POSSESSIVE-LIKE ATTRIBUTE CONSTRUCTIONS IN THE OCEANIC LANGUAGES OF NORTHWEST MELANESIA[1]

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In many Oceanic languages in northwest Melanesia the default attribute construction ('a big house') is one whose morphosyntax looks like that of a possession construction: the attribute occupies the (possessed) head slot, the noun the (possessor) modifier slot ('a big one of a house'), that is, the opposite of the cross-linguistic norm and a rare phenomenon worldwide. I briefly describe these constructions, which are morphosyntactically varied, then examine their history, proposing that a major factor in their genesis was the presence in Proto-Oceanic of a small class of adjectival nouns whose reflexes in languages scattered across Oceania either may still behave as noun phrase heads or retain features reflecting this earlier status. The adjectival noun class had a small membership but high token frequency, and provided the template for a pattern extension that in a number of northwest

Melanesian languages drew in the much larger adjectival verb class. I also address the question of why this change occurred in northwest Melanesia but not elsewhere in Oceania.

1. INTRODUCTION. In a number of Oceanic languages of northwest Melane-sia,[2] the default attribute construction (e.g., 'a big house') is constructed with the morphosyntax of possession, such that the noun denoting the class of referent (e.g., 'house') behaves as if it were the possessor (R), the attribute (e.g., 'big') as if it were the possessed (D), giving a construction that looks as if it should be trans-lated 'a big one of a house'. Such a possessive-like attribute construction (PLAC) appears to reverse the typologically usual arrangement of attribute-as-modifier and noun-as-head and to replace it with attribute-as-head and noun-as-modifier.[3] Although there are languages like English in which a possessive-like construction is a marked alternative to the default attribute construction, for example, "a whop-per of a house" for "a big house," this paper is concerned with languages in which the PLAC is the default construction. Such languages are apparently few and far between. They include Hausa (Chadic), Aleut (Eskimo-Aleut), the Southeastern Kiranti languages of Nepal (Tibeto-Burman), and Oceanic languages in western-Melanesia.[4] Thus in Hausa (Kraft & Kirk-Greene 1973:130) we find:

(I) a. *gida-n*   *sarkī*
       house-D.MASC chief
       D   R
       'the home of the chief'

   b. *bàbba-n*   *gidā*
       large-D.MASC house
       ATTRIBUTE   NOUN
       'the large home' (more literally 'the large one of a/the house')

In Hausa, Southeastern Kiranti, and in most Oceanic cases, at least, the PLAC has undergone reanalysis so that its noun is now the head, and its attribute the modifier. That is, what Verhaar (1993) calls "head shift" has occurred, and the "headedness"

2. In the past, especially in Ross (1988), I have used the geographic term "western Melanesia," but I have found that this is so often confused with the linguistic term "Western Oceanic" that I have decided to change my terminology and to refer to western Melanesia instead as "north-west Melanesia".

3. A PLAC is not, as some listeners to my presentations have assumed, parallel to the *izafet* con-struction in Persian or Tajik or the *de* construction in Mandarin. These markers simply register the presence of dependency (Nichols 1986:58–9): they do not reverse the positions of attribute and noun as the PLAC does.

4. I am grateful to Ronald Cosper for drawing my attention to Hausa and to Balthasar Bickel for information about the Southeastern Kiranti languages. A PLAC is reported as the normal attribute structure in Attu Aleut and for the "mixed" language Copper Island Aleut by Golovo and Vakhtin (1990:106) in their brief account of the latter, but a precisely glossed example is not given.

of the phrase has been transferred from attribute to noun. This statement presup-
poses, of course, that we can identify the dependency relations "head of" and
"modifier of" independently of the functional category "attribute," and I return to
this issue in section 3 after an initial survey of the relevant structures in section 2,
where I simply accept the assumptions and analyses in the published sources.

PLACs in the Oceanic languages of northwest Melanesia pose something of a
diachronic puzzle. Before we can talk about this, however, we need a typology of
"adjectival" word-classes in Oceanic. Three "adjectival" classes occur in Oceanic
languages:[5]

> (2) ADJECTIVES: a word-class distinct from the classes "noun" and "verb,"
> whose members (i) serve as modifier of a noun and (ii) may predicate a
> property of a noun in a construction that differs from a verbal or nomi-
> nal predicate.
>
> ADJECTIVAL VERBS: a subclass of stative verb whose members (i) serve
> as modifier of a noun (i.e., need no relative-clause marking) and (ii)
> have the predicate syntax of a stative verb.
>
> ADJECTIVAL NOUNS: a subclass of noun whose members (i) serve as
> modifier of a noun and (ii) have the predicate syntax of a noun.

As part(ii) of these definitions shows, the three classes are distinguished by their
behavior in predicates.

Some Oceanic languages have two adjectival classes, a large and a small. The
small usually contains just a few items with meanings in the semantic fields of
dimension, age (of objects), and sometimes value.[6] Sometimes the small and large
classes are subclasses of the same word-class: both are adjectives or both are
adjectival nouns, with just a few morphosyntactic differences between them.[7] But
in languages where the large class consists of adjectival verbs, either the small
class also consists of adjectival verbs, as for example in Fijian, or it is a class of
adjectival nouns, as in Bali-Vitu. There are also languages with no separate adjec-
tival class: a property attributed to a noun must be expressed by a stative verb in a
relative clause, as in Kiribatese.

The distribution of PLACs differs according to whether we focus our attention
on small adjectival classes or large. With members of the small class, PLACs and
structures that may be derived from PLACs are scattered right across Oceanic.
With members of the large class, on the other hand, PLACs only occur in north-

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5. This typology is a partial summary of the more detailed one provided in Ross (1998).

6. These are the semantic fields that Dixon (1977) found to occur as adjectives in languages that
   have only a very small adjective class. However, in Oceanic languages with a small and a
   large class, one usually cannot say that the small class consists of adjectives, the large of
   nouns or verbs.

7. In Gumawana (WOc, PT), for example, members of the large adjective class take a suffix
   agreeing in person and number with the head noun when they are used attributively, but the
   (two) members of the small class do not.

west Melanesia, and when they do occur, they are almost always the default attribute construction. That is, in these languages the PLAC is the only attribute construction that occurs with members of the large class.

In Ross (1998) I showed that POc was like Bali-Vitu: it had a small class of adjectival nouns and a large class of adjectival verbs. Members of both occurred attributively as a modifier following the head noun, but members of the small adjectival noun class could also function as the head of a PLAC (as the above-noted distribution suggests). Predicatively, members of the adjectival noun class functioned as the head of a predicate noun phrase, members of the adjectival verb class as stative verbs. It was the descendants of the large adjectival verb class in many northwest Melanesian languages that were nominalized and followed the pattern of the small class to function as the head of a PLAC. This became the default pattern in these languages, leading to the displacement of adjectival verbs from their modifier use. This is a case of pattern extension, a phenomenon that is quite common in syntactic change (Harris & Campbell 1995: ch. 5).

The first element of the PLAC puzzle lies in the fact that the languages of northwest Melanesia belong to two apparently primary subgroups of Oceanic: Admiralties and Western Oceanic. It would be tempting to suggest that these two subgroups formed a single higher-order subgroup in whose common protolanguage the innovation described in the previous paragraph took place. But there are three objections to this. One is that there is substantial evidence, surveyed by Blust (1996), to indicate that the *first* bifurcation of Oceanic was into Admiralties and the rest. The second is that there are a good many Western Oceanic languages that do not have a PLAC and show no sign of ever having had one, a fact that speaks against common inheritance in all Western Oceanic languages, let alone in all northwest Melanesian languages. The third objection—and also the second element of the puzzle—is that the structure of PLACs and possessive constructions varies across languages (see section 2.1 below). In almost any northwest Melanesian language with a PLAC, we find that the PLAC corresponds with a possession construction in that language, but PLAC-cum-possession constructions vary considerably from language to language, a circumstance we would not predict if these constructions were descended from a single ancestor.

Thus we cannot attribute the large-class PLAC of Western Oceanic to Proto-Oceanic (POc), nor to a single lower-order protolanguage. Instead, we must infer independent parallel developments in two, and probably more, subgroups, but not in the rest of Oceanic. We need to explain why this particular pattern extension occurred independently in parts of northwest Melanesia, but not elsewhere in Oceania, and why it is relatively common in northwest Melanesia when it is so rare in the rest of the world. In order to explore these questions, I will review the morphosyntax and the genetic and geographic distribution of PLACs and then examine their genesis in relation both to reconstructable POc constructions and to discourse parameters.

The number of primary subgroups within Oceanic remains a matter of debate, but there is good evidence for the two groups with which this paper is concerned,

the Admiralties family and the Western Oceanic linkage. Between them is the tiny St. Matthias group, with the Mussau and Tench languages, which certainly does not belong to Western Oceanic, and does not clearly belong to the Admiralties family. It must therefore also be treated as a primary Oceanic subgroup. The Admiralties family is perhaps the best-defined primary subgroup of Oceanic. Somewhat less well-defined is the Western Oceanic linkage, which is centered on the putative Oceanic homeland area in the Bismarck archipelago. Western Oceanic seems to be the result of a gradual differentiation of what remained of the Oceanic dialect network after speakers of lects ancestral to the languages of the Admiralties and of central and eastern Oceania had departed from the homeland area (Ross 1988: ch. 10). The Western Oceanic linkage seems at a fairly early stage to have been separated into two sublinkages, one ancestral to the Meso-Melanesian linkage, the other separating at a later date into the Papuan Tip and North New Guinea linkages—where the Sarmi/Jayapura family belongs is not completely clear (Ross 1996c). The locations of the three linkages of Western Oceanic are shown on map 1, and their internal subgroupings, defended by Ross (1988), are listed in table 1, as many of the languages referred to in this paper belong to them.

Together, the Admiralties and Western Oceanic groups comprise almost all the Oceanic languages spoken in northwest Melanesia. A linguistically significant feature of this region is that it includes the island of New Guinea. Much of the island, as well as parts of the smaller islands to its west and east, is occupied by speakers of so-called "Papuan" languages, that is, languages that are related neither to Austronesian nor to any known group outside the region. (How many unrelated groups of Papuan languages there are is again a matter of debate,[8] but this need not concern us here.)

For a feature to be reconstructed in a protolanguage, the comparative method requires that it be reflected in two or more primary subgroups, or in one primary subgroup and in a language external to the group (in this case, external to Oceanic). The most conservative subgrouping for reconstructive purposes is thus one that lumps languages into the smallest number of primary subgroups. For this reason, I recognize here only one other primary Oceanic subgroup, namely Central/Eastern Oceanic (CEOc), which includes almost all Oceanic languages not included in the Admiralties and Western Oceanic groups.[9]

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8. For views on the number and composition of Papuan language groups, see Foley (1986) and Pawley (1995).

9. I write "almost all," because Yapese and the languages of the St. Matthias Islands cannot be unambiguously assigned to one of the three primary subgroups and may constitute primary subgroups in their own right. Arguments for the three primary subgroups and their lower-order subgrouping are set out in Lynch, Ross, and Crowley (forthcoming).With regard to Yapese, see Ross (1996a). For a view of Oceanic subgrouping that focuses on the prehistory of Oceanic peoples rather than on reconstruction, see Pawley and Ross (1995).

2. TYPES OF PLAC

2.1 LARGE-CLASS PLACS IN OCEANIC LANGUAGES OF NORTH-WEST MELANESIA.

As I mentioned above, an intriguing feature of large-class PLACs in northwest Melanesia is that they vary considerably from language to language. PLACs fall into four structural types, each corresponding with a possession construction in each language in which it occurs. Only one PLAC type occurs in any given language. Most of the facts are reported at various points in Ross (1988), and are briefly repeated here, with certain corrections. I will refer to the four structural types as Types 1, 2, 3, and 4. The four types are exemplified below.[10] In each case, it is the construction used with the large or only attribute class in the language that is illustrated. The geographic distribution of the four types is shown on Map 1.

(3) Type 1: Tolai (SVO, Prep; WOc, MM, South New Ireland):

a. a　　mapi　　na　　davai
　　ART　leaf　　LIG　tree
　　D　　　　　R
　　'leaves of a tree'

b. a　　mamat　　na　　vat
　　ART　heavy　　LIG　stone
　　ATTRIBUTE　　NOUN
　　'a heavy stone' (= 'a heavy one of a stone')

Note here that the head of (a) is *mapi* 'leaf', which precedes the ligature. In (b) it is *vat* 'stone', which follows it. In Type 1 languages, attributes like *mamat* are adjectival verbs. Other South New Ireland languages are also of this type. They include Patpatar, Minigir, Label, Bilur, Kandas, Ramoaaina, and Siar.

