graggen (1975) postulated their “Sepik-Ramu phylum” based on a number of typological similarities and two lexical similarities (terms for ‘child’ and ‘pig’), for which cognate sets were not provided.

The Sepik River Basin (which includes East Sepik and Sandaun Provinces) is, linguistically, the most complex region within New Guinea. It contains about two hundred languages, a density apparently unparalleled anywhere else in the world. The Sepik River Basin displays cultural as well as linguistic diversity and fragmentation, perhaps more so than any other area of New Guinea. Reasons for this include geographic diversity, inaccessible terrain, patterns of language contact, and language attitudes (Foley 1986, 1988:167–68; Aikhenvald 2004: 97–98; Aikhenvald and Stebbins 2007). The average size of language communities is significantly lower than in the New Guinea Highlands (see Newton 1987).

Among the established families in the Sepik area are the following:

- the Lower Sepik family, consisting of Yimas, Karawari, Chambri, Murik, and Kopar (Foley 1986:213–29);
- the Grass family, including Banaro, Abu, Gorovu, and Ap Ma (or Botin, previously known as Kambot—see appendix 1);
- the Sepik Hill family, including Alamblak, Sare (Kapriman), Kaningara, and Bahinemo (Sumbuk 1999:3);
- the Tama family, including Yessan-Mayo, Pahi, Mehek, Pasi, and Kalou (Sumbuk 1999:3); and
- the Ndu family (Aikhenvald and Stebbins 2007).

Small families include Kwoma-Nukuma and Iwam, and isolates include Yerakai, Abau, Wogamusin, and Chenapian (the last two could be related); see map 1. Much more comparative analysis is required, including low-level reconstructions for individual language families, before any definitive conclusion can be reached.

The focus of this article is on language contact phenomena along a stretch of approximately two hundred kilometers in the middle Sepik River Basin, centering on Manambu, a highly complex Ndu language apparently influenced by both related and unrelated languages.

The Manambu language, the traditional social composition of the Manambu, and their ethnohistory are briefly surveyed in section 3.2. Section 3.3 surveys Manambu’s genetic relatives, along with neighboring languages.
3.2 The Manambu: language, social structure, and putative origins. Manambu is spoken by about twenty-five hundred people in three major villages located on the Sepik River: Avatip, Malu, and Yuanab (or Yambon), East Sepik Province, Ambunti district. The Manambu occupy a curious position, being in constant contact with related and unrelated groups of Jungle-dwellers, as well as with the culturally more dominant Iatmul, who are also Ndu. The geographical position and the ethnohistory of the Manambu indicate that contact-induced change may well have had an impact on the language.

Manambu presents an additional puzzle to a comparative scholar and to a descriptive analyst: in terms of its structure, categories, and forms, this language appears to be much more complex than most of its relatives (except for Gala). Manambu has twenty-one consonants (including a full set of labialized stops) and nine vowels. It has prefixes and suffixes, pervasive gender and number agreement, numerous modalities, and an unusual cross-referencing pattern on verbs (to which I return in section 5.4). Why should this be so? Contact-induced enrichment may be the answer.

The Manambu divide into three clan groups: the Wulwi-Ñawi, associated with sun, moon, and everything bright; the Gla:gw, associated with earth, jungle, and everything dark; and the Nabul-Sablap, the in-between clan group. The name Gla:gw is most probably related to Manambu gal(a)-gw (dark/darkness-PL). The origin of the names of the other subclans is problematic. Clans, subclans, and their trade partners are listed in table 2. Clans are exogamous, with Gla:gw and Wulwi-Ñawi marrying each other, and each marrying the Nabul-Sablap.

Most, but not all, clans are represented in each of the three villages. For instance, the last representative of the Maliau clan in Malu was said to be Yuanai, one of the two Manambu carriers and interpreters employed by Walter Behrman during the Kaiserm-Augusta-Fluss-Expedition in 1912–13 (see Behrmann 1922, 1924a, 1924b, 1950–51).

While there are minor dialectal differences between the three villages Avatip, Malu, and Yuanab, the last being especially divergent (see below), there are no linguistic differences between representatives of different clans and subclans. Each subclan shares totemic terms and especially names; this ownership of totemic names is part of the patrimony of each subclan. Some can be shared by the whole clan group or by some of the subclans, and the knowledge of totems and names is tantamount to material riches (see Harrison 1990a; Penn and Lipset 1991). This feature is also characteristic of the Iatmul (Bateson 1958: 228–29), the Chambri, and a few other groups (I return to this in section 6.1).

According to oral tradition, the three clans of the Manambu came from three mythical ancestral villages, called saki-top (totemic.ritual-village). The totemic ancestors of the Gla:gw lived near the Yentshanggai-Lapanggai areas, somewhat inland from today’s Sepik. The totemic ancestors of the Wulwi-Ñawi lived in a village far to the east, which, according to some, is the reason why the
Wulwi-Ñawi totemically own the south-eastward areas, including modern Australia and places white people come from, as well as the “white people’s objects.” (The word for ‘east’ is *wali*, also used to refer to ‘white people’.) The totemic ancestors of the Nabul-Sablap lived further to the west, in the direction of the sea (and perhaps even on the coast). They are the ones who are said to have “carved” the Sepik River (also see Harrison 1990a:45). This may imply that historically, the Manambu could have consisted of at least three groups merged together, one of which used to be located towards the coast.

**Table 2. Manambu Clans and Subclans and Their Trade Partners**

<table>
<thead>
<tr>
<th>CLAN GROUP</th>
<th>SUBCLANS</th>
<th>TRADITIONAL TRADE PARTNERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wulwi-Ñawi (associated with sun and moon, east wind and everything to do with white and shining objects [including white people])</td>
<td>Maliau</td>
<td>Sawos Iatmul (Ndu)</td>
</tr>
<tr>
<td></td>
<td>Ñakau</td>
<td>Ñaura Iatmul (Ndu)</td>
</tr>
<tr>
<td></td>
<td>Nagudew</td>
<td>Chambri (Lower Sepik)</td>
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<tr>
<td></td>
<td>Sarak</td>
<td>Kwoma (Kwoma-Nukuma)</td>
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<tr>
<td></td>
<td>Wankau</td>
<td>Sawos Iatmul (Ndu)</td>
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<tr>
<td></td>
<td>Nawik</td>
<td>Chambri (Lower Sepik)</td>
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<tr>
<td></td>
<td>Yimal</td>
<td>Iatmul (Ndu)</td>
</tr>
<tr>
<td></td>
<td>Makom</td>
<td>Chambri, Sawos Iatmul (Ndu)</td>
</tr>
<tr>
<td></td>
<td>Gabak</td>
<td>Ñaura Iatmul, Yelogu (Ndu)</td>
</tr>
<tr>
<td></td>
<td>Valik</td>
<td>?</td>
</tr>
<tr>
<td>Gla:gw (associated with earth and jungle, everything dark)</td>
<td>Wapanab</td>
<td>Yerakai (isolate)</td>
</tr>
<tr>
<td></td>
<td>Wargab</td>
<td>Yerakai (isolate)</td>
</tr>
<tr>
<td>Nabul-Sablap (an “in-between” clan, whose members are said to have carved the Sepik River)</td>
<td>Nabal</td>
<td>Yessan-Mayo (Tama)</td>
</tr>
<tr>
<td></td>
<td>Sablap</td>
<td>Yessan-Mayo (Tama)</td>
</tr>
</tbody>
</table>

**Source:** partly following Harrison [1990a:70–73], and partly based on the information from my consultants.

Different subclans of the Manambu, and sometimes even the same subclan in different villages, claim different migration routes. The Nagudew of Avatip say that their ancestors came from far up the Screw River, in the direction of the Abelam, while the Nagudew of Yuanab describe their ancestral home as the southwest shore of Lake Chambri (Newton 1971:64). In Newton’s words, “while several other clans relate without self-consciousness traditions of origins which are apparently geographic contradictions, these are probably only the records of the accretions of small groups of people to a large group” (1971:64).

This is similar to the ways in which different Gala “wards” claim different places of origin. One claims to have come from far up the Sepik through the Washkuk Hills, and two others claim to have come from the Hunstein Range (Newton 1971:32–33; also Bowden 1997:xviii). This may well reflect various layers of population mix and perhaps subsequent language shifts and unknown substrata, which may be held responsible for the linguistic complexity of modern Manambu.
The story of the relatively recent establishment of Yuanab, the westernmost Manambu village, is instructive. Bragge (1990) and Staalsen (1965b) relate stories about how Yuanab was settled by Jungle-dwellers and people from the mountains (some from the Yerakai area, some from near Gala-speaking Swakap) who gathered together and adopted Manambu as their language. The Yuanab variety is the most divergent variety of Manambu, which can be accounted for by the presence of varied, mostly unidentifiable, substrata. The exact timing of the settlement of Yuanab is unclear—Bragge’s (1990:40) estimate that it may have occurred around 1830 is hard to confirm, or to refute.

3.3. The Manambu language, its relatives, and its neighbors. Manambu is a member of the Ndu language family, one of the few well-established Papuan families. In terms of number of speakers, the Ndu family is the largest in the Sepik area. It consists of at least six languages spoken by well over one hundred thousand people along the course of the middle Sepik River and to the north of it (Aikhenvald 2004). What is special about the Ndu family in the Sepik context?

First, Ndu is the only established language family in this region that is spoken in a discontinuous area. Consequently, this family may offer relatively good prospects for disentangling genetically inherited elements from those borrowed or diffused.

Second, not all members of the Ndu family are River-dwellers. The northernmost ones, the Boiken, live on the coast, and, more importantly for our immediate perspective, two groups—the Gala and the Yelogu—are Jungle-dwellers. This may offer an opportunity for contrasting the effect of different types of language contact within one family.

Members of the family other than Manambu are:

- **IATMUL**, a dialect continuum spoken by about forty to fifty thousand people in the East Sepik Province, with important minorities in towns such as Wewak and Madang. The four varieties of Iatmul are Western Iatmul (or Ñaura), Central Iatmul (Palimbei), Eastern Iatmul (Waliyakwi), and Northern Iatmul (Maligwat). Mutual intelligibility of the dialects varies. A full list of villages is in Jendraschek (2007b).

- **YELOGU** or KAUNGA, reported to have about two hundred speakers. It is spoken in two villages, Biananumbu and Ambuken (also see Laycock 1965, 1973:87, 91). The language is also known by the name of Buiamanambu; this is “a government corruption of the Kaunga name Buwiyamanabu” (for the precontact history and settlement of the Yelogu people, and their contacts with the Kwoma, see Bowden [1997:xx–xxii]).

- **GALA**, or **NGALA**, spoken by about 150 people in Swakap (or Swagup), in a village near the junction of the Sepik River and the April River. The place was marked under the name of Kara on Behrmann’s maps (Newton 1971:33). Newton also reports that the place was called Nggala, and was later renamed Swagup after the names employed by its neighbors. Different
Gala "wards" claim different places of origin; one claims to have come from far up the Sepik, and two others claim to have come from the Hunstein Range—that is, from the south. Their presence in the Washkuk Hills is corroborated by Kwoma and Manambu accounts of the Gala war (probably in about the 1860s or 1870s).

- **ABELAM-WOSERA**, a dialect continuum with over forty thousand speakers, in the Maprik District of East Sepik Province (an alternative name for the Abelam language is Ambulas). This includes the following dialects: Maprik, Wingei, Wosera, West Wosera (including Hanga Kundi, Kwasengen, Pukago, Banwingei). Wendel (1993:1–5) argues that West Wosera is a separate language group. However, this may well be a continuum of dialects, only some of which are mutually intelligible (Wilson 1976, 1980; Manabe 1981).

- **BOIKEN** (also known as Boikin, Nucum, Yangoru, and Yengoru), spoken by over thirty thousand people in the area of the Yangoru district of East Sepik Province. Dialects include Yangoru, Kubalia, Central, Nagum, Kunai dialect, Island and Coastal dialects (see a preliminary survey in Freudenburg 1976). Laycock's (1965) work is centered on Kwusaun Boiken, while Freudenburg (1970, 1975, 1979, n.d.) is based on Yangoru Boiken.

Among the Ndu-speaking groups, the Iatmul are the most important ceremonial and trade partners for the Manambu. Traditional trade with the Wosera involves the Manambu women going up to Maprik to exchange their fish for Wosera goods, including string bags and, nowadays, also money (Jacklyn Yuamali Benji Ala and Ester Yuaya 2004). The Gala used to be traditional enemies of the Manambu, some of whom still fear them (Aikhenvald 2008a:16–17, based on information from Avatip women). The Gala were decimated by the combined forces of the Kwoma and Manambu during the Gala wars and partly incorporated into the Manambu (see section 4.1). The Yelogu (also known as Kaunga) take part in market exchanges with the Manambu; according to Harrison (1982:69), some of them may have been exterminated by the Manambu in head-hunting raids and wars.

The non-Ndu neighbors with whom the Manambu had traditional interaction are speakers of the following languages:

- **KWOMA**, from the Kwoma-Nukuma family, is spoken by over three thousand people in the Washkuk Hills and the adjacent low country in the north and northeast of the Ambunti Subprovince. The Kwoma now live in seven villages (Whiting 1941:5; Bowden 2006:3); of these, Bagwis and Washkuk are geographically the nearest to Manambu (dialectal differences between Bagwis and Washkuk are said to be minor and the villages are reported to have split only recently [Bowden 1997:xxii]). The villages of Tongwinjamb and Urumberanj are further away and they appear to speak a dialectal variety that is phonologically and lexically quite distinct.
• YESSAN-MAYO, of the Tama family, is spoken by about nineteen hundred people in about ten villages to the northwest of the Manambu area. The Yessan-Mayo live in the Yesan Hills. Yesan (or Yessan) and Mayo (Manambu Mayau) refer to two villages speaking the same language. They are said to have migrated to the Washkuk Hills together with the Kwoma from the north (Bowden 1997:xxii). Bowden reports that the Yesan used to be bilingual in Kwoma when the two groups lived together in the Washkuk Hills, and the Mayo were originally Kwoma speakers, and adopted Yessan-Mayo when they migrated along with the Yesan to the Yesan Hills in the late nineteenth century (1997:xxvii). According to Newton, "they are closely related to the Kwoma in religion and art styles" (1971:90).

• CHAMBRI, of the Lower Sepik family, is spoken by about fourteen hundred people "on a hill which rises out of the back swamps" (Gewertz 1983:10), in four villages on the southeastern shores of Lake Chambri and on an island in Lake Chambri. The Chambri have suffered at the hands of the Iatmul (Gewertz 1983), and may have undergone influence from the Iatmul.11

• YERAKAI (or Yerikai), an isolate, is spoken by about three hundred people in the Yerakai and Garamambu villages in the hills southeast of Ambunti (see maps 1 and 2) (Dye, Townsend, and Townsend 1968:154). The cultural and lexical influence of Manambu on the Yerakai was pointed out by Newton (1971:14); I return to this in section 3.3 below.

All of these non-Ndu people are traditionally Jungle-dwellers, with a long history of contact and conflict with River-dwellers, and especially the Manambu.12

4. Peoples and languages in the Middle Sepik area: the patterns of interaction.

4.1. River-dwellers versus Jungle-dwellers. In terms of their subsistence, lifestyle, and patterns of relationships the people in the Middle Sepik area divide into two groups: the Sepik River--dwellers, and the "Jungle-dwellers." Relations between the two groups, summarized in table 3, are unbalanced in terms of dominance. The names of peoples are in bold type in the table.

The Jungle-dwellers are despised and feared at the same time; this is reflected in numerous stories told by the Manambu, and also in the story of the founding of the Iatmul-speaking Brugnowi village not far from Ambunti. The Jungle people are said to live "like pigs" and to be "not really people but the descendants of bush spirits." The Jungle-dwellers are feared because of their sorcery (Staalsen 1965b:186–87). This is similar to the way in which the River-dwellers of the Vaupés River Basin fear the Jungle-dwelling Makú, on whom they used to depend for arrow poison (see Aikhenvald 2002:24–26, and references therein). I return to this in section 7.2.
Table 3. River-Dwellers versus Jungle-Dwellers in the Middle Sepik Area

<table>
<thead>
<tr>
<th>RIVER-DWELLERS</th>
<th>JUNGLE-DWELLERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEOPLE</td>
<td>PEOPLE</td>
</tr>
<tr>
<td>Manambu; Western Iatmul (Naura)</td>
<td>Kwoma, Yelogu, Yerikai, Chambri, Yessan-Mayo (all listed as trade partners of the Manambu); Gala (still conceived as enemies of the Manambu); also Wogamusin and Chenapian (no current links with Manambu)</td>
</tr>
<tr>
<td>TRAITS</td>
<td>TRAITS</td>
</tr>
<tr>
<td>means of subsistence and trade objects: fish</td>
<td>means of subsistence and trade objects: sago</td>
</tr>
<tr>
<td>knowledge of canoes and navigation, hence easier movements</td>
<td>no traditional knowledge of canoes nor of travel on the Sepik River</td>
</tr>
<tr>
<td>aggressive, conceive of themselves as superior</td>
<td>do not conceive of themselves as superior</td>
</tr>
</tbody>
</table>

The Manambu term for Jungle-dwellers is nab-a-du (dry.land-LK-people). Its antonym is “Sepik River people.” (The term nab is nowadays also used in the meaning of ‘foreign land’, and nabedu is used to mean ‘foreigner’; it is also used as a pejorative term, much like “Gypsy” in Europe.) In everyday usage, this term is applied to every group other than the Iatmul (even the Wosera). The Manambu look down upon the ‘dry-land people’; the reasons given are that they do not use canoes, build houses directly on the ground, and live deep in the forest like animals (also see Harrison 1993:33). In the past, the dry-land people were a frequent target of Manambu head-hunting raids. The tactic used against the dry-land people involved surrounding a hamlet at night, and then destroying it at dawn.

The River-dwellers treat all Jungle-dwellers with arrogance (interesting examples of such behavior at traditional barter markets are given by Gewertz [1983:19]). Nevertheless, the River-dwellers and the Jungle-dwellers are dependent upon each other: one group provides fish and the other sago, which is the major staple (see Gewertz 1983:11; also compare Gewertz’s discussion of Iatmul hegemony over the Chambri and the complementary nature of Chambri-Iatmul interaction in the area of the Chambri lakes [1983:31–40]). The same applies to the Manambu and is reflected in Manambu lore and everyday life.

What are the linguistic consequences of this division?

First, the River-dwellers and the Jungle-dwellers display different patterns of multilingualism and knowledge of each other’s languages. As expected (and as is the case in many parts of the world; see Aikhenvald 2002:17–26, and references therein), the River-dwellers consider themselves culturally “superior” to the Jungle-dwellers, and tend not to learn Jungle-dwellers’ languages, equating
them with cries of birds of paradise feeding on a branch (see Harrison 1993:40). Trade between the Manambu and the Jungle-dwellers appears to have involved limited Manambu-dominated pidgins (see Harrison 1993:40; also see Bowden 1997 and appendix 2). Importantly, the River-dwellers and the Jungle-dwellers have never lived together in one multilingual village.

