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More on Nominal Compounds and Nominal Juxtapositions in Mantauran (Rukai)*

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In Mantauran (Rukai), noun+noun structures are not easy to identify as compounds or nominal juxtapositions. According to Zeitoun (2007), these two constructions share certain structural similarities. Linking elements such as the coordinator *la* 'and' usually do not intervene between the two nominal constituents. They exhibit free word order and bear independent lexical stresses. They differ in that the head of compounds cannot take the genitive pronoun and cannot be coordinated. A more refined investigation is required to validate Zeitoun's (2007) analysis, however. Further pieces of morphosyntactic evidence are provided for distinguishing compounds from nominal juxtapositions. A true compound exhibits none of the following three properties: 1) internal genitive marking, 2) ellipsis and 3) (multiple) modification. By contrast, nominal juxtapositions generally are characterized by the three properties stated above. This paper also shows that Mantauran exhibits a specific pattern in its classification of compounds. More specifically, it exhibits the attributive and subordinate types (Bisetto & Scalise 2005), while the coordinate type is not observed; most of subordinate compounds express a theme-location relation.

Key words: Mantauran (Rukai), compounds, complex nominal phrases

1. Introduction

Mantauran is a Rukai dialect spoken in the southern part of Taiwan. It exhibits at least two types of nominal construction that are composed of the juxtaposition of two nouns without any linking elements.[1] The nominal constituents are either underived nouns as in (1) or complex nouns as in (2). The abbreviations of glosses are provided in the appendix.

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[1] As reported in Zeitoun (2007), Mantauran exhibits a few nominal constructions that are composed of three nouns as shown in the following example (i). This paper focuses only on two-word nominal constructions.

(i) Mantauran

a. ta-poa-poa to-dhi'i paiso
SUBJNMLZ-RED-put produce-good money
'bank (*Lit.*: (who) puts away (one's) money)'
(adapted from Zeitoun 2007:64)

b. ta-langa-langai aa'o sangepare
SUBJNMLZ-RED-sell vegetable car
'delivery car (*Lit.*: (who) sells vegetables)'
(adapted from Zeitoun 2007:64)

(1) Simple compounds of Mantauran[2]

a. lelepe mavoroko
bean monkey
'green beans'
(Zeitoun 2007:63)

b. kipingi vanidho
clothes student
'uniform'
(Zeitoun 2007:62)

(2) Complex compounds of Mantauran

a. ta-se'ese'-ae koli'i
LOCNMLZ-rise-LOCNMLZ sun
'east (*Lit.*: place where the sun rises)'
(adapted from Zeitoun 2007:63)

b. ta-pa-'ototalo-e solate
LOCNMLZ-put.away-LOCNMLZ paper/book
'school bag (*Lit.*: place where papers/books are put away)'
(adapted from Zeitoun 2007:63)

Two approaches can be adopted to analyze these complex nominal constructions in Mantauran.[3] The first is to treat them as phrasal units that are composed of two words, i.e., these two-noun structures do not form compounds. Three reasons can be advanced for such an approach. Firstly, most of them exhibit a modifier-modifiee structure as shown in (3a). In (3a), the word *pa'ange* '[one] type of glutinous cake' is the modifiee and the word *pahai* 'rice' is the modifier. In (3b) (= 1b), the word *kipingi* 'clothes' acts as the modifiee that is modified by the word *vanidho* 'student'.

(3) Modifier-modifiee

a. pahai$_{modifier}$ pa'ange$_{modifiee}$
rice one.type.of.glutinous.cake
'[one] type of glutinous rice cake'
(adapted from Zeitoun 2007:312)

[2] Unless specified, all the examples discussed in this study were collected by the author.

[3] There is a third approach claiming that these nominal structures are compounds instead of noun phrases. That is, Mantauran would have enormous tokens of NN compounds but no nominal phrases with nominal modifiers (including nominalization, deverbal and underived nouns). If this is the case, the lexicon would have to list all these N+N structures, while syntactic operations of nominal phrases with the N+N structures would not hold. This language, then, would become very interesting in typology.

b. kipingi$_{\text{modifiee}}$ vanidho$_{\text{modifier}}$
clothes student
'uniform'

Secondly, these complex noun structures exhibit free word order. Comparing Examples (3) and (4), this trait parallels that of nominal phrases with verbal modifiers and possessive constructions as shown in (5) and (6).

(4) Free word order in noun+noun structures
a. pa'ange$_{\text{modifiee}}$ pahai$_{\text{modifier}}$
one.type.of.glutinous.cake rice
'[one] type of glutinous rice cake'
b. kipingi$_{\text{modifiee}}$ vanidho$_{\text{modifier}}$
clothes student
'uniform'

(5) Free word order in nominal phrases with verbal modifiers
a. …'inai' [ta-ovalrisi-nga$_{\text{modifier}}$ a-olrolai$_{\text{modifiee}}$] ka
this SUBJNMLZ-change-SUP PL-child NEG
o-lriho'o-ka-i ka 'oponoho vaha.
DYN-know-NEG-3SG.GEN NEG Mantauran language
'…as for the young generation of children, they do not know ([how] to speak) the Mantauran language'
(adapted from Zeitoun 2007:310)
b. ceela 'ina'i [la-a-lake-nai$_{\text{modifiee}}$
look:IMP this child-PL-child-1PL.EXCL.GEN
ta-ovalrisi-nga$_{\text{modifier}}$] …
SUBJNMLZ-change-SUP
'Look at the young generation of children…'
(adapted from Zeitoun 2007:311)

(6) Free word order in possessive constructions
a. o-kane-nga-ine [tamatama$_{\text{possessor}}$ velevele$_{\text{possessee}}$-ni].
DYN-eat-already-3SG.OBL middle-aged.man banana-3S.GEN
'Someone ate the banana of the middle-aged man.'
(adapted from Zeitoun 2007:390)

b. o-kane-ng-ine taotao [velevele$_{possessee}$-ni[4] tamatama$_{possessor}$].
DYN-eat-already-3SG.OBL PN banana-3SG.GEN middle-aged.man
'Taotao ate the middle-aged man's banana.'
(adapted from Zeitoun 2007:391)

Thirdly, these nominal constituents bear independent lexical stresses e.g., *páhai* 'rice' + *pá'ange* '[one] type of glutinous cake' > *páhai pá'ange* '[one] type of glutinous rice cake'. Another example is provided in Zeitoun (2007): *óvale* 'body hair' + *kípingi* 'clothes' > *óvale kípingi* 'pull-over' (Zeitoun 2007:62). This phonological trait suggests that the nominal constructions (1) and (2) may not act as single lexical units but as combinations of two lexical units, i.e., they might not be compounds in Mantauran.

The second approach is to consider that one type of construction belongs to **nominal compounds** and the other belongs to **nominal juxtapositions** as a type of noun phrases (NPs). By using the term noun phrases, I refer to constituents that are composed of lexical units. These lexical units act as the building blocks of syntactic constituents, and may induce morphological process such as nominalization. In contrast, NPs are governed by syntactic operations such as conjunction reduction, coordination and multiple modification, while lexical units are not. In a word, lexical units exhibit lexical integrity but phrasal units do not.[5] When I use the term 'nominal phrase', I simply refer to a nominal unit that is composed of multiple words, disregarding any syntactic hierarchical relations between words and phrases.