(4) Type 2: Yabem (SVO, PostP; WOc, NNG, North Huon Gulf):

a. ya　　ŋa-dauŋ
　　fire　LINKER-smoke
　　R　　D
　　'smoke of a fire

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10. Data for the Oceanic languages from which examples are drawn are from the following sources: for Cèmuhî from Rivierre (1980, 1994, pers. comm.), for Halia from Allen (1987), for Mangap-Mbula from Bugenhagen (1995), for Malo from Jauncey (1995, pers. comm.), for Mokilese from Harrison (1976), for Nehan from Todd (1978) and Glennon (1994), for Ramoaaina from Davies and Fritzell (1992), for Seimat from Smythe (n.d.), for Tawala from Ezard (1990), for Tigak from Beaumont(1979), for Tinrin from Osumi (1995), for Tolai from Mosel (1984), and for Yabem from Dempwolff (1939) and Zahn (1940). For Mangap-Mbula, Nehan, Ramoaaina, Seimat, Tawala, Tigak, Tolai, and Yabem, I also consulted my own fieldnotes. This is especially true of Seimat, where Smythe's data do not fully cover the behavior of adjectival nouns. Data for Roviana, Siar, Tabar, Taiof, Tungag, and South New Ireland languages are also from my fieldnotes.

MAP 1. THE LOCATION OF LARGE-CLASS PLACs IN NORTHWEST MELANESIA

Approximate boundaries of major groups of Oceanic languages in northwest Melanesia

Oceanic languages with large-class PLACs labelled by *Type*

Admiralties family *Type 4*

St Matthias group *Type 4*

North New Guinea linkage

Type 4

Type 4

Type 4

Meso-Melanesian linkage

Type 1

Type 3

Type 3

Type 2

Type 3

Papuan Tip linkage

Type 4

Type 4

Type 4

0   250 km
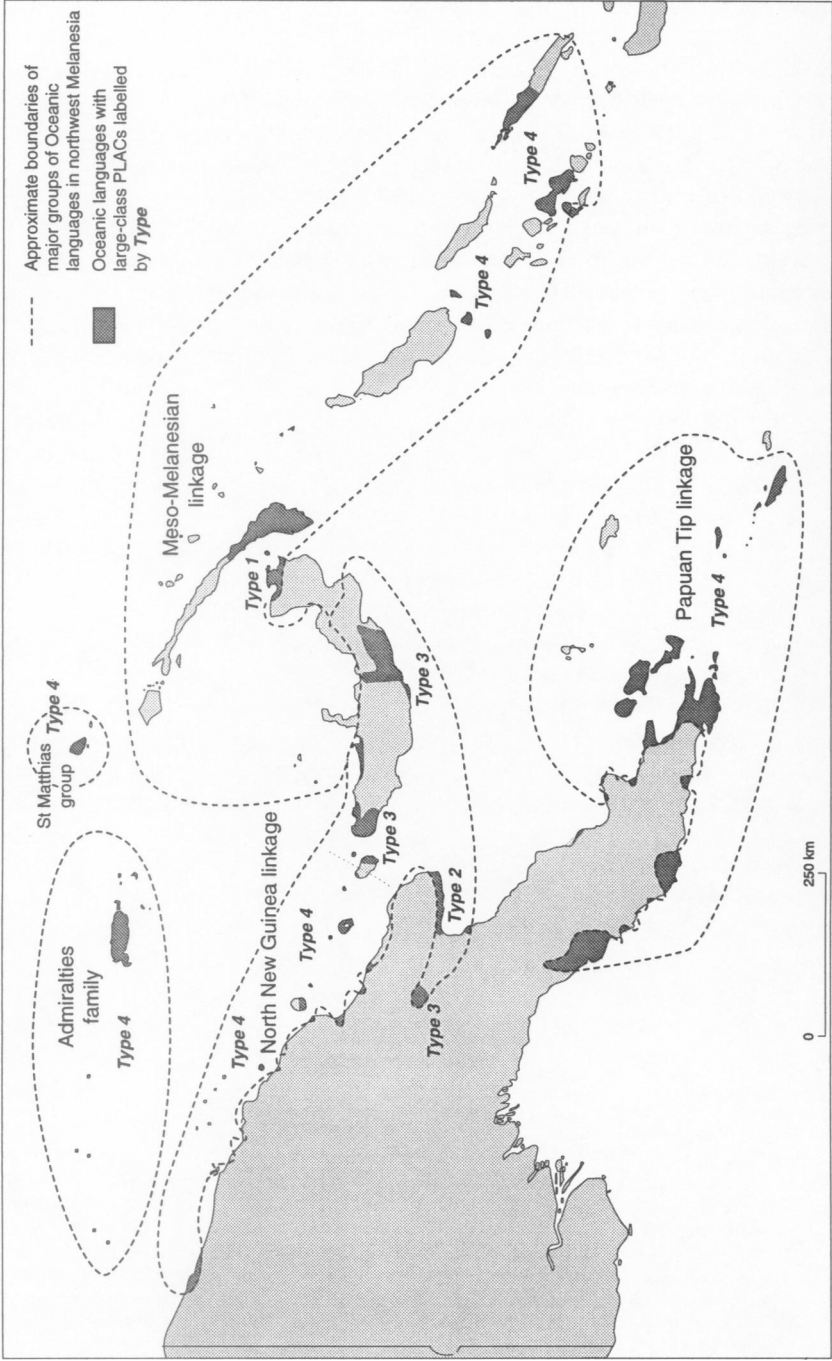
(4) b. m̀   ŋa-kana
       banana   LINKER-sweet
       NOUN   ATTRIBUTE
       'a sweet banana' (= 'a sweet one of a banana')

The occurrence of the linker *ŋa-* with adjectives (and these are true adjectives) is lexically determined in modern Yabem: there are also adjectives that are not thus

TABLE 1. WESTERN OCEANIC SUBGROUPING

1. Western Oceanic linkage (WOc):
  1.1 Meso-Melanesian linkage (MM)
    1.1.1 Bali-Vitu
    1.1.2 Willaumez linkage
    1.1.3 New Ireland linkage
      1.1.3.1 Tungag/Nalik linkage
      1.1.3.2 Tabar linkage
      1.1.3.3 Madak linkage
      1.1.3.4 St. George linkage
        1.1.3.4.1 South New Ireland languages*
        1.1.3.4.2 Northwest Solomonic linkage
2. Papuan Tip linkage (PT)
  2.1 Nuclear Papuan Tip linkage
  2.2 Kilivila/Misima linkage
  2.3 Nimoa/Sudest linkage
  2.4 Central Papuan subgroup
3. North New Guinea linkage (NNG)
  3.1 Schouten linkage
  3.2 Huon Gulf family
    3.2.1 North Huon Gulf linkage
    3.2.2 Markham family
    3.2.3 South Huon Gulf linkage
  3.3 Ngero/Vitiaz linkage
    3.3.1 Ngero family
    3.3.2 Vitiaz linkage
      3.3.2.1 Bel family
      3.3.2.2 Mangap-Mbula
      3.3.2.3 (various languages in and around the Vitiaz Strait)
      3.3.2.4 Southwest New Britain linkage
      3.3.2.5 Mengen family
4. Sarmi/Jayapura family of the north coast of Irian Jaya (may belong to the NNG linkage)

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*   I have replaced the clumsy label "South New Ireland/Northwest Solomonic linkage" with the more succinct "St. George linkage," after Cape St. George (the southernmost tip of New Ireland) and the St. George's Channel (between southern New Ireland and the Gazelle Peninsula of New Britain), as these landmarks are in the region where the linkage almost certainly had its beginnings.

prefixed. However, this does not affect the present argument. The other two North
Huon Gulf languages, Bukawa and Kela, are also of Type 2.

(5) Type 3: Mangap-Mbula (SVO, PrepP; WOc, NNG):

    a. ke   pakaa-na
        tree   piece-P:3S
        R   D
        'a piece of wood'

    b. ŋge   ambai-ŋa-na
        pig   be.good-NOM-P:3S
        NOUN   ATTRIBUTE
        'a good pig' ('a good one of a pig')

   In Mangap-Mbula, the parallelism between (a) and (b) is less obvious. In (a)
the D noun *pakaa-* 'piece' has a suffix *-na* indicating the person and number of the
R. The structural correspondent of *pakaa-* in (b) is morphologically complex: it is
the attributive noun *ambai-ŋa-* 'good one', composed of a stative verb *ambai* 'be
good' and nominalizing suffix *-ŋa* (Bugenhagen 1995:106–107). Here *-na* indi-
cates the person and number of the head noun. The nominalizing suffix *-ŋa*, inci-
dentally, is descended from a POc nominalizer (Lynch, Ross, and Crowley
forthcoming, chapter 4): its formal similarity to the linker *ŋa-* of Type 2 is fortu-
itous. As this summary suggests, Mangap-Mbula attributes are adjectival nouns.
Other languages that also reflect this nominalizing morphology are Adzera of the
Markham family, Mangseng, Amara, Avau, and Atui of the Southwest New Brit-
ain linkage, and Uvol and Mamusi of the Mengen family.

(6) Type 4: Tawala (SOV, PostP; WOc, PT):

    a. koida   poha-na
        yam   basket-P:3S
        R   D
        'basket of yams'

    b. tahaya bigabiga-na
        path   muddy-P:3S
        NOUN   ATTRIBUTE
        'a muddy path' (= 'a muddy one of a path')

   The Type 4 PLAC is similar to Type 3, but (6b) lacks the nominalizing suffix of
Type 3, and attributes like *bigabiga* are members of the adjective word-class in
Tawala (Ezard 1990). The Type 4 structure is by far the most widely reflected
(although a good many of its reflexes are fossilized in varying degrees), being
found throughout the Admiralties family, in Mussau of the St. Matthias group, and
in scattered parts of WOc. The latter include (i) all the Papuan Tip linkage except
the Kilivila/Misima sublinkage; (ii) the Schouten linkage and the Bel family
within the North New Guinea linkage; and (iii) scattered languages of the North-
west Solomonic linkage. Many of the languages where the Type 4 structure occurs
are left-branching, that is, they have SOV, PostP, and RD orders, and this pattern-

ing carries over into the PLAC. This is not true, however, of Admiralties lan-
guages, which are SVO, PrepP, DR, and NOUN ATTRIBUTE.

Note that the possessive construction of Types 2, 3, and 4 is head-marking, the
PLAC dependent-marking (in the terminology of Nichols 1986). It is the posses-
sive construction that follows the general pattern of the language in each case, as
the verb also carries pronominal markers cross-referencing the person and number
of its subject and object. The PLAC, especially when it has agreement marking on
the dependent, stands out in contrast to the rest of the language, because the earlier
head (the attribute) has been reanalyzed as the dependent.

2.2 SMALL-CLASS PLACS IN OCEANIC. I noted above that some Oce-
anic languages, and not only in northwest Melanesia, also have a small adjectival
class, and that PLACs and structures that may be derived from them occur with
members of this class in languages across Oceanic. These structures and their cor-
relations with possession constructions are surveyed in Ross (1998), and I return
to them below when I explore the history of their morphosyntax (section 4.3).

3. IDENTIFYING HEADS. The published sources of my data on Oceanic-
PLACs largely take it for granted that we can identify the dependency relations
"head of" and "modifier of" in noun phrases, and they provide little or no discus-
sion of how they are identified. However, if we are to be sure that head shift has
occurred in PLACs, it is important to have criteria for determining what is head and
what is modifier. This is by no means as simple as it may seem, as recent literature
shows: see the contributions in Corbett, Fraser, and McGlashan (1993) and the
works to which they refer. Zwicky's (1993) contribution to that volume catalogues
eight criteria for recognizing dependency relations in clauses and noun phrases, but
there are three kinds of difficulty with applying them in the present context.

First, one of Zwicky's criteria is acknowledged to be semantic. Since my goal is to
identify the syntactic categories of head and modifier *independently* of the functional
categories of referent and attribute, I ignore the semantic criterion on the grounds that
it is more likely to identify referent and attribute than head and modifier.[11]

The second kind of difficulty is that four of the other seven criteria fail when
they are applied to PLACs. If a PLAC is interpreted as a noun phrase with an R
noun and a D noun, then it has two nouns, and criteria that seek to distinguish
between noun head and adjectival modifier are bound to fail. This is true of the
first two criteria listed below. The third and fourth fail because what appear to be

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11. Zwicky says that the head is "characterizing": it has the meaning of which the meaning of the head
    and its satellites is a subtype. That is, the head is a hyponym of the phrase. However, as I under-
    stand Zwicky's application of this criterion, in both *a big house* and *a whopper of a house* (a PLAC),
    house would be the head. In other words, the criterion takes no account of the syntactic structure of
    the PLAC, where conventional analyses would take *whopper* to the syntactic head. Instead, it
    identifies the referent, thereby focusing on the discourse function of the noun phrase, not on its
    dependency relations. Worse still, one could argue that *whopper* is a hyponym of *a whopper of a
    house*, and so this criterion proves void in its application to a PLAC.

syntactic criteria are in fact covertly semantic. I discuss these briefly here because they are of some theoretical interest.