If a Jungle-dweller’s village were invaded by the River-dwellers (who often conspired with other Jungle-dwellers), it was to be subjugated, and the remaining population had two choices: to be incorporated into the village dominated by the invaders (see section 3.2 and section 4.2) or to flee. Some did both. When the Gala (Ndu) were defeated by the combined forces of the Manambu and the Kwoma, some of the Gala fled to where they are now in Swakap (off the Sepik River), some stayed behind and mixed with the Yuanab people, and others were incorporated into the mainstream Manambu from Avatip (see section 4.2).

Jungle-dwellers appear to have some knowledge of River-dwellers’ languages. Given the cultural dominance of River-dwellers in terms of totemic names and rituals, one expects to encounter loans from Iatmul and Manambu into the languages of the Jungle-dwellers. And this is indeed the case (see section 5).

Second, the relationship between the two groups of River-dwellers has never involved institutionalized multilingualism. There have been hostilities between the two groups (see, for instance, the accounts in Bragge [1990] and Staalsen [1965b]). Notably, the Iatmul are a much bigger group and have, until the present, been culturally more dominant. Language and culture appear to have been lost to a greater extent among the River-dwelling Iatmul, whose villages are more open to Western influence and more exposed to acculturation, than among the more traditional Manambu, who pride themselves on “not selling our things to tourists.” The contact between Manambu and Iatmul involved trading spells, words, names, and incantations. As a result, the Iatmul element in Manambu used to have a special ritual significance (see section 5.2). In everyday life, Manambu men would have only some knowledge of Iatmul.

In contrast, Jungle-dwellers frequently formed rather stable alliances and different allied groups used to live together in one village. The ethnographic and ethnohistorical literature reports the following instances of multilingualism between different Jungle-dweller groups who used to share villages over a period of time:

- Yelogu (Ndu) and Kwoma (Bowden 1997:xxii–iii);
- Kwoma and Yessan-Mayo (Bowden 1997:xxii; Staalsen 1965b:188);
- Kwoma and Gala (Bowden (1997:xx; Paul Badaybæg and John Sepaywus p.c. 2004);
- Gala, Wogamusin and Yessan (Laycock 1965); Martin Kumbway p.c. 2004).

The absorption of some Gala, Kwoma, and Yessan-Mayo (and also Iwam, from the May River) by the Wogamusin was indicated by Newton (1971:51).
Newton reports that the Wogamusin “are said to have been members of an early Iatmul group and moved upriver in the late eighteenth-century” (1967:210) (which explains the presence of Iatmul-type art styles among these people, who currently do not appear to be in contact with the Iatmul; see also n. 15).

No information is available about the role of Chenapian in this picture. The Manambu are currently aware of the location and the presence of the Chenapian as a Jungle-dweller group in the area. The other indication of their presence comes from Zöller (1891), reporting on the first materials on what were then called “Kaiserin-Augusta-Fluss [i.e., Sepik River] languages.” These materials—collected at a camp at Malu between 22 August and 7 November 1887 by Dr. Carl Schrader—contained “68 words from Zenáp dialects, 26 words from Mangi dialects spoken to the west from it, 132 words from the Malu dialect, 25 words from the neighboring Yamboni dialect [i.e., the Yambon, or Yuanab, variety], and a further 12 words from a village which lies further down the river ‘in the grasshills’” (Zöller 1891:367–68). “Zenáp” appears to refer to Chenapian (on which very little material is now available). It is not clear what the Mangi dialects are. The word “Mangi” could be related to the Kwoma word maga [manga] ‘people’ (Bowden 1997:111). In my analysis of the list, I was able to identify some words from Chenapian (“Zenáp”) and some from Kwoma (Aikhenvald 2008a:29–35).

Based on differences in life-style, subsistence, social interactions, and knowledge of each other’s languages, types of contact-induced influence obtaining between Jungle-dwellers are expected to differ from those obtaining between Jungle-dwellers and River-dwellers, and both of these to differ from contact-induced influence obtaining between River-dwellers.

In terms of the parameters suggested in Aikhenvald (2006a:43), the contact between River-dwellers and Jungle-dwellers tends to be displacive, while contact between Jungle-people is of a more balanced nature. Table 4 informally summarizes the parameters distinguishing balanced and displacive language contact.

<table>
<thead>
<tr>
<th>PARAMETERS</th>
<th>BALANCED CONTACT</th>
<th>DISPLACIVE CONTACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELATIONSHIPS BETWEEN SPEECH COMMUNITIES</td>
<td>Roughly equal, or involving a traditional hierarchy; stable</td>
<td>Dominance of one group over the other; unstable</td>
</tr>
<tr>
<td>MULTILINGUALISM</td>
<td>Yes</td>
<td>None, or little</td>
</tr>
<tr>
<td>RESULTS</td>
<td>Language maintenance</td>
<td>Potential replacement of one language with another and language loss</td>
</tr>
</tbody>
</table>

When River-dwellers come in contact with Jungle-dwellers, they tend to dominate and absorb the Jungle-dweller minorities. In these cases, one expects to encounter a certain amount of substratum influence from unrelated Jungle-
dwellers on Manambu. This is addressed in section 5. The impact of diffusion between languages of River-dwellers is rather different (see section 6).

In the known instances of bilingual or multilingual contact between Jungle-dwellers, one would expect a much more pronounced impact of areal diffusion between the unrelated languages. However, one should keep in mind that the time span of each bilingual situation is likely to have been relatively short, and that because of its brevity the diffusional impact may not have been very strong (in the spirit of Storch 2006). Features shared by Jungle-dwellers' languages are mentioned throughout section 5.

4.2. Cultural background of language contact in the Middle Sepik. Culturally, the groups of the Middle Sepik area share a number of features. These include shared totemic clan membership, which used to form the basis of traditional trade partnership. Each descent group had hereditary trade partners in other language groups and these were conceived of as belonging to the same clan, or "clan-like totemic category" (Harrison 1993:41). Such trade partnerships were carefully maintained and, if necessary, defended (also see Bowden 1983:14).

An additional commonality that facilitated trade and ceremonial exchange is a kinship system with Omaha-type features (also see Whiting 1941:5). A major feature of kinship systems throughout middle Sepik society is the tie between mother’s brother and sister’s child, whereby the mother’s brother maintains a warm, solicitous, and quasi-maternal relationship with the descendant (for further features of the relationship, see Harrison 1993:43; see also Forge 1971). The virtual equivalence in kinship systems facilitates communication between different groups; in Harrison's words, "a visitor in an unfamiliar village can thus be situated immediately within its system of kin ties" (1993:44).

The Manambu, like other groups of River-dwellers along the Sepik, have an overwhelmingly "importing culture," with an emphasis on exchange and value assigned to outside goods, both material and nonmaterial (Mead 1938). In many Sepik societies, linguistic items—words, totemic names, and personal names—were traditionally considered on a par with material goods, with spells, incantations, and names being traded and purchased (see Harrison 1990a:20–23, and further references therein).

There are a number of unusual features of the language contact situation in the Middle Sepik. One such feature was the frequent migration of population groups. Migrations occurred in part in search of new hunting and fishing grounds and sago fields. Some were also due to frequent changes in the course of the Sepik River itself, and to seasonal flooding. Importantly, fear of raids and of retribution from neighboring hostile tribes must have been another factor making it likely that, in most cases, a given group would spend only a relatively short time at a given location. (Compare Newton's comment on "the brevity—not more than about 250 years—of the period in which the Sepik River villages as we know them now have been established" [1967:206].)
Another feature of the region was that intergroup warfare and raids on neighboring people resulted in mass extinction of tribes and subsequent incorporation of captive speakers of related and unrelated languages into the winners' groups. In Harrison's words, "warfare and migrations seem to have created a situation of political and cultural fluidity, making Sepik history a constant process of creation and extinction of small cultural-linguistic groups" (1993:44–45).

A few examples are in order. Bowden (1997:xxii) cites a number of reports of Kwoma women from Tongwinjamb being kidnapped by Yelogu (Kaunga) men. Some descent groups among the Manambu are said to have originated from male refugees from the wars with the Gala (Aikhenvald 2008a:16; Harrison 1993:45). It can be hypothesized that since the captive men and women were first-language speakers of languages other than Yelogu and Manambu, their linguistic integration into the life of their new community may have involved a certain amount of foreigner talk, and the variety of Manambu or Yelogu they spoke to their children may have at some point reflected their incomplete mastery of either of these two languages and, more importantly, the substrata from their own languages. In many cases, the groups must have become extinct, leaving little or no trace (see the discussion of the Geñap people in section 4.3).

Another factor promoting frequent migrations and conflicts was a lack of stability in tribal alliances (Harrison 1993:87). The Kwoma and the Gala, for instance, are said to have lived together peacefully for a while in the Washkuk Hills. Then there was a military conflict involving the Kwoma and Manambu against the Gala. As a result, most Gala are said to have been exterminated. Some remained in Yuanab, mixing with the people living there, who presumably were by then Manambu speakers (Bragge 1990:37; Paul Badaybæg p.c. 2004). Others moved south towards the Hunstein Range and then went up the small river where they are now located in the village called Swakap (or Swagup). According to Bowden (1997:xviii), some may have settled among the Kaunga-speaking Yelogu. The estimated date for the Gala wars, calculated through genealogies, is roughly the 1860s or 1870s, just before the first sighting of the Europeans in the area of the Sepik in 1886.

Language attitudes and the adoption of new languages are a further feature of the language situation. Language and allegiance are associated not so much with mastery of speaking the language as with knowledge of individual names and words—the more esoteric, the better. Trading names, spells, and sacred objects associated with rituals have been reported for the two groups of River-dwellers—the Manambu and the Iatmul. Name ownership is the major emblematic feature. (This is quite different from the attitudes found among River-dwellers in the Vaupés Basin of North-West Amazonia, where being able to maintain a conversation is valued more than being able to just name things [Aikhenvald 2002]).

Little is known about the language attitudes of the Jungle-dwellers. Some of them are proud of being multilingual and proficient in more than one indigenous
language. For example, the Gala people are, in my experience, proud of knowing Wogamusin and Yessan. In this respect, they contrast themselves to their old foes the Manambu, said to have hardly any knowledge of other indigenous languages.

However, the brevity of each multilingual situation reported for the area suggests frequent language change and little loyalty to one’s “original” language; see Bowden (1997:xx–xii) for various recent instances of changing linguistic affiliations reported for the Yelugu, the Kwoma, and the Yessan-Mayo. The Gala can also be added to the list.

In the absence of written history, and given that contact with Europeans is relatively recent,\(^{18}\) it is hard to establish the exact time depth and duration of contact among the languages of the Sepik area. To some extent, we have to rely on ethnohistories and myths. One thing is certain: an interplay of frequent migrations, warfare, language shift and loss, and language contact has created a highly varied patchwork quilt and consequently a puzzle for comparative linguists.

This is somewhat reminiscent of the situation described by Storch (2006) for Western Nilotic languages, where numerous short-term language contact zones emerge and disappear, due to frequent migrations, slave trade, and warfare. In addition, Storch discusses some features of Nilotic languages in a broader areal perspective. This cannot as yet be done for the Middle Sepik languages due to the uneven quality, and quantity, of data.

Shifting alliances, warfare, decimation of peoples, forced migrations, and absorption of peoples into different groups are often reflected in the fact that different subclans within one group have different, often contradictory stories about their origins. We saw this for Manambu in section 3.2. In terms of language structure, this implies different—often no longer identifiable—substratum effects. We now turn to some examples of ethnohistorical evidence for the existence of such substrata in Manambu.

4.3. Ethnohistorical evidence for Jungle-dwellers’ languages as substrata in Manambu. There are indications that at different points in time various Jungle-dweller groups were incorporated into the Manambu melting-pot (as suggested by Newton 1971:64; see section 3.2 above).

According to a traditional story, considered a “true” tradition (\textit{wa-saki ma:j} ‘talk-across story’), rather than fantasy (\textit{gabu-ma:j} ‘traditional tale-story’), the Valik subclan of the Gla:gw group (see table 3) was founded by the last surviving man from the Gala group. After the Gala had been defeated by the combined forces of the Manambu and the Kwoma, the last remaining Gala man was revived and saved by a Manambu man of the Gabak clan, which belongs to the Gla:gw clan group. We can recall from table 3 that the Gla:gw group is associated with the jungle and everything “dark” (the name itself most probably derives from the root \textit{gol}, \textit{gla–} ‘dark, black, darkness’ and the collective marker \textit{-Vgw}). The Gabak man is said to have discovered the dying survivor of the Gala
hiding in the trunk of a sago tree, and identified him as belonging to the same clan group as himself because they both had snakes as totems.  

This story can be viewed as evidence that some Jungle people were incorporated into the Gla:gw clan group. The exact dates of this are hard to ascertain. Based on genealogical reckoning, Bowden (1997:xviii) estimates the time of the destruction of the last Gala settlements in the Washkuk Hills to be in the 1860s or in the 1870s. Laurie Bragge reports that one of his Kwoma consultants in the 1970s used to “have a carving mallet which he said belonged to the Nggala [Gala] and which came from the wreckage of the stockade after the raid” (p.c. 2006). That is, at that time the war was still fresh in folk memory.  

The names of the people said to have been exterminated by the Manambu as a result of warfare appear as address terms—again for members of the Gla:gw clan group. For instance, geñap (ku:lap in the “shadowy” register [see section 6.3 below]) is an address term for members of the Yimal clan. The Geñap were a group of Jungle-dwellers defeated by the Manambu of Avatip at the end of the nineteenth century, according to Harrison’s estimate (1993:67). The affiliation of the Geñap is unknown, but since this term is used as a term of address for members of the “Dark” clan associated with the jungle, I hypothesize that they were Jungle-dwellers rather than River-dwellers.  

In Yerakai mythology, Yimal was the younger brother of the two totemic ancestory who are said to have emerged from a hole next to Mount Garamambu. The Yimal clan members “claim to have migrated to Avatap from Mount Garamambu” (Newton 1971:64). And the term yimal is one of the address terms of the Yimal clan. This does not necessarily mean that the mythical Geñap people should be equated with the Yerakai. Instead, it might suggest that Yerakai and some other, unknown, Jungle-dwellers were defeated by the Manambu and the survivors incorporated into the Manambu melting pot.  

These partly unknown substrata may account for significant grammatical differences between Manambu and other Ndu languages. Some of these features appear to be shared with Kwoma and with Yessan-Mayo; this is addressed in section 5.  

As a result of the language situation in the Middle Sepik, it is impossible to construct a convincing and unified picture of the migration routes that groups have followed, and of their original homelands (pace Laycock 1965:195 [followed by Newton 1967:206–7]). And frequent migrations and contact with related and unrelated languages constitute a major obstacle to outlining the genetic subgroups of the Ndu family.  

5. Language contact between Manambu and Jungle-dwellers, and its impact. The major groups of Jungle-dwellers with whom Manambu has been, and partly continues to be, in contact are the Kwoma and the Yessan-Mayo. Neither of these languages is averse to borrowing forms, unlike other languages elsewhere in the world, such as Tariana or Hup in the Vaupés River Basin area, where borrowing of forms is highly limited (Aikhenvald 2002, 2006a, 2006b;
Epps 2006). I begin with the analysis of forms shared between Manambu and Kwoma (section 5.1), and between Manambu and Yessan-Mayo (section 5.2), that are likely to be due to borrowing. I then discuss the diffusion of patterns between these languages, addressing structural similarities between the languages under discussion (section 5.3). Possible impact of other Jungle-dwellers’ languages on Manambu is addressed in section 5.4.

5.1. Manambu and Kwoma: shared forms. Kwoma, a close neighbor of Manambu—but not a proven genetic relative—has been in contact with Manambu for several hundred years. Little wonder that the two languages share numerous features.

An important indicator of the intensity of contact between the Kwoma and the Manambu is a Kwoma-Manambu mixed lingua franca documented by Bowden, which was “occasionally used by Kwoma and Manambu speakers when communicating with each other for such purposes as arranging intervillage barter markets” (1997:337–38). A few old people in the Manambu villages claim to speak a certain amount of Kwoma, but no one appears to be familiar with the Kwoma-Manambu pidgin. Bowden’s text and problems associated with it are presented in appendix 2.

One thing is certain: at present, Kwoma (which forms a separate small family with the closely related Nukuma) cannot be said to be genetically related to Manambu. I illustrate this with a comparison of pronominal paradigms and also numbers (section 5.1.1). In section 5.1.2, I consider the nature of further shared lexical items.

5.1.1. Personal pronouns and numbers in Kwoma and in Ndu languages. Consider the paradigm of subject pronouns in Kwoma (Kooyers 1974:14) in table 5. I preserve the Kwoma orthography of the source (except that I replace ìi, used by Kooyers for the mid-central vowel ñ, with a). Each of the pronouns in table 4 is given in two alternative forms; the first form is emphatic, and the second form tends to be procliticized (Renée Lambert-Brétière p.c. 2007).

<table>
<thead>
<tr>
<th>PERSON AND GENDER</th>
<th>SINGULAR</th>
<th>DUAL</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (MASCULINE OR FEMININE)</td>
<td>ada, an</td>
<td>sicha, si</td>
<td>nota, no</td>
</tr>
<tr>
<td>2 MASCULINE</td>
<td>mata, ma</td>
<td>kicha, ki</td>
<td>kwota, ku</td>
</tr>
<tr>
<td>2 FEMININE</td>
<td>niña, nicha, ni</td>
<td>kicha, ki</td>
<td>kwota, ku</td>
</tr>
<tr>
<td>3 MASCULINE</td>
<td>rata, ra</td>
<td>parata, par</td>
<td>yecha, ye</td>
</tr>
<tr>
<td>3 FEMININE</td>
<td>eta, sa</td>
<td>parata, par</td>
<td>yecha, ye</td>
</tr>
</tbody>
</table>

Compare the pronouns reconstructed for Proto-Ndu in table 6, and the paradigm in Manambu in table 7.
### Table 6. Independent Personal Pronouns in Proto-Ndu

<table>
<thead>
<tr>
<th>PERSON AND GENDER</th>
<th>SINGULAR</th>
<th>DUAL</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (MASCULINE OR FEMININE)</td>
<td>*wun</td>
<td>*an(e)</td>
<td>*nan(e)</td>
</tr>
<tr>
<td>2 MASCULINE</td>
<td>*man(a)</td>
<td>*ban(e)</td>
<td>*gun(e)</td>
</tr>
<tr>
<td>2 FEMININE</td>
<td>*nán(a)</td>
<td>*ban(e)</td>
<td>*gun(e)</td>
</tr>
<tr>
<td>3 MASCULINE</td>
<td>*da</td>
<td>*bør(e)</td>
<td>*di</td>
</tr>
<tr>
<td>3 FEMININE</td>
<td>*la</td>
<td>*bør(e)</td>
<td>*di</td>
</tr>
</tbody>
</table>

### Table 7. Independent Personal Pronouns (Subject Forms) in Manambu

<table>
<thead>
<tr>
<th>PERSON AND GENDER</th>
<th>SINGULAR</th>
<th>DUAL</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (MASCULINE OR FEMININE)</td>
<td>*wun</td>
<td>*an</td>
<td>*ńan</td>
</tr>
<tr>
<td>2 MASCULINE</td>
<td>*man</td>
<td>*bør</td>
<td>*gwur</td>
</tr>
<tr>
<td>2 FEMININE</td>
<td>*nán</td>
<td>*bør</td>
<td>*gwur</td>
</tr>
<tr>
<td>3 MASCULINE</td>
<td>*da</td>
<td>*bør</td>
<td>*day</td>
</tr>
<tr>
<td>3 FEMININE</td>
<td>*la</td>
<td>*bør</td>
<td>*day</td>
</tr>
</tbody>
</table>

Tables 8–11 present the independent personal pronouns in Iatmul, Abelam-Wosera, Boiken (Yangoru and Kwusaun dialects), and Yelogo.