This paper adopts the second approach, even though these noun+noun structures share certain grammatical properties. There are two reasons to adopt such an approach. First of all, certain nominal compounds display semantic unpredictability; this is not true for nouns forming a complex NP (Fabb 1998). In (1a), for instance, the meaning of "green beans" is not the sum of its constituents. Secondly, unlike complex NPs, nominal compounds cannot take a genitive pronoun as reported in Zeitoun (2007). This restriction indicates that they act as lexical units that cannot be inserted by syntactic operations in Mantauran. In this paper, I present further morphosyntactic evidence for distinguishing compounds from nominal juxtapositions.

The data discussed in this paper is based on Mantauran texts (Zeitoun & Lin 2003), a reference grammar on Mantauran (Zeitoun 2007) and my own fieldnotes. For ease of reading comprehension, this paper uses the following writing conventions.

[4] This sentence also means 'The middle-aged man ate Taotao's banana', when the third person genitive *-ni* refers to Taotao (Zeitoun 2007:391).

[5] According to Bresnan & Mchombo (1995:181), the lexical integrity principle states that 'words are built out of different structural elements and by different principles of composition than syntactic phrases'. That is, the constituents in phrasal units have lexical units as minimal and unanalyzable units.

The term "Mantauran" refers to the targeted Rukai dialect/language. The term "compounds" refers to two-word nominal compounds. The term "head" mentioned in this paper is primarily semantic-based. The terminology adopted in this paper is based on Scalise & Fábregas's (2010) generalizations on compounding. In their typological survey of nominal compounds, they proposed two generalizations: 1) there is a strong correlation between semantic head and category head; and 2) morphological unpredictability is connected with semantic unpredictability in compounds.

I provide in Section 2 a few pieces of grammatical information which are relevant to the comprehension of nominal constructions. In Section 3, I outline the framework adopted in this paper to account for compounds. Section 4 introduces Zeitoun's (2007) analysis of complex nominal phrases. Section 5 discusses the tests on compounds and nominal juxtapositions. Section 6 deals with the classification of compounds. Section 7 is the conclusion.

2. A sketch of Mantauran grammar

This section provides a sketch on Mantauran grammar that relates to compounds and nominal phrases. This is based on Zeitoun & Lin (2003) and Zeitoun (2007). As reported in Zeitoun (2007), Mantauran is a head-marking language, i.e., syntactic relations are marked on nominal and verbal heads. This language displays agglutinative morphology e.g., *o-ara-to-'apa'a* 'only make mats' (*o-* 'DYN.FIN'; *ara-* 'only'; *to-* 'make'; *'apa'a* 'mat') (Zeitoun 2007:45), as well as a few traits of fusional morphology. Evidence is observed from blurred morpheme boundaries that are induced by sound changes and portmanteau morphemes, e.g., *o-* is a morpheme that does not only indicate that the verb is dynamic and finite (i.e., it is the matrix verb of the clause); it also indicates that the verb is in the active voice and marked as realis. This portmanteau function is explained by the sound change from *Proto-Rukai *o-a-* to Mantauran *o-*. Word order in clauses (whether nominal or verbal) is usually free. The subjects and definite objects can undergo toplicalization. Last, this language exhibits, like the other Rukai dialects, only two voices, active and passive.

In the domain of nominal phrases, word order is relatively free. As previously exemplified in (5), the modifying noun occurs before the modifiee or after it. However, determiners always precede their head nouns.[6] Zeitoun (2007) reports that

[6] An example is provided below in (i). (ia) is a phrase in which the demonstrative occurs before the head noun. (ib) is an equational sentence in which the demonstrative follows the noun.
(i) Mantauran
a. [ana lroolai]$_{NP}$
that child
'that child'
(Zeitoun 2007:306)

Mantauran does not have pre-nominal case markers that encode the syntactic and/or thematic relation to the verb. Mantauran has three main types of complex nominal construction: nominal compounds as in (1a), NPs with nominal modifiers as in (1c) and NPs with verbal modifiers[7] as in (5).

3. Defining compounds

Section 3 introduces the analytic framework adopted in this paper to examine nominal compounds. Section 3.1 presents the defining criteria of nominal compounds. Section 3.2 provides a classification of nominal compounds.

3.1 Defining criteria

Scalise & Vogel (2010) provide three principles for diagnosing compounding.

(7) Principles of compounding
   a. Compounds observe syntactic atomicity and lexical integrity.
   b. The constituents are members of major lexical categories.
   c. The head is lexical (while the non-head may be lexical or phrasal).
      (Scalise & Vogel 2010:6)

According to these principles, compounds exhibit the following properties. On the semantic level, a compound denotes either an endocentric or exocentric reading. An endocentric reading is construed with the literal meanings of the constituents e.g., *blackbird* and *snail mail*, while an exocentric reading is semantically opaque e.g., *killjoy* and *paleface*. Furthermore, a compound exhibits a permanent relation, as opposed to alternative plausible relations. A permanent relation expresses classificatory, habitual or generic meanings (Downing 1977), while alternative plausible relations are upheld by constituents. For example, the English compound *fireman* refers to a person who tries to extinguish fires, not incendiaries or patients injured in fire accidents. Another example can be found in Hebrew. The nominal compound *beyt xolim* 'house sick' does not denote houses in which patients live, but 'hospital' (Borer 1988).

b. [lroolai ana]$_{sentence}$.
   child that
   'That is a child.'
   (Zeitoun 2007:306)

[7] It is worth mentioning that verbal modifiers are nominalization instead of relative clauses. The verbs are marked by nominalizers which morphologically agree with head nouns (Zeitoun 2007).

On the morphological level, compounds do not allow inflectional marking that signal morphological or syntactic relations between constituents. Inflectional morphemes attach to the whole sequences of compounds, since compounds are treated as single lexemes[8] as stated in Bauer (2006a). For example, the internal pluralization inside compounds such as **schools girl* or **shelters burning*, is ungrammatical in English (Borer 2005:133).[9] Moreover, a compound may exhibit single inflection and act as a head of other relevant phrases.

On the syntactic level, compounds are immune to ellipsis of constituents, insertion of modifiers, anaphoric reference of constituents, multiple modifications, ellipsis, *wh*-movement, and topicalization (Fabb 1998, Bisetto & Scalise 1999, Lieber 2005, Bauer 2006a). Among these, multiple modifications and ellipsis are crucial tests in Mantauran (Wang 2009). In the test of ellipsis, the constituents of a compound cannot be deleted in constructions such as coordination. The forward deletion in the Italian compound *nave traghetto* 'ferry boat [boat ferry]' is ungrammatical. In (8), the word *nave* 'boat' of the compound in (8a) cannot be omitted in coordination as in (8b).

(8) Italian

a. La construzione della [nave ospedale] e della [nave traghetto].
DEM construction of boat hospital and of boat ferry
ri-chidera tempo.
again-ask.for time
'The construction of the hospital-boat and of the ferry will take time.'
(adapted from Bisetto & Scalise 1999:37)

b. *La construzione della [nave ospedale] e della [traghetto].
DEM construction of boat hospital and of ferry
ri-chidera tempo.
again-ask.for time
(adapted from Bisetto & Scalise 1999:37)

[8] As for the definition of "lexeme", I follow Bauer (2006b:485). That is, a compound represents a lexeme that involves inflection like other (simple) lexemes (e.g., words showing derivation morphology) that do not have a complex internal structure. Moreover, a compound is made of 'lexemic bases' but simple lexemes are not. These lexemic bases can be inflected independently and can act as the heads of relevant phrases on their own.

