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Nominal compounds and other N-N combinations:

A typological study of a sample of Pama-Nyungan languages

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Abstract

This study investigates nominal compounds and related N-N combinations in a sample of twenty-four Pama-Nyungan languages (Australia) from a typological perspective.

A survey of typological literature on compounding (section 2) shows that it is difficult to formulate a precise definition of 'compound' that can be applied to a wide range of languages. It is possible, however, to set up some parameters for each individual language that allow a category of 'compounds' to be distinguished from phrasal combinations of lexemes. Phonologically, compounds may exhibit boundary phenomena, linking morphemes, and/or specialized stress patterns. Morphosyntactically, their elements resist separation by other morphemes and compounds may carry compound-specific cranberry morphs. Semantically, compounds function as names: they are prone to lexicalization, they have a tendency to become idiomatic and they have a non-referential dependent (non-head) element.

In section 4, a concept 'complex nominal head' is set up, which allows for a study of nominal compounds in the context of other 'non-phrasal' N-N combinations in the sample (which is described in section 3). Section 5 provides an overview – based on the parameters introduced in section 2 – of the phonological, morphosyntactic and semantic properties characterizing these constructions. Finally, section 6 of this study gives an idea of how different languages in the sample can distinguish between different types of 'complex nominal heads', and where compounds fit in.

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Conventions

The names used for each individual language in this study correspond to those used in the main source that was consulted for each language. For example, following Wilkins (1989), the name *Mparntwe Arrernte* was used instead of *Central* or *Eastern Arrernte*, although the last two terms may be more widely used (*Mparntwe Arrernte* is, for example, subsumed under *Eastern Arrernte* in Glottolog 2.2 (Nordhoff et al. 2013)).

Examples are normally spelled according to the sources they originate from: no simplifications have been made by ignoring, for instance, diacritics or palatal hooks. Occasionally, however, in the presentation of examples, complex lexemes that were originally spelled continuously are segmented into morphemes. In these cases, a hyphen is inserted to highlight a construction's composed character. Ngiyambaa *wi:mbaran* (Donaldson 1980: 230), for instance, is presented in this study as follows:

> *wi:m-bara:n*
> fire-rib
> 'fire's rib/the smokeless area of ground around a fire'

Sometimes, stress indication has been added. ´ indicates primary stress, ` represents a secondary stress accent, as illustrated in the following example (Wik-Mungkan, Kilham 1974: 46):

> *m**á**ʔ-t**à**yan*
> hand-firm
> 'trustworthy with things'

Glosses and translations are identical to representations in sources, except where stated otherwise. The following is a list of all glossing symbols and abbreviations occurring in the text:

-	morpheme boundary
.	meta-language element boundary, but no morpheme boundary
?	uncertain analysis
=	clitic boundary
0	morpheme without referential content (Blake 1979)
1DU	first person dual
1st	FIRST (Wilkinson 1991)
1UA	first person uninflected agent

3AUG	third person augmentative
3SG	third person singular
A	agent-like argument of a canonical transitive verb
ABS	absolutive case
ACC	accusative case
ALL	allative case
ASSERT	‘assertedly’ clitic (Dench 1994)
CL2	noun classifier, second class (Dyirbal, Dixon 1972)
CL4	noun classifier, fourth class (Dyirbal, Dixon 1972)
CONTR	contrastive particle (Gaby 2006)
DAT	dative case
DAT1	dative suffix *–wu* (Djambarrpuyŋu, Wilkinson 1991)
DIM	diminutive
EFF	effector suffix (Dench 1994)
ERG	ergative case
EXC	exclusive person
FOC	focus
FUT	future
GEN	genitive case
IMP	imperative mood
INC	inchoative aspect
INF	infinitive
IT	presentative particle (Dench 1994)
LE	linking element
LOC	locative case
NEG	negation
NF	non-future
NOM	nominative case