### Table 8. Personal Pronouns in Iatmul

<table>
<thead>
<tr>
<th>PERSON AND GENDER</th>
<th>SINGULAR</th>
<th>DUAL</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (MASCULINE OR FEMININE)</td>
<td>*wun</td>
<td>*an</td>
<td>*nin</td>
</tr>
<tr>
<td>2 MASCULINE</td>
<td>*min</td>
<td>bit (S), biˈk (J)</td>
<td>guk/gut</td>
</tr>
<tr>
<td>2 FEMININE</td>
<td>*nyin</td>
<td>bit (S), biˈk (J)</td>
<td>guk/gut</td>
</tr>
<tr>
<td>3 MASCULINE</td>
<td>*di</td>
<td>bit (S), biˈk (J)</td>
<td>*di</td>
</tr>
<tr>
<td>3 FEMININE</td>
<td>*li</td>
<td>bit (S), biˈk (J)</td>
<td>*di</td>
</tr>
</tbody>
</table>

**Sources:** Staalsen (S) (1965a:29) and Gerd Jendraschek (J) (p.c. 2007). Each represents a different variety of the Nàura dialect (mostly the Brugnowi variety in Staalsen, and Korogo, or Koloko, from Jendraschek).

### Table 9. Personal Pronouns in Abelam-Wosera

<table>
<thead>
<tr>
<th>PERSON AND GENDER</th>
<th>SINGULAR</th>
<th>DUAL</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (MASCULINE OR FEMININE)</td>
<td>*wuné (Abelam)</td>
<td>ané (Abelam)</td>
<td>naané (Abelam)</td>
</tr>
<tr>
<td>2 MASCULINE</td>
<td>*wuni (West Wosera)</td>
<td>aní (West Wosera)</td>
<td>nani, me (West Wosera)</td>
</tr>
<tr>
<td>2 FEMININE</td>
<td>mené (Abelam)</td>
<td>béné (Abelam)</td>
<td>guné (Abelam)</td>
</tr>
<tr>
<td>2 FEMININE</td>
<td>méni (West Wosera)</td>
<td>béní (West Wosera)</td>
<td>guní (West Wosera)</td>
</tr>
<tr>
<td>3 MASCULINE</td>
<td>nyéné (Abelam)</td>
<td>bené (Abelam)</td>
<td>guné (Abelam)</td>
</tr>
<tr>
<td>3 MASCULINE</td>
<td>nyéní (West Wosera)</td>
<td>béní (West Wosera)</td>
<td>guní (West Wosera)</td>
</tr>
<tr>
<td>3 FEMININE</td>
<td>dé</td>
<td>bét (Abelam)</td>
<td>de (Abelam)</td>
</tr>
<tr>
<td>3 FEMININE</td>
<td>lé</td>
<td>bér (West Wosera)</td>
<td>di (West Wosera)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERSON AND GENDER</th>
<th>SINGULAR</th>
<th>DUAL</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (MASCULINE)</td>
<td><em>wune</em> (Yangoru)</td>
<td><em>nane</em> (Yangoru)</td>
<td><em>nine</em> (Yangoru)</td>
</tr>
<tr>
<td>OR FEMININE</td>
<td><em>nua</em> (Kwusaun)</td>
<td><em>nana</em> (Kwusaun)</td>
<td><em>nana</em> (Kwusaun)</td>
</tr>
<tr>
<td>2 MASCULINE</td>
<td><em>mine</em> (Yangoru)</td>
<td><em>ple</em> (Yangoru)</td>
<td><em>kle</em> (Yangoru)</td>
</tr>
<tr>
<td></td>
<td><em>mọna</em> (Kwusaun)</td>
<td><em>bọra</em> (Kwusaun)</td>
<td><em>gwa</em> (Kwusaun)</td>
</tr>
<tr>
<td>2 FEMININE</td>
<td><em>yine</em> (Yangoru)</td>
<td><em>ple</em> (Yangoru)</td>
<td><em>kle</em> (Yangoru)</td>
</tr>
<tr>
<td></td>
<td><em>ńana</em> (Kwusaun)</td>
<td><em>bọra</em> (Kwusaun)</td>
<td><em>gwa</em> (Kwusaun)</td>
</tr>
<tr>
<td>3 MASCULINE</td>
<td><em>ti, ri</em> (Yangoru)</td>
<td><em>ple</em> (Yangoru)</td>
<td><em>tie</em> (Yangoru)</td>
</tr>
<tr>
<td></td>
<td><em>da</em> (Kwusaun)</td>
<td><em>bọra</em> (Kwusaun)</td>
<td><em>dy</em> (Kwusaun)</td>
</tr>
<tr>
<td>3 FEMININE</td>
<td><em>yi</em> (Yangoru)</td>
<td><em>ple</em> (Yangoru)</td>
<td><em>tie</em> (Yangoru)</td>
</tr>
<tr>
<td></td>
<td><em>ny</em> (Kwusaun)</td>
<td><em>bọra</em> (Kwusaun)</td>
<td><em>dy</em> (Kwusaun)</td>
</tr>
</tbody>
</table>

**NOTE:** The Yangoru dialect forms in this table are “regular pronouns” from Freudenburg (1979: section 4); the forms in the Kwusaun dialect are from Laycock (1965:106).

**Table 11. Personal Pronouns in Yelogu**

<table>
<thead>
<tr>
<th>PERSON AND GENDER</th>
<th>SINGULAR</th>
<th>DUAL</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (MASCULINE OR FEMININE)</td>
<td><em>uny</em></td>
<td><em>any</em></td>
<td><em>ńany</em></td>
</tr>
<tr>
<td>2 MASCULINE</td>
<td><em>many</em></td>
<td><em>bany</em></td>
<td><em>gwny</em></td>
</tr>
<tr>
<td>2 FEMININE</td>
<td><em>ńany</em></td>
<td><em>bany</em></td>
<td><em>gwny</em></td>
</tr>
<tr>
<td>3 MASCULINE</td>
<td><em>da</em></td>
<td><em>bọra</em></td>
<td><em>jy</em></td>
</tr>
<tr>
<td>3 FEMININE</td>
<td><em>la</em></td>
<td><em>bọra</em></td>
<td><em>jy</em></td>
</tr>
</tbody>
</table>

**SOURCES:** Laycock (1965:140); Nayau (n.d.).

Table 12 compares the Gala personal pronouns with those of Manambu.

**Table 12. Personal Pronouns in Gala Compared with Manambu**

<table>
<thead>
<tr>
<th>PERSON AND GENDER</th>
<th>GALA</th>
<th>MANAMBU</th>
<th>GALA</th>
<th>MANAMBU</th>
<th>GALA</th>
<th>MANAMBU</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 MASCULINE</td>
<td><em>wun</em></td>
<td><em>wun</em></td>
<td><em>en</em></td>
<td><em>an</em></td>
<td><em>nan</em></td>
<td><em>ńan</em></td>
</tr>
<tr>
<td>1 FEMININE</td>
<td><em>ńin</em></td>
<td><em>wun</em></td>
<td><em>en</em></td>
<td><em>an</em></td>
<td><em>nan</em></td>
<td><em>ńan</em></td>
</tr>
<tr>
<td>2 MASCULINE</td>
<td><em>min, män</em></td>
<td><em>bän</em></td>
<td><em>bär</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 FEMININE</td>
<td><em>yin</em></td>
<td><em>ńän</em></td>
<td><em>bän</em></td>
<td><em>bär</em></td>
<td><em>gun</em></td>
<td><em>gware</em></td>
</tr>
<tr>
<td>3 MASCULINE</td>
<td><em>kal, kar</em></td>
<td><em>da</em></td>
<td><em>(n)a</em>bäl</td>
<td><em>bär</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 FEMININE</td>
<td><em>ki</em></td>
<td><em>la</em></td>
<td><em>(n)a</em>bäl</td>
<td><em>bär</em></td>
<td><em>lar, lal</em></td>
<td><em>day</em></td>
</tr>
</tbody>
</table>

**NOTE:** The Gala forms are from my notes, collected in 2004. These correct an error of Leycock’s, who mistakenly interpreted the Gala second person feminine form as having third person feminine reference (1965:133).

A striking feature of the Gala pronouns is the gender distinction in first person. The Proto-Ndu *ńan(a)* 'second person singular feminine' was reinterpreted as first person singular feminine, and *yin* was coopted as second person
singular feminine. The form yin is cognate with the second person singular feminine yine in Boiken (Freudenburg 1979, n.d.; see Aikhenvald 2008d).

The Gala third person singular pronoun contains the stem kə-, cognate to the Ndu proximate demonstrative (e.g., Manambu kə-). (Note that the third person feminine form is formally less marked than the masculine form kar/kal. The latter contains the masculine marker -l, which is a regular correspondent of Proto-Ndu *d̪, as in Manambu du versus Gala lù ‘man’.)

The Kwoma pronouns can now be compared with pronouns in Ndu languages. The formative in bold type in Kwoma (table 5) have a Ndu-like appearance. The second person masculine m- looks similar to Proto-Ndu *man(a), and the second person feminine n- looks similar to Proto-Ndu *nən(a). To be sure, while the Kwoma and Ndu forms are similar, they are not identical, so coincidence cannot be ruled out (compare the similarities of the first and second person singular pronouns in Indo-European languages to those of Uralic languages, and numerous instances of nasals in second person marking throughout the world).

The formative r- in the Kwoma third person singular looks very similar to the third person formative -r- in Gala (recall that there was a considerable amount of contact, and conflict, between the Gala and the Kwoma before the Gala wars). Gala -r- in pronouns is a reflex of Proto-Ndu -d̪- (e.g., Manambu da ‘he’). But as we will see below, in none of the numerous words that Manambu and other Ndu languages share with Kwoma does Kwoma r correspond to d or t. Thus, again, this similarity in third person pronouns is probably coincidental. The same applies to kuo- in second person plural, which is similar to the formative gu- in Proto-Ndu *gun(e) (which is arguably an exponent of number and not of person [see Aikhenvald 2008a:594]); there are no other instances of cognates where Kwoma kú and Ndu gu correspond.

Suggestive as these similarities may appear to be for those desperate to lump languages into “stocks,” they do not amount to much in terms of real evidence for genetic relationship. Importantly, there are no regular correspondences between Ndu and Kwoma and no reconstructible paradigms. Hardly any other bound grammatical morphemes, or members of closed classes (interrogatives, demonstratives, or numbers), are shared between Manambu and Kwoma. The only possible exception is the quantifier aba:b ‘all’ in Manambu, which is suspiciously similar to Kwoma abo ‘all’ (Bowden 1997:1; Kooyers 1974:19), and also to Yessan-Mayo ab ‘all’ (Foreman 1980:32). This Manambu form has no cognates in other Ndu languages (see section 5.3.1).

A comparison of the numbers ‘one’, ‘two’, and ‘three’ in Ndu languages and in Kwoma is seen in table 13. Though all the Ndu languages share cognates in numbers ‘one’, ‘two’, and ‘three’, the Kwoma numbers are markedly different.
Table 13. Numbers in Ndu Languages and in Kwoma

<table>
<thead>
<tr>
<th>Language</th>
<th>'ONE'</th>
<th>'TWO'</th>
<th>'THREE'</th>
</tr>
</thead>
<tbody>
<tr>
<td>MANAMBUL</td>
<td>nak, nakamay, na</td>
<td>viti</td>
<td>mugul 'three', 'a few'</td>
</tr>
<tr>
<td>IATMUL</td>
<td>nak 'one (non-specific)',</td>
<td>vi'li'li'k*</td>
<td>kuvuk 'three', 'a few'</td>
</tr>
<tr>
<td></td>
<td>'any', 'other'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABELAM-WOSERA</td>
<td>nak 'another', 'one'</td>
<td>vétik</td>
<td>kuvuk</td>
</tr>
<tr>
<td>(YANGORU)</td>
<td>napa</td>
<td>veryky</td>
<td>mugiwyky</td>
</tr>
<tr>
<td></td>
<td>nafa†</td>
<td>veryk</td>
<td>nagwlak</td>
</tr>
<tr>
<td>GALA</td>
<td>nok</td>
<td>fid</td>
<td>mugiul</td>
</tr>
<tr>
<td>YELOGU</td>
<td>nakwade</td>
<td>wəty</td>
<td>kwavakw</td>
</tr>
<tr>
<td>KWOMA‡</td>
<td>pochi, podar,</td>
<td>upurus</td>
<td>daŋəra kara,</td>
</tr>
<tr>
<td></td>
<td>podat, por</td>
<td></td>
<td>pərəchar</td>
</tr>
</tbody>
</table>

*From Jendraschek (2007b). There is a regular correspondence between Manambul t and Iatmul l.
† From Freudenburg (1975).
‡ The Kwoma forms are from Bowden (1997); Kooyers (1974:19–20) does not provide a full list of numerals. The distribution of these forms is a matter for further investigation.

5.1.2. Lexical forms shared by Manambu and Kwoma. Just over two dozen lexical forms in Manambu and in Kwoma have formal similarities. These constitute 0.5 percent of vocabulary in the sources (there are about five thousand Kwoma forms in Bowden 1997 and Kooyers 1974). Some of these may have been borrowed from Manambu or Iatmul into Kwoma, and some from Kwoma into Manambu. The absence of regular phonological correspondences between these suggests that either the borrowing took place at different times, or the similarities are due to pure coincidence.

Manambu has lost the final vowels of nouns (except that they surface as linkers when a case marker attaches to the noun). The equivalents of Manambu forms in the Bangwis dialect of Kwoma often preserve the final vowel (Bowden 1997). The lost vowel in Manambu is supplied in brackets. Iatmul did not undergo final vowel loss. That is, the presence or absence of the final vowel in a Kwoma word can be an indicator of whether the form comes either from Manambu after vowel dropping, from Iatmul, or from Manambu before vowel dropping (provided that the Manambu or Iatmul form is segmentally the same as the Kwoma form in other respects). Boiken and Abela-Wosera preserve all word-final vowels, and Gala does so in part.

The exact timing of the loss of final vowels in Manambu is unknown. The first word list of Manambu, recorded in 1887 (Zöller 1891:367–88), indicates that by that time some final vowels had already been lost. The forms in the word list that are identifiable as Iatmul contain final vowels, as expected. For instance, the form Nijnk 'Blatt [leaf]' (item 24 in Zöller's list) is the Manambu form niŋ 'leaf'; contrast the present-day Iatmul form niŋa 'leaf'. The form Rambu 'Trommel [drum]' (item 254 in Zöller's list) is a Manambu word ra:b 'slit-drum' (Iatmul does not have a cognate). In contrast, the noun Tauga 'Frau [woman]'
(item 71 in Zollér’s list) must represent the Iatmul form ta’kwa, because the Manambu form is taːku ‘woman’. (Note that the words are tentatively identified as Manambu or Iatmul based on the extant data.)

An additional source of difficulty in identifying Manambu loans in Kwoma is that Yelogu appears to also have lost some final vowels. Given the paucity of data on Yelogu, it is often hard to decide what the exact source of a loan may have been. The exact source of borrowing for the following four items could be Manambu, Iatmul, or Yelogu.

I now turn to some examples of potential borrowings from a Ndu language into Kwoma.\(^{25}\) I first examine forms that are also attested in at least one Ndu language other than Manambu, or can be reconstructed for Proto-Ndu.\(^{26}\)

- Proto-Ndu *taːba, Manambu taːb(a) ‘hand, arm’, Yelogu taːba, Boiken taːba, Kwoma tapa ‘arm (including hand)’, ‘handprint’, ‘branch’, ‘wing of a bird’ (Bowden 1997:209). This item could have been borrowed into Kwoma from Manambu (before vowel loss), from Iatmul, or from Yelogu.


- Proto-Ndu *naːgu, Manambu naːgu(a), Iatmul nau, Yelogu nagu (Nayau n.d.), Abelam naːng, Kwoma noku ‘sago’. This form in Kwoma may have been borrowed from Yelogu or Manambu (before vowel loss).


Two words are likely to have been borrowed from Manambu into Kwoma.

- Manambu taːma(a) ‘nose’, ‘edge’ (possibly Proto-Ndu *taːma, Kwoma tam ‘outer edge or periphery’ (Bowden 1997:208). That this is likely to be a loan from Manambu and not from any other Ndu language is corroborated by the absence of the final vowel in Kwoma (cf. Iatmul daːma, Yelogu tamwa, Gala domo ‘nose’).

- Manambu məl(a) ‘eye’ (Proto-Ndu *mən(a)), Kwoma miyi, mili ‘eye’ (Bowden 1997:134). Since only Manambu and Gala have məl(V) for ‘eye’ (other Ndu languages, including Iatmul (mi’ni), have a reflex mən(a)), either could be a potential source for this borrowing. A form with a final vowel was recorded for Gala as mɪlə, mɪlà by Farnsworth (1964) and myself (məla), which makes Gala a likely source.

A few other words are likely to have come from Iatmul or from Manambu before its vowel loss.
• Proto-Ndu *nebe, Manambu nab(a) ‘hair’, Kwoma neba ‘hair (human or animal)’, ‘fur’, ‘bristle’, ‘feathers’ (Bowden 1997:142); cf. Iatmul nibi ‘hair’. Unlike Manambu and Iatmul, the same term in Bangwis Kwoma covers hair, fur, and feathers (Manambu distinguishes ‘head hair’ and ‘body hair, feathers, fur’); this is reminiscent of the polysemy of ñage ‘hair, fur, feather’ in Gala. The Gala form could hardly have served as a source for Kwoma neba, but could have influenced its semantics.

• Proto-Ndu *lapu, Manambu la:p ‘banana’, Iatmul laavu, Abelam laspu, Kwoma yopo, lopo ‘banana’ (Bowden 1997:261) (the alternation y ~ l in Kwoma is frequent between dialects).


• Manambu yi(a) ‘fire’ (Proto-Ndu *yi(a)), Iatmul yia ‘fire’, Gala and Yelogu ya, Kwoma hi ‘fire’, ‘kitchen hearth’ (Bowden 1997:65). Since all the forms are short, this could well be a coincidence.


The following word is more likely to have come from Iatmul than from Manambu.