[9] Several English examples seem to violate this definition in which inflectional marking intervenes between nouns in compounds, e.g., *driver**'s** license*, *kin**s**man,* and *craft**s**man*. However, this inflectional marking does not violate the 'lexeme' definition, since the very existence of the inflectional marking is part of the lexemes (in the beginning of the lexical coinage), and thus cannot be deemed as a violation of 'lexeme' definition. Take *driver's license* for instance. There is no such term as **driver**s' license**s** in English, when one intends to mean 'licenses of drivers'.

For (multiple) modifications, the constituents of compounds cannot be independently modified. That is to say, a modification must be imposed on the entire compound as $[X]_{modifier}$ $[N1N2]_{compound}$ instead of $[[X\ N1]_{modifier}\ N2]$. Two examples demonstrate this restriction. The compound *blue-spot* 'bruise' cannot be further modified as in *[*dark-blue*]-*spot* to mean 'a very serious bruise'. Fabb (1998:76) demonstrates this restriction in French. The French compound *garde-malade* 'nurse [take.care.of-patient]' does not involve further modification as **garde-bien-malade* to express the meaning of 'a good nurse [take.care.of-well-patient]', as opposed to *bonne garde-malade* 'good nurse'.

3.2 Classifications of nominal compounds

Bisetto & Scalise (2005) divide nominal compounds into subordinate, coordinate and attributive types.[10] Figure 1 illustrates the classification with examples. This classification is based on grammatical relations held by nominal constituents. In subordinate compounds, the two constituents exhibit complementation relations, including the predicate-predicate relation and 'of-relation'.[11] For example, the English compound *taxi driver* comprises a head noun *driver* and its complement *taxi*. In attributive compounds, one constituent profiles an attribute/attributes of the other. For example, the English attributive compound *snail mail* involves a modification relation, in which the modifier *snail* describes the trait 'lag-time' of the modifiee *mail* (traditional delivery system). In coordinate compounds, the constituents share the same status and exhibit a coordination relation. Neither of them represent heads. For example, the English compound *bittersweet* involves a coordination relation and does not exhibit headedness in the compound. Each type of compound can be further divided into the endocentric type (labeled as 'endo' in Figures 1 and 3) and the exocentric type (labeled as 'exo' in Figures 1 and 3). An endocentric compound contains a head and expresses literally semantic relations between constituents e.g., *taxi* ***driver***. An exocentric compound usually lacks a head and denotes an opaque meaning e.g., *pick-pocket*. Bauer (2010) states that an exocentric compound may contain a head element but the entire compound conveys an opaque meaning. For example, the English example *bird* ***brain*** and the Mandarin example *menggu-**daifu*** 'quack doctor (Mongolia doctor)' contain the heads *brain* and *daifu* 'doctor', but the entire compounds convey nonliteral meanings.

[10] Scalise & Bisetto (2009: 49-52) redesign Bisetto & Scalise's (2005) classification by adding two macro-levels in subordinate and attributive compounds. This paper follows the classification proposed in Bisetto & Scalise (2005) since this framework succinctly classifies compounds in Mantauran.

[11] In (31a), a further elaboration of the complementation relation is provided in the discussion on classifying of Mantauran compounds.

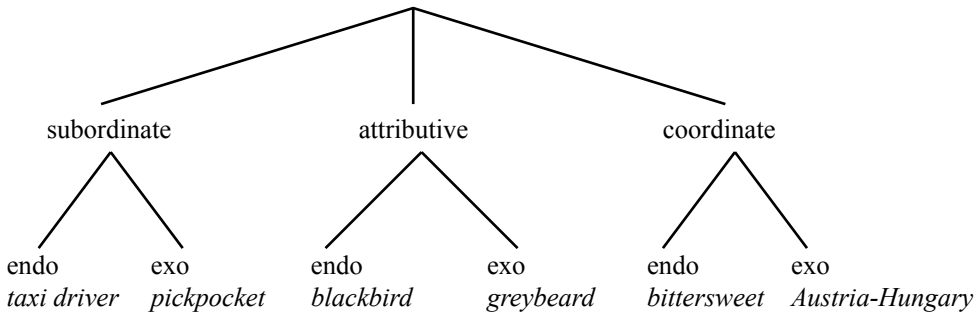

Figure 1. The classifications of nominal compounds (adapted from Scalise & Bisetto 2009:45)

In this section, I have introduced the defining criteria of compounds and the framework I will be using to classify them. Before I turn to my own analysis in Section 5, I provide a brief summary of Zeitoun's (2007) analysis on complex noun phrases.

4. A summary of Zeitoun's (2007) analysis

Complex noun phrases in Mantauran are versatile. Zeitoun (2007) divides complex noun phrases into four major types: 1) noun phrases with verbal modifiers; 2) noun phrases with nominal modifiers; 3) compounds; and 4) coordinate noun phrases. Noun phrases with nominal modifiers are further divided into three types: a) possessive noun phrases, b) *'i*-construction, and c) nominal juxtaposition. Compounds are classified into simple and complex types. Figure 2 delineates this division.

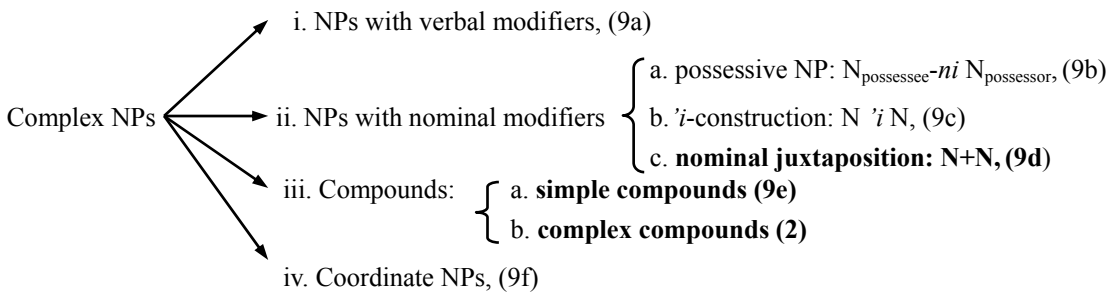

Figure 2. Division of complex noun phrases in Mantauran (based on Zeitoun 2007:308-319)

Examples of each type are provided below in (9). NPs with verbal modifiers exhibit agreement between heads and their (nominalized) modifiees (Zeitoun 2007). For example in (9a), the subject nominalizer *ta-* indicates that the noun *ocao* 'person'

is the actor.[12] In possessive noun phrases, a possessee is marked by a third person genitive as in (9b). The *'i*-construction as in (9c) involves a part-whole relation (Zeitoun 2007:312). Nominal juxtapositions are exemplified in (9d) whereby the two nouns are juxtaposed without the insertion of a particle. Moreover, the relation between the modifiee and the modifier is not morphosyntactically marked. Compounds are exemplified in (9e) for simple compounds and previously in (2) for complex compounds. In coordinated NPs, the two nouns are conjoined by the coordinator *la*, as shown in (9f).