1. The head is "category determinant," the item that determines the category of the construction. Thus if the head is a noun, then the construction is a noun phrase. Unfortunately, this does not disambiguate the headedness of a noun phrase like the Mangap-Mbula PLAC in (5b), repeated below, because, under Bugenhagen's analysis, ŋge, and *ambai-ŋa-na* are both nouns, whether ŋge is the head or the R.

    (5) b. ŋge   ambai-ŋa-na
           pig   good-NOM-P:3S
           NOUN   ATTRIBUTE
           'a good pig' ('a good one of a pig')

2. The modifier is the target of agreement. The suffix *-na* P:3S of *ŋge ambai-ŋa-na* 'good pig' does indeed agree with *ŋge*, but it would do so whether *ŋge* were the head or the R, so the criterion of agreement target is undiscriminating with regard to the dependency relations in a PLAC.

3. A head must be of word rank, but a modifier may be a phrase. This criterion fails for PLACs. The phrase *ŋge ambai-ŋa-na kat* 'very good pig' can also be read as if *ambai-ŋa-na* were the head, that is, as 'a very good one of a pig'. The reason for this, as Robert Bugenhagen (pers. comm.) points out, is that the word rank constraint is really a semantic restriction: *ŋge* 'pig' is not gradable and *kat* 'very' cannot cooccur with it, but *ambai-ŋa-na* 'good' is gradable, whether it is modifier or head.

4. Two of Zwicky's criteria do not appear to be logically independent of one another with reference to the noun head/modifier relationship. The first is that the modifier is the subcategorizand, which means (with regard to a modifier but not, say, with regard to a predicate) that a head noun must coocur with it. The second is that the head is "required," that is, without it the phrase is elliptical. However, this double criterion fails for PLACs. In the example below, the speaker is holding two seashells and asks:[12]

Nu   lele-m   pa   iŋgoi?   Kokou-ŋa-na,   som gabgap-ŋa-na?
D:2S insides-P:2S PREP which.one be.white-NOM-P:3S or   be.black-NOM-P:3S
'Which one do you want? The white one or the black one?'

Kokou-ŋa-na and *gabgap-ŋa-na* are both subcategorized for an unmentioned noun, that is, both are elliptical. However, subcategorization is basically semantic, not syntactic. The subcategorization of *drink* gives us both *John drinks* and *John's drinking* in English, and it is the morphology that identifies syntactic categories and dependency relations. Mangap-Mbula morphology does not allow us to say that *kokou-ŋa-na* and *gabgap-ŋa-na* are modifiers with missing heads rather than noun heads with missing Rs.

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12. I am indebted to Robert Bugenhagen for this example and for (7), as well as for commentary on both.

The third kind of difficulty is less subtle: two criteria cannot be applied because eligible morphology does not occur in many Oceanic languages. Under one, the head is "morphosyntactic locus," the item that carries the flexional morphology of the phrase as a whole, including that determined by phrase-external government.[13] Since Oceanic languages lack flexional case-marking morphology, this criterion is usually inapplicable (but see Tolai below). Under the other criterion, the modifier is the "trigger of government," but only in a few languages (e.g., Arabic, where a modifier governs the "construct" form of a noun), and in no Oceanic language that I know of.

This leaves us with just one criterion that works for Mangap-Mbula. This is the external representative or external determinant criterion, whereby the head "is the element in a construction that serves as the trigger or the target for external lexical subcategorization . . . with respect to partners of the construct as a whole, and as the trigger for government or agreement" (Zwicky 1993:297–298). In many Oceanic languages, this means that the head of the noun phrase is the element that triggers subject or object agreement on the verb. However, with a noun phrase like (5b), repeated as (7a), verbal agreement would be third person singular whether we assume ŋge (as in 'a good pig') or ambai-ŋa-na (as in 'a good one of a pig') to be the head. Thus the external determinant criterion only works for us if the element labeled NOUN is first or second person, that is, an independent pronoun. In spoken discourse, even prototypical third person noun phrases that include an attribute are rare (Thompson 1988), and only the tiniest percentage of these have a first or second person pronoun. However, such noun phrases do occur in Mangap-Mbula, as illustrated in (7b).

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13. There appear to be few analyses of head shift in the literature, but Löbel (1989:134) cites German examples with quantifier phrases where head shift appears to be in progress. It is largely the morphosyntactic locus criterion that allows its identification here, since German noun phrases have case morphology.

eine	Menge	guter	Freunde	vs.	eine	Menge	gute	Freunde
a	lot	good:GEN	friends		a	lot	good:NOM/ACC	friends
'a lot of good friends'					'a lot of good friends'			

In the left-hand example, the genitive *guter Freunde* modifies the head *Menge*, which, as morphosyntactic locus, has nominative marking; in the right-hand, *eine Menge* is a modifier agreeing in case with the head *Freunde*, now nominative because it has become the morphosyntactic locus. (Löbel's analytic framework is formal, and she reaches rather different conclusions from those assumed here.)

With certain "quantifier" nouns, the shift appears to be complete (examples mine).

*ein	Glas	guten	Bieres	vs.	ein	Glas	gutes	Bier
a	glass	good:GEN	beer:GEN		a	glass	good:NOM/ACC	beer:NOM/ACC
'a glass of good beer'					'a glass of good beer'			

When the case of the phrase as a whole is other than nominative or accusative, the quantifier phrase agrees in case with the head (the morphosyntactic locus):

der	Schaum	eines	Glases	guten	Bieres
the	froth	a:GEN	glass:GEN	good:GEN	beer:GEN
'the froth of a glass of good beer'					

(7) a. ŋge   ambai-ŋa-na
         pig   be.good-NOM-P:3S
         NOUN   ATTRIBUTE
         'a good pig' ('a good one of a pig')

    b. Iti   tomtom sanan-ŋa-nda ta-rao   be   to-to
        D:1IP   person bad-NOM-P:1IP S:1IP-able   to   S:1IP-follow

        kat   zaala ki   Anutu som.
        really   road   LOC   God   NEG
        'We bad people are not really able to follow God's road.'

The most economic formulation of Mangap-Mbula noun phrase structure is that
the first element in the phrase is its head, unless the head is preceded by a R. In
(7b), the pronoun *iti* must be either the head of *iti tomtom sanan-ŋa-nda* 'we bad
people' or part of the R if *sanan-ŋa-nda* 'bad ones' is taken to be the head. Its sta-
tus is disambiguated by the first person inclusive plural subject marker *ta-* on the
following verb, agreeing with *iti* and showing that it is the external determinant of
its noun phrase and therefore its head (if agreement were with *sanan-ŋa-nda* 'bad
ones', it would be third person). From this, we may infer that *ŋge* in (5b) is also the
head of its phrase and that head shift has occurred.

    Since four of the seven criteria fail if they are applied to PLACs, and two more
because relevant flexional morphology does not occur, we might expect all six to
fail just as convincingly with regard to Tolai, Yabem, and Tawala. For Tawala, the
situation is similar to that in Mangap-Mbula. There, the kind of construction illus-
trated in (7b) also occurs, but the only modifiers cooccurring with first and second
person pronouns are quantifiers (Ezard 1997:141), as in (8).

(8)   Tauyai   atapu-yai   to-beiha.
        D:1EP   all-P:1EP   S:1EP-search
        'We all searched.'

Here too, the subject marker tells us that head shift has taken place and that *tauyai*
is head of the noun phrase *tauyai atapu-yai*. By the same token, *tahaya* 'path' is
head in (6b).

    In Yabem, I have not found the kind of construction illustrated in (7b), but there
is a distinction between nouns and adjectives that is not covered by Zwicky's crite-
ria. Adjectives are morphologically distinct from nouns in that they can form an
intensive by reduplication. There are three formal classes of adjective. In the first,
the linker *ŋa-* in a phrase like *mì ŋayàm* 'a good banana' has become inseparable,
occurring also when the adjective is used as a predicate and being included in
intensive reduplication: *ŋayàm-ŋayàm* 'very good'. In the second, *ŋa-* is also
inseparable, but the adjective is transparently derived from a noun and indeed, out
of context, is ambiguous between noun and adjective: for example, *ŋa-dauŋ* 'its
smoke, smoky' from *dauŋ* 'smoke', *ŋa-tekʷa* 'its bone/thorn, thorny' from *tekʷa*
'bone, thorn'. In such adjectives, *ŋa-* is excluded from reduplication: *ŋa-dauŋ-
dauŋ* 'misty'. In the third class, the linker never occurs and the whole form is redu-
plicated, as in *kapʷeŋ* 'big', *kapʷeŋ-kapʷeŋ* 'very big'. This suggests strongly that
there is a separate adjective class in Yabem (see Ross 1998) and that *ŋa-* has

become fossilized on some of its members. If this is so, then in (4), *mì ŋa-kana* 'a sweet banana', *ŋa-kana* 'sweet' is an adjective and the modifier, and *mì* 'banana' is equally clearly the head. Headshift has occurred.

In Tolai, the situation is different, and it seems that head shift has *not* occurred, although this is not explicitly stated in any of the published literature on the language. Tolai does not allow noun phrases with nonthird-person modified heads like the one in (7b), so the one criterion that works for Mangap-Mbula does not work here. However, there is one morphological phenomenon that appears to identify the morphosyntactic locus, that is, the head. Mosel (1984:60, 78–79) describes the Tolai "distributional plural," which is marked by reduplication of the noun.[14]

(9)   a   gunan   a   guna-gunan
       ART   village   ART   REDUP-village
       'the villages'   'the (widely distributed) villages'

When an attribute occurs in a noun phrase marked for distributional plural, it is the attribute that is reduplicated, suggesting strongly that the attribute is the head.

(10)   a   ŋala   na   pal   a   ŋala-ŋala   na   pal
       ART big   LIG   house   ART REDUP-big   LIG   house
       'the big house'   'the (widely distributed) big houses'

This means that in (3), amended as (11), the dependency relations are the same in both examples:

(11) a. a   mapi   na   davai
          ART   leaf   LIG   tree
          D   R
          'leaves of a tree'

      b. a   mamat   na   vat
          ART   heavy   LIG   stone
          D   R
          'a heavy one of a stone' (= 'a heavy stone')

    This analysis is supported by another fragment of evidence. The noun phrase in (12) occurs in a narrative about a volcanic eruption.

(12)   a   ngala   na   kai-na bung
       ART   big   LIG   bad-LIG day
       'a very bad day' ('a big one of a bad one of a day') (Mosel 1977:23)

The fact that the attribute *kai-na* is not modified by an adverb of degree ('very') but by another attribute, *ngala*, suggests that *kai-na*, and also *ngala*, are in fact nouns.[15]

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14. I am grateful to Ulrike Mosel for drawing my attention to the distributional plural.

15. This example is complicated by the fact that *kai-na* 'bad' is the one of a few Tolai attributes to have accreted the ligature *na*, i.e., the ligature occurs whether *kaina* is used as an attribute or a predicate. The root *kai* is a reflex of *saqati, a Western Oceanic variant of POc *saqat 'bad'. The expected Tolai form is **akai*, but, perhaps because of high frequency of use, the root has been reduced to *kai,* and *na* has become permanently attached. This example suggests that, as an attribute, *kaina* still exhibits nominal behavior, however.

4. THE HISTORY OF PLACS IN OCEANIC

4.1 PROTO-OCEANIC POSSESSION. Because it is reasonably clear (i) that
a PLAC was not the default attribute construction in POc and (ii) that PLACs are
extensions of possessive constructions, our starting point for reconstruction must
be the possessive constructions of POc. Happily, more has been written about the
reconstruction of possession in POc than about any other topic in Oceanic gram-
mar (particularly Pawley 1973:153–169, Hooper 1985, Lichtenberk 1985, Lynch
1996a, Lynch 1996b), and the reconstruction of the POc possession system in its
broad outlines is relatively uncontroversial.