Three monosyllabic verb roots are shared by Kwoma, Manambu, Iatmul, and Yessan-Mayo.


• Manambu ya- ‘come’, Proto-Ndu *ya (with reflexes in all the Ndu languages), Kwoma ya ‘come’ (Bowden 1997:241), Yessan-Mayo ya- ‘come’ (Foreman 1980:36).

An additional monosyllabic verb is Kwoma ta ‘be, exist’ (Bowden 1997:206), ‘stay, also used as an auxiliary with a durative meaning’ (Renée Lambert-Brétière p.c. 2007), a look-alike of Manambu ta- ‘stand’; ‘be’; ‘have’, Iatmul ti- ‘stay’, “be” (with cognates throughout the Ndu family). This is similar to Yessan-Mayo ti- ‘be’.

At present, there is no explanation for these look-alikes, which could well be borrowed from any of these languages into another.

Further potential loans from Manambu or Iatmul into Kwoma include the following:29

- Manambu mara, Iatmul ma:n ‘bird of paradise’ (Jendraschek 2007a), Kwoma mara ‘bird of paradise’ (Bowden 1997:119) (also see n. 31 below, on further look-alikes for this form).


- Manambu yayib ‘tree kangaroo’ (cf. Wosera yepiné ‘tree kangaroo’; no cognate in Iatmul), Kwoma yobu ‘tree kangaroo’ (Bowden 1997:259).


The form mu in Kwoma is used in the meaning of ‘base’, ‘foundation’, ‘bottom’, ‘foot’, ‘meaning’, as in mu noku (bottom sago.palm), noku mu (sago.palm bottom) ‘at the bottom (or base) of a sago palm’ (cf. Manambu maw na gw (base sago.palm) ‘at the bottom (or base) of a sago palm’); maji mu (speech base) ‘meaning of an expression’ (cf. Manambu maw maj ‘meaning of expression; base of talk’).50

The Kwoma noun mayira ‘object of ritual or cultural significance given by one tribe to another in exchange for a similar object for the purpose of cementing peace between the two groups’ (Bowden 1997:124–25) could be a loan from Manambu Mayira(a) ‘powerful spirit’ (cf. Abelam mayéra ‘carved figure’; whether this term goes back to Proto-Ndu or not requires further study).

The Kwoma form apokibi ‘flying fox’ (Bowden 1997:13) may consist of apo ‘bird’ and kibi ‘flying fox’, the latter suspiciously similar to Manambu kabui ‘flying fox’, also attested in some sources for the Tambunun dialect of Iatmul (Roesicke 1914) and possibly in the Korogo variety (Gerd Jendraschek p.c. 2007), and the former similar to Manambu api, Gala apui ‘bird’. The Yelgou form is hobui (Nayau n.d.); this is unlikely to have been the source of kibi.

Kwoma jaber ‘ship’ could be a loan from Manambu jaber ‘ship, big boat’. Bowden mentions that “according to Bangwis informants this is a Kwoma
neologism coined at the beginning of this [twentieth] century” (1997:78). The
direction of borrowing seems plausible since the Kwoma did not have any
traditional knowledge of canoes, rafts, or ships, and the Manambu did.

Kwoma sapi ‘skin (e.g., of human body), ‘bark of tree or vine’ (Bowden
1997:186) may be a loan from Manambu sap(a) ‘skin’ (Proto-Ndu *sapə or *səba).
However, the difference in vowels is such that this could well be just a look-alike.

A number of further words could be borrowings from Kwoma into Manambu,
since they are not attested in other Ndu languages. These include:

- Manambu mu ‘crocodile’ (cf. Yelogu mul ‘crocodile’ [Nayau n.d.]), Kwoma
  mo ‘crocodile’ (Bowden 1997:135);
- Manambu karab(a), Kwoma korobo ‘ceremonial house’ (Bowden 1997:96–
  97);
- Manambu Yabunay ‘address term for a woman from Maliau clan’, ‘a term
  for the Iatmul’, Kwoma Yabunay ‘term for the Iatmul’ (Bowden 1997:243);
- Manambu maj(i) ‘word’, ‘talk’, ‘speech’, ‘story’, Kwoma maji ‘word’, ‘con-

The Kwoma form asa ‘dog’ (Bowden 1997:15, and section 2 of the present
article) is very similar to Manambu a.s(s). The Manambu form appears to be
cognate to Abelam wasasa ‘dog’. The Kwoma form could be a loan from Manambu
before vowel loss, or alternatively, the original form wa:sa in Manambu could
have adjusted to the form in Kwoma, asa. (Recall from section 2 that Iatmul has
a form wara ‘dog’ shared with Boiken.) The Yelogu form as ‘dog’ (Nayau n.d.;
Laycock 1965:161) could not have been the source of the Kwoma form, which
contains the final vowel.\footnote{Further look-alikes include:

Manambu api taka- ‘yawn’ (lit., ‘top put- (?)’) and the formative taka- in
Kwoma takamayama ha- (Bowden 1997:208) ‘yawn’;
- Manambu gu ‘water’ (Proto-Ndu *gu) and Kwoma uku ‘water’;
- Manambu gwə:m ‘earthworm’ and Kwoma gwoyibi ‘earthworm’ (Bowden
1997:50) (cf. Iatmul gwəsbi’ ‘worm’ [Jendaschek 2007a]); and
‘upper arm’ (Bowden 1997:54) (cf. Iatmul ava ‘bone’, ‘tree’ [Jendaschek
2007a]).

An interesting potential loan from Kwoma is the Manambu form apwi
‘address and farewell form for people from the Sarak clan’. The Kwoma are
traditionally considered to belong to the Sarak subclan, and are equated with
the cassowary, one of the totems of the Sarak subclan. The form apwi is used in
stories when people talk to cassowaries. The Kwoma greeting is apo ‘greeting’
(Yuamali Benji Ala p.c. 2004; aps in Bowden [1997:11]). Renée Lambert-
Brétéière reports that old people in Tongwinjamb pronounce this greeting as}
*apwa*, with a labialized consonant—this could be a further indication that *apwi* in Manambu is indeed a loan from Kwoma. (This is reminiscent of the possible Yerakai origin of the address term *Yimal* mentioned in section 4.3.)

The list of Kwoma-Manambu look-alikes discussed is exhaustive. All these superficial similarities and the potential lexical loans can hardly be used to demonstrate any kind of genetic relationship. I hypothesize that intensive language contact is a reasonable explanation.

5.2. Manambu and Yesson-Mayo: shared forms. Bilingualism between the Kwoma and the Yesson-Mayo, a language from the Tama family, has been mentioned in numerous sources (see Staalsen 1965b:188; Bowden 1997:xxiv). In contrast, the interaction between the Manambu and the Yesson-Mayo appears to be restricted to trade-partnership (see table 2 above).

According to Bowden, the Yesson-Mayo actively participated in the Gala wars, just like the Kwoma and the Manambu, and established their settlements in abandoned Gala villages. Since very little is known about the ethnohistory of the Yesson-Mayo, it is hard to speculate on the extent of contact between them and the neighboring Ndu speakers—the Gala, the Yelogo, and the Manambu.

We see later in this section that Yesson-Mayo has a number of possible loans from a Ndu source (often identifiable as Manambu). In addition, a few special features of Manambu are shared with the genetically unrelated Yesson-Mayo. This may indicate contact in the past.

Yesson-Mayo belongs to the Tama language family and is not demonstrably related to Manambu, or to Kwoma. Personal pronouns in Yesson-Mayo are shown in table 14. They are markedly different from the pronouns in tables 4–12.

<table>
<thead>
<tr>
<th>PERSON AND GENDER</th>
<th>SINGULAR</th>
<th>DUAL</th>
<th>PLURAL</th>
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<tr>
<td></td>
<td>NONEMPH</td>
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<tr>
<td>2</td>
<td><em>ni</em></td>
<td><em>nirin</em></td>
<td><em>kep</em></td>
</tr>
<tr>
<td>3 Masculine</td>
<td><em>ri</em></td>
<td><em>atar</em></td>
<td><em>rip</em></td>
</tr>
<tr>
<td>3 Feminine</td>
<td><em>ti</em></td>
<td><em>atat</em></td>
<td><em>rip</em></td>
</tr>
</tbody>
</table>


Numbers in Yesson-Mayo are *wuri* ‘one’, *pes* ‘two’, and *mur* ‘three’ (Foreman 1980:56, 72, 86, 108); these forms are also different from all those in table 13.

In its lexicon, Yesson-Mayo has a number of apparent loans from a Ndu source. Some of these loans are shared with Kwoma. In section 5.1.2, we mentioned the existence of three or four monosyllabic roots shared by Yesson-Mayo, Kwoma, and the Ndu languages: ‘come’, ‘go’, ‘say, speak’ and possibly also ‘be, stay, stand’.
Other shared forms include:

- Yesson-Mayo *kin* ‘tail’, a possible loan from Gala or from Manambu (see section 5.1.2 above).
- Yesson-Mayo *wan* ‘ear’ (Foreman and Marten n.d.:89); Manambu *wa:n* ‘ear’, Iatmul, Abelam *wa:n*, Boiken *wan* (Proto-Ndu *wa:n*).
- Yesson-Mayo *piy* ‘spear’ (Foreman and Marten n.d.:90), Manambu, Iatmul, Abelam *vi* ‘spear’ (Proto-Ndu *vi*).
- Yesson-Mayo *amwiy* ‘fish trap’ (Foreman and Marten n.d.:100), Manambu *amay* ‘shrimp basket’ (cf. Yuanab or Yambon variety *amwiy* [Farnsworth n.d.]), compare Iatmul Brugnowi *namwi* (Staalsen and Staalsen 1973), Korogo *naami*i ‘fishing basket’ (Jendraschek 2007a). This form is likely to have been borrowed from the Yuanab variety of Manambu. Geographically, Yuanab is closer to the Yesson-Mayo than any other Manambu settlements (see map 2), which makes this source of borrowing plausible.

The form *mi* ‘tree’ (Foreman and Marten n.d.:96) is also similar to Kwoma *me* (see discussion in section 5.1.2 on why the Kwoma form could be a Iatmul loan).

The noun *ap* ‘bird’ is similar to Kwoma *apo* (Foreman and Marten n.d.:90), and also to Manambu *wapi* ‘bird’, cognate to Abelam *spi*, Iatmul *waavi* ‘bird’, Yelogu *wavy*, Boiken Kwusaun *wavy*, and Yengoru *wavy*.

The noun *ki*b ‘bat type’ (Foreman and Marten n.d.:92) may be related to Manambu *kabwi*; cf. Kwoma *apokibi* ‘flying fox’ (Bowden 1997:13), discussed above.\(^*32\)

The only three-syllable noun shared by Kwoma, Yesson-Mayo, Iatmul, and Manambu deserves special mention. Kwoma has a term *wayaga, walaga* “term of reference (and address) for (i) all third and higher ascending generations’ relatives [...] (ii) Clan forebear of third or higher ascending generation level. [...] (iii) Chthonian ancestor [i.e., dwelling in or beneath the surface of the earth –A. A.] of a clan. This is likely a borrowing from Iatmul *waraga* ‘great-grandfather’” (Bowden 1997:230).

The word *waraga* ‘ancestor’ in Yesson-Mayo (Foreman 1980:29) is likely to be a loan from Iatmul *waraga/walaga*, or from Manambu before vowel loss, since the Kwoma word underwent a phonological process whereby l became y in any position (as in Gala, Gaya ‘the Gala’). Alternatively, this word could have been borrowed from Kwoma before this phonological process had taken place. The modern Manambu form is *warag(a)* ‘ancestor’.
A possible cognate for this term in Manambu and Iatmul is Abelam-Wosera kepma-wara ‘ancestor’ (lit., ‘earth-ancestor’) (Kundama and Wilson 1987:33).

Formal look-alikes shared by Manambu and Yessan-Mayo include the imperative prefix ha- in Yessan-Mayo (Foreman 1980:37). This is similar to Manambu a-, which attaches to every verb, and to Iatmul a-, which has a more limited distribution (a cognate is also found in Boiken). The Yessan-Mayo negator mana ‘cannot’ (Foreman and Marten n.d.:92) looks similar to Manambu ma:n, which has the form ma:na when focussed. The Manambu generic verbal sequencing marker -n, whose only possible cognate in the Ndu family is Iatmul -n ‘conditional’ (Staalsen and Staalsen 1973), is similar to Yessan-Mayo -n, used in a similar function (Foreman 1980:142, 186). The form kap ‘should not’ (Foreman 1980:189) is reminiscent of Manambu kapi (negator) and kapi sapi ‘emphatic “no”’. However, each of these similarities could be due to a simple coincidence.

I now turn to the issues of areal diffusion of patterns in phonology, morphology, and syntax.

5.3. Diffusion of patterns: Manambu, Kwoma, and Yessan-Mayo. Manambu appears to be more morphologically complex than its relatives Iatmul, Abelam-Wosera, and Boiken. Structural features shared between Kwoma (the Washkuk variety described by Kooyers [1974]) and Manambu are addressed in section 5.3.1, and the features common to Yessan-Mayo and Manambu are examined in section 5.3.2. Features not attested in the Ndu languages to whose grammars we have access are likely due to areal diffusion between genetically unrelated languages. The most likely direction is from Jungle-dwellers’ languages into Manambu.

There are a number of significant typological differences between these languages. Yessan-Mayo and Kwoma have no personal cross-referencing on the verb. In Iatmul, only the subject is cross-referenced, while in Manambu both subject and object are marked on the verb. Manambu has nine case forms, while Iatmul and Kwoma have three. In contrast, Yessan-Mayo has no case-marking. Kwoma is exclusively suffixing, and Yessan-Mayo has a few prefixes and numerous suffixes. Manambu has only two productive prefixes, and Iatmul has one; the remaining bound morphemes are suffixes.

A number of features are shared by most languages of the area, both Ndu and non-Ndu. Among them are verb-final constituent order, pre-head position for noun modifiers (including numbers, demonstratives, and adjectives), the existence of postpositions, echo compounds, and speech reports employed in a variety of additional meanings (expressing internal thought, cause, and purpose [see Aikhenvald 2008b]). Most of these shared features can be found in other languages within the Sepik Basin (see Foley 1986; Hoenigman 2007) and even across the whole New Guinea area.
A rather unusual feature shared by Manambu, Iatmul, Kwoma, and Yessen-Mayo is a generic noun and a corresponding generic verb. In Manambu, ma:gw ‘whatever, whatchamacallit’ is considered by speakers to be related to the generic verb magi- ‘do whatever (replacement for unspecified verb)’ (Aikhenvald 2008a:573–78). The Iatmul forms are bun ‘whatever, whatchamacallit’ and buli– ‘do whatever (replacement for unspecified verb)’ (Jendraschek 2007a; see also Staalsen and Staalsen 1973:39). Yessen-Mayo has general noun nagwo ‘whatchamacallit’, ‘a sort of pro-word substituting for a word you cannot think of. When substituting for a verb it takes on the affixation of verb’ (Foreman 1980:24). The Yessen-Mayo form is similar to Kwoma nago ‘hesitation word’ (Bowden 1997:139; Kooyers 1974:11), which can take cases similarly to other nouns; it can also appear with verbal inflection if the speaker does not remember the exact verb (Renée Lambert-Brétéière p.c. 2007).

Another feature shared by Kwoma, Yessen-Mayo, Manambu, and Iatmul is the double comitative. In Yessen-Mayo, it is described as a means of coordinat-
ing nouns, as in nakini wor-kinsi (sago.COM axe-COM) ‘sago and axe’ (Foreman 1980:63). A single comitative indicates accompaniment, as in an ta-kini (I wife-
COM) ‘I (will go) with (my) wife’ (Foreman 1980:91). A single comitative in Manambu is used in a similar function, e.g., wun takwa-wa (I wife.LK-COM) ‘I (will go) with (my) wife’. A double comitative in Manambu indicates full partici-
pation of the two referents, e.g., man-ata-wa wun-a-wa (you.masc-LK-COM I-LK-
COM) ‘you and I together’. Iatmul has a similar pattern, e.g., mi’n-okwi wun-
okwi (you.masc-COM I-COM) ‘you and me’ (Jendraschek 2007b), and so does Kwoma (Renée Lambert-Brétéière p.c. 2007).

Masculine and feminine gender in second and third person pronouns, and some gender agreement in noun phrases, is a feature of Ndu languages (where gender is associated with size and shape [see Aikhenvald 2008a:116–23]). Kwoma does not have gender agreement in noun phrases, but it does have gender distinctions in second and third person singular pronouns. Yessen-Mayo has a gender distinction only in third person singular. There is no information on the semantics of gender in either Kwoma or Yessen-Mayo.

A typologically unusual property shared by Kwoma and other Ndu lan-
guages, including Manambu, is the syncretism of locative and instrumental cases (Kooyers 1974:30). This is one of the features Kwoma shares with Manam-
bu, rather than with Yessen-Mayo.

The following sections consider properties that are shared between Manam-
bu and specific other languages in the region: between Manambu and Kwoma (section 5.3.1), between Manambu and Yessen-Mayo (section 5.3.2), and be-
tween Jungle-dwellers’ languages and Manambu (section 5.3.3).

5.3.1 Features shared between Manambu and Kwoma. The use of nominal case forms on verbs is a feature Kwoma shares with Manambu (Aikhenvald 2008c); synchronically, this is absent from most other Ndu languages. But
shared forms are very few. For instance, the form -k in Kwoma is used as a marker of locative and instrumental on nouns, and as purposive and perhaps even future on verbs (Kooyers 1974:29, 30, 16; Renée Lambert-Brétière p.c. 2007), e.g., akama-k (village-TO) ‘to the village’, ha-k (die-PURP) ‘in order to die’ (Kooyers 1974:29). A similar pattern of polysemy is found for a look-alike form in Manambu, such as wun-a:k (I-DAT) ‘to me’, kiya-k (die-PURP) ‘in order to die (SS)’. The dative, averse, and directional marker -Vk in Manambu (Aikhenvald 2008a:152–55, 2008c) has cognates throughout the Ndu family (cf. Iatmul -kak). Is the striking similarity between the use of Manambu -Vk and the Kwoma -k a simple coincidence, or is it indicative of something else? Given how short the form is, we cannot tell.34

A few other striking structural similarities are exemplified below. Since these features are found in Manambu and in Kwoma, but are absent from Ndu languages other than Manambu, we hypothesize that these structures and meanings have been diffused from Kwoma into Manambu.

- **PARTIAL SIMILARITY IN NUMERAL ‘FIVE’**. The word for ‘five’ in Manambu and in Kwoma has the structure ‘body.part-all’: Manambu taba:b (hand.LK.all?), Kwoma yata abo (leg all) ‘five’ (Bowden 1997:248). This contrasts with Iatmul, where ‘five’ is taba-nak (hand-one); also compare Abelam nak-tabbi, Wosera na-tamba, Gala na wajan ‘one hand, five’.