(9) Complex noun phrases in Mantauran

a. [ta-akame ocao]$_{actor}$ ka'ange
SUBJNMLZ-roast person fish
'the person that roasts fish'
(adapted from Zeitoun 2007:310)

b. tolropongo$_{possessee}$-ni dhipolo$_{possessor}$
hat-3SG.GEN PN
'Dhipolo's hat'
(adapted from Zeitoun 2007:313)

c. velrete 'i dha'ane
wall PART house
'ruins of (earlier) house'
(extracted from Zeitoun 2007:313)

d. adhi'i ciare
eagle feather
'eagle feather'
(adapted from Zeitoun 2007:312)

e. koli'i kavale
sun shoes
'sandals'
(extracted from Zeitoun 2007:317)

[12] The morphological concord (i.e., nominalizing marking) between a modifier noun and its modified noun is compulsory (Zeitoun 2007). To take (9a) for example, the prefix *ta-* cannot be changed into the object nominalizer *a-…-ae* as in (i). The ungrammaticality is due to a syntactic reason, since the verb cannot subcategorize the argument *ocao* 'person'.

(i) A verbal modifier in Mantauran
*__a__-akam-__ae__ ocao$_{actor}$
OBJNMLZ-roast-OBJNMLZ person
(Zeitoun 2007:310)

f. velevele la mairange
banana and sweet.potato
'banana and sweet potato'
(adapted from Zeitoun 2007:318)

The category of nominal compounds requires a clarification. According to Zeitoun (2007), there are two types of compound. The first type are simple compounds whereby the compounded nouns are morphologically underived. For instance, in (10), this type of compound exhibits a unique feature, i.e., they cannot be internally modified by the genitive suffix *-ni* to express a possessive relation, as shown in (10b). Thus, they exhibit lexical integrity as defined in Bresnan & Mchombo (1995). A further piece of evidence is provided in (10c), whereby the noun+noun unit does not denote the meaning of 'uniform' when each noun is marked by a genitive pronoun. In this case, the sequence becomes a NP instead of a nominal compound.

(10) Simple compounds

a. kipingi vanidho
clothes student
'uniform'
(Zeitoun 2007:317)

b. kipingi-ni vanidho
clothes-3SG.GEN student
'his uniform'
(Zeitoun 2007:317)

c. [[kipingi-ni$_i$ vanidho$_i$]-li]$_j$
clothes-3SG.GEN student-1SG.GEN
'my student's clothes'
(Zeitoun 2007:317)

The other type of compound are complex compounds, whereby either noun or both of them undergo morphological derivation, as exemplified in (11a-b).

(11) Complex compounds in Mantauran

a. ta-se'ese'-ae koli'i
LOCNMLZ-rise-LOCNMLZ sun
'east (*Lit.*: place where the sun rises)'
(adapted from Zeitoun 2007:63)

b. vea-vecahae ta-sola-solat-ae
RED-middle LOCNMLZ-RED-study-LOCNMLZ
'junior or/and senior high schools (educational institute)'

As pointed out in Zeitoun (2007), the modifiers are able to undergo coordination, as shown in (12).

(12) Mantauran
a. ta-se'ese'-ae koli'i
LOCNMLZ-rise-LOCNMLZ sun
'east (*Lit.*: place where the sun rises)'
(adapted from Zeitoun 2007:316)
b. ta-valrilo-e koli'i
LOCNMLZ-get.down-LOCNMLZ sun
'west (*Lit.*: place where the sun goes down)'
(adapted from Zeitoun 2007:316)
c. [ta-se'ese'-ae la ta-valrilo-e] koli'i
LOCNMLZ-rise-LOCNMLZ and LOCNMLZ-get.down-LOCNMLZ sun
'east and west (*Lit.*: place where the sun rises and where it goes down)'
(adapted from Zeitoun 2007:316)

Zeitoun (2007) presents the structures of compounds and clearly lays out the division of nominal structures as shown in Figure 2. However, there are two issues left unsolved. First, the distinction between compounds and nominal juxtapositions requires a more careful examination regarding their grammatical properties to validate such a demarcation. Second, the distinction between simple and complex compounds is not crystal-clear. Although Zeitoun (2007) points out two different constraints—the non-occurrence of the genitive, as shown in (10) and the coordination of the modifiers, as exemplified in (12)—these two types are not thoroughly compared and contrasted.

This paper intends to reassess the distinction between these two types of compounds and nominal juxtapositions. The discussion covers two issues. First, I investigate four grammatical features of compounds: 1) internal grammatical marking; 2) ellipsis; 3) (multiple) modification; and 4) coordination of nominal constituents. Section 5 discusses this issue. Second, I classify compounds according to the grammatical relations that are established between compounded nouns in section 6. By doing so, I am able to point out the nature of Mantauran compounds and the

idiosyncrasy of compounding in this language. Moreover, I present a clear-cut distinction between compounds and nominal juxtapositions.

5. More tests on compounds and nominal juxtapositions in Mantauran

Three tests can be used to recognize compounds and nominal juxtapositions: genitive marking, ellipsis, modification, and coordination. Section 5.1 deals with internal genitive marking. Section 5.2 deals with ellipsis. Section 5.3 discusses the test of multiple modification. A point to consider is that I do not use the coordination test as evidence since Mantauran exhibits a uniqueness whereby the test does not distinguish compounds from nominal juxtapositions (see Section 5.4 for further discussion).

5.1 Genitive marking

Genitive marking is a crucial test for distinguishing compounds from nominal juxtapositions in Mantauran (Zeitoun 2007).[13] This paper further observes that neither simple nor complex compounds can be internally modified by the genitive marker *-ni*. The example (10) above already showed this restriction for simple compounds. An example of complex compounds is provided below in (13).

(13) No genitive marking inside complex compounds

a. ta-se'ese'-ae koli'i
LOCNMLZ-rise-LOCNMLZ sun
'east (*Lit.*: place where the sun rises)'
(Zeitoun 2007:63)

b. *ta-se'ese'-ae-**ni** koli'i
LOCNMLZ-rise-LOCNMLZ-3SG.GEN sun

In contrast, constituents of nominal juxtapositions may exhibit possessive relations[14] as in (14) and (15).[15] The head of nominal juxtapositions of (14a) is marked by the genitive marker *-ni* to express the possessive relation as in (14b).

[13] In Mantauran, a possessive relation between nominal constituents is expressed through the third person genitive marking, as shown in the example of (9b).

[14] Certain nominal juxtapositions do not accept genitive marking e.g., *adhi'i ciare* 'eagle feather (eagle feather)'. The genitive pronoun *-ni* cannot be suffixed to the head to specify the possessive relation i.e. **adhi'i-**ni** ciare*. However *adhi'i ciare* cannot be treated as a compound since the modifier *adhi'i* 'eagle' can be omitted.

[15] (15b) may be construed as a part-and-whole relation as well.