NPP	non-past-progressive
O	patient-like argument of a canonical transitive verb
PASSP	passive perfective
PAST	past
PL	plural
PN	proper noun marker (Hercus 1994)
PNS	possessed noun suffix (Rice 2009)
POS	possessive pronoun (Gaby 2006)
PRES	present
PRS	present
PST	past
PURP	purposive
PURPss	purposive same subject (Dench 1994)
REDUP	reduplication
S	single argument of canonical intransitive verb
SEQ	sequence
sp	specifier
TOP	topic

1 Introduction

This study investigates nominal compounding in (a number of) Pama-Nyungan languages from a typological perspective, a domain that has been somewhat neglected in the literature on Australian languages (and beyond). One notable problem is that many descriptions provide examples of constructions labeled as 'compounds', but are often not clear on how they define 'compounds' in the language in question. Typically, semantic criteria are used, such as non-compositionality or idiomaticity (cf. MacFarlane 1987, Gaby 2006): these are neither necessary (*wheelchair* is a compound with a transparently compositional meaning) nor sufficient (*forget-me-not* is not a compound, it is an idiomatic phrase) criteria for a structure to be analyzed as a compound in more intensively studied languages. If a language seems to have productive compounding, a further question is how the category of compounds can be distinguished from mere (lexicalized) phrasal structures? (And if it cannot be distinguished, then why should we assume a separate 'compound' category for the language in question?)

A related, more theoretical issue is the cross-linguistic status of compounding. Often, the term 'compound' is treated as if it were an *a priori* universal category. Still, it seems that the literature lacks a cross-linguistically solid definition of compounding that allows for a typological study of its behavior across languages (or, indeed, a validation of its status as a universal). For the purpose of the current study, we will provide a typological, conceptual definition of compounding, but we will refrain from drawing any conclusions on the 'universal' behavior of an assumed 'compound' category. Our definition will only be a tool, a methodological abstraction, created to compare seemingly similar constructions across languages.

In the Australianist literature, some mechanisms of noun + noun combination have been observed that appear to resemble nominal compounding, yet have different functions and/or different formal properties from those noun combining strategies that can be more rightfully labeled 'compounding'. Some of these structures have received considerable attention in the literature, either in isolation (e.g. Wilkins 2000 on 'classifying constructions' in Arrernte), or in relation to 'compounds' (e.g. Kilham 1974 on 'close-knit phrases' and 'compounds' in Wik-Mungkan). The current paper attempts to set up a framework for a cross-linguistic study of noun-noun combinations that incorporates a notion of 'nominal compound' and explores the possibility of languages to have other, 'compound-like' categories.

The aim of this study is twofold. First, it is a preliminary attempt at a typological study of 'nominal compounding' in Australian languages. For this purpose, a framework is developed that allows a comparison of nominal compounds and compound-like structures across a sample of twenty-four Pama-Nyungan languages. Secondly, the application of this framework to the sample tries to shed some light on

the apparent diversity found among (and within) Australian languages in the area of noun-noun combination. It is hoped that this will lead to some insights into which questions require attention in descriptions of compounding within individual languages.

This study is structured as follows. In section 2, some problems with typological analyses of compounds in general are discussed, and a number of cross-linguistically recurring features of 'compounds' are listed. Next (section 3), the methods and materials that were used for this study are described. In section 4, the concept 'compound' (as defined in section 2) is replaced with the concept 'complex nominal head', which can be more easily applied to the language sample under study. Following this (section 5), an overview is given of formal characteristics that may set apart different types of compound-like categories (considered against regular phrases and against each other). Finally (section 6), an attempt is made to illustrate the variation that exists across the sample in distinguishing these different types.

2 Compounding and language typology: A critical review of the literature

In what follows, I first discuss the current problems in developing a universally satisfying definition of 'compounding', and present an approach which avoids this discussion, specifically Haspelmath's (2010) methodological apparatus of 'comparative concepts'. Next, I try to develop a cross-linguistically applicable concept of 'compound', based on earlier literature (not necessarily grounded in the same theoretical-methodological tradition, e.g. Aikhenvald 2007) and language-specific descriptions. In sections 4 through 6, a reformatted comparative framework is proposed in view of the central aim of this thesis, specifically allowing a typological analysis of compounds and compound-like constructions within the Pama-Nyungan language family.