- **SIMILARITIES IN THE AFFIX SYSTEM.** Unlike other Ndu languages, Manambu has a similitative suffix -pok ‘like’, which can attach to any inflected form. This is structurally reminiscent of the similitative -ga ‘like’ in Kwoma (cf. Kwoma mimaga [Bowden 1997:54], Manambu takwa-pok ‘woman-like’). A special suffix -doka ‘only’ is unique to Manambu within the Ndu family. Kwoma has a formally distinct suffix with a similar meaning ‘only’, e.g., Kwoma sava upuruse-ba (coconut two-only) ‘only two coconuts’ (Bowden 1997:20), Manambu tåp viti-doka (coconut two-only) ‘only two coconuts’.

- **‘BACK AND FORTH’ AS PART OF THE MEANING OF RECIPROCAL.** Both Kwoma and Manambu employ a form that means ‘back and forth’ as a reciprocal marker (Bowden 1997:17). The Kwoma form, awasen, is somewhat similar to Manambu awar-wa ‘reciprocal, back and forth’, Iatmul awat (Staalsen and Staalsen 1973: A.7).35

- **A SHARED POSSESSIVE CONSTRUCTION.** Manambu has a complex system of possessive constructions. Of these possessive constructions, two show striking similarity to Kwoma. In Kwoma, the juxtaposed possessive appears to express close part-whole and purpose relationship, as in (1a) and (2a)–(3a). The structures in Manambu (i.e., (1b), (2b), (3b)) and in Kwoma (i.e., (1a), (2a), (3a)) are similar in meaning.

(1a) asa kinyi dog tail
    (Kwoma)

‘a dog’s tail’ (Bowden 1997: 93)
(1b) a:s gañ
   dog tail
   ‘a dog’s tail’

(2a) eyi me
   paddle wood
   ‘paddle wood (i.e., wood for paddle)’ (Kooyers 1974:21)

(2b) gus mi
   paddle wood
   ‘paddle wood (i.e., wood for paddle)’

(3a) aka nubereja
   house door
   ‘the door of the house’ (Kooyers 1974:21)

(3b) wi wiyugw
   house door
   ‘the door of the house’

Manambu also has a possessive construction involving a third person pro-
nominal possessor, ‘his’, ‘hers’, or ‘theirs’. This is used when the possessor is a
noun (of any semantic type) with a specific referent. Then, the possessive re-
lationship or the possessor is in focus, as in (4a). A structurally similar possessive
construction in Kwoma also involves a pronominal marker—‘his’, ‘hers’, or
‘theirs’. An example is in (4b) (also see Kooyers 1974:25). The pronominal pos-
sessive marker is in boldface.

(4a) du da-ka ñan
   man 3.MASC.SG-POSS.FEM.SG child (feminine)
   ‘man’s daughter’ (lit., ‘man his female child’)

(4b) ma ra-ти yikapwa
   man 3.MASC.SG-POSS child
   ‘man’s child’ (lit., ‘man his child’) (Renée Lambert-Brétéire p.c. 2007)

There is one significant difference between Manambu and Kwoma examples
in (4a) and (4b). Whereas both Manambu and Kwoma mark gender and number
agreement with the possessor (‘man’), only Manambu—not Kwoma—marks
agreement with the possessed noun. In other respects, the structures are
strikingly parallel.

In contrast, Iatmul employs a genitive marker –na in possessive and associa-
tive structures, as in gu-na vaala (water-GEN canoe) ‘water canoe’. (This marker
has a cognate in Yelogo, le-ke-na (he-ASS(?) POSS(?)) ‘his’ [Nayau n.d.].) Another
option is a compound of possessor-possessor, or possessor-possessum, as in
naabu-kami (head-fish), kaami-naabu (fish-head) ‘fish head’. The second option
is similar to the Manambu (1b), (2b), and (3b), and the first option occurs in
Manambu for part-whole possession (Aikhenvald 2008a:168–75).

The contrast between Iatmul and Manambu possessive constructions
suggests that Manambu constructions like (4a) have probably been influenced
by Kwoma.

- **Shared Distinctions in Manner Demonstratives.** The Manambu and
  Kwoma manner demonstrative systems share the unusual feature that they
  contain a term meaning ‘exactly like this’. The Manambu and Kwoma distinc-
  tions are compared in (5). The forms are different, but their meanings are the
  same.

  (5a) ka-ta-wa ‘like this, this way’
  ka-katawa ‘exactly like this’
  a-ta-wa ‘like that’

  (5b) eecha ‘this way’
  jecha ‘this way especially’
  kacha ‘that way’ (Kooyers 1974:42)

- **Reported Speech Constructions.** Two features of reported speech
  constructions are shared by Manambu with Kwoma, rather than with Ndu
  languages. These are the use of anaphoric ‘thus’ (Manambu ata, Kwoma eecha
  [Kooyers 1974:59]) to introduce reported speech, and the use of indirect reported
  speech for reported commands (for Manambu, see Aikhenvald 2008a:485–86; for
  Kwoma, see Kooyers 1974:50).

  Manambu and Kwoma appear to share patterns for expressing various other
  notions. Both Kwoma otE ‘do’ (Bowden 1997:159) and Manambu kur- ‘do, get’
  are used as rather impolite ways of referring to sexual intercourse, e.g.,
  the Manambu example in (6).

  (6) [la] kura-k yasa-na
     she do-PURP.SS desire.exist-ACT.FOC+3.FEM.SG.BAS.VT
  ‘She is displaying signs of having sexual desire’ (lit. ‘she wants to do’)

The expression of imminent action in the two languages is also strikingly simi-
lar, as seen in (7a)–(7b).

  (7a) da kiiya-k kur-na-d
     die-PURP do-ACT.FOC-3.MASC.SG.BAS.VT
  ‘He is about to die.’

  (7b) ra ha-k ota-to
     die-PURP do-DUR.PERF
  ‘He is about to die.’ (Kooyers 1974:29)
Neither of these patterns have been found in Iatmul, or any other Ndu language. This suggests that the pattern in Manambu is contact-induced.

It can be concluded that there has been prolonged intensive contact between Kwoma and Manambu. This contact has resulted in sharing of morphemes, many of which are demonstrable loans from one or another River-dweller language into the Jungle-dweller language Kwoma (see section 5.1.2 above). At the same time, a significant number of structural patterns has diffused into Manambu from its Jungle-dweller neighbor.

5.3.2. Features shared between Manambu and Yessan-Mayo. One phonological feature shared by Yessan-Mayo and most varieties of Manambu is the property of having two liquids; in contrast, Kwoma, Iatmul, and also the Yuanab variety of Manambu spoken closer to Iatmul-speaking Brugnowi have a single liquid. (We can recall that the former Jungle-dwellers now settled in Yuanab have only recently adopted Manambu.) This Yessan-Mayo and Manambu feature is also shared with Gala, a Ndu language of the Jungle-dwellers of Swakap.

Yessan-Mayo (Foreman and Marten n.d.), Manambu, Yelogu (Nayau n.d.), and possibly Gala also share a full set of labialized stops. The Kwoma variety of Washkuk also has a full set of labialized stops (Anonymous n.d.), as does the variety of Kwoma spoken in Tongwinjamb (Lambert-Brétière p.c. 2007).

The exact direction of diffusion is problematic. Most Ndu languages have one liquid (as do Iatmul, Abelam-Wosera, and Boiken). Labialized velars are described for Abelam-Wosera (Wilson 1996); their status in the Korogo variety of Iatmul is problematic (Jendraschek 2007b; Staalsen [1992] does not recognize labialized phonemes for the Brugnowi variety of Iatmul). We hypothesize that the development of a full set of labialized stops and of two liquids is a shared innovation of Gala and of Manambu, in contact with other Jungle-dweller languages.

Further structural similarities between Manambu and Yessan-Mayo include the following:

- A system of inherently directional verbs is found in Manambu and in Yessan-Mayo (Foreman 1980:35).
- The Yessan-Mayo quantifier ab ‘all’ (Foreman 1980:61) is suspiciously similar to Manambu aba:b ‘all together, all and every’ (cf. Kwoma abo discussed in section 5.2 above). The inherently reduplicated form of the Manambu quantifier is reminiscent of Yessan-Mayo reduplication as described by Foreman (1980:45): reduplication has distributive meaning with numerals and interrogatives.
- The semantics of reduplication in Manambu and in Yessan-Mayo is rather similar. Yessan-Mayo mapsin means ‘how much, how many’, and mapsin mapsin ‘how much/many’ means ‘how much is each one’ (Foreman 1980:45). Manambu kas ‘how much, how many’ can be reduplicated as kas-kas
meaning ‘how much is each one’. Full reduplication of adjectives and adverbs in Yessan-Mayo implies intensity; in Manambu this is found only in three agreeing adjectives—‘big’, ‘small’, and ‘fine’—and in adverbs.

However, reduplication of nouns that are look-alikes (or potential loans) does not necessarily produce the same meaning. Compare Manambu gañi-gañi (lit., ‘tail-tail’) ‘very last’ and Yessan-Mayo kin kin (‘tail tail’) ‘backwards’. (Yessan-Mayo kin kin could be borrowed from Manambu; see the discussion of Kwoma kinyi ‘tail’ in section 5.1.2 above. Note that Kwoma ‘tail’ does not refer to backward direction, in contrast to Yessan-Mayo.)

- Yessan-Mayo has a special verbal marker that “puts focus and emphasis on the action of the verb” (Foreman 1980:37). This is similar to the Manambu action focus marker -na-.

- Like Manambu, Yessan-Mayo has an associative plural with kinship nouns and personal names (Foreman 1980:30).

Further similarities between Yessan-Mayo and Manambu include consistent use of interrogative with first person to express negation (Foreman 1980:25), and a wealth of directional distinctions both in verbs and in demonstratives (pp. 33–34). The phenomenon of echo compounds (e.g., weomat kamat ‘ask a variety of people at different times’ [Foreman 1980:47]) is shared with Manambu, Iatmul, and also West Wosera (see Aikhenvald 2008a:195).

The attention getter sa! is shared by Yessan-Mayo (Foreman 1980:71), Kwoma (Bowden 1997:181), and Manambu.

The rather striking formal similarities between Yessan-Mayo and Manambu could be due to a variety of causes—these could include earlier contact and substrate influence, shared substrata (of Gala, Yelogu, or both, and perhaps, other, unknown groups) in Manambu and in Yessan-Mayo, or independent developments due to other, unidentified, influences.

5.3.3. Influence from other Jungle-dwellers on Manambu. We have almost no information about Yerakai and know little about Yelogu and Gala. These are the Jungle-dwellers’ languages whose substrate influence may have shaped Manambu as it is now. In particular, the features shared by Manambu and Gala may be partly accounted for by contacts between Gala and Manambu prior to the Gala war and the Gala’s subsequent expulsion from the area of the Washkuk Hills.39

A number of further unusual features of Manambu are shared with Yelogu and Gala. These include restrictions on word-initial prenasalization of stops (Aikhenvald 2008a:39), or complete absence of word-initial prenasalization. Yelogu (Laycock 1965) and Gala (Laycock 1965; my own work) do not have word-initial prenasalization. (Curiously, this feature is also absent in the Tongwin-jamb variety of Kwoma [Renée Lambert-Brétéière p.c. 2007].)
Gala is unlike most other Ndu languages, except Abalam-Wosera, in that it distinguishes different forms for second and third person dual (see tables 7–12). So do Kwoma, Yelogu, and Yessan-Mayo. The retention in Gala of the Proto-Ndu distinction between second and third person in the dual (see table 6) could be due to contact with the other Jungle-dwellers.

Interestingly, Manambu does distinguish second and third person dual in nonsubject forms: third person dual takes the linker -ka- just as third person singular does, while second person dual lacks this marker. Compare the subject form bær ‘you two, them two’ to bra:k ‘to you two’, bra-ka-k ‘to them two’. This distinction (absent from Iatmul) may stem from additional contact with languages like Gala, Kwoma, and Yessan-Mayo.

In terms of grammatical complexity, Manambu and Gala are richer than other Ndu languages. Both Gala and Manambu have more prefixes than any other Ndu language; Ndu languages are mostly suffixing. Another feature shared by Gala and Manambu (and so far not found in other Ndu languages) is formally unmarked feminine gender.

At present, the nature of and reasons for these similarities remain obscure. However, their existence indicates that some contact-induced developments have occurred.

There is little evidence of loans into Manambu from other Ndu sources. The only loans from Abalam-Wosera identified so far are gai-du ‘address term for an Abalam woman or for a woman from the Maprik area’, gai-takw ‘address term for an Abalam man or for a man from the Maprik area’. These terms are of mixed origin, consisting of a modified form of Abalam-Wosera gaye ‘village’ followed by Manambu du ‘man’, takw ‘woman’. An alternative is simply gai. The Abalam-Wosera people are not among the traditional trade partners of any of the Manambu clans (see table 2). Nonetheless, there is an on-going trade relationship between the Abalam-Wosera and the Manambu. Even nowadays, Manambu women routinely go to Maprik to sell their dried fish to the locals, who pay them with string bags, further goods, and money. According to my consultants, these trade links are of considerable antiquity. This explains the existence of special address terms for the Abalam-Wosera (see also section 5.2).

We conclude that the structural similarities between Manambu and the Jungle-dwellers’ languages are too notable to be due to simple coincidence. Formal similarities are unlikely to be coincidental, but are most probably due to borrowing and diffusion. The exact nature of borrowing is uncertain—we can never exclude the possibility of borrowing from an unknown shared source.

The most striking piece of evidence of language contact between the groups within the Middle Sepik (including all those mentioned in table 2) are personal names. Most have a strong Manambu or Iatmul feel to them. Why should this be so? To answer this question, it will be necessary to consider the nature of the contact between the two groups of River-dwellers, i.e., the Manambu and the Iatmul (see section 6).
5.4. Further areal features? A few distinctive patterns shared by some Ndu languages with their southwesterly neighbors point towards other, wider, diffusional links in the Sepik River Basin. Three groups of features are shared between Sepik Hill languages (Alamblak and Sare) and the languages of the Ndu family.

First, shape-based gender assignment in many Ndu languages (described for Manambu by Aikhenvald [2008a:116–23], and for Boiken by Roscoe [2001; p.c. 2007]) is very similar to that in Alamblak and Sare (also known as Kapriman), both Sepik Hill languages (Bruce 1984; Sumbuk 1999). Two genders, masculine and feminine, correlate with the shape and the size of an inanimate referent—round and small referents are feminine and long and large ones are masculine. Gender assignment to humans and animates is based on sex.

Second, both Ndu and Sepik Hill languages have complex systems of directional (up, down (hill or river), across, and so on) obligatorily marked on verbs and on demonstratives.

And third, the unusual patterns of cross-referencing in Manambu are strikingly similar to those in Alamblak. Every verb obligatorily cross-references the subject, and can optionally cross-reference another constituent more topical than the subject (Bruce 1984:216–17; Aikhenvald 2008a:61–67).

Can these similarities be explained by the southwestern connections and putative migration routes of some of the Ndu people? And will it be possible to find more evidence of diffusion among Sepik Hill languages and Ndu languages, and other families in the area (such as Lower Sepik)? These are among the many questions and puzzles waiting to be solved.


6.1. Traditional knowledge as a trade object. The Western Iatmul, or Nauru, the downriver neighbors of the Manambu, are also their traditional enemies (warfare between the two groups is discussed by Harrison [1993:38–40] and Aikhenvald [2008a:17]; colorful descriptions are provided by Staalsen [1966b] and Bragge [1990]). Despite the traditional enmities, there was—and to a certain extent still is—some cooperation between the Manambu and the Western Iatmul in traditional matters. (I use the term “Iatmul” as a synonym for Western Iatmul throughout this section for the sake of simplicity.)

Harrison reports that “when the last full scale scarification ceremony was held in Avatip in 1936, inducting novices into the first stage of male initiation,” men from Yuanab, Malu, Japandai (Western Iatmul), and Sengo came to help (1993:44). There had been long-term contact with the Iatmul involving trading spells and incantations in rituals, and also trading personal names.

In Harrison’s words,

from an historical perspective, the circulation of ritual forms in the regional trading system seems to have been a key formative influence on Manambu
society [...], because the most valued scarce resources among the Manambu, and the items of strategic prestige value in the political system of their villages, were rights in ritual property, much of which the Manambu acquired from the Iatmul. Manambu ritual and cosmology seem, in fact, to be not only a kind of patchwork of the ritual and cosmological traditions of neighboring societies, but a largely bought patchwork, acquired piecemeal through trade. [1990a:20]

Trading ownership of names and cults is a feature of numerous Sepik cultures, including the Kwoma (Bowden 1983:67), the Abelam, and the Iatmul (Bateson 1958). This explains why names that appear to be Iatmul or Manambu are found pervasively among the Kwoma, the Chambri, and the Yessan-Mayo.40

6.2. Manambu and Iatmul: a brief comparison. Manambu and Western Iatmul, or Ñaura, have been in contact for a long period of time. They also belong to the same language family. The fact that they share numerous structural similarities can be explained as the result of genetic inheritance. One cannot exclude a “parallelism in drift” characteristic of genetically related languages, or a contact-induced change.

Some of the striking structural similarities between Western Iatmul and Manambu include the following (information on Iatmul is drawn from Jendraschek 2007a):

- Western Iatmul has grammaticalized ti’-ka (from ti’- ‘stay’ and -ka ‘sequencing’) as a clause linker ‘because’; compare Manambu tɔ-ku (tɔ- ‘stand, be’, -ku ‘completive same subject’) as part of a newly formed connective ‘this is why’.

- Western Iatmul uses agiyabak ‘that’s all’ to signal the end of one clause within a sequence; compare Manambu ya:kya ‘okay’.

- The structure and often the form of various lexicalized complex predicates are similar, e.g., Western Iatmul sudu kwa- (sleep lie-), Manambu sa kwa- (sleep stay-) ‘sleep’; Western Iatmul gu ya:ku- , Manambu gu yaku- (water wash-) ‘wash’.

- Different negation patterns are used for main clause predicates (ana in Western Iatmul, ma:(n), akəs, or ata in Manambu) and for dependent clauses (–lapman in Western Iatmul, –ma:r– in Manambu).

- Polysemous speech report constructions referring to reason, intention, desire, etc.

- Contrastive focus constructions involving equative clauses and a fully inflected verb appear in both languages (for Iatmul, see Jendraschek 2006).

Manambu shares a significant number of innovations, both pattern and forms, with Abelam-Wosera, and not with Iatmul, including associative plural on nouns, the causative prefix on verbs, and two different forms for the verb ‘give’ depending on the person of addressee. This suggests a closer genetic link between Abelam-Wosera and Manambu than between Manambu and Iatmul,
and constitutes additional evidence that the sharing by Iatmul and Manambu of the features noted above is due to language contact.