(14) Genitive marking

a. ona'i 'aamadhalae, lo to-karidhi-dha dhona'i
that before if make-sleeveless.garment-3SG.GEN that
[**'alongae kalici**], pi'amadhalae-nga kodhokodho
deer fur first-already SUBJ:scratch
dhona'i ovale 'olra.
that body.hair SUBJ:make
'In the old times, when men (wanted to) make jackets out of [deer fur], they (would) first to take off the body hair.'
(adapted from Zeitoun & Lin 2003:419)

b. lo dhoma-nae to'araki [**kalici-ni 'alongae**] to-siate
if other-TEMPNMLZ use fur-3SG.GEN deer make-powder.box
dhona'i a'olalai ta-poa-po-ae tolongo
that PL:male LOCNMLZ-make-RED-LOCNMLZ little.bamboo.box
'i savo'oe amo-ka-olr-iae amo-ka-eseng-iae
PART gunpowder will-STAT-get.lost-1SG.OBL will-STAT-soaked-1SG.OBL
m-ia.
DYN-SO
'Sometimes, men (would) use **the skin of deer** to make powder boxes to store gunpowder (thinking that that way), it (would) not get lost or be soaked.'
(adapted from Zeitoun & Lin 2003:424)

In (15a), the head noun *vila'a* 'beside' and the modifier *dha'ane* 'house' are juxtaposed. In (15b), the head noun is marked by the genitive marker -*ni* as well. The meanings of the two structures are different.

(15) Genitive marking

a. vila'a dha'ane
beside house
'beside the house'
(Zeitoun 2007:315)

b. vila'a-**ni** dha'ane
beside-3SG.GEN house
'the side of the house'
(Zeitoun 2007:315)

5.2 Ellipsis

For a compound that does not exhibit (semantic) headedness, eliding either noun is ungrammatical. This is shown in (16) and (17). In (16b), the noun only means 'a place where something rises or comes out'. It does not mean 'east' as denoted by the compound in (16a). In a similar vein, (16c) only denotes 'sun' but never 'east'.

(16) Ellipsis in complex nouns

a. ta-se'ese'-ae koli'i
   LOCNMLZ-rise-LOCNMLZ sun
   'east (*Lit.*: place where the sun rises)'

b. ta-se'ese'-ae
   LOCNMLZ-rise-LOCNMLZ
   'a place where something rises/comes out'
   (Elizabeth Zeitoun, personal communication, October 2, 2017)

c. koli'i
   sun
   'sun'

(17) exemplifies impossible ellipsis of simple compounds. (17a) is an example of a simple compound. There is no clear indication of headedness because either noun profiles a semantic uniqueness of a pullover in Mantauran: 1) a pullover is a garment made of fur; or 2) it is a collection of fur, a main feature of this kind of garment. In this example, eliding either noun does not maintain the original compounding meaning. This is shown in (17b-c). In (17b), the word *kipingi* 'clothes' is elided. In (17c), the word *ovale* 'body hair' is elided.

(17) Ellipsis in simple compounds

a. ovale kipingi
   body.hair clothes
   'pullover'
   (Zeitoun 2007:316)

b. ovale
   body.hair
   'body hair'

c. kipingi
   clothes
   'clothes'

I now illustrate this constraint by showing how it works in the context of the clausal domain, such as (18), which shows that the head noun of a compound, *kipingi* 'clothes', cannot be elided.

(18) Ellipsis

a. dholro-ng-iname longai [kipingi vanidho]
can-already-1PL.EXCL.OBL buy clothes student
voa'i 'i a-olrolai.
SUBJ:give PART PL-child
'We can afford to buy uniforms for (our) children.'
(adapted from Zeitoun & Lin 2003:305)

b. *dholro-ng-iname longai **vanidho** voa'i 'i a-olrolai.[16]
can-already-1PL.EXCL.OBL SUBJ:buy student SUBJ:give PART PL-child
(adapted from Zeitoun & Lin 2003:305)

In nominal juxtapositions, one constituent may occur alone without jeopardizing the original meaning. In (19a), the nominal juxtaposition is composed of three nouns: *alrehenge tavala'ava'a tapoli* 'yellow and white ferment'. In (19b), the noun constituent *alrehenge* 'ferment' is elided and the noun *tavala'ava'a* 'yellow (starch of ferment)' stands only in the sentence.

(19) Mantauran

a. mani alra-mao [alrehenge$_{modifiee}$ tavala'ava'a$_{modifier}$ tapoli$_{modifier}$]
then take-IMPRS.NOM ferment yellow white
mani lingao taopange 'odhe'ele dhona taopange.
then wash pot SUBJ:wipe that pot
'Then, we (would) take the yellow and white ferment and wash a pot.'
(adapted from Zeitoun & Lin 2003:326)

[16] This example would be grammatical if the head noun was retained (alone) as shown in the following example (i). However, the noun *kipingi* 'clothes' here does not specifically refer to a uniform.
(i) Mantauran
dholro-ng-iname longai **kipingi** voa'i 'i a-olrolai.
can-already-1PL.EXCL.OBL SUBJ:buy clothes SUBJ:give PART PL-child
'We can afford to buy clothes for (our) children.'
(Elizabeth Zeitoun, personal communication, October 2, 2017)

b. dhona **tavala'ava'a** mani poa-nga-mao
that yellow then make-already-IMPRS.NOM
'i dhalrese cicio.
PART ACTNMLZ:press SUBJ:stir
'As for the yellow (starch of ferment), we (would) press it.'
(adapted from Zeitoun & Lin 2003:327)

In this respect, nominal juxtapositions are equivalent to NPs with verbal modifiers[17] (the function of which may be akin to relative clauses). A verbal modifier may occur on its own in a headless NP, as shown in (20). In (20a), the subject is omitted. In (20b), the object is omitted.

(20) Mantauran
a. ceela 'ina'i [**ta-ovalrisi-nga**$_{\text{modifier}}$].
look:IMP this SUBJNMLZ-change-SUP
'Look at these new/young(er) (ones).'
(adapted from Zeitoun & Lin 2003:311)
b. ma-si'i **a-kan-ae-ni**$_{\text{modifier}}$.
STAT-small/a.little OBJNMLZ-eat-OBJNMLZ-3SG.GEN
'What she/he eats is small/a little.'
(Zeitoun 2007:311)

Ellipsis of modifiers in compounds is rarely observed in texts or in the data I collected. Additionally, head nouns may denote another meaning when non-heads/modifier nouns are omitted. This feature is demonstrated in (21). In (21a), the compound *veavecahae tasolasolatae* 'junior and/or high school' denotes the notion of an educational institute, but the meaning of the head noun changes when it occurs by itself in (21b). (21) indicates that compounds act as lexical items, regarding ellipsis of non-heads.

(21) Ellipsis
a. vea-vecahae ta-sola-solat-ae
RED-middle LOCNMLZ-RED-study-LOCNMLZ
'junior and/or senior schools (educational institute)'

[17] Verbal modifiers are a type of nominalized units (Zeitoun 2007).

b. ta-sola-solat-ae
LOCNMLZ-RED-study-LOCNMLZ
'school (location)' or 'school (educational institute)'

Ellipsis of modifiers in nominal juxtapositions is frequently observed in texts and elicitation, as (22) illustrates. The nominal phrase in (22a) is composed of the modifier *pahai* 'rice' and the head *pa'ange* '[one] type of glutinous cake'. (22b) shows the meaning of 'glutinous rice cake' remains intact without the modifier *pahai* 'rice'.