Possession constructions in POc, as in most daughter languages other than
those of Polynesia, varied along two parameters:

(13) Parameters of possessive constructions in Proto-Oceanic:
 (a) the head of the R was a either
   (i)   a pronoun or
   (ii) a personal noun (= a proper noun or perhaps a kin term) or
   (iii) a common noun that was either
     (A)   specific or
     (B)   nonspecific;
 (b) the D was either
   (i)   inalienable or
   (ii) alienable.

With regard to parameter (a), we will be concerned here largely with (iii), con-
structions where the head of the R is a common noun. Table 2 shows those con-
structions in POc that have a noun-phrase possessor (reconstructed examples are
given to make the table easier to read, and do not constitute claims about the forms
of the morphemes). In this and other tables, I adopt a simplified terminology for
parameter (a) and call (ii) a "personal possessor," (iiiA) a "specific possessor," and
(iiiB) a "nonspecific possessor." (Constructions with personal noun phrase pos-
sessors are shown in table 2 because they are discussed in section 4.4.3.)

A nonspecific noun is one that denotes a class or a class member, but not a par-
ticular member that the speaker wishes to refer to. Hence in the bottom left cell of
table 2, *boRok refers to pigs in general, not to a particular pig.

Semantically, nonspecific "possessors" are often not really possessors at all but
generic nouns used attributively. Indeed, one could argue that these constructions
are in fact broadly attributive, and that POc nonspecific possession was (and in
modern Oceanic languages still is) simply a subfunction of the broader function of
attribution. However, I treat these constructions as part of the possession system
here because (i) they affect the morphological behavior of directly possessed
nouns and (ii) in many Oceanic languages, including those with PLACs of Types
3 and 4, nonspecific "possessor" constructions employ possessive morphosyntax
and syntactically *are* an integral part of the possession system.

Parameter (b) makes a distinction between alienable and inalienable posses-
sion. This is a semantic distinction, although different Oceanic languages draw the

TABLE 2. PROTO-OCEANIC NOUN PHRASES
WITH NOUN PHRASE POSSESSORS*

	INALIENABLE	ALIENABLE
PERSONAL POSSESSOR	ART D=ART R *a qaqe=i X ART leg=ART X 'X's leg'	ART D CL=ART R *a Rumaq na=i X ART house CL=ART X 'X's house'
SPECIFIC POSSESSOR	D-P R *a qaqe-ña tam^{w}ata ART leg-P:3S man 'the man's leg'	D CL-P R *a na-ña Rumaq tam^{w}ata ART CL-P:3S house man 'the man's house'
NONSPECIFIC POSSESSOR	D *qi* R *a natu qi boRok ART child *qi* pig 'a piglet' (lit. 'child of pig')	D *ni* R *a polo ni niuR ART liquid *ni* cocnut 'coconut water' *a Rumaq ni turuR ART house *ni* sleep 'rest house' (lit. 'house of sleep')

*   After Hooper 1985 and Lichtenberk 1985

line between alienably and inalienably possessed nouns at different points, some treating, for example, most body-parts as inalienable, others only a few. There are also differences in the degree of lexicalization of this distinction: in some languages, a noun is either alienable or inalienable, and cannot be treated as a member of the other category, while in other languages, many or all inalienable nouns also have an alienable form.

This semantic distinction is independent of the structural distinction made by Lichtenberk (1985) between direct, indirect, and prepositional possession, because (as we will see) the relationships between construction and meaning vary among languages.

In POc, direct possession was used where the D was inalienable (mostly kin terms and parts of wholes). By Lichtenberk's definition, "A direct possessive construction consists of a possessed and a possessor. The possessor may be a possessive affix or a separate word" (Lichtenberk 1985:95). In the POc inalienable specific construction, the person and number of the specific R were marked directly on the D by a possessor suffix, as shown in the mid left cell of table 2 and in the left-hand column of (14).

Indirect possession was used where the D was alienable. "An indirect possessive construction contains, in addition to the possessed and the possessor, a third element [that] I will term 'possessive classifier'" (Lichtenberk 1985:96). In the POc specific alienable construction, as in many modern Oceanic languages, the possessor suffix was attached to a possessive classifier (*na- in the top and mid right-hand cells of table 2 and in the right-hand column of 14),[16] not directly to D.

(14)   Proto-Oceanic:
          *a qaqe-gu 'my leg'   *a na-gu Rumaq 'my house'
          *a qaqe-mu 'your (S) leg'   *a na-mu Rumaq 'your (S) house'
          *a qaqe-ña 'her/his leg'   *a na-ña Rumaq 'her/his house'

When the R was a noun phrase, this was simply appended to the phrase, as in the middle row of table 2.[17]

The forms in (14) were used for specific possession only, as a nonspecific R must by definition be a noun. Inalienable and alienable nonspecific possession were expressed by a prepositional possession construction with the prepositions *qi and *ni (bottom row of table 2) respectively, in which the preposition intervened between the D and the R. The majority of reflexes of *qi, and some of *ni, are phonologically bound to the preceding noun as suffixes or enclitics. Oceanic linguists label a suffix that reflects *qi or *ni a "construct suffix." I will also label an enclitic reflex a "construct enclitic."

4.2 THE FORMAL STATUS OF *QI. I noted in the previous paragraph that POc *qi and *ni are often reflected as enclitics or suffixes. This raises the question of their status in POc. A standard definition of a clitic is that it is a morpheme that attaches syntactically to the edge of a phrase and is integrated phonologically into the word at that edge. Since no modifier intervenes between the D and the R in nonspecific constructions, the syntactic criterion does not apply here: *qi and *ni directly followed the D noun. Since the reflexes of *qi are bound to that noun in many modern languages (and this appears to be so even in languages where the orthography treats them as independent words), I assumed in Ross (1998) that *qi was an enclitic.

Although the evidence is clear that *qi was to some degree bound to the D noun, it was evidently less bound to it than was the transitive marker *-i to the preceding verb stem. In languages in which POc final consonants have been lost, a POc verb root like *inum 'drink' often gives rise to a pair like *inu* 'drink (intransitive)' and *inumi* 'drink (transitive)'. That is, transitive *-i has "protected" the root-final consonant from deletion. However, although *-i is conventionally referred to as a "transitive suffix," in a number of modern languages (e.g., Hoava, Davis 1997), in circumstances where the verb is immediately followed by a modifier, the "suffix" follows the whole verb-modifier complex, suggesting that *-i was, on syntactic grounds, an enclitic rather than a suffix. If transitive *-i was indeed an enclitic, then *qi belonged to a phonological category with weaker bonding than an enclitic, as there is no evidence that it protected the final consonant of a preceding noun against deletion. Instead, cliticization seems to have occurred after con-

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16. The possessive classifier *na-, the general or default classifier, is one of three reconstructed by Lichtenberk (1985); the others are *ka- 'food' and *ma- 'drink'. Questions about how many classifiers there were in POc and their forms and uses remain under discussion (see, for example, Lynch 1996a), but the details of their reconstruction have no bearing on the topic of this paper. Lynch (1997) suggests that the default classifier (*na-) was not preceded by the article (indeed, historically it may have been the same morpheme) but that other classifiers were. I have not adopted this suggestion in the reconstructions here, but it may well be that he is correct.

17. For the alienable specific construction, both *a na-ña Rumaq tam*ata and *a Rumaq na-ña tam*ata 'the man's house' are reconstructable. I suspect that, as in some modern Oceanic languages, the two orders coexisted, the difference between them being one of information structure.

sonant-deletion. I also assumed in Ross (1988:109 fn.) that when *qi followed a word with a final consonant, it became *=i, but evidence for this would take the form of final-consonant protection, which does not occur.

4.3 THE HISTORY OF THE SMALL-CLASS PLAC. As I noted in the introduction, members of the small class, the POc class of adjectival nouns, could evidently function as the head of a PLAC in POc, since this behavior is reflected in languages scattered across Oceania. I surveyed the evidence for this in Ross (1998) and will not repeat it in detail here. Instead, I will seek to identify for each of the relevant languages the possessive construction that the small-class PLAC resembles, and seek to relate it formally and functionally to the POc system in table 2.

This is not such a straightforward procedure as one might like. Grammarians are often so interested in the behavior of possessor suffixes in the context of the inalienable/alienable distinction that they forget to include examples with noun phrase Rs, and often omit nonspecific R constructions altogether. Hence I have sometimes found myself reduced to scanning a grammar for examples, often finding only a few, then making my own interpetations. Some grammars make no reference to the small-/large-class distinction, even when examples show that it is present in the language.

Developments in possessive systems often efface their own history. Thus it is quite common for a language to use the same construction for both inalienable and alienable nonspecific possession, or for both specific and nonspecific inalienable possession. That is, one pattern has apparently extended at the expense of another to result in the loss of reflexes of one (or more) POc constructions. It is also reasonably clear that during its earlier history, at least, a PLAC was simply one use of a particular possessive construction. If that construction underwent change, the PLAC underwent the same change. This means that the earlier morphosyntax of the PLAC is also obliterated.

In (15) are listed seven well-scattered languages in which a small-class PLAC is identifiable, together with the possessive construction that matches the PLAC in that language. The effects of the developments I have just mentioned are readily visible: in Seimat, the constructional distinction between an inalienable and an alienable D has been lost when the R is nonspecific, while in Malo, Mokilese, and Tinrin the specific/nonspecific distinction has been lost, at least with an alienable R.

(15) Seimat (Admiralties): — nonspecific
Malo (CEOc, N. Vanuatu): inalienable —
Mokilese (CEOc, Nuclear Micronesian): inalienable —
Cèmuhî (CEOc, New Caledonia): inalienable nonspecific
Tinrin (CEOc, New Caledonia): inalienable? ?
Nehan (WOc, MM, N.W. Solomonic): alienable nonspecific
Halia (WOc, MM, N.W. Solomonic): inalienable specific

The listing in (15) does tell us one thing fairly forcibly, and this is that the small-class PLAC in POc was an inalienable construction. It also suggests that it was probably a nonspecific construction.

The fact that Seimat has lost the inalienable/alienable distinction with nonspecific Rs is unproblematic, as it is clear from table 3 that the inalienable construction has replaced the alienable. Seimat *nat-i pou* 'piglet' and *iŋ-i pou* 'pigsty' both reflect the inalienable nonspecific construction of POc *a natu-qi boRok 'piglet' in table 3.

TABLE 3. SEIMAT NOUN PHRASES
WITH COMMON NOUN PHRASE POSSESSORS

	INALIENABLE	ALIENABLE
SPECIFIC POSSESSOR	D-p R natu-n pou child-P:3S pig 'pig's offspring'	D-p R iŋa-n pou house-P:3S pig 'pig's house' D *ti* R patul ti maunten top PREP mountain 'top of the mountain'
NONSPECIFIC POSSESSOR	D-p R nat-i pou child-CSTR pig 'piglet'	D-p R iŋ-i pou house-CSTR pig 'pigsty'

Seimat distinguishes between a large class of adjectives that, like *haun* 'new' in (16a), often have a fossilized final *-n* reflecting the POc *-ña P:3S of a Type 4 PLAC, and adjectival nouns, a small wordclass which lacks the fossil *-n*. Both may occur attributively after the head noun, as in (16a) and (16b), but an adjectival noun may also occur as the head of a nonspecific R construction, as in (16c):[18]

(16)   Seimat:

a.   te-hu   iŋ   haun   b.   te-hu   iŋ   lalap
     one-NCL house   new   one-NCL house   big
     'a new house'   'a big house'

c.   te-hu   lalap-e   iŋ
     one-NCL   big-CSTR   house
     'a big house' (more literally 'a big one of a house')
     (NCL = numeral classifier)

In Malo, an attributive adjectival verb follows its head noun, as in (17a), but there is a small class of adjectival verbs of dimension, apparently descended from adjectival nouns, that can be used in a possessive construction with the clitic =i (table 4) to form a kind of superlative, as in (17b).

(17)   Malo:

a.   Nia   tamalohi   baravu.
     D:3S   man   tall
     'He's a tall man.'

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18. The difference between the two forms of the construct suffix, -i and -e, is (or was) probably phonologically conditioned, but the conditioning factors are not clear to me.

b. Nia   more   baravu=i   vorae.
   D:3S   S:3S   tall=CSTR   brother
   'He is the tallest of the brothers.'