The two languages share about 60 to 70 percent of their lexicons, but are not mutually intelligible. Grammatical, as well as lexical, differences are considerable (comparable to those between German and English). Consider (8a), in Iatmul, and (8b), in Manambu.

\begin{align*}
(8a) & \text{kinya } \text{okwi } \text{manya } \text{ana } \text{ya-kiya-wun} & \text{(Iatmul)} \\
& \text{tomorrow } \text{with } \text{day.after.tomorrow } \text{NEG come-FUT-1.SG} \\
& \text{‘I won’t come tomorrow or the day after’} \\
(8b) & \text{se-r-a-wa } \text{mu: } \text{wun } \text{ya } \text{ma:} & \text{(Manambu)} \\
& \text{tomorrow-LK-COM } \text{day.after.tomorrow } \text{I come:NEG.FUT NEG} \\
& \text{‘I won’t come tomorrow or the day after’} \\
\end{align*}

The cognate of Iatmul kinya ‘tomorrow’ is Manambu kiña:m ‘in the future’. The shared verbal root ya– is inherited from Proto-Ndu. Unlike Iatmul, Manambu neutralizes gender, number, and person distinctions under negation. A positive form in Manambu would be ya–k-na-dəwun (come-FUT-ACT.FOC-1.MASC.SG.BAS.VT) ‘I will come’, if the focus is on the action. If it is on the time of coming, the time would be cross-referenced on the verb after the subject, and the form would be ya–kə-tua (come-FUT-1.SG.SUBJ.VT+3.FEM.SG.BAS.VT) ‘I will come (at a certain time)’.

As a result, the Manambu and the Iatmul cannot communicate in each other’s languages without learning them. They normally speak Tok Pisin with each other. There are some Manambu people who have been exposed to Iatmul (and the Iatmul people in Avatip speak Manambu). However, this is now at the level of individual bilingualism.

6.3. The decline of the Iatmul component in Manambu. There used to be what we can term “bilingualism in ritual register” between the Manambu and the Iatmul that is now all but gone. Manambu culture, like many other Sepik cultures, centered on exchange and value assigned to outside material and non-material goods (see section 3.2). In many Sepik societies, incantations, and even names and individual words, were traded and bought (for a general perspective, see Harrison [1990a:20–23]).

These “acquisitions” used to surface in various ritual speech styles, many of them effectively lost in modern days. Harrison reports that shamanic spirits used to speak “through their human mediums in a special, arcane language, intelligible only to those with many years of experience of shamanic séances, which is actually a kind of Manambu-based jargon with exaggerated outré Iatmul features.” Harrison stresses that in Manambu, “all specifically ‘religious’ forms of speech borrow heavily from Western Iatmul” (1990a:78).
Due to the encroaching influence of Western culture (including the virtual obsolescence of initiation, speeded up by the Australian administration who strongly objected to ritual killings and all sorts of bloody performances), most of the religious registers are rapidly falling into oblivion, and with them the “Iatmulized” forms of speech.

What formerly existed as bilingualism realized in an unusual kind of diglossia is now almost gone. Just a few Iatmul imports are still actively used in the poetic register and are identified by speakers themselves as being originally Iatmul.

Manambu songs of foiled marriages and love affairs, known as namay and sui, and also mourning songs (gra-kudi) are a case in point. These poetic literary forms (improvised by performers) consist of two parallel stanzas, each referred to either as apak ‘side, part’ or as agak ‘side, counterpart (one of two)’. Such songs typically consist of a string of not too complex sentences interspersed with totemic address terms and names (often relating to the clan of the addressee or the type of the song). The second stanza restates the first one in different wording, using what the Manambu speakers call “shadowy” register, or “the other side” (agakem ‘on the (other) side of two’). This reflects binarism, or “parallelism,” a pervasive feature of Sepik culture—in Bateson’s words, “the idea that everything in the world has its equal and opposite counterpart” (1958:239; binarism in song styles is also discussed by Harrison [1982:20]).

While gra-kudi, the mourning songs, are the prerogative of Manambu women (typically, old and knowledgeable ones), both namay and sui can be sung by both men and women. Harrison (1982) presents a collection of namay sung by men (he also discusses the role of mythological setting and secret knowledge in the creation of namay). Women also compose namay and sui, and sing them, traditionally on women-only fishing expeditions, or anywhere where men would not be able to overhear them. I recorded over twenty namay sung by women (most of them over fifty), but I was told not to share them with anyone, since they discuss the foiled loves, suitors, and nostalgic feelings for men other than their husbands, and if I disclosed them, this would get these women into trouble. This indicates that while the Iatmulized ritual register used to be “men’s property,” women would also have a fair knowledge of it.

My estimate is that the “other side” register may have traditionally contained several hundred words. At present, few people have extensive knowledge of it. A number of kinship terms and items from other semantic groups have a “shadowy” equivalent, though most do not. The kin terms that are the same in both sides include guæ: ‘father’s father’, yæ:y ‘father’s mother’, kagreas ‘son’s wife’, and kajal ‘brother’s wife’. Numerous body-part terms also appear, such as mal ‘eye’, as do verbs, e.g., vækar ‘fall’, and va- ‘see’. Many clan address names have a “shadowy” equivalent—for instance, the equivalent of gañap ‘address term for Yimal clan’ is kwalap.
Table 15 illustrates some words that have an equivalent in the “other side” (or “shadowy”) register. Loans from Iatmul, indicated by bold type in the table, include five kinship terms and one body-part term. The kinship terms, all of which, except uaw, were recognized by the authors of the songs as being Iatmul imports, have the same meaning in Manambu as in Iatmul.

The body-part term da:m ‘nose’ in the shadowy register is a Iatmul form adapted to Manambu (the real Iatmul form is da:ma, cf. the Manambu form ta:m ‘nose’, most probably Proto-Ndu *da:ma ‘nose’). The term da:m is used as the equivalent of another body part, ‘ear’.

At least three principles are discernible in correspondences between everyday items and their shadowy counterparts. First, the shadowy counterpart of a lexical item may be another lexical item that in everyday use means the opposite; this is the case for ‘hand, arm’ and ‘foot, leg’, and for ‘fingers’ and ‘toes’ (these are switched). This is somewhat reminiscent of “upside-down Warlbiri” “spoken by guardians in the presence of junior novices,” that is, by initiated men in Warlbiri men’s rituals (Hale 1971:473). The principle of upside-down Warlbiri is to “replace each noun, verb and pronoun of ordinary Warlbiri by an ‘antonym’.”

Second, a distinction between everyday terms may be neutralized in the shadowy register, as is the case for ‘sun’ and ‘moon’ (from a mythological, or totemic, point of view this makes sense, inasmuch as ‘sun’ and ‘moon’ are totems of the same clan group).

And finally, a more general term may be used to subsume a more specific one, as is the case with ‘child, youngster (a term also used for uninitiated men)’ and ‘young (person) in general’, and perhaps also ‘nose’ and ‘face’ (as the generic location of the nose).

Little more can be said at this stage about semantics and forms in the shadowy register. An additional complication lies in the nature of the knowledge associated with this register; an outsider’s attempts to gain such knowledge run the risk of being treated as efforts to unlawfully appropriate a valuable.

There are no other loans from Iatmul in Manambu other than those that still survive in the shadowy register. This reflects the nature of contact between the River-dwellers. Iatmul elements (however many) were restricted to spheres in which the interaction went on: the trading of words and other items to do with exchange of spiritual valuables that were tantamount to monetary riches, and to the exchange of sacred objects.

Stylistic, rhetorical, and expressive loss often accompanies partial language obsolescence in the situation of language shift (see Woodbury 1998). This obsolescence of ritual register is part of the ongoing language reduction and cultural change in Manambu that accompanies partial shift to Tok Pisin (see Aikhenvald 2004).
Table 15. The “Other Side” Lexicon in Manambu: A Sample

<table>
<thead>
<tr>
<th>EVERYDAY USE</th>
<th>MEANING</th>
<th>OTHER SIDE COUNTERPART</th>
<th>ORIGIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>ŭab</td>
<td>‘Sepik River’</td>
<td>təmgun</td>
<td>—</td>
</tr>
<tr>
<td>aməy</td>
<td>‘mother’</td>
<td>ŭaməy</td>
<td>Iatmul</td>
</tr>
<tr>
<td>aṣay</td>
<td>‘father’</td>
<td>ŭas</td>
<td>Iatmul</td>
</tr>
<tr>
<td>maːm</td>
<td>‘elder sibling’</td>
<td>ŭamun</td>
<td>Iatmul</td>
</tr>
<tr>
<td>ŭaməs</td>
<td>‘younger sibling’</td>
<td>suab</td>
<td>Iatmul</td>
</tr>
<tr>
<td>ſan</td>
<td>‘child, youngster’</td>
<td>badi ‘young’</td>
<td>Manambu</td>
</tr>
<tr>
<td>away</td>
<td>‘maternal uncle’</td>
<td>wau</td>
<td>Iatmul</td>
</tr>
<tr>
<td>ſe</td>
<td>‘sun, day’</td>
<td>baːp</td>
<td>Manambu</td>
</tr>
<tr>
<td>baːp</td>
<td>‘moon’</td>
<td>baːp</td>
<td>Manambu</td>
</tr>
<tr>
<td>gu</td>
<td>‘water, river’</td>
<td>kaːr</td>
<td>—</td>
</tr>
<tr>
<td>nab</td>
<td>‘Sepik River’</td>
<td>gubi ‘be wet; wet area’</td>
<td>Manambu</td>
</tr>
<tr>
<td>sual</td>
<td>‘story, lie’</td>
<td>kamaːl</td>
<td>—</td>
</tr>
<tr>
<td>taːm</td>
<td>‘nose’</td>
<td>mutaːm ‘face’</td>
<td>Manambu</td>
</tr>
<tr>
<td>taːb</td>
<td>‘hand, arm’</td>
<td>maːn ‘foot, leg’</td>
<td>Manambu</td>
</tr>
<tr>
<td>maːn</td>
<td>‘foot, leg’</td>
<td>taːb ‘hand, arm’</td>
<td>Manambu</td>
</tr>
<tr>
<td>jigartaːb</td>
<td>‘finger’</td>
<td>jigartaːb ‘finger’</td>
<td>Manambu</td>
</tr>
<tr>
<td>jigarmɑːn</td>
<td>‘toe’</td>
<td>daːm ‘nose’</td>
<td>Iatmul/</td>
</tr>
<tr>
<td>waːn</td>
<td>‘ear’</td>
<td>daːm ‘nose’</td>
<td>Manambu</td>
</tr>
<tr>
<td>mu</td>
<td>‘crocodile’</td>
<td>rukwi</td>
<td>—</td>
</tr>
<tr>
<td>yu</td>
<td>‘valuable’</td>
<td>raːm</td>
<td>—</td>
</tr>
<tr>
<td>waːn takaː</td>
<td>‘listen (ear.put)’</td>
<td>daːm takaː (nose [Iatmul]</td>
<td>Iatmul/</td>
</tr>
<tr>
<td>vətekaːn</td>
<td>‘putting upright’</td>
<td>taw-n ta-neːd ‘putting up (e.g., post) he stands’</td>
<td>Manambu</td>
</tr>
<tr>
<td>saron</td>
<td>‘jumping’</td>
<td>pəkan ‘getting up’</td>
<td>Manambu</td>
</tr>
<tr>
<td>vasən</td>
<td>‘walking, stepping’</td>
<td>wapan ‘leaving’</td>
<td>Manambu</td>
</tr>
</tbody>
</table>

NOTE: Bold type indicates loans from Iatmul.

The Manambu and the Iatmul—the two powerful groups of River-dwellers—live in the same natural environment and share means of subsistence, warfare, social structure, and, to a large extent, their ritual system and values. At the same time, they are rivals; contacts between them used to be accompanied by outbreaks of overt military conflict. And in times of peace, the attitude of the Manambu—a smaller group—towards the Iatmul is that of suspicion and distrust. This type of contact-conflict relationship tends to motivate divergence rather than convergence, and “the assertion of local differences,” as was demonstrated by O’Neill (2006:326–27), for a number of indigenous groups in northwestern California.

Such divergence goes together with a tendency to keep languages separate, and is reminiscent of the notion of schismogenesis, defined as “a process of differentiation in the norms of individual behavior resulting from cumulative interaction between individuals” (Bateson 1958:175). Along these lines, neighboring factions of Iatmul would take opposite sides in any debates, trying to
keep themselves as different as possible from their closest neighbors. In other words, close contact may lead to accentuating differences. The lack of Iatmul loans in Manambu can be accounted for by the same principle—maintaining linguistic identity by keeping the lexicons separate (outside the ritual domain, in which spells, incantations, and names are traded just like tangible sacred objects). This is strongly reminiscent of language attitudes in other areas involving River-dwellers, such as the Vaupés Basin.

7. Conclusion: River-dwellers versus Jungle-dwellers.

7.1. The Manambu melting pot. A curious picture emerges. The Manambu language has been affected by substratum influence from Jungle-dweller groups conquered and incorporated into the Manambu themselves. Some of the Jungle-dwellers’ languages are related to Manambu and others are not. The substratum influence of the Jungle-dwellers is still discernible. It accounts for the complexity of Manambu compared with other Ndu languages, such as Iatmul, Abelam-Wosera, and Boiken, and numerous ways in which Manambu differs from these. In other words, Jungle-dweller influence has had a lasting effect on Manambu.

The contact between the Manambu and the Iatmul, a larger and more powerful group of River-dwellers speaking a language of the same family, has produced different results. Iatmul influence was largely restricted to a special register, the ritual language (mostly restricted to men, but partly also known to women). A large part of the ritual register was obtained through trade and ceremonial exchange—that is, linguistic items were tantamount to sacred objects associated with rituals. As soon as the ceremonial trade began to dwindle, so did knowledge of Iatmul among the Manambu. The lack of Iatmul lexical influence outside the ritual sphere can be accounted for by the principle of “schismogenesis” (Bateson 1968: 175)—trying to keep one’s language as distinct as possible from that of a dangerous and potentially overbearing close neighbor.

With the advent of the Australian administration, many traditional rituals, such as various stages of initiation involving homicide, head-hunting, and so on, were forbidden and became obsolete. Nowadays, traditional knowledge is being rapidly lost and with it goes the loss of the Iatmulized register and of Iatmul loans in general.

In other words, contact between River-dwellers was determined by a set of practices and limited to one side of life—ceremonies and rituals. As soon as these are gone, the impact of Iatmul is no longer felt.

These observations concern lexical loans from Iatmul into Manambu. (I am not aware of any loans in the opposite direction.) The potential presence of structural diffusion between Iatmul and Manambu is obscured by the fact that the two languages are related and structural similarities between them can be explained by a combination of parallelism in drift and genetic inheritance,
reinforced by contact. These are the multiple motivations for the existing similarities, some of which were addressed in section 2.

Table 16 contrasts the impact of Jungle-dwellers’ languages and River-dwellers’ languages on Manambu.

<table>
<thead>
<tr>
<th>Type of Effect</th>
<th>Jungle-dwellers’ Languages</th>
<th>River-dwellers’ Iatmul</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Diffusion</td>
<td>strong evidence of structural diffusion and shared structural features</td>
<td>evidence of structural diffusion inconclusive (since Iatmul and Manambu are related)</td>
</tr>
<tr>
<td>Lexical Loans</td>
<td>a number of lexical loans (from Kwoma) in everyday language</td>
<td>lexical loans restricted to ritual register</td>
</tr>
<tr>
<td>Stability of Effect</td>
<td>stable; completed changes</td>
<td>highly unstable; on the way out</td>
</tr>
<tr>
<td>Reasons for Effect</td>
<td>trade relationships; subjugating and incorporating Jungle-dwellers’ groups</td>
<td>mostly ritual trade, now on the way out</td>
</tr>
</tbody>
</table>

The curious difference between the heavy imprint of Jungle-dweller languages and the seemingly fleeting influence of Iatmul cannot be explained by the principle “last to be hired, first to be fired.” As far as we can tell, Manambu contacts—and conflicts—with the Iatmul are as old as those with various Jungle-dwellers. The difference is in the type of contact and its motivation. And this is why the results are different.

7.2. River-dwellers versus Jungle-dwellers: looking further afield.

7.2.1. An Amazonian analogy. An analogy comes from another part of the world where Jungle-dwellers traditionally coexisted with River-dwellers in a seemingly symbiotic relationship. The multilingual Vaupés River Basin in northwest Amazonia (spanning adjacent areas of Brazil and Colombia) is a well-established linguistic area. Its major feature is an obligatory societal multilingualism that follows the principle of linguistic exogamy: “those who speak the same language with us are our brothers, and we do not marry our sisters.” Language affiliation is inherited from one’s father and is a badge of identity for each person.

Languages traditionally spoken on the Brazilian side of the area belong to three unrelated genetic groups: East Tucanoan, Arawak, and Makú. Speakers of East Tucanoan languages (Tucano, Wanano, Desano, Tuyuca, Barasano, Piarapuyu, Macuna, and a few others), and of an Arawak language, Tariana, participate in the exogamous marriage network that ensures obligatory multilingualism.
A striking feature of the Vaupés linguistic area is a strong cultural inhibition against language mixing, where language mixing is defined as borrowing forms—following the principle akin to Bateson’s schismogenesis mentioned above. Long-term interaction based on institutionalized multilingualism between East Tucanoan languages and Tariana has resulted in the rampant diffusion of grammatical and semantic patterns (rather than forms) and the calquing of categories.41

In terms of patterns of subsistence and lifestyle, there is a sharp divide between River-dwellers—the Tariana and the East Tucanoans—and the Jungle-dwellers, the Makú. The River-dwellers share a number of features with the River-dwellers of the Sepik (table 3): their major source of protein is fish, they have a good knowledge of canoes, and they are known to have been aggressive (see, for instance, accounts of the wars between the Wanano and the Tariana in Biocca [1965]; I recorded accounts of traditional wars between the Desano and the Tariana). They also have swidden agriculture. In contrast, the Makú, the Jungle-dwellers, live inland from the big rivers and mostly hunt. They are nomadic and do not have gardens of their own (this is unlike the Jungle-dwellers of the Sepik area). However, just like the Jungle-dwellers of the Sepik, the Makú are despised by the River-dwellers and feared at the same time—they are said to be sorcerers. The symbiotic relationship between the two groups hinges upon the fish poison produced by the Makú with their magic. There is no intermarriage between the River-dwellers and the Makú (who are considered to be “like dogs” because “they marry people who speak the same language,” as Leonardo Brito, a Tariana elder, put it).

There are strong indications that some Makú-speaking groups of Jungle-dwellers were absorbed by the Tariana, in particular, the still-surviving Wamiarikune group. The Wamiarikune used to live away from the main river, the Vaupés, until the advent of the Salesian mission in 1925 (see Cabrera Becerra 2002). And the Tariana themselves often accuse rival subclans of being inferior “ex-Makú.” Other groups of Jungle-dwellers, perhaps Arawak-speaking, may have been incorporated into Tucanoan groups (Koch-Grünberg [1906a, 1906b] mentions similar origins for the Desano; that the Desano used to live away from the main river was confirmed by Dominique Buchillet [p.c. 1999] based on her fieldwork).