(22) Ellipsis

a. pahai pa'ange
rice one.type.of.glutinous.cake
'[one] type of glutinous rice cake'
(Zeitoun 2007:312)

b. o-kane-lrao pa'ange-ni dhipolo
DYN-eat-1SG.NOM one.type.of.glutinous.cake-3SG.GEN PN
'idha.
yesterday
'I ate Dhipolo's (glutinous) rice cake yesterday.'

Another example is given in (23), which involves the omission of the modifier *adhi'i* 'eagle' in context (e.g., in the middle of a narration or conversation), as shown in (23b) and (23c).

(23) Omission of non-head in nominal juxtapositions

a. adhi'i ciare
eagle feather
'eagle feather'
(Zeitoun 2007:317)

b. mani poa 'i-lavolro pi-vilrilae-nga 'i-**ciare**
then make wear-false.pleated.hair put.at-behind-SUP wear-eagle.feather
mani oa siraovo 'i a-valrovalro.
then go SUBJ:dance PART PL-young.woman
'On top of it, they (would) stick eagle feathers, then they (would) go dancing.'
(extracted from Zeitoun & Lin 2003:340)

This section demonstrates a major distinction between nominal juxtapositions and compounds. Unlike nominal juxtapositions, compounds do not allow the ellipsis of constituents.

5.3 Multiple modification

Nouns in compounds cannot undergo any modification. This restriction applies to both simple and complex compounds. Below I use (24), a simple compound, as an illustration.[18] The derived nominal *takataadhi'i* 'who/which is beautiful (nominalization)' cannot modify the head of the compound as in (24b). In contrast, one has to use the stative verb *ma-taadhi'i* 'be beautiful' to express this meaning in a clause, as shown in (24c). In (24c), *ma-taadhi'i* acts as a predicate and the compound *ovale kipingi* 'pullover' is the subject.

(24) No multiple modification in a simple compound

a. ovale kipingi
body.hair clothes
'pullover'
(Zeitoun 2007:316)

b. ***ta-ka-taadhi'i** ovale kipingi
SUBJNMLZ-STAT-beautiful body.hair clothes
Intended: 'beautiful pullover'

c. **ma-taadhi'i**$_{\text{predicate}}$ ovale kipingi
STAT-beautiful body.hair clothes
'The pullover is beautiful.'

Nominal juxtapositions, however, may involve (multiple) modification as shown in (25). In (25a-b), the head nouns are modified by two nominal modifiers that describe its properties.

[18] In complex compounds, ungrammatical multiple modification is exemplified as follows. The noun *takataadhi'i* 'beautiful[nominalization]' cannot modify the head noun *tasolasolatae* 'school' in the NP structure of (ia). An alternative structure is provided in the following (ib).

(i) a. *ta-ka-taadhi'i vea-vecahae ta-sola-solat-ae
SUBJNMLZ-STAT-beautiful RED-middle LOCNMLZ-RED-study-LOCNMLZ

b. ma-taadhi'i ('i) vea-vecahae ta-sola-solat-ae
STAT-beautiful PART RED-middle LOCNMLZ-RED-study-LOCNMLZ
'The junior/high school is good.'

(25) Multiple modification in nominal juxtapositions

a. ma-dhalame-lrao dhona'i [**ta-ka-ecelrange**,[19] **to-ngotoa'-e**
STAT-like-1SG.NOM that INAL-STAT-black do-sleeveless-OBJNMLZ
molrae].
fabric
'I like black and sleeveless clothes.'

b. mani alr-idhe poa **lrevake** **toalrai**
then take-3SG.OBL make plain big
ta-po-savo'o-vo'o-nae.
LOCNMLZ-put-medicine-RED-LOCNMLZ
'Then we (would) send the patient to the plain to a big hospital.'
(adapted from Zeitoun & Lin 2003:298)

Examples (24) and (25) show the distinction between compounds and nominal juxtapositions in terms of (multiple) modification. Nouns in compounds cannot be modified and thus represent lexical units. In contrast, juxtaposed nominals can undergo modification, which indicates that they exhibit a (complex) phrasal structure.

5.4 On testing coordinating nominal constituents in Mantauran

This test for coordinating constituents may not be valid for distinguishing compounds from nominal juxtapositions in Mantauran. The nominal juxtapositions, as shown in Sections 5.1 to 5.3, exhibit internal genitive marking, ellipsis and multiple modification. These three traits suggest that they are NPs. Hypothetically coordination of constituents should also be observed in nominal juxtapositions, as it is found in possessive constructions (another type of complex NPs, cf. Figure 2). (26) exemplifies possessive constructions, whereby the possesses are coordinated.

(26) Coordinating constituents in possessive constructions

a. [a-kane-ae-**ni**[20] la
OBJNMLZ-RED-eat-OBJNMLZ-3SG.GEN and
a-'ongo-'ongol-ae-**ni**] taotao$_{possessor}$
OBJNMLZ-RED-drink-OBJNMLZ-3SG.GEN PN
'Taotao's food and drink'
(Zeitoun 2007:314)

[19] The color term *takaecelrange* 'black' is a noun instead of a stative verb (Zeitoun 2007:70).
[20] The genitive pronoun *-ni* in these first possesses cannot be elided.

b. [vila'a-**ni** la 'adhingi-**ni**] dh'ane$_{possessor}$
beside-3SG.GEN and inside-3SG.GEN house
'the side and the inside of the house'
(Zeitoun 2007:314)

However, constituents in nominal juxtapositions are rarely coordinated as exemplified in (27). In (27a), the function word *la* 'and' coordinates two compounds in their full forms. (27b) shows that the coordination of the modifying nouns *pahai* 'rice' and *vecenge* 'millet' is ungrammatical.

(27) No coordination in nominal juxtaposition
a. [pahai paha'nge] la [vecenge paha'nge]
rice glutinous.cake and millet glutinous.cake
'rice cake and millet rice cake'
b. *o-kane-nga-lrao [pahai la vecenge] pa'ange
DYN-eat-already-1SG.NOM rice and millet glutinous.cake
'idha.
yesterday
Intended: 'I ate rice cake and millet rice cake yesterday.'

The few cases in which nominal juxtapositions exhibit coordination of constituents in my elicitation and the narration data presented are in Zeitoun & Lin (2003), as shown in (28). (28a) exhibits coordination of two nominal juxtapositions. In (28b), two modifiers are coordinated, and denote 'an ornament which is made of feathers of the Blue Magpie and eagle', instead of the meaning of (28a). (28b) has an uncommon interpretation, since Mantauran rarely produces a head ornament that is made of two types of feather. According to the informant's comments, this expression of (28b) would be grammatical if such an object were crafted. However, it will not denote the meaning "feathers of Blue magpie and eagle feather"

(28) Coordination in nominal juxtaposition
a. [siasio ciare] la [adhi'i ciare][21]
blue.Magpie feather and eagle feather
'feathers of Blue Magpie and eagle feather (as two types of ornament)'

[21] The terms 'Blue Magpie feather' and 'eagle feather' refer to ornaments made with feathers from birds. They are usually used in ceremoninal activities.

b. [siasio la adhi'i] ciare
blue.Magpie and eagle feather
'an ornament which is made of feathers of the Blue Magpie and eagle'

In a similar pattern, nominal constituents in simple compounds cannot be coordinated as shown by the ungrammaticality of (29c). (29a) and (29b) refer to two types of clothing, cf. a 'pullover' and a 'raincoat'. The nouns *ovale* 'body hair' and *dha'olo* 'rain' found in (29a-b) respectively cannot be coordinated as in (29c).