Cèmuhî supports the same notion. However, where Seimat and Malo support it formally, Cèmuhî supports it systemically (table 5). Here the forms have changed, but the PLAC continued to be a reflex of the inalienable nonspecific construction. Cèmuhî shares in a development that is common to a number of New Caledonian languages (Bril n.d.): a possessive construction with a common noun phrase R is formed by taking the corresponding construction with a possessor suffix (like the POc forms in [14]) and directly replacing the suffix with the R noun phrase. Thus (18a), the example in the inalienable specific cell of table 5, is formed in this way from (18b):

(18) Cèmuhî:

a. ā   áné   ā-li   tí
   ART   contents ART-DEFINITE shellfish
   'the contents of the shellfish'

b. ā   áné-n
   ART   contents-P:3S
   'its contents'

The same replacement happens in the inalienable nonspecific cell of table 5, except that here the possessor suffix is replaced by the single noun *tí* 'shellfish'

TABLE 4. MALO NOUN PHRASES WITH COMMON NOUN PHRASE POSSESSORS

	INALIENABLE	ALIENABLE
SPECIFIC POSSESSOR	D-CSTR R tamanatu=i vavine husband-CSTR woman 'the woman's husband'	D CL-P R wete no-na vavine sing CL-P:3S woman 'the woman's singing'
NONSPECIFIC POSSESSOR	D-CSTR R karu=i heletu leg-CSTR pig 'pig leg'	D-CSTR R vanua=i kukua house-CSTR cook 'cookhouse'

TABLE 5. CÈMUHÎ NOUN PHRASES WITH COMMON NOUN PHRASE POSSESSORS

	INALIENABLE	ALIENABLE
SPECIFIC POSSESSOR	D-DEF R ā áné- ā-li tí ART contents- ART-DEF shellfish 'the contents of the shellfish'	D PREP-DEF R mˠà tè- pā áfu house PREP- DEF man 'the man's house'
NONSPECIFIC POSSESSOR	D-R ā áné- tí ART contents- shellfish 'the shellfish contents'	D PREP-R ā mēni hɛ́- bˠēn ART bird prep- night 'the night bird'

rather than a full noun phrase. The small-class PLAC matches the inalienable non-specific construction, as illustrated in (19).

(19) Cèmuhî:

a. píléhé-   ikua   b. píléhé-n
     big-   fish   big-P:3S
     'a huge fish'   'a huge one'

In another New Caledonian language, Tinrin (table 6), the possessive system is very similar to that of Cèmuhî, with one addition: the appearance of the morpheme *ɲā* in both specific R constructions. In the inalienable specific construction, it serves as the link morpheme -*ɲā*- between D and R: "link" is Osumi's (1995:62) term, but she draws attention to its formal and functional similarity to the construct suffix in Nuclear Micronesian languages, and I gloss it accordingly. In the alienable specific construction, a morpheme with the same form functions as a preposition. Since in other respects there are no differences in Tinrin between specific and nonspecific R constructions, I suspect that *ɲā* may also be used in nonspecific R constructions and that its absence from table 6 may simply be an artefact of the data.[19]

This is relevant to the present discussion because Tinrin has a small class of adjectives that precede their head noun, and two of them are optionally linked to it by -*ɲā*-: *huwu[-ɲā]* 'small' and *hāmā[-ɲā]* 'new, young'. If the construct and preposition morphemes are in fact simply different but homophonous, then these adjectives occur in a PLAC modeled on the inalienable construction. If I am right in supposing that specific and nonspecific R constructions are undifferentiated, then there is no more to be said. If, however, -*ɲā*- is limited to specific possession, then the Tinrin PLAC is historically problematic, as it represents a specific R construction.

TABLE 6. TINRIN NOUN PHRASES
WITH NOUN PHRASE POSSESSORS

	INALIENABLE	ALIENABLE
SPECIFIC POSSESSOR	D-R d̠ō-mʷā surface-house 'the roof of the house'	D PREP R wā r̃ĕ mĕ-pʷɔgaɾa boat PREP PL-white.people 'the white people's boat'
	D-CSTR-R ao-ɲā-Toni cheek-CSTR-Toni 'Tony's cheek'	nawa ɲā Toni coconut PREP Toni 'Tony's coconut'
NONSPECIFIC POSSESSOR	D-R nõ-nawa liquid-coconut 'coconut juice'	D PREP R mʷā r̃ĕ aɾɔɔ container PREP water 'bottle of water'

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19. There are also alienable constructions with classifiers, which I have omitted here, as they are not relevant to the argument.

The Mokilese possessive system is somewhat different from those above. It distinguishes inalienable from alienable posession, but far more nouns may be inalienably possessed in Mokilese than in Western Oceanic languages, and the possessive classifiers employed in Mokilese alienable possession are themselves mostly meaningful inalienably possessed nouns (rather than the very small set of semantically bleached classifiers noted for POc). Thus the classifier *nime-* in the upper right cell of table 7 refers to drinks. When the R is a lexical noun phrase (as opposed to a pronoun), inalienable possession is indicated by the "construct" suffix -*n*, alienable by the construct enclitic =*in*. In inalienable possession, there is no formal distinction between specific and nonspecific Rs.

The construct enclitic =*in* in the alienable nonspecific construction reflects POc *ni (table 2). What appears to have happened to the Mokilese possession system is that the alienable nonspecific construction has replaced the inalienable nonspecific construction, and the latter has in turn replaced the inalienable specific construction. However, in the process, =*in* has become the construct suffix -*n*, suffixed to inalienable nouns, and I suspect that a reflex of the POc third person singular possessor suffix *-ña, exemplified in the inalienable specific cell of table 2, has conspired with the reflex of *ni to produce this result. Since the classifiers of the alienable nonspecific construction are themselves inalienably possessed nouns, construct -*n* turns up there too.

Whatever the history, there is no doubt that the small-class PLAC in (20) matches the inalienable construction in table 7, and that this is compatible with the hypothesis that the small-class PLAC in POc was the inalienable nonspecific construction.

(20)   Mokilese:
         lekleki-n   wɔl-men
         huge-CSTR   man-INDEFINITE
         'a huge man' (= 'a huge one of a man')

The construction in (20) is probably not a possessive construction in modern Mokilese, but it is transparently descended from one.

The one language listed in (15) where the small-class PLAC matches an alienable D construction is Nehan. Here, the small-class PLAC illustrated in (21) matches the construction in the alienable nonspecific cell of table 8.

TABLE 7. MOKILESE NOUN PHRASES WITH COMMON NOUN PHRASE POSSESSORS

	INALIENABLE		ALIENABLE		
SPECIFIC POSSESSOR	D-CSTR R		D-P R		
	tame-n	warr-o	nime-n	lii-o	pennok
	outrigger-CSTR	canoe-that	CL-CSTR	woman-that	coconut
	'the canoe's outrigger'		'that woman's coconuts'		
NONSPECIFIC POSSESSOR	D-CSTR R		D=CSTR R		
	imʷe-n	kuk	tɔtɔɔk=in	li	
	house-CSTR	cooking	work=CSTR	woman	
	'cookhouse'		'woman's work'		

TABLE 8. NEHAN NOUN PHRASES
WITH COMMON NOUN PHRASE POSSESSORS

	INALIENABLE	ALIENABLE
SPECIFIC POSSESSOR	D-P=LIG R	CL D=LIG R
	a lima-na=r keketik	na nieini=r kuah
	ART arm-P-LIG child	CL food=LIG woman
	'the child's arm'	'the woman's food'
NONSPECIFIC POSSESSOR	D R	D=CSTR R
	a ran douk	a uma-ŋ uasiluŋ
	ART branch tree	ART house-CSTR cook
	'the tree branch'	'cookhouse'

(21)   Nehan:
        a   barahi-ŋ   keke-n
        ART   long-CSTR   leg-P:3S
        'his long leg'

It is not certain, however, that my interpretation of the inalienable nonspecific construction in table 8 is correct. In the few available examples (as in *a ran douk* in table 8), the D ends with a nasal that assimilates to the point of articulation of R, and this may also reflect or incorporate the construct suffix -ŋ that occurs in the alienable nonspecific construction. If this hypothesis (which is in accord with Nehan phonology) is correct, then in Nehan the POc alienable nonspecific construction with -ŋ reflecting POc *ni has replaced the inalienable nonspecific construction with *i, that is, the reverse of the process reflected in Seimat and parallel to the first stage of the process proposed for Mokilese. If this is the case, then the construction in (21) simply reflects the nonspecific construction, as in Seimat.

This hypothesis receives some support from Halia (table 9), quite closely related to Nehan, where this replacement has more obviously happened, and the construct suffix -n, reflecting POc *ni, occurs in the inalienable nonspecific construction (but here, unfortunately, we have no example of the alienable nonspecific construction).

In Halia, however, the small-class PLAC does not match the inalienable non-specific construction but rather the inalienable specific. This is the only language where this clearly happens, and it begs for an explanation. Small-class adjectival nouns in Halia occur in two constructions: as a modifier following the head noun, as in (22a), and in a construction matching the inalienable specific cell of table 9, as in (22b). Both these constructions contrast with the large-class adjectival noun construction illustrated in (22c).

(22) Halia

      a. a   uosono   pan
         ART   taro   big
         'a big taro'

      b. a   pani-na a   toukui
         ART   big-P:3S ART   work
         'a big job'

TABLE 9. HALIA NOUN PHRASES
WITH COMMON NOUN PHRASE POSSESSORS

	INALIENABLE			ALIENABLE			
SPECIFIC POSSESSOR	D-P R			D PREP R			
	a	mou-na	a	tahol	a	luma	tara	tahol
	ART	leg-P	ART	woman	ART	house	PREP:ART	woman
	'the woman's leg'				'the woman's house'			
NONSPECIFIC POSSESSOR	D-CSTR R			(no relevant data available)			
	u	kala=n		roei	reka			
	ART	branch=CSTR		tree	this			
	'this tree branch'							

    c. a   sirö   a   hiski
       ART   soup   ART   hot
       'hot soup'

The best explanation that can be offered for (22b) matching the "wrong" cell is based on the fact that the two inalienable constructions are phonologically very close to each other. If we assume provisionally that the phrase in (22b) was once *a pani-n toukui*, that it matched the inalienable nonspecific construction, then we need only the addition (by analogy with 22c) of the second article, as in *a pani-n a toukui*, to give a phrase that is homphonous with (22b). Whether this is the correct explanation is of course a matter of speculation.

If one allows that the kinds of pattern extension outlined at the beginning of this section have indeed occurred in one way or another in all the languages listed in (15)—and I am unable to see any other explanation for the possessive systems displayed here—then it is plausible to propose that the small-class PLAC in POc was modeled on the inalienable nonspecific construction of table 2, and that POc adjectival nouns regularly occurred in the two attributive constructions illustrated in (23):[20]

    (23)   Proto-Oceanic:

        a. *a   Rumaq   labʷat
           ART   house   big.one
           'a big house'

        b. *a   labʷat   qi   Rumaq
           ART   big.one   CSTR   house
           'a big [one of a] house'

In (23a), an attributive adjectival noun followed the head noun in exactly the same way as an adjectival verb would have done. In (23b), the adjectival noun occurred in a PLAC.

Evidence for (23a) is widespread, but the most telling data are from certain languages with Types 3 and 4 PLACs, where a large-class adjective occurring as a postnominal attribute is marked with a possessor suffix because it is descended

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20. This example differs from that in Ross (1998:109) in that I have replaced *=i by *qi, since, as noted earlier, I cannot justify reconstructing *=i.

historically from a nominalization (section 4.4), but the few small-class adjectives descended from unnominalized adjectival nouns remain unsuffixed. This is true of Mangap-Mbula for Type 3 and of Gumawana (Olson 1992) for Type 4.

(24)   Mangap-Mbula:
        ruumu   biibi   ti
        house   big.one this
        'this big house'

(25)   Gumawana:
        ame   weniya vau
        this   dog   new
        'This is a new dog.'

Evidence for (23b) is drawn from languages that are scattered genetically and geographically (and are also morphosyntactically diverse), confirming that (23b) is reconstructable in POc. The listing in (15) supports the origin of the small-class PLAC in an inalienable construction more strongly than it supports its origin in a non-specific R construction, but I will show below that there is good circumstantial evidence for inferring that all PLACs have their origin in nonspecific R constructions.

4.4 THE HISTORY OF THE LARGE-CLASS PLACS OF NORTH-WEST MELANESIA.

Above I reconstructed the small-class PLAC in POc. My task here is rather differerent, since, as I noted earlier, we must infer that the various large-class PLACs of northwest Melanesia have arisen independently of each other. This being so, there is no POc reconstruction to be made and there is no absolute guarantee that each of the four PLAC types identified in section 2.1 has arisen from the same POc possessive construction. My task here is thus to identify the source of each PLAC type and to reconstruct the history of each.