The contact between East Tucanoans and the Makú antedates that between the East Tucanoans and the Tariana. The Wamiarikune variety of Tariana, the only one still spoken, shows a strong structural influence from East Tucanoan. Many of the shared patterns are also attested in the adjacent Jungle-dwellers’ Makú languages (Epps 2006; Ospina Bozzi 2002; for a summary, see Aikhenvald 2006a:241–43). It is possible that this impact is due to a combined effect of Makú substrata and subsequent layers of constant Tucanoan influence in the Wamiarikune Tariana. Other dialects of Tariana on which information is available were not mutually intelligible with Wamiarikune, and appear to bear less
Tucanoan influence (Aikhenvald 2003:627–29); no Makù connections have been documented for these.

7.2.2. Concluding remarks. The patterns of interaction between River-dwellers and Jungle-dwellers in the Vaupés and in the Sepik are far from identical, despite striking similarities. In terms of linguistic effects, their results are comparable.

First, the Jungle-dwellers tend to be absorbed into the River-dwellers’ groups, carrying their linguistic features with them. River-dweller groups tend to expand, but as a result, their languages are “layered” (in the sense of Aikhenvald 2006a:4–5), bearing the traces of Jungle-dwellers.

Second, the lexical influence of River-dwellers’ languages on each other appears to be restricted, following the principle of maximal differentiation between rival groups in contact. Just as in the Middle Sepik domain, the Jungle-dwelling Makù know the River-dwellers’ languages, while River-dwellers who conceive of themselves as superior (see table 3) pride themselves on having no knowledge of the languages of the “inferior” Jungle-dwellers.

And third, the contact between River-dwellers and Jungle-dwellers tends to involve domination of the latter by the former, with little bilingualism, and to lead to replacement of Jungle-dwellers’ languages by River-dwellers’ languages (see table 4), being displacing in the sense of Aikhenvald (2006a:43) both in the Sepik and in the Vaupés Basins. (There is hardly any contact between Jungle-dwellers in the Vaupés area, in contrast to the Sepik situation discussed in section 3.1). In each case, different means of subsistence, life styles, and interactions are responsible for different effects of contact-induced change on respective languages.

As with Tariana in the Vaupés area, a complex interaction of various substrata and genetic inheritance accounts for the complexity of Manambu, a Ndu language surrounded by non-Ndu-speaking, culturally distinct Jungle-dwellers, many of whom had been absorbed into the Manambu melting pot.

Appendix 1: Pronouns in Kambot: A Spurious Similarity with Iatmul
Spurious similarities should not be considered as proper evidence of language contact. An example of a misinterpreted surface similarity between two languages from the Sepik area—Kambot (also known as Botin and Ap Ma) and Iatmul—comes from Foley (1986).

According to Foley, Kambot, a member of the Grass family in the Sepik area of New Guinea, borrowed and reinterpreted a few pronominal forms from Iatmul, a Ndu language not contiguous to it. The motivation, according to Foley, lies in the fact that “the Iatmul are a powerful and prestigious group along the Sepik, and this would suggest that their language is the donor language. The borrowing clearly seems the result of prolonged trading contact” (Foley 1986:210–11).

I have not been able to find any anthropological evidence or information that trade relationships existed between the Kambot and Iatmul. This remains a hypothesis.

The pronominal paradigm of Kambot given by Foley, based on Laycock and Z’graggen (1975:759), is shown in table A1.
Table A1. The Pronouns of Kambot Compared with Iatmul, according to Foley (1986: 210–11)

<table>
<thead>
<tr>
<th></th>
<th>IATMUL</th>
<th>KAMBOT</th>
<th>IATMUL</th>
<th>KAMBOT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SINGULAR</td>
<td>SINGULAR</td>
<td>PLURAL</td>
<td>PLURAL</td>
</tr>
<tr>
<td>1</td>
<td>win</td>
<td>nyi</td>
<td>nin</td>
<td>ne</td>
</tr>
<tr>
<td>2.MASC</td>
<td>min</td>
<td>win</td>
<td>nkiov</td>
<td>nun</td>
</tr>
<tr>
<td>2.FEM</td>
<td>nyin</td>
<td>win</td>
<td>nkiov</td>
<td>nun</td>
</tr>
<tr>
<td>3.MASC</td>
<td>nti</td>
<td>ma</td>
<td>ntiy</td>
<td>le</td>
</tr>
<tr>
<td>3.FEM</td>
<td>li</td>
<td>ga</td>
<td>ntiy</td>
<td>le</td>
</tr>
</tbody>
</table>

NOTE: Kambot pronouns whose form or meaning is inaccurately rendered by Foley are in bold type. Foley's abbreviations M and F are replaced here by MASC and FEM, respectively.

The original forms given by Laycock and Z’graggen (1975) are shown in Table A2. Table A3 contains the paradigm of Kambot pronouns in Pryor (1990) (which is based on intensive fieldwork).

Table A2. The Pronouns of Kambot, according to Laycock and Z’graggen (1975)

<table>
<thead>
<tr>
<th></th>
<th>SINGULAR</th>
<th>PLURAL</th>
<th>DUAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ūi</td>
<td>ne</td>
<td>INCL wnũ/EXCL nũve</td>
</tr>
<tr>
<td>2</td>
<td>wun</td>
<td>nun</td>
<td>not attested</td>
</tr>
<tr>
<td>3</td>
<td>ma/ga</td>
<td>le</td>
<td>not attested</td>
</tr>
</tbody>
</table>

Table A3. The Pronouns of Kambot (after Pryor 1990)

<table>
<thead>
<tr>
<th></th>
<th>SINGULAR</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ūi</td>
<td>INCL wnũ/EXCL n</td>
</tr>
<tr>
<td>2</td>
<td>w</td>
<td>nu</td>
</tr>
<tr>
<td>3</td>
<td>g</td>
<td>wi</td>
</tr>
<tr>
<td>MID DISTANCE</td>
<td>g</td>
<td>wi</td>
</tr>
<tr>
<td>FAR DISTANCE</td>
<td>d</td>
<td>l</td>
</tr>
</tbody>
</table>

The Iatmul forms quoted by Foley come from an undated manuscript by Staalsen that was not available to me. The forms given by Foley are consistent with forms given by Staalsen in other available sources (e.g., Staalsen 1965a, n.d. b).

Foley proposes that several Kambot pronouns have been borrowed from Iatmul. His purported borrowings and semantic changes are as follows:

- "Iatmul win ‘I’ has been borrowed as Kambot ‘you’, and Iatmul nyin ‘you (FEM)’ as Kambot nũi ‘I’" (Foley 1986:210–11).

This seems somewhat far-fetched. However, a comparable semantic change from ‘you (FEM)’ to ‘I (FEM)’ has been documented for Gala, a Ndu language (my own fieldnotes). Gala nũn ‘first person singular feminine’ corresponds to Proto-Ndu ᵇuũn(a) ‘second person singular feminine’ (see table 12).

- "In the plural, Iatmul nin ‘we’ has been borrowed as Kambot nun ‘you (PL)’. A further, but more speculative possibility is Iatmul li ‘she’ appearing as Kambot le"
‘they’. The developments here in the first and second pronouns are common confusions in any multilingual contact situation, familiar to any linguistic fieldworker; first person is switched for second person, and vice versa” (Foley 1986: 211).

It can be seen, by comparing tables A2 and A3, that Foley made a number of errors in copying pronominal forms from Laycock and Z’gradgen (1975:759): he misinterpreted the vowel i in the first person singular pronoun in Kambot as i, misrepresented the vowel u in the second person singular pronoun in Kambot as i, and erroneously reinterpreted the ma/ga alternation as masculine and feminine.

A look at Pryor’s material shows that Laycock and Z’gradgen (who drew on only limited fieldwork) do not provide a full picture. The personal pronouns in Kambot (those in table A3) “can be suffixed with various topic markers and function in the subject slot” (Pryor 1990:3). All the examples in Pryor (1990) show that the Kambot forms listed in tables A1 and A2—for instance, Laycock and Z’gradgen’s forms such as wun ‘you (singular)’ and nun ‘you (plural)—are in all likelihood bimorphemic; compare Pryor’s ni-ñi ‘my’ (Laycock and Z’gradgen niñi ‘my’).

The Kambot forms in tables A1 and A2 are analyzable and are unlikely to be borrowings from Latmul, where the look-alike forms are not bimorphemic and go back to a single Proto-Ndu morpheme *man(a).

Appendix 2: Kwoma-Manambu Pidgin

A text in Kwoma-Manambu pidgin provided by Bowden (1997:337–38) is instructive about how this putative mixed language is organized.

The text is reproduced below as it was given to him by a Kwoma consultant. Manambu elements are in bold type; Latmul elements are underlined; pseudo-Manambu words are in small capitals; other forms are Kwoma. The transcription of the text is Bowden’s; his ii corresponds to a. The free translations are also Bowden’s. After the free translation of each line of the text, I have added indented comments on the sources and glossing of each word, including the pseudo-Manambu words.

1. **Miin meejiwa!**
   ‘You listen!’
   *miin* Manambu, Latmul *mon* ‘you (masculine)’
   *meejiwa* Kwoma ‘listen’

2. **kadii apak lawa awatoko**
   ‘With reference to this string we have knotted’
   *kadii* Manambu (*ka-da* DEM.PROX-MASC.SG)
   *apak* Kwoma ‘now’
   *lawa* Kwoma ‘take’
   *awatoko* Kwoma ‘knotted string’

3. **komasek wun tidika gay iwa**
   ‘later I will go to (my) village’
   *awatoko* Kwoma ‘knotted string’
   *wun* Manambu *wun* ‘I’
**iidika**  
Manambu *adak* (DEM.DIST.REACT.TOP+MASC.SG) ‘that previously mentioned’

**gay**  
Iatmul *ga:i* ‘house’?

**iwa**  
Kwoma ‘go’

4  
**wun nago REEKIWA**  
‘and pulverize sago’

**wun**  
Manambu *wun* ‘I’

**nago**  
Manambu *nagw* ‘sago’

**REEKIWA**  
According to Bowden, this means ‘pulverize’ in Manambu. However, this purported Manambu form in fact does not exist. The Manambu verb ‘scrape sago’ is *bu−*, which has to be accompanied by personal suffixes cross-referencing subject and object.

5  
**Yawiyak kadii awatoko miin yawa**  
‘When that work is finished you must come on the day arranged’

**yawiyak**  
Manambu *yawi ya:k* ‘work okay’

**kadii**  
Manambu *ka-da* (DEM.PROX-MASC.SG)

**awatoko**  
Kwoma ‘knotted string’

**miin**  
Manambu *mæn* ‘you (masculine)’

**yawa**  
Kwoma ‘come’

6  
**Wun iidika YAWAKIICH tawa**  
‘I will be coming’

**wun**  
Manambu *wun* ‘I’

**iidika**  
Manambu *adak* (DEM.DIST.REACT.TOP+MASC.SG) ‘that previously mentioned’

**YAWAKIICH**  
Purportedly Manambu ‘will come’; however, in fact *yawakiich* makes no sense in Manambu. The verb ‘come’ is *ya−*, and the form ‘I will come’, *ya−ka−tua*, may bear a certain resemblance to *yawakiich*.

**tawa**  
Kwoma ‘be’

7  
**Yawiyak**  
‘That’s all’

**yawiyak**  
Manambu *yawi ya:k* ‘work okay’

8  
**Miin iidika kami layawa**  
‘You must bring fish’

**miin**  
Manambu *mæn* ‘you (masculine)’

**iidika**  
Manambu *adak* (DEM.DIST.REACT.TOP+MASC.SG) ‘that previously mentioned’

**kami**  
Manambu *kami*; or Iatmul *ka:mi* ‘fish’

**layawa**  
Kwoma ‘bring’

9  
**Wun iidika nago YAYAWAKIICH tawa**  
‘I will bring sago’

**wun**  
Manambu *wun* ‘I’
iliika
Manambu adaka (DEM.DIST.REACT.TOP+MASC.SG) ‘that previously mentioned’

nago
Manambu na:gw ‘sago’

YAYAWAKIICH
Purportedly Manambu ‘will come’; however, in fact, *yayawakiich makes no sense in Manambu. The verb ‘come’ is ya-, and the form ‘I will come’, ya:-ka-tua, may bear a certain resemblance to yawakiich.

tawa
Kwoma ‘be’

10 Yawiyak. Maji iliiliika MAPOKO KWUSHIWA
‘That’s all. Everything is settled now’

yawiyak
Manambu yawi ya:k ‘work okay’

maji
Kwoma ‘talk’ (cf. Manambu maji)

iliiliika
Manambu adaka (DEM.DIST.REACT.TOP+MASC.SG) ‘that previously mentioned’

MAPOKO
The form MAPOKO in the meaning ‘before’ is not a Manambu word, contrary to Bowden (1997:338). This could be a variant of the Kwoma word mapo ‘before, earlier’ (Bowden 1997:119; Kooyers 1974:12).

KWUSHIWA
This form is not Manambu; it is reminiscent of Manambu kusana ‘it is finished, settled’.

11 Ya akiya
‘That’s all’

ya akiya
Manambu ya:kya ‘okay, that’s all’

12 Maji ma’ a
‘The talk is finished’

maji
Kwoma ‘talk’

ma’ a
Manambu ma: ‘no, none’

13 Eeta YEPABA
‘That’s all’

eeeta
Kwoma ‘it’

YEPABA
The form *yepaba in the meaning ‘all’ does not exist in Manambu. This may be a rendering of kepabe: ‘only, by itself’.

14 Apwi yaramay
‘Goodbye’

apuot
Manambu apwi ‘greeting and farewell for members of Sarak clan (to which the Kwoma also belong)’

yaramay
Manambu yara may ‘well you go’

What casts doubt on the authenticity of this pidgin as a real communicative device is the number of pseudo-Manambu words (the items in small capitals; see the comments in the text above).
A note on the Iatmul elements is in order. Personal pronouns *wun* and *man* and *kami* 'fish' could have come either from Iatmul or from Manambu (the forms are identical in the two languages). The form *gay* (see line 3 of the text above) in the meaning 'village' is Wosera, and neither Manambu nor Iatmul (contrary to what Bowden’s consultant claimed). The form *ga:*i in Iatmul means 'house'.

Demonstratives in the text are Manambu. Some nouns are Manambu (such as *kami* ‘fish’, a kind of trade goods supplied by the Manambu, the River-dwellers), while the verbs are mostly Kwoma. The verbs that are said to be Manambu have been adjusted to Kwoma phonology and are only partly recognizable.

The pidgin appears to employ the ubiquitous *ya:kya*, 'allright', from Manambu, and also an adjusted version of the Manambu expression *ma:j ma:* (talk *NEG*) 'there is nothing else to say', namely, *ma:j* (a Kwoma form, possibly borrowed into Manambu; see above) *ma:*a (*NEG*). The pronunciation of the negator with a glottal stop rather than a long vowel indicates an archaic variety of Manambu now spoken by older people.

The greeting ‘goodbye’ at the end is interesting. It contains the Manambu form *apwi* ‘greeting for members of the Sarak clan’ (whose totem is the cassowary, which appears in Manambu stories as an animal from which the Kwoma had descended) and the conventional Manambu greeting *yaramay* (yara ‘well’, *ma:y* ‘go.IMPV’), literally, ‘go well’ (for greeting and departure formulae in Manambu, see Aikhenvald 2008a:587–90).

In conclusion, the text in Kwoma-Manambu pidgin is problematic. Its analysis from a Manambu perspective creates the impression of a randomly created mixture of languages, a “mock-Manambu” of sorts. Whether or not any such pidgin has ever been in consistent use remains an open question.

**Notes**

**Acknowledgments.** This article would not have been written without the generous help of my Manambu teachers and classificatory relatives, especially Jacklyn Yuamali Benji Ala, Pauline Yuaneng Agnes Luma Laki, Ester Yuay:a:b, Kembiyat, Gemaj, Yuawalup, John Sepaywus, Paul Badaybeg, Piurkaramb, and many more. I am grateful to Piurkaramb for introducing me to Martin Kumbway and other speakers of Gala in Swakap (Swagup). I am grateful to R. M. W. Dixon for detailed comments and to Tony Diller. Special thanks go to Anne Storch, the organizer of the Workshop on “Language Contact along River Systems” and the leader of the research project (“Flussläufe als Korridore der Transmission typologischer Merkmale in den Sprachen Zentral-Westafrikas,” Deutsche Forschungsgemeinschaft, 2005) within which this article was conceived.

**Transcription.** The Manambu transcription follows Aikhenvald (2008a). The transcription of other languages follows the sources.

**Abbreviations.** The following grammatical abbreviations are used: ACT.FOC = action focus; ASS = associative; BAS.P = basic cross-referencing past; BAS.VT = basic cross referencing versatile tense; COM = comitative; DAT = dative; DEM.DIST.REACT.TOP = distal demonstrative reactivated topic; DEM.PROX = proximate demonstrative; DUR = durative; EXCL = exclusive; FEM = feminine; FUT = future; IMPV = imperative; INCL = inclusive; LK = linker; MASC = masculine; NEG = negative; PERF = perfective; PL = plural; POSS = possessive; PURP = purposive; SG = singular; SS = same subject; SUBJ = subject; VT = versatile tense.
1. A linguistic area is generally taken to be a geographically delimited region including languages from at least two language families, or different subgroups of the same family, sharing traits, or combinations thereof, most of which are not found in languages from these families or subgroups spoken outside the area (see Emeneau 1956; Sherzer 1973:760; for discussion, see Tosco 2000; Enfield 2005; Aikhenvald 2006a and references therein).

2. As Gabelentz put it, “it is awfully seductive to roam the world of languages, randomly comparing words from them, and then to honour scholarship with a series of newly discovered relationships [Es ist schrecklich verführerisch, in der Sprachenwelt umherzuschwärmen, drauf los Vocabeln zu vergleichen und dann die Wissenschaft mit einer Reihe neu entdecker Verwandtschaften zu beglücken]” (Gabelentz 1972:154).

3. Laycock’s (1965) attempt at Proto-Ndu reconstruction is flawed, because of the scant, and often mistranscribed, data it is based on.

4. Other families in the Sepik area include Arafundi (see the survey by Hoenigman [2007:140–44]). An attempt has been made to establish genetic links between the families mentioned in the text and other languages of the Sepik area, such as Wogamusin, Chenapian, Kwoma-Nukuma, and Abau (Foley 2000, 2005a), grouping them into a larger Sepik family. Though some similarities (including a number of pronouns) appear suggestive, there are hardly any shared paradigms or any regular correspondences. Readers should be warned that Foley’s (2005a) lists of forms in Ndu languages contain errors and, as a consequence, the subsequent reconstructions require revision.

5. Two smaller villages are Yawabak (an offshoot of Avatip) and Apan (an offshoot of Malu). An additional two hundred to four hundred speakers live in the cities of Port Moresby, Wewak, Lae, and Madang; a few people live in Kokopo and Mount Hagen. The urban Manambu typically occupy high-status jobs, as do the Iatmul. This is perhaps one of the consequences of the higher social status ascribed to the River-dwellers. (See Aikhenvald and Laki 2006; Aikhenvald 2008a:624.)