(29) No coordination in simple compounds
a. ovale kipingi
body.hair clothes
'pullover'
b. dha'olo kipingi[22]
rain clothes
'raincoat'
c. *[ovale la dh'olo] kipingi
body.hair and rain clothes
Intended: 'pullover and raincoat'

The constituents of complex compounds can be coordinated. As shown in (30a) and (30b), they share an identical noun *tapa'ototaloe* 'a place that things are put away/stored'. As mentioned in Zeitoun (2007:65), the other noun in (30a) and (30b) cannot be coordinated. The coordinating structure in (30c) denotes: '(a) place where clothing and papers are put away/stored' rather than '(a) cupboard and (a) school bag'. That is, (30c) indicates a specific place instead of two places (which would refer to the combination of two compounds). Moreover, (30c) does not refer to the meaning of '(a) cupboard and (a) school bag'. When two complex compounds are coordinated, they must appear in full, as shown in (30d).

(30) Coordination in complex compounds
a. ta-pa-'ototalo-e molrae
LOCNMLZ-CAUS-put.away-LOCMNLZ fabric
'a cupboard'
(adapted from Zeitoun 2007:65)

[22] The term *dh'olo kipingi* 'rain coat' might be a term borrowed from Mandarin. Mantauran people do not have this type of clothing in their cultural tradition (Elizabeth Zeitoun, personal communication, October 2, 2017).

b. ta-pa-'ototalo-e solate
LOCNMLZ-CAUS-put.away-LOCMNLZ paper
'a schoolbag'
(adapted from Zeitoun 2007:65)

c. ta-pa-'ototalo-e [molrae la solate]
LOCNMLZ-CAUS-put.away-LOCMNLZ fabric and paper
'*Lit.*: (a) place where clothing and papers are stored away'
(adapted from Zeitoun 2007:65)

d. ta-pa-'ototalo-e molrae la
LOCNMLZ-CAUS-put.away-LOCMNLZ fabric and
ta-pa-'ototalo-e solate
LOCNMLZ-CAUS-put.away-LOCMNLZ paper
'(a) cupboard and (a) school bag'
(adapted from Zeitoun 2007:65)

The discussion hitherto indicates that a discrepancy exists: complex compounds as lexical units can undergo coordination but nominal juxtapositions as phrasal units cannot. My explanation for this discrepancy between the compounding assumption and linguistic facts in Mantauran is as follows. Coordinating complex compounds as in (30c) can be viewed as phrasal compounds in which the first element of the compound is a phrase or even a sentence (Lieber & Scalise 2006).[23] In (30c), the coordinated nominal constituents function as a phrasal unit that describes a cluster of properties of the head noun, but the entire structure is attested as a compound for two main reasons. Like the restrictions shown in Sections 5.1 and 5.2, the (phrasal) complex compound of (30c) neither exhibits internal genitive marking nor ellipsis.[24]

5.5 Interim summary

Table 1 summarizes one distinction between the two types of compounds and nominal juxtapositions. Compounds exhibit lexical integrity by showing impossible: 1) genitive marking; 2) ellipsis; and 3) multiple modification.

[23] English examples of phrasal compounds are ***over the fence*** *gossip* and ***God-is-dead*** *theology* (Lieber & Scalise 2006:10).

[24] The following example (i) demonstrates the two restrictions of phrasal compounds. In (ia), the genitive *-ni* cannot occur between the head and the coordinated non-head. In (ib), the omission of the coordinated constituent in (30c) causes semantic incompleteness, since (ib) just merely denotes 'place whereby something is stored', which is ungrammatical in Mantauran.

(i) Phrasal compounds in Mantauran

a. *ta-pa-'ototalo-e-ni [molrae la solate]
LOCNMLZ-CAUS-put.away-LOCMNLZ fabric and paper

b. ?ta-pa-'ototalo-e
LOCNMLZ-CAUS-put.away-LOCMNLZ

Table 1. Grammatical properties of compounds and nominal juxtapositions

Constructions / Properties	**Nominal juxtapositions**	**Compounds**	
		Simple compounds	Complex compounds
	pahai pa'ange '[one] type of glutinous rice cake'	*lelepe mavoroko* 'green beans'	*ta-se'ese'-ae koli'i* 'east'
1. Genitive marking	✓ (with exceptions)	×	×
2. Ellipsis	✓	×	×
3. (Multiple) modification	✓(with exceptions)	×	×
4. Coordinating constituents	×	×	×
	✓ (rarely found)		✓

As for nominal juxtapositions, they act as noun phrases since they are unconstrained. There are exceptions in nominal juxtapositions regarding genitive marking and multiple modification. The ungrammatical genitive marking of nominal juxtaposition has been shown in footnote 15, repeated as follows: *adhi'i ciare* 'eagle feather (eagle feather)' ~ **adhi'i-**__***ni***__ *ciare* (eagle-**3SG.GEN** feather). An example of an ungrammatical multiple modification is: *pahai pa'ange* '[one] type of glutinous rice cake (rice one.type.of.glutinous.cake)' ~ ***ta-poli** pahai pa'ange* (**INAL-white** glutinous.rice.cake).

For the test of coordinating constituents, Mantauran exhibits a language idiosyncrasy in that coordinating constituents are rather difficult in nominal juxtapositions and simple compounds. In contrast, this structure is observed in complex compounds.

6. Classification of nominal compounds in Mantauran

As mentioned in Section 3.2, compounds can be classified into three major types, namely subordination, attributive and coordination (Bisetto & Scalise 2005), also cf. Figure 1). (31) summarizes Bisetto & Scalise's (2005) definitions of each type.

(31) Definitions of compounding types

a. **Subordination**: two constituents are in a complement relation. A complement relation can be interpreted in terms of the following: 1) the predicate-argument relation e.g., *taxi driver* (compound with deverbal noun); and 2) 'of relation' e.g., the N+N compound *apron string* can be construed as 'string of an apron', 'string on an apron', or 'string in an apron'.

b. **Attributive**: the grammatical relation is of attribution in the structure of adjective+noun or noun+noun, e.g. *high school* and *snail mail.*[25]
c. **Coordinate**: the relation between the two constituents exhibits coordination, mostly belonging to conjunctive coordination, e.g., *poet painter*.
(adapted from Bisetto & Scalise 2005; examples cited from Scalise & Vogel 2010:7)

According to the definitions given in (31), Mantauran compounds do not correspond to the coordinate type. Instead, both subordinate and attributive types are observed. Compounds such as *tase'ese'ae koli'i* 'east (*Lit*.: place where the sun rises)' and *ovale kipingi* 'pullover (body.hair clothes)' belong to the former, while compounds such as *taecelrange kipingi* 'a specific type of clothes that used to be worn by the elderly (black clothes)' are classified as attributive types.