4.4.1 The sources of Types 1 and 2 PLACs.

The sources of the Types 1 and 2 PLACs represented respectively by Tolai and Yabem are easy to identify. It is clear that the Type 1 PLAC in (3b), repeated here as (26), reflects the alienable nonspecific construction in table 10. It is less obvious how this construction is descended from one of those in table 2, however, and section 4.4.3 is devoted to this question, where the personal possessor constructions shown in table 10 are also discussed.

(26)   Tolai:
        a   mamat   na   vat
        ART   heavy   LIG   stone
        'a heavy stone' (= 'a heavy one of a stone')

In Yabem, the Type 2 PLAC in (4b), repeated here as (27), also reflects the alienable nonspecific construction, as table 11 shows.

(27)   m̀   ŋa-kana
        banana   LINKER-sweet
        NOUN   ATTRIBUTE
        'a sweet banana' (= 'a sweet one of a banana')

TABLE 10. TOLAI NOUN PHRASES
WITH NOUN PHRASE POSSESSORS

	INALIENABLE			ALIENABLE			
PERSONAL POSSESSOR	ART D-*i* R			ART D CL-*i* R			
	a	tama-i	ToBata	a	pal	ka-i	ToBata
	ART	father-CSTR	ToBata	ART	house	CL-CSTR	ToBata
	'ToBata's father'			'ToBata's house'			
SPECIFIC POSSESSOR	ART D-*i* ART R			ART D CL-*i* ART R			
	a	bala-i	ra tutana	a	pal	ka-i	ra tutana
	ART	belly-CSTR	ART man	ART	house	CL-CSTR	ART man
	'the man's belly'			'the man's house'			
NONSPECIFIC POSSESSOR	ART D R			ART D *na* R			
	a	pala	davai	a	mapi na	davai	
	ART	skin	tree	ART	leaf LIG	tree	
	'tree bark'			'tree leaves'			

TABLE 11. YABEM NOUN PHRASES
WITH COMMON NOUN PHRASE POSSESSORS

	INALIENABLE			ALIENABLE		
SPECIFIC POSSESSOR	R [CL-P] D-P			R CL-P D		
	ŋaʔ	[ne-Ø]	tena-ʔ	lau	ne-ŋ	kom
	man	[CL-P:3S]	mother-P:3S	people	CL-P:3P	field
	'the man's mother'			'the people's field'		
NONSPECIFIC POSSESSOR	R-D-P			R-D		
	boʔ-demʷe-Ø			ya-dauŋ		
	pig-back-P:3S			fire-smoke		
	R *ŋa*-D-P			R *ŋa*-D		
	boʔ	ŋa-demʷe-Ø		ya	ŋa-dauŋ	
	pig	CL-back-P:3S		fire	CL-smoke	
	'a pig's back'			'fire smoke'		

In the lower cells of table 11, D is prefixed with *ŋa-*, and the same morpheme occurs in the PLAC illustrated in (27). We would expect that this *ŋa-* might be derived from a third person singular classifier form. At first sight, this expectation is disappointed: the example in the upper right cell shows that the third person singular classifier form is in fact *ne-Ø*, not **ŋa-Ø*. However, there is an irregularity in the Yabem classifier paradigm. The first-person singular possessor suffix is *-ʔ*, and the first-person singular possessive classifier form is not **ne-ʔ*, as we would expect, but *ŋɔ-ʔ*. Since there is a morphophonemic rule that derives *tamɔ-ʔ* 'my father' from *tama-* 'father', I infer that *ŋɔ-ʔ* is derived by the same rule from an earlier classifier **ŋa-*, and that the latter is the source of the morpheme *ŋa-* in the lower cells of table 11. If this is so, then at some stage in the past the alienable specific construction has extended its domain, first, presumably, to include alienable, then inalienable, nonspecific possession, in both cases partially displacing the simply compounding construction represented in table 11 by *ya-dauŋ* 'fire smoke'.

Although there is no surface difference between the inalienable and alienable nonspecific constructions in the lower cells of table 11, there is an underlying difference. If an alienable noun like *dauŋ* 'smoke' occurs independently, it is unpossessed. The inalienable noun form in the nonspecific inalienable construction is

always the third-person singular member of the possessive paradigm, for example, *dem*ʷ*e* 'her/his back', which happens to be unsuffixed (cf. *dem*ʷ*e-ŋ* 'my back', *dem*ʷ*e-m* 'your back') but, even without *ŋa-*, is always possessed (i.e., *ŋa-* is semantically redundant). Since adjective roots like *kana* in (27) are not members of an inalienable paradigm, their structural resemblance is with the alienable, not the inalienable, nonspecific construction.

4.4.2 The sources of Types 3 and 4 PLACs. Identifying the exact sources of Types 3 and 4 PLACs is, superficially at least, a little more difficult. As table 12 and table 13 show, Mangap-Mbula and Tawala have only two types of possessive construction. One, with a possessive classifier, is used for the alienable specific construction. The other, with a possessor suffix on the D noun itself, is used for inalienable possession of both kinds *and* for the alienable nonspecific construction. That is, it occurs in three of the four cells of table 12 and table 13. Allowing for the fact that in both languages the R precedes the D rather than following it, it is quite easy to see that the alienable specific construction with its classifier reflects its POc counterpart in table 2, while the second construction reflects the POc inalienable specific construction in that table.

PLACs of Types 3 and 4, repeated below from (5b) and (6b), reflect the second of these two constructions.

> (28) Mangap-Mbula:
> ŋge   ambai-ŋa-na
> pig   good-NOM-P:3S
> 'a good pig' (= 'a good one of a pig')

TABLE 12. MANGAP-MBULA NOUN PHRASES WITH COMMON NOUN PHRASE POSSESSORS

	INALIENABLE	ALIENABLE
SPECIFIC POSSESSOR	R D-P pikin ti tamaa-na child this father-P:3S 'this child's father'	R CL-P D ruumu ka kataama house CL.P:3S door 'the door of the house'
NONSPECIFIC POSSESSOR	R D-P me wii-ni dog tail-P:3S 'a dog's tail'	R D-P ke pakaa-na tree piece-P:3S 'a piece of wood'

TABLE 13. TAWALA NOUN PHRASES WITH COMMON NOUN PHRASE POSSESSORS

	INALIENABLE	ALIENABLE
SPECIFIC POSSESSOR	R D-P geka tewela-na ama-na this child-DEF father-P:3S 'this child's father'	R CL-P D noka bada-na a numa that man-DEF CL.P:3S house 'that man's house'
NONSPECIFIC POSSESSOR	R D-P kedewa giu-na dog tail-P:3S 'dog's tail'	R D-P koida poha-na yam basket-P:3S 'basket of yams'

(29)   Tawala:
       tahaya   bigabiga-na
       path   muddy-P:3s
       'a muddy path' (= 'a muddy one of a path')

As noted, this second construction reflects the POc inalienable specific construction (the mid left cell of table 2), but it is used for *three* kinds of possession. That is, over time, the POc inalienable specific construction has extended its function, first to inalienable nonspecific possession, then to alienable nonspecific possession. We could assume by Occam's Razor that, since Types 1 and 2 PLACs are derived from the alienable nonspecific construction, Types 3 and 4 PLACs must have a similar origin. In other words, the PLACs ancestral to those of Types 3 and 4 originally represented a subfunction of the alienable nonspecific construction and shared in the change(s) in construction that affected the latter.

However, as John Lynch (pers. comm.) has pointed out, there is no necessary reason to assume that this is the case: Types 3 and 4 PLACs do not necessarily have the same origin as Types 1 and 2. There is scattered evidence that the inalienable specific construction was used in POc to express a characteristic of the "possessor" as an abstraction. If this is true, then the POc forebears of (28) and (29) meant respectively 'the newness of the house' and 'the size of the dog', and the inalienable specific, rather than the alienable nonspecific, construction is the source of Types 3 and 4 PLACs. I return to this issue in section 4.5.

There are other features of Type 4 PLACs that occur in languages of the Papuan Tip linkage (but not in the other Type 4 languages listed in section 2.1) that must be considered here, as they offer possible counterevidence to the hypothesis that Type 4 PLACs are derived from a possession construction.

First, the possessor "suffix" on a Tawala noun phrase like (29) is syntactically an enclitic. If the adjective is itself modified by one of the "general modifiers" *duma* 'real' or *hota/hosi* 'only, just' (Ezard 1997:146), the possessor suffix is attached to the modifier, not to the adjective.

(30)   Tawala:
       gadiwewe   banei   duma-na
       rain   big   real-P:3s
       'a very big rain'

One might infer from this that the *-na* in (29) and (30) is not a possessor suffix and that the construction in these two examples is therefore not a PLAC at all. However, there is a possession construction that is directly parallel to this, exemplified in (31), so there is no reason why (30) should not be derived historically from a possession construction:

(31)   Tawala:
       bada   natu   duma-na   natu   duma-u
       man   child   real-P:3s   child   real-P:1s
       'the man's real child'   'my real child'

The second, at first sight stronger, piece of evidence against deriving a Type 4 PLAC from a possession construction is this: a third person possessor suffix also marks a noun as definite, so that noun phrases like *tewela-na* (child-P:3s) 'the child' refer to "an item whose identity the speaker assumes is known to the hearer" (Ezard 1997:143). Might it be that the possessor suffix in apparent PLACs like (29) indicates definiteness and has nothing to do with possession? The answer is a clear "no." The use of the possessor suffix to mark definiteness is distinct from its use in a possession construction. This is clear from the facts (i) that *tewela* is a noun that cannot be directly possessed, and *tewela-na* must mean 'the child' and not 'her/his child', and (ii) that a directly possessed noun may take both a possessor suffix coreferencing the R *and* a possessor suffix indicating definiteness, as for example *pou-we-hi* (egg-P:1S-P:3P) 'my eggs/the eggs of mine'. Furthermore, Ezard's examples show that a noun phrase containing an adjective is often not definite.

4.4.3 The formal history of Type 1 PLACs.

We have seen that in languages with a Type 2 PLAC, the alienable specific construction extended its domain to include alienable nonspecific possession, while in languages with Types 3 and 4 PLACs, the inalienable specific construction extended its domain to include both categories of nonspecific possession. This allows us to see how PLACs of these three types formally reflect POc possession constructions. But it is not at all obvious how the Tolai ligature (*na*) construction of the Type 1 PLAC in (26) and the Tolai alienable nonspecific construction of table 10 reflect a POc possession construction. Indeed, but for evidence from Tigak, a language of the Tungag/Nalik linkage in northern New Ireland, the history of the Type 1 PLAC would be decidedly opaque.

Tigak is more conservative than the Type 1 PLAC languages in both its adjectival constructions and their forms. The large, and apparently the only, adjectival class consists of adjectival verbs that follow the noun when used as a modifier.

(32)   Tigak:
        taŋ   lui   pakik   itaŋ
        ART   house   new   that
        'that new house'

However, Tigak also has a marked attribute construction that resembles the alienable nonspecific construction in table 14:

(33)   Tigak:
        taŋ   takteak   ina   anu
        ART   strong   PREP   man
        'the strong man'

From their functional and formal similarity, I take it that the Tigak construction in (33) is cognate with the Tolai construction in (26), that is, that Tigak *ina* is cognate with Tolai (and its neighbors) *na*. If the history of Tigak *ina* can be explained, then we will also have an explanation for Tolai *na*. We can gain an insight into this history by examining the Tigak possession system in table 14 and the partial preposition paradigms in table 15 (full paradigms are given by Beaumont 1979:99–100).