6. A major problem in the study of the languages of the Sepik is the paucity of truly reliable sources. My data on Manambu (see Aikhenvald 2008a) come from original fieldwork conducted over a period of twelve years. Anthropological information partly relies on Harrison (1990a, 1998) corroborated by Newton (1971), and my own work; also see Bragge (1990). Information on Iatmul (specifically, the dialect of Brugnowi) comes from Staalsen (1963, 1965a, 1966, 1969, 1972, n.d. a, n.d. b), and ongoing work by Gerd Jentraschek (on the dialect of Korogo). Anthropological information on Iatmul comes from numerous sources, starting with Bateson (1958 [originally published in 1986]). A dictionary, two grammars and numerous word lists are available for Abelam–Wosera (Wilson 1980; Wendel 1983); a sketch grammar and word lists are available for Boiken (Freudenburg 1970, 1975, 1979). I collected some materials on Gala; there are also two word lists compiled by Farnsworth (1964) and a short sketch in Laycock (1965). For YeLogu, there is a brief phonology compiled by a native speaker of Manambu (Nayau n.d.), and a very short sketch in Laycock (1965). Detailed anthropological research of high quality is available for Kwoma (Bowden 1963, 1997); there is a dictionary based on the Bangwis dialect (Bowden 1997), a sketch grammar based on the Washkuk dialect, which is close to Bangwis (Kooyers 1974, 1975), and work in progress by Renée Lambert-Brétière on the Tongwinjamb dialect, which is strikingly different from Bangwis and Washkuk. Yessan-Mayo has a grammar by Foreman (1980), but no dictionary. Gewertz’s anthropological work on Chambri is of excellent quality, but there is hardly any linguistic work (the only sources are Pagotto 1976 and Pagotto n.d.). There is no linguistic information on Yerakai (there are a few words in Newton 1971; Dye, Townsend, and Townsend report that “no lexical relationship to other languages has yet been discovered” [1968:154], but do not give any data). Very sketchy information on Wogamusin and Chenapian comes from Laycock and Z’graggen (1975). Newton (1971)
contains invaluable anthropological information on the Manambu, Gala, Yerakai, Wogamusin, and Yessan-Mayo. Important background information can also be found in the following works: Allen and Hurd (1972); Bass (n.d.); Behrmann (1924a, 1924b, 1950–61); Bowden (1987); Bragge, Claas, and Roscoe (2006); Harrison (1985a, 1985b, 1985c, 1987, 1990b); Laycock (1991); Roscoe (1994, 1996, 2005); Takendu (1977); Telban (1998); Townsend (1968); Wilson (1973); Zöller (1890).

7. A preliminary grouping partly corresponding to the Ndu family was established by Kirschbaum (1922), who used the term “Tuo” language, after the term for ‘man’ in Boiken. Linguistic affinity between Abelam and Iatmul was acknowledged by Loukotka (1957:29). The limits of the Ndu family were established by Laycock (1966), who decided to rename the family using the word for ‘man’ in Iatmul and Manambu. However, most of his materials are superficial and contain mistakes, due to insufficient time spent with each group, and questionable fieldwork methodology. Consequently, his internal classification and reconstructions require revision (see Aikhenvald 2008b).

8. Burui, Maligwat, and Gaikundi, listed as separate Ndu languages on the Ethnologue website, are among the Iatmul dialects. A number of varieties that used to be grouped under the name of “Sawos” languages appear to be members of the Iatmul continuum. Koiwat—listed as a separate language in Ethnologue and spoken in the villages of Koiwat, Kamangau, Seraba, and Paiambit—is said to be lexically close to Boiken; further study is needed to determine whether it is a separate language (Staalsen 1975). Sawos is not a linguistic term; it is a Iatmul word used to refer to their trade partners north of the Sepik River. Staalsen (1975) provides a reliable reappraisal of the languages covered by the term “Sawos.” The present-day Korogo Iatmul term for the Sawos is “Maligwat” (Gerd Jendraschek p.c. 2007).

9. The pronunciation of Gala as [ŋ]gala] is phonetically inaccurate, since the Gala language does not have word-initial prenasalization of velar stops; see section 5.3.3 below. Such pronunciation is criticized by the Gala speakers as a “Manambu accent.”

10. Some Yesan, and numerous Mayo, still have a certain amount of competence in Kwoma, according to Renée Lambert-Brétéire (p.c. 2007). Yessan-Mayo-speaking villages on the Sepik River appear to be very recent in origin.

11. Information on the language is not sufficient to make any statements. There is anecdotal evidence for the existence of loans. Gewertz (1988:240) mentions a ritually important object chambar, a hook used in houses for hanging food baskets. This is likely to be a borrowing from Iatmul sa"bun, sa"bun (cf. Manambu sa"bun, sa"bun).

12. For the sake of simplicity, I use one cover name for each language and specify dialect or village names as necessary. That is, I use Yessan-Mayo for Yesan (Yessan, Yasin) and Mayo varieties, and Kwoma for Bagwis, Waashkuk (see Kooyers 1974, 1975), and other varieties. An alternative name for Chambri is Tchambuli.

13. This describes the situation as it must have been in precontact times and is reflected in traditional stories and ethnographies (e.g., Bragge 1990; Staalsen 1965b). Nowadays, most Sepik people build houses on stilts and there is some knowledge of canoes among the Kwoma. This relatively recent diffusion of cultural patterns is beyond the scope of this study.

14. Nowadays, some of the older Manambu people claim to speak and understand Kwoma; but this does not diminish their condescending attitude to the “Jungle people.”

15. The exact extent, and timing, of the impact of the Iatmul on inland people such as the Kwoma and the Yessan-Mayo requires further study. Older sources (see discussion by Staalsen [1965a] and Newton [1971]) point towards such interactions in the past. Newton’s (1967, 1971) discussion is particularly important for its treatment of the scope of diffusion of Iatmul art styles, indicative of older contact.

16. The materials were collected in the course of the New Guinea Company Scientific Expedition under the leadership of Dr. Carl Schrader and Mr. M. Hollrung, who sailed
up the Sepik River on board the steamer Samos (see Zöller 1891:367–68; a full account is supplied by Clas [2007:38–40]).

17. “Substratum influence” refers to the impact of a language previously spoken in an area (the “substratum” or “substrate”) on the vocabulary, phonology, morphology, or syntax of a language that arrived more recently (see, e.g., Trask 2000:328–29).

18. See Clas (2007:38–40) for a detailed study of the first appearance of German ships in the Middle Sepik area in 1886. Behrmann (1922) is a fascinating description of the last German ethnographic expedition to the Sepik area.

19. Address terms and corresponding totems may reflect creation myths. Each clan of the Gla:gw clan group has a myth involving a python (Newton 1971:65). Terms for snakes are address terms for the Gla:gw. Similarly, terms for sun, moon, and stars are used as address terms for the Wulwi-Nawi clan group, whose ancestor is the sun personified. (Note that the name of the personified sun, the ancestor of the Wulwi-Nawi, ḡakau, is cognate to the term for ‘sun’ in Yelogu, nukus.)

20. However, this conflict could have happened earlier. All calculations are based on genealogies as presented to the researchers by native speakers. Given the difference between what Newton (1967) calls “esoteric” and “exoteric” knowledge, the information obtained from the consultants might have been different from what the consultants told each other.

21. Harrison suggests that they were possibly “speakers of the Sawos language” (1993:66). Recall from section 3.3 that Sawos is a generic term referring to Iatmul-speaking Jungle-dwellers. For similar stories about the Chambri exterminating their neighbors, see Gewertz (1983:105).

22. Very few names of subclans are used as terms of address and farewell for the members of these subclans. For instance, neither Maliau nor Sarak are used this way. I discuss the issue of address and farewell terms (Manambu way-y, wayapiti) elsewhere (Aikhenvald 2008a:584–90).

23. Curious “foreign language” insertions occur in the stories in my Manambu corpus (Aikhenvald 2008a:604–5). For instance, an evil character speaks a ‘Jungle-dweller man’s language’ (nba-du kudi wa:d [dry.land-man language speak+3.MASC.SG. BAS.P]), saying (the foreign inserts are in bold type; Manambu forms are in ordinary italics): wus sakura-manï au wus sakura-wangi (pee ?:Jungle.dwellers’.language-2.MASC.SG CONTRAST pee ?:Jungle.dwellers’ language-1.SG) ‘You will go to pee, but I will go to pee’.

I have not been able to identify the sources of these insertions. They appear to come from the same language. Judging by the person marking –mani ‘first person singular’, –manï ‘second person masculine singular’, it appears to be a Ndu language (but not Gala). I suspect the insertions may be in Yelogu, since the form of the first person marker is similar to that in Nayau (n.d.). But nothing can be said for certain until we know more about Yelogu.

24. Nowadays, the major agents of foreign influence on Manambu are Tok Pisin and English, the two lingua francas of Papua New Guinea as a whole. These are not addressed here, because indigenous languages have been in contact with Tok Pisin and English for only a short period of time.

25. Kwoma examples (Bangwis variety) are given in the orthography of Bowden (1997), with one exception: the grapheme i, which represents [e], is replaced by a.

26. Note that these include some basic verbs and a number of body parts. That such vocabulary items are not immune to borrowing is argued by Aikhenvald (2006a:2–3, 7–9). Some of these forms are also shared with Sepik Hill languages, e.g., Alamblak naku ‘sago palm’, Bahinemo ini ‘tree’, Alamblak mug ‘crocodile’. One cannot exclude the possibility that some of these forms were borrowed into Proto-Ndu from a Proto–Sepik Hill source, or from another, unknown, source.

28. In the Tongwijamb variety, this form appears to refer only to female genitalia (Renée Lambert-Brététre p.c. 2007).

29. Here reconstructions for Proto-Ndu are not available, although some items have a cognate in Abelam-Wosega.

30. The form *mu in Kwoma also appears in the word *somu ‘buttocks, bottom’. Whether or not it is related to *mu remains an open question.

31. The term *as(a) ‘dog’ also resembles Proto-Austronesian *asu ‘dog’, reconstructed on the basis of reflexes in the languages of Taiwan, the Philippines, western Indonesia, and others, but hitherto unattested in any Oceanic language with which a Papuan language could have come in contact. A number of Oceanic languages of Bougainville have a form for ‘dog’ reconstructible as **kasu; however, positing a reconstruction higher than Proto–North Bougainville appears to be dubious (Andrew Pawley p.c. 2007). The dog was introduced to New Guinea through coastal areas, and perhaps through maritime coastal trade into the Sepik–Ramu area, and the date given is circa 5500 BCE. The archaeological data indicate that the time of the introduction of the dog in New Guinea may have been consistent with the time of the appearance of the Lapita Austronesian culture (Jack Golson p.c. 2007; Bulmer 2001). If the dog was indeed introduced by Austronesians in coastal areas and then spread further inland, it would not be surprising if the word for ‘dog’ were of Austronesian origin. The word *waasa ‘dog’ in Abelam may indicate that if the term for ‘dog’ was indeed borrowed, the borrowing could have occurred at the Proto-Ndu stage. This, however, is pure speculation.

Manambu (and other Ndu languages) have a couple of further look-alikes with Oceanic and Austronesian. Proto-Oceanic *manuk ‘bird’ (which has reflexes manu, man, or man in coastal New Guinea languages [Andrew Pawley, p.c. 2007]) is similar to Manambu man, Iatmul man; and Kwoma manu ‘bird of paradise’. And Proto-Oceanic *tau ‘man’ could be compared to the Proto-Ndu *du(e) ‘man, male’ (cf. Boiken tuo ‘man’, on account of which Kirschbaum [1922] labeled Boiken "Tuo language").

32. However, pure coincidence is always possible. Consider Kwoma yey “term of reference (and address) for (i) all second ascending generation relatives connected through father, e.g., FF, FM, FMB, FMZ; (ii) husband’s first ascending generation relatives, e.g., HF, HM, HMB, HMBW. (iii) a clan’s founding ancestor [...] (iv) a culture hero whose creative activities are described in one or more myths owned by the speaker’s clan” (Bowden 1977:255). This could be borrowed from Iatmul ya‘i ‘father’s sister, husband’s mother’, or Manambu yey ‘paternal grandmother’. This concept is central in Iatmul culture (see Forge 1971; Bateson 1958), and also in Manambu society. But how do we know if the Kwoma term is really a borrowing, since in Kwoma the term can have masculine reference, and in Manambu and Iatmul it refers to females? The Kwoma term is similar to Yesson-Mayo yey translated as ‘kinship term’ (Foreman and Marten n.d.: 89). Yesson-Mayo Baday, the denomination of a group of people (Foreman 1980:61), is reminiscent of Manambu Baday, a general term of reference to the Sepik people.

33. A functional parallel comes from Abelam, which has a few “neutral nouns” with generic meaning, such as mun ‘thingamajig, what’s-its-name’, termed the “memory lapse neutral noun,” kwabu ‘thing, person’, termed the “definitive neutral noun” which “co-occurs with animate or inanimate nouns or replaces them,” and ban ‘one person, one thing’, termed the "general neutral noun" (Wilson 1980:52).

34. A further set of look-alikes is the Kwoma future marker –kata (Kooiers 1974:82), the Manambu desiderative –kar, and perhaps Iatmul –kiya, kika ‘future’. No conclusions can be drawn at this point.

35. In Iatmul, awat by itself is not used as a reciprocal; rather, an echo compound is used, e.g., awat sowat kui ‘give to each other’.

36. Laycock (1965) failed to recognize labialized consonants in Manambu, and also in Yelugu.
37. The description of Washkuk phonology by Kooyers, Kooyers, and Bee (1971) does not mention labialized consonants.

38. The two components are written as independent words in YESSAN-MAYO; but analyzed as instances of reduplication rather than repetition.

39. A cursory look at word lists and anthropological descriptions of Yelogu and Yerakai reveals potential loans into Jungle-dwellers' languages. The term for 'bush-knife' in Yelogu, arep (Nayau n.d.), is likely to be a loan from the Malu variety of Manambu (the Avatip word is ba:gu). The Yerakai term ba:nggu 'ceremony' (Newton 1971:15) is likely to be a loan from Manambu ba:guw 'ceremony' or Iatmul bagu 'dance'.

40. I do not discuss the origins of such personal names here, since the issue of name ownership in the area is politically very sensitive among the Manambu, the Kwoma, and the Iatmul (see especially Harrison 1990s; for discussion of a more recent name ownership debate in Avatip, see Aikhenvald 2008a:14).

41. I have discussed elsewhere (Aikhenvald 1996, 2002, 2006b) the patterns of diffusion and, in particular, their impact on the Tariana language (as compared to Arawak languages outside the area, e.g., Baniwa of Ícana and Piapoco). (Sorensen's contribution [1967] is not relevant here, since he focusses just on the East Tucanoan languages in the Colombian part of the Vaupés area.) East Tucanoan languages are typologically similar and closely related; as a result, similarities between them can be accounted for by shared heritage, Sapir's "parallelism in drift" reinforced by contact. Disentangling the impact of these factors is a daunting, if not impossible, task.

References

Aikhenvald, Alexandra Y.


2008d Reconstructing Proto-Ndu Phonology and Morphology. MS.


Aikhenvald, Alexandra Y., and Tonya N. Stebbins

Allen, J. D., and P. W. Hurd

Ameke, Felix K.

Anonymous

Bass, Jack

Bateson, Gregory

Behrmann, Walter
1922 Im Stromgebiet des Sepik, eine deutsche Forschungsreise in Neuguinea. Berlin: August Scherl.

Biocca, Ettore

Bowden, Ross

Bragge, Lawrence

Bragge, Lawrence, Ulrike Claas, and Paul Roscoe

Bruce, Les
Bulmer, Suzanne

Cabrera Becerra, Gabriel

Claas, Ulrike

Dench, Alan

Diller, Anthony

Dixon, R. M. W.

Dye, W., P. Townsend, and W. Townsend

Emeneau, Murray B.
1956 India as a Linguistic Area. Language 32:3–16.

Enfield, Nicholas J.


Epps, Patience

Farnsworth, Marve
n.d. [The Manambu Dictionary.] MS.

Farnsworth, Robin
1964 A Wordlist of Ngala. MS, Summer Institute of Linguistics, Ukarumpa, Papua New Guinea.

Foley, William A.


Forge, Anthony

Foreman, Velma M.

Foreman, Velma M., and Helen Marten

Freudenburg, Allen


Gabelentz, Georg von der

Gewertz, Deborah B.

Hale, Kenneth

Harrison, Simon J.


Hoenigman, Darja


Jendraschek, Gerd

2006 Clause Fusion in Iatmul: From Cleft Sentences to Highlighting Constructions. Seminar presented at the Research Centre for Linguistic Typology, La Trobe University.


2007b A Grammar of Iatmul. MS.

Kirschbaum, F.


Koch-Grünberg, Theodor


Kooyers, Orneal


Kooyers, Orneal, M. Kooyers, and D. Bee


Kundama, J., and Patricia R. Wilson, with A. Sapai


Laycock, Donald C.


Laycock, Donald C., and J. Z. Graggen

Lokotka, Cestmir
1967 Classification des langues papoues. Poznań: [n.p.].
Manabe, Takashi
Mead, Margaret
Nayau, Ken
Newton, Douglas
O’Neill, Sean
Ospina Bozzi, A. M.
Pagotto, Louise
n.d. Organised Phonology Data: Chambri Language. MS, Summer Institute of Linguistics, Ukarumpa, Papua New Guinea.
Penn, Mischa, and David Lipset
Pryor, J.
Riesenfeld, Alphonse
Roscoe, Paul B.

Roesicke, A.

Sapir, Edward

Sherzer, Joel

Sorensen, Arthur P., Jr.

Staalsen, Philip
1965a  Iatmul Grammar Sketch. MS, Summer Institute of Linguistics, Ukarumpa, Papua New Guinea.
1992  Organised Phonology Data: Iatmul (Big-Sepik) Language. MS, Summer Institute of Linguistics, Ukarumpa, Papua New Guinea.

n.d. a  Iatmul Verbs. MS, Summer Institute of Linguistics, Ukarumpa, Papua New Guinea.


Staalsen, Philip, and Lori Staalsen

Storch, Anne
2005  Flussläufe als Korridore der Transmission typologischer Merkmale in den Sprachen Zentral-Westafrikas. MS of Research Project (Deutsche Forschungsgemeinschaft).
Sumbuk, Kenneth M.
1999 Morphosyntax of Sare. Ph.D. diss., University of Waikato.

Takendu, Daniel

Telban, Borut

Thurston, William R.
1987 Processes of Change in the Languages of North-Western New Britain. Canberra: Pacific Linguistics, Research School of Pacific and Asian Studies, Australian National University.

Tosco, Mauro

Townsend, George W. L.

Trask, R. L.

Weinreich, Uriel

Wendel, Thomas D.

Whiting, John W. M.

Wilson, Patricia R.


1996 Organized Phonology Data of Ambulas. MS, Summer Institute of Linguistics, Ukurumpa, Papua New Guinea.

Woodbury, Anthony

Zöller, Hugo