For most of the subordinate compounds examined in this paper, the nominal constituents represent a thematic relation of pure location following Van Valin & LaPolla's (1997:115) framework of logical structure. The noun constituents are defined by two thematic roles i.e., location and theme. To take the compound *tase'ese'ae koli'i* 'east' for instance, it belongs to the subordinate type since *koli'i* 'sun' represents the theme and *tase'ese'ae* 'place where the sun rises' is the location. Moreover, none of the nominal constituents are in a predicate-complement relation i.e., the verbal stem *o-se'ese'e* 'rise' does not subcategorize the noun *koli'i* 'sun'. This compound should not be considered as an attributive type, since the noun *tase'ese'ae* does not resemble any attribute (e.g., function, appearance or purpose) of the other noun *koli'i* 'sun', vice versa.[26] Moreover, this compound is not of the coordinate type, since neither noun posits a conjunction relation. That is, this compound cannot be transformed as ***tase'ese'ae la koli'i*** '(a) place **and** sun' **(**LOCNMLZ-rise-LOCNMLZ **and** sun**)**.

Mantauran subordinate compounds mostly belong to the endocentric type (i.e., denoting transparent semantics: theme-location relations), since the meanings of the two compounded nouns are not figurative e.g., metaphoric or metonymic. Few of them belong to the exocentric type, which denotes opaque meanings. (32) exemplifies

[25] As pointed out by Scalise & Vogel (2010:7), the noun *snail* describes the 'slowness' of the mail delivery. The non-head noun has thus an attributive value for the head noun.
[26] This restriction also applies to the compound *ovale kipingi* 'pullover (body.hair clothes)', since it is the combination of the two nouns that denotes the meaning of the compound. *ovale* 'body hair' cannot be deemed as an attribute (e.g., ingredient or component), but also as a head like the other constituent *kipingi* 'clothes' is. The compound *ovale kipingi* can be construed as 'clothes which are a collection of animal hair/fur made as a pullover' in Mantauran (Elizabeth Zeitoun, personal communication, October 2, 2017).

this type, whereby the meaning of the compound, '(government) officer', does not equal the sum of its two nominal components.

(32) An exocentric compound
pi'a-pi'a alreace
RED-make name
'(government) officer (*Lit.*: name making)'
(Zeitoun 2007:64)

As for the other compounds, they belong to the attributive type on the basis of the head-modifier structure. The modifier nouns represent at least three types of attributes including function as in (33a), perceptual property as in (33b) and purpose as in (33c).

(33) Attributive types
a. alo-alopo$_{\text{modifier:function}}$ ta'olro$_{\text{modifiee}}$ (function)
RED-hunt dog
'hunting dog'
(adapted from Zeitoun 2007:64)
b. ta-ecelrange$_{\text{modifier:PERCEPTUAL}}$ kipingi$_{\text{modifiee}}$ (percept)
INAL-black clothes
'black clothes' (i.e., that used to be worn by old persons)
(adapted from Zeitoun 2007:64)
c. kipingi$_{\text{modifiee}}$ vanidho$_{\text{modifier:function}}$ (purpose)
clothes student
'uniform'
(adapted from Zeitoun 2007:62)

Most attributive compounds in Mantauran are also the endocentric type. Few of them belong to the exocentric type. One example would be *lelepe mavoroko* 'green beans' (bean monkey), cf. (1a). The semantic relation between the modifiee and the modifier cannot be obtained from the literal meanings of the words.[27]

To summarize, Mantauran exhibits two types of compound. This language exhibits a specific pattern that most of the subordinate compounds express the theme-location thematic relation. Coordinate compounds are not attested in this

[27] The relation between monkey and beans is opaque. It may be driven by metaphor (the source domain: MONKEY maps to the target domain: BEAN); or probably be driven by metonymy (the color of a monkey or some traits of a monkey are related to green beans). However, both assumptions are just speculation. If we consult informants, they cannot provide any reasons, either. Therefore, the compound *lelepe mavoroko* 'green beans' is treated as an exocentric compound here.

language. Figure 3 delineates the division: Both subordinate and attributive compounds have endocentric and exocentric types. A more crucial point is that the endocentric compounds outnumber the exocentric compounds in Mantauran. Take the attributive compounds for instance. Those with opaque meanings such as *lelepe mavoroko* 'green beans' are not frequently found, but compounds with transparent meanings such as *kipini vanidho* 'uniform' are.

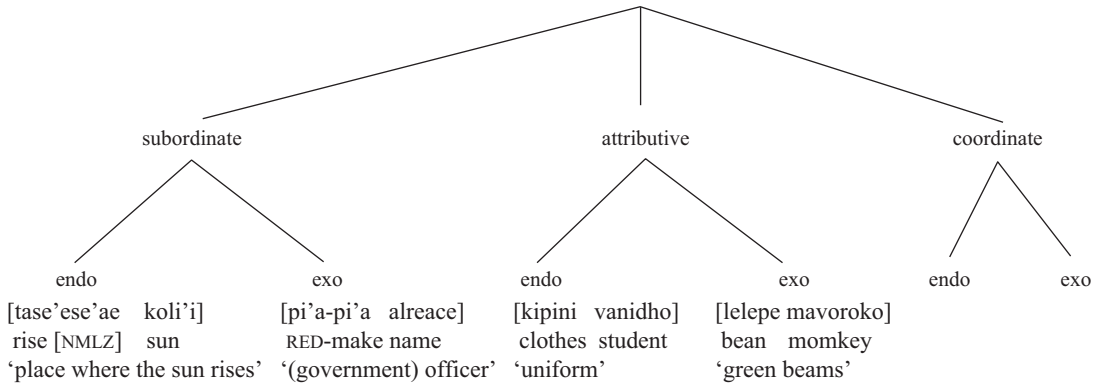

Figure 3. The division of nominal compounds in Mantauran

7. Concluding remarks

This paper addresses two issues concerning nominal compounds in Mantauran. The first issue has to do with the distinction between compounds and nominal juxtapositions. Based on distinct morphosyntactic properties, this paper attests the existence of compounds in Mantauran, even though they are of a restricted nature. Restrictions with respect to genitive marking, multiple modification and ellipsis indicate that the compounds exhibit lexical integrity. However, this is not observed in nominal juxtapositions. I have also shown that Mantauran exhibits some idiosyncrasies: Simple compounds and nominal juxtapositions do not permit coordination of their noun constituents, while complex compounds do.

The second issue deals with the classification of compounds. This paper shows that Mantauran displays a linguistic specificity, whereby the coordinate type of compounds is not attested. Subordinate and attributive compounds are observed in this paper. An interesting finding of this study is that most the subordinate compounds express theme-location relations while compounds expressing predicate-complement relations are in the minority.

Appendix. Abbreviations

1	first person
3	third person
ACTNMLZ	action nominalization
OBJNMLZ	object nominalization
CAUS	causative
DEM	demonstrative
DYN	dynamic
EXCL	exclusive
GEN	genitive
IMP	imperative
IMPRS	impersonal pronoun
INAL	inalienable
LOCNMLZ	location nominalization
NEG	negator
NOM	nominative
OBJNMLZ	object nominalization
OBL	oblique
PART	particle
PL	plural
PN	personal name
RED	reduplicant
SG	singular
STAT	state
SUBJ	subjunctive
SUBJNMLZ	subject nominalization
SUP	superlative

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論萬山魯凱語雙名詞複合詞與並存名詞

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