TABLE 14. TIGAK NOUN PHRASES
WITH NOUN PHRASE POSSESSORS

	INALIENABLE	ALIENABLE
PERSONAL POSSESSOR	ART D-P *i* R na tiga-na i Gamsa ART brother-P:3S PREP Gamsa 'Gamsa's brother'	ART D *te* R taŋ lui te Makeo ART house PREP Makeo 'Makeo's house'
SPECIFIC POSSESSOR	D-P R taŋ liŋi-na taŋ ulina ART voice-P:3S ART woman 'the woman's voice'	D *tana* R a aisok tana vap ART work PREP people 'people's work'
NONSPECIFIC POSSESSOR	D-P R poto-na iai base-P:3S tree 'tree base'	D *ina* R pikoi ina iai bark PREP tree 'tree bark'

TABLE 15. TIGAK PREPOSITIONS AND POSSESSIVES

GOVERNEE	POSSESSIVE	"NEW" POSSESSIVE	INSTRUMENTAL	ALLATIVE
Personal NP	te	i	pe	su
Common NP	tana	ina	pana	suna
Pronoun 1S	tatani-k	—	—	sugu-k
Pronoun 2S	tatani-m	—	—	sugu-m
Pronoun 3S	tata-na	—	papa-na	su-na
Pronoun 3P	tata-ri	—	—	su-ri

The Tigak possession system has undergone substantial changes relative to POc. The POc alienable specific classifier constructions with a noun phrase R (top and mid right-hand cells of table 2) have been replaced by constructions with a preposition *te/tana*. In the alienable nonspecific construction, POc *ni has been replaced by Tigak *ina.*

The origin of *te* and *tana* is no mystery, as they have widespread cognates in inalienable specific constructions in the Meso-Melanesian linkage and the Admiralties (cf. Seimat *ti* in table 3), as well as scattered Central/Eastern Oceanic cognates. Pawley (1973) and Ross (1988:104–108) reconstruct a POc preposition *ta-, with some kind of locative, benefactive, and possibly possessive function (Pawley 1973:148–149), which took possessor suffixes in POc (e.g., *ta-gu 1S, *ta-mu 2S, *ta-ña 3S). It is the only reconstructable prepositional morpheme in POc that had possessive suffixes, and thus resembled a possessive classifier. But unlike a possessive classifier, a reflex of *ta- is often either the only marker of alienable specific possession in a given language, or it is used as an alternative to the language's possessive classifiers. In Tigak, it is an alternative if the R is pronominal, and the syntactic difference between the two constructions in (34) makes it clear that the form *tata*-is not a possessive classifier like *ka-.*

(34)   Tigak:
        a   lui   tata-na   ka-na   lui
        ART house *ta*-3SG   CL-3SG house
        'her/his house'   'her/his house'

Tigak *tana* is self-evidently an unreduplicated version of the third person singular form *tata-na* (table 15). The form *te* is derived from POc *ta- + *i 'personal article'. We see from the POc alienable personal R construction in table 2, repeated here as (35), that the personal article *i was cliticized to a preceding morpheme within the same phrase. When *ta- replaced the classifier, *i coalesced with it, giving Tigak *te* (and similar forms in other languages).

> (35)   Proto-Oceanic:
>   *a   Rumaq   na=i   X
>   ART   house   CL=ART   X
>   'X's house'

Although *te* and *tana* are each derived historically from a sequence of two morphemes, in present-day Tigak they are monomorphemic. From table 15, it is evident that Tigak *ina* is the outcome of analogy. At some pre-Tigak stage, each of the three prepositions used with a personal noun phrase was monosyllabic (*te, pe, su*) and had a counterpart used with a common noun phrase (*tana, pana, suna*).[21] By this stage, two other changes in the prepositional system had apparently also occurred. First, the reflex of the POc personal article *i had been lost elsewhere in the language and survived only in the inalienable personal possessive construction in table 15, where it had been reinterpreted as a possessive preposition.[22] Second, the reflex of POc *qi had extended its domain to include alienable possession, displacing *ni, as it did in Seimat and Malo, for example;[23] its form would have been pre-Tigak *i* (attested in Tungag, Tigak's closest relative). That is, a preposition of the form *i* occurred both in the inalienable personal and in the nonspecific constructions. In the personal construction, it coocurred with a personal noun phrase; in the nonspecific constructions, with a common noun phrase. This meant that it was out of kilter with the personal:common pattern of the other prepositions: *te:tana, pe:pana, su:suna,* but *i:i.* The analogical step from *i:i* to *i:ina* is a natural one, giving the "new" possessive paradigm in table 15.

This interpretation also accounts for the gap in the *i* paradigm in table 15. An important observation from table 14 is that the Tigak inalienable specific construction remains unchanged from its POc counterpart in table 2. That is, *ina* has never occurred in this construction. Because *ina* occurred only in a *non*specific construc-

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21. The origin of *ta- is discussed in Lynch, Ross, and Crowley (forthcoming: ch. 4). The allative set reflects the POc allative prepositional verb *suRi (Ross 1988:108), the instrumental set an instrumental preposition *pa- whose age is unclear (Ross 1988:106).

22. This change may have occurred as early as Proto–Western Oceanic, because (i) the personal article form *i is only reflected as an enclitic or suffix in Western Oceanic languages (in some Meso-Melanesian languages, reflexes of a personal article form *e survive in their original function), and (ii) a suffixed reflex of *i is preserved in Miniafia (e.g., *Gababura tama-i* 'Gababura's father') with a personal possessor, despite the fact that Miniafia, like most Papuan Tip languages, has R D order, i.e., the reflex of *i is separated from the personal possessor (Wakefield 1975).

23. POc *ni survives almost nowhere in northwest Melanesia.

tion, it acquired no pronominal counterparts: pronominal **i-k,* i-m * i-na, *i-ri* do
not occur (and have never occurred).

Obviously, this explanation is not quite the whole story, as modern Tigak *ina*
does not occur in the *inalienable* nonspecific construction, that is, the very place
where **qi* occurred in POc. However, it is evident from table 14 that in Tigak, as
in Mangap-Mbula and Tawala, the inalienable specific construction has extended
its domain to include the inalienable nonspecific construction (the difference
between them is indicated by the presence/absence of the article in the R noun
phrase, as in Cèmuhî), thereby effacing any reflex of **qi* in that construction.

The languages of the St. George linkage, represented here by Tolai (table 10) of
the South New Ireland group, have undergone changes similar to, but in some cases
further-reaching than, those in Tigak. Whether the similarity represents independent
parallel development or shared inheritance from an interstage ancestral to all the lan-
guages of the New Ireland linkage, it is difficult to say with confidence, but changes
of the kind reconstructed for Tigak are reflected as far away as Taiof, off north Bou-
gainville, and it seems that they may have occurred as far back as Proto–New Ire-
land. The Taiof form *iñ* is cognate with Tigak *ina* and performs the same function.

(36)   Taiof (Meso-Melanesian, New Ireland, St. George, NW Solomonic):

   a. a   kot   iñ   kosi   to-mon
      ART   bite   *iñ*   mosquito   PREP-2SG
      'your mosquito bite'

   b. aurom   iñ   yu
      ART   *iñ*   drink
      'drinking water'

Throughout much of New Ireland, the changes that have occurred in Tigak
have been carried to the next and predictable stage: the preposition *i-* is addition-
ally used with *specific* noun phrases, as in (37), and in the South New Ireland lan-
guages Bilur and Kandas, the preposition *i-* has developed a full pronominal
paradigm (Ross 1988:288).

(37)   Ramoaaina:
       a   minat   i-n   Lakeke
       ART   death   PREP-P:3S   Lakeke
       'Lakeke's death'

One other change has occurred in most of the South New Ireland languages,
namely that monomorphemic *ina* has become *na* and has thereby become para-
digmatically divorced from any other *i-* prepositional forms in the language. This
is possibly a consequence of the high frequency of its use in the possessive con-
struction and PLAC in (3).[24] There are several pieces of evidence that *na* reflects a

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24. The irregular deletion of a segment in a morpheme with high token frequency is not surpris-
   ing. It is comparable to the irregular deletion of Latin *-t-* in the second person plural inflexion
   of Spanish verbs (Latin *-atis* > *-ades* > *-aðes* > *-áis;* Bybee 1994).

reduced form of *ina*, beyond the fact that it has the same functions as Tigak *ina*. This is not fortuitous, as is shown by the presence of cognates performing the same or historically related functions in other New Ireland languages.

In Nochi, a language of the Tabar chain of central New Ireland (Ross 1988:291), the morpheme *ina* apparently forms an alternative construction in all categories of possession, but its most frequent use is with part-whole and attributive relationships (Erickson and Erickson 1992):

(38) Nochi:
    a. mak   ina   cunulou
       custom *ina* fishing
       'art of fishing'

    b. tamat ina   maŋmaŋaa
       man   *ina*   anger
       'man of anger'

Nochi also evidently had a small-class PLAC, as there are just three adjectives that precede the head noun, and each ends in fossilized *-in*. They are *kariin* 'huge (of a person or object)', and *korowin* and *morotin,* both 'very big (of a mental process or problem). For example, *kariin ko* 'huge fish'.

In Ramoaaina, the ligature is *na,* as in Tolai. In Ramoaaina, however, alongside *a taar na buk* 'a red book', we also find *a taar-ina* 'a red one' (Davies and Fritzell 1992), where *-ina* is apparently a reanalyzed reflex of the ligature **ina*. In another South New Ireland language, Siar, the ligature in the attribute construction is *in.*

(39) Siar (Meso-Melanesian, New Ireland, St. George, South New Ireland):
    a   wakak in   a   un
    ART good   LIG ART banana
    'a good banana'

However, *in* is not reflected in any of the recorded Siar possessive constructions.

There is also a scrap of evidence in Tolai itself that the ligature *na* reflects earlier **ina*. In (40a), *lua* 'first' occurs in its stem form, but in (40b), where it precedes the ligature in a set phrase, it has acquired an affixed *-i*. This *-i* appears once to have belonged to the ligature **ina* and to have been preserved as a fossil, reanalyzed as part of the preceding word.

(40) Tolai (Franklin, Kerr, and Beaumont 1974:60):
    a. i   vut   lua
       s:3s arrive first
       'He arrives first.'

    b. i   vana a   luai na   e
       s:3s go   ART first LIG time
       'He goes for the first time.'

4.4.4 *ni in northwest Melanesia. Before we leave matters of form, there is a general point to be made about the forms of the large-class PLACs of northwest Melanesia. I have shown that PLACs of Types 1 and 2 are derived from alienable

nonspecific possession constructions, and implied that the same could be true of Types 3 and 4. However, none of the present-day PLAC constructions reflects the POc alienable nonspecific construction. According to table 2, this construction was as in (41).

(41) Proto-Oceanic:
*a   polo   ni   niuR
ART   sap   PREP coconut
'coconut water'

By inference, *if* the POc alienable nonspecific construction was ever used with a (large-class) adjectival verb as its head, then it would have looked like (42).

(42) Proto-Oceanic:
*a   mapat   ni   patu
ART   heavy   PREP stone
'a heavy one of a stone'

But there is to my knowledge no language with a large-class PLAC that clearly contains a reflex of *ni. This is not as worrying as it might seem, for two reasons. First, we are not committed to reconstructing a large-class PLAC in POc, since the evidence points towards the independent development of large-class PLACs in various languages and groups in northwest Melanesia. Second, every Admiralties and every Western Oceanic language I know of that has a large-class PLAC has lost *ni from its possessive system, except for the odd fossil: since the PLAC developed as one use of a possessive construction, no language in which *ni was lost from the possessive system would be expected to reflect it in its PLAC.[25]

4.5 DISCOURSE PARAMETERS AND PLACS. The evidence offered in section 4.4.1 shows that PLACs of Types 1 and 2 were derived from the alienable nonspecific possession construction. PLACs of Types 3 and 4 point to one of three constructions, either the inalienable specific or one of the two nonspecific constructions (section 4.4.2). Here, I turn to a quite different line of evidence to suggest that all PLACs are derived from nonspecific R constructions.

It is instructive to look at the discourse context that would result in a PLAC. Cross-linguistically, there are two kinds of possessive construction that are used to attribute a property to a referent and in which the head is used to express the attribute (they are what Harris and Campbell 1995:54–57 call "universally available syntactic constructions"). Their English manifestations are given in (43).

(43) a. *The size of the house!*
     b. *a/the whopper of a house*[26]

Both inherit their syntax and the genitive use of *of* from the English possessive construction D *of* R, and both give salience to the attribute by making it D, the structural head of the phrase, but this structural similarity hides a fundamental functional dif-

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25. Reflexes of *ni occur in very few Western Oceanic languages. They do occur, as we noted earlier, in Nehan and Halia, but these languages have no large-class PLAC.

ference between them. For the sake of distinctiveness, I will refer to constructions of these two kinds respectively as "*size* constructions" and "*whopper* constructions."

In a *size* construction like (43a), the attribute forms an abstract noun (*size*), and the construction is normally used as a self-contained utterance to make an exclamation to the effect that the quality expressed by D is present in R to an unexpected degree. Since the referent of R is taken to be known to both speaker and hearer, R is always definite (preceded by *the* or a demonstrative). Since D is always modified by the *of*-phrase, it too is always definite (preceded by *the*). *Size* constructions also occur in Oceanic languages, and are illustrated in (44) and (45).

In *whopper* constructions like (43b), the attribute is a noun denoting an item (*whopper*) characterized by a property. This construction is not limited to one speech-act type. It serves as a noun phrase in larger constructions in contexts where the speaker wants to draw attention to the attribute expressed by D in an emotive or evaluative way. Referentially, the phrase as a whole may be either specific or, occasionally, nonspecific, but R is always nonspecific and in the singular has the indefinite article.[27] A *whopper* construction is attested in Tigak and exemplified by (33).

If Oceanic *size* constructions were limited to exclamations like their English counterpart in (43a), we would have distributional grounds for dismissing the *size* construction as a possible source of PLACs. But the distribution of Oceanic *size* constructions is not subject to this limitation. They do occur in exclamations like (43a).

(44)   Mokilese (Central/Eastern Oceanic, Nuclear Micronesian):
        peren=in   wɔll-o
        happy=CSTR   man-that
        D   R
        'How happy that man is!'
        (more literally 'The happiness of the man!') (Harrison 1976:148)

(45)   Samoan (Central/Eastern Oceanic, Polynesian):
        so-ʔu   leaŋa . . .
        ART-P:IS   be.bad
        R   D
        'Aren't I bad!' (lit. 'my badness') (Ulrike Mosel, pers. comm.)

But in many Oceanic languages, an adjectival verb in the D slot of an inalienable-possession construction is regularly interpreted as an abstract noun denoting a property of a specific R. Thus Lynch (1996a) cites (46) and Harrison (1976:284)

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26. In my idiolect, *whopper* means 'an unusually large example' of something. It may also mean 'lie, falsehood', but this meaning is not relevant here. Sheila Embleton (pers. comm.) reports that in Toronto English an adjective may occur in a PLAC in a context such as *It's not that big of a house!*

27. Another difference between the two English constructions occurs in pluralization. In the first, D and R pluralize separately (*The size of those houses! The sizes of those houses!*), depending on meaning. In the second, D and R pluralise together (*those whoppers of houses*).

states that in Mokilese an adjectival verb used as head of a possessive construction like that in (44) forms an abstract noun.

(46)   Nakanai (WOc, MM):
        la   vagagari-mu
        ART strong.REDUP-P:2S
        'your strength'

Since this *size* construction reflects the inalienable specific construction, it is tempting to derive PLACs in Types 3 and 4 languages from it. However, while it is quite probable that POc had a *size* construction with this form, deriving a PLAC from it is implausible on semantic grounds. The discourse function of a PLAC is to refer to a particular item by attributing a property to it (e.g., 'a big house'). This is the function of a *whopper* construction, not of a *size* construction, which refers to an already known and attributed property. A *whopper* construction is therefore a more likely source of Oceanic PLACs. Since a *whopper* construction has a non-specific R, this suggests that all four PLAC types are derived from nonspecific possession constructions. It does not suggest, however, whether the source of Types 3 and 4 PLACs was an inalienable or an alienable nonspecific construction.

4.6 COUNTEREXAMPLES. There is a small set of languages that the exposition above does not account for. I have left discussion of these until now, because they violate the generalizations of both section 4.4 and 4.5. These languages are spread over more than one primary Oceanic subgroup, but all have apparent Type 4 PLACs. They include all languages with PLACs in the Admiralties, Mussau of the St. Matthias group, and at least Zabana and Roviana of the NW Solomonic linkage.

There are two problems. The first can be illustrated from Seimat (examples repeated from [16a] and table 3) and from Roviana.

(47) Seimat:
      a. te-hu   iŋ   haun
          one-NCL house   new
          'the new house'

      b. natu-n   pou
          child-P:3S pig
          'pig's offspring'

(48) Roviana:
      a. gua   vetu   noma-na
          my   house   big-P:3S
          'my big house'

      b. tama-na   tie   hoi
          father-P:3S person   that
          'that person's father'

In all other languages with PLACs that we have reviewed, the PLAC and a possessive construction match each other. But in Seimat and Roviana, they do not. Assuming that the final *-n* of the (large-class) Seimat adjective *haun* is a fossilized

possessor suffix, both languages show a constituent order mismatch. The Type 4 languages of the Papuan Tip and North New Guinea linkages are left-branching, that is, they have OV, PostP, and RD orders, and this patterning is reflected in the PLAC. The languages with a mismatch, on the other hand, are all right-branching, with VO, PrepP, and DR orders. If the DR pattern, illustrated in (47b) and (48b), carried over historically into the PLAC, as it does in the other languages we have examined, we would expect ATTRIBUTE + NOUN order, but we do not find this, except with small-class adjectives in Zabana (Ross 1998).

On the present evidence, I can only speculate about what has happened. However, since all the languages with the mismatch are right-branching, it is reasonable to infer that this is causally related in some way to the mismatch. The most obvious inference is that a natural drift towards NOUN + ATTRIBUTE order (section 5) has occurred. It is noteworthy that two Admiralties languages, Aua and Lou, each on the geographic periphery of the Admiralties, do have ATTRIBUTE + NOUN order (whereas the other twenty-five or so Admiralties languages have NOUN + ATTRIBUTE order like Seimat). It is possible that these languages represent relics of an earlier Admiralties-wide order.

I asserted in section 4.5 that the possessive source of a PLAC would always be a nonspecific R construction. Seimat and Roviana both provide counterevidence to this generalization. As (47) illustrates, the Seimat PLAC reflects—with constituent order mismatch—the inalienable specific construction (cf. also table 3). The same is true of Roviana, and I can only suppose that a different set of historical developments from those posited above has occurred in these languages. A (speculative) possibility is that it was not the small-class PLAC that provided the model for the large-class construction in these languages, but rather the small-class modifier construction reconstructed in (23a) and reflected in Mangap (24), where the sequence *ruumu biibi* 'house' + 'big one' consists of two nouns, the second modifying the first. It is possible, for example, that Roviana *vetu noma-na* in (48a) also reflects a NOUN + NOUN construction, and that the earlier function of the possessor suffix here was not to mark possession but the specificity or definiteness of the noun phrase, as observed above in Tawala. If this explanation were correct, then it would also account for the constituent-order mismatch.

5. CONCLUDING OBSERVATIONS. Here I will make observations of two kinds. First, I will seek to answer the questions raised in the introduction to this paper; then I will make a shorter observation about the theoretical implications of the syntactic changes I have reconstructed.

We have seen that the small-class PLAC can be attributed to POc, as in (23), but a large-class PLAC is not reconstructable either for POc or for a single language ancestral to all those that have a large-class PLAC, as (i) no language outside northwest Melanesia reflects a large-class PLAC, (ii) a number of languages within northwest Melanesia lack one, (iii) the large-class PLACs occurring in northwest Melanesia require the reconstruction of different histories, and (iv) the

languages of northwest Melanesia that have a large-class PLAC belong on independent grounds to different primary subgroups.

We are thus left with the odd circumstance that a number of different groups of Oceanic languages in northwest Melanesia have independently followed similar PLAC-forming paths, despite the fact that this path has seldom, it seems, been followed by languages in other parts of the world. It seems likely that at a very early stage of Oceanic, the situation was as it is in modern Tigak: there was a (marked) attributive structure, a *whopper* construction that was patterned on a possessive-construction and that had a marked discourse function. This attributive structure then *changed with* that possessive construction independently in various Oceanic daughter-languages. Indeed, as I suggested in section 4.1, it is perhaps upside down to say that the attributive structure "was patterned on" the possessive construction. It is possible that what I have here called nonspecific possessive constructions were more broadly attributive and that nonspecific possession was simply one of the subfunctions of these constructions. Either way, nonspecific possession and attribution were performed by the same constructions and therefore underwent the same constructional changes.

To say this, however, is only to say that POc probably had a *whopper* construction. It does not tell us why it gave rise to PLACs as default attribute structures across much of northwest Melanesia, when such a development is so rare in other parts of the world. I suspect that there has been a conspiracy of causal factors that just happen to have coocurred in northwest Melanesia. The first of these is that POc had a small-class PLAC. Precisely because it occurred with members of the small class, however, and these adjectival nouns had a high token frequency, the small-class PLAC must have been of quite frequent occurrence in the discourse of POc and its daughters, and thereby provided a pattern to which members of the adjectival verb class could be recruited when they were used as modifiers. In Type 3 languages, the verbs were nominalized to bring them into the "correct" word-class. In Types 1, 2, and 4 languages, they were simply adopted unchanged into the *whopper* construction. Following the adjectival noun model, the adjectival verb *whopper* construction was grammaticized in various languages, and PLACs were born.

It is perhaps the presence of the small-class PLAC that distinguishes Oceanic languages from others. However, it does not explain why the developments outlined in the previous paragraph happened in various northwest Melanesian groups but not elsewhere in Oceania. In fact, the PLAC phenomenon is self-evidently an areal feature, and like all areal features that cannot be attributed to inheritance alone, it must be due to contact. The Oceanic-speaking societies of northwest Melanesia must have been small-scale and egalitarian throughout their 3,500-year presence in the region, as they were at European contact and generally still are.[28] As a result of their egalitarian character, norm-enforcement was not strong. Because they were small, contact with neighbors was common, bi- and multi-lingualism the

rule (Laycock 1979, Laycock 1982). In such circumstances, it is common for speakers of contiguous languages to adopt similar morphosyntactic strategies, bringing the languages in which they are bilingual increasingly into line with each other (see, for example, Ross 1996b), and the development of PLACs was probably one of the results of this.

It could be argued that it was simply a matter of chance that PLACs did not develop in Oceanic languages outside northwest Melanesia: the process happened never to get started there, and so it could not spread. But there is perhaps a better explanation. It is quite striking that PLACs turn up in languages in northwest Melanesia, where change induced by contact with Papuan languages has often led to a shift in structural type from right-branching (VO) to left-branching (OV). Dryer (1988) has shown that there is a worldwide tendency towards noun–attribute (rather than attribute–noun) order, regardless of a language's branching direction.[29] In the numerous left-branching Oceanic languages of northwest Melanesia (Type 3 languages and Western Oceanic Type 4),[30] PLAC development leaves us with a structure in which the attribute follows the noun, in line with Dryer's tendency, and I take it that this outcome has also favored the retention and reanalysis of the PLAC.

In the right-branching languages of northwest Melanesia, one of two things has happened. In the Admiralties Type 4 languages, it is possible (section 4.6) that the PLAC originally generated ATTRIBUTE + NOUN order, which has been reversed in most of these languages to NOUN + ATTRIBUTE, again in line with Dryer's tendency. In the Type 1 languages of New Ireland, we are left with a noun-phrase structure in which the attribute precedes the noun, in direct opposition both to Dryer's tendency and to the branching direction of these languages (and this is perhaps why the Type 1 PLAC has become generalized only in a geographically very restricted group of right-branching languages).

If the inference that large-class PLACs were modeled on the small-class PLAC is correct, then we have a case of "pattern extension." This phenomenon must be quite common in syntactic change, yet it received relatively little attention in the literature prior to the publication of Harris and Campbell (1995: ch. 5). However, the development of the PLAC as the *default* attribute structure for the large adjectival class raises an interesting question for historical syntax: when and how did head shift occur? As I showed in section 3, we cannot demonstrate that head shift has actually taken place in Tolai, but there is clear evidence that is has done so in Yabem and, for example, in Takia, where small- and large-class items have merged into a single adjective class in

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29. As far as I know, no reason has yet been offered for the dominance of noun–adjective order. However, Dryer's (1992) Branching Direction Theory shows that there is a universal tendency for a language to be either left-branching or right-branching (rather than a mixture). He argues that noun–adjective order is not affected by this because an adjective phrase is not a fully recursive phrasal category. Thus, left-branching does not entail adjective–noun order.

30. Type 2 languages probably belong here too. They are SVO but postpositional, and were probably formerly SOV.

which erstwhile large-class modifiers are marked only by a frozen *-n*. In Mangap-Mbula and Tawala, the evidence is more peripheral to everyday discourse, but the facts here also indicate that head shift has occurred.

Head shift is the syntactic change involved in the unmarking of a PLAC. Shift will have occurred once the PLAC became the only attribute construction in normal use. The reason for the shift is straightforward: in its original sense ('a big one of a house'), a PLAC had a mismatch between discourse function and structure. The prototypical discourse function of a noun phrase is to refer, so the norm is that the noun denoting the referent is its structural head. But the head (the D) of the PLAC was its attribute, while the referring noun was relegated to R. This means that a PLAC in its original function was highly marked structurally. Once it became the basic attribute construction, it seems to have been a natural process for speakers to reinterpret the referring element (the modified noun) as the head and the attribute as a modifier, doing away with the mismatch. It also happens that as early Oceanic noun phrases had no morphology on the head marking, such as case, there was no morphological impediment to the shift. External morphosyntax remained unaltered. A noun phrase remained a noun phrase. Its number remained unchanged, so it triggered no change in agreement, for example, on the verb.

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