2.1 Compounding: a linguistic universal?

Compounding has sometimes been presented as a good candidate for a linguistic universal (e.g. Greenberg 1963: 73; Libben 2006: 2; Fromkin et al. 2011: 62-63). The reason for this is likely the intuition that "compounding offers the easiest and most effective way to create and transfer new meanings" (Libben 2006: 2): if one wants to coin a new term for a bird travelling on the surface of a lake, it seems clear and simple enough to come up with the word 'waterbird' (Libben 2006: 1). But when claiming that a given category is universal, simple intuition is not enough. If we want to validate the 'universality of compounding' hypothesis advanced by Greenberg and others, we have to test it empirically. The first thing we need if we want to check a category's universally ontological status is a sound and solid definition (cf. Hockett 1963: 2). And when it comes to compounding, this turns out to be rather problematic.

2.1.1 A traditional view of compounds

A definition that represents the canonical idea of compounding fairly well is the following:

> (1) Compounding is a mechanism of word formation (cf. Aikhenvald 2007: 24), which combines two (or more) words into a more complex word. (cf. Marchand 1969: 11; Bauer 1983: 11; Fabb 1998: 66; Booij 2005: 75; Katamba 2005: 7)

Upon first consideration, this definition seems to work quite well. It applies to what are generally accepted examples of compounds, such as English *waterbird* 'water + bird' and Spanish *telaraña* 'tela + araña' = 'net + spider' = 'cobweb'.

In addition to this definition, authors often list a number of features that correlate with a collocation's compound status, which can, for example, help to tell apart compounds from phrases. Some commonly provided 'criteria' are (selected from Lieber & Štekauer 2009a: 6-8):

- Headedness: the 'modifier' and 'head' elements within a compound usually exhibit a fixed order within a single language, and compounds tend to be right-headed (cf. Guevara & Scalise 2008). Consider the following minimal pair from Polish (Szymanek 2009: 464):

  (2) *film wideo*
  film video
  'video film (head-modifier, phrase)'

  (3) *wideo-film*
  video-film
  'video film (modifier-head, compound)'

- Stress: compounds often exhibit a stress pattern different from that of syntactic phrases. In Wik-Mungkan, for example, the phrasal stress pattern is secondary-primary stress, whereas in compounds it is reversed (see section 5.1.2); examples are from Kilham (1974: 50):

  (4) *ɲàŋk wáy*
  heart bad
  'sad (secondary-primary stress, phrase)'

  (5) *ɲáŋk-wày*
  heart-bad
  'out of breath (primary-secondary stress, compound)'

- Syntactic inseparability: compound constituents cannot be separated by other syntactic units, e.g.

  (6) *black ugly bird* = 'a bird that is ugly and black'

  (7) **black ugly bird* = '?an ugly blackbird'

- Lexicalization/listedness: compounds easily enter a language's conventional lexicon

- Spelling: compounds tend to be spelled together, e.g. Dutch *huisdier*:

  (8) *huis-dier* <huisdier>
  house-animal
  'pet'

2.1.2 Problems with this approach (and with definitions of compounding in general)

These proposals, if taken seriously, run into a number of problems. Some obvious issues with the proposed criteria concern the spelling of compounds, which is not consistent across languages (or even within individual languages, as Szymanek (1989: 41) argues for English), or the fact that phrases can also become lexicalized, or that some compound types may be more prone to lexicalization than others (cf. Ricca 2010). On a positive note, stress and syntactic inseparability may, at least in individual languages, be considered relatively robust characteristics of a separate 'compound' category. But while language-specific descriptions are not necessarily problematic, I will argue that it has so far proven to be impossible to define a cross-linguistically valid category of 'compound'.

First, there are some flaws with the definition proposed in (1). While for English, or for any other individual language, it may be possible to establish a descriptive notion of 'word', it has been shown by Haspelmath (2011) that there have been no satisfactory proposals for how 'word' may be conceived as a universally applicable concept. From this he concludes that the so often presupposed distinction between morphology and syntax has no solid basis: "the composition of words" (morphology) may not always be so distinct from "the combination of words" (syntax) (Haspelmath 2011: 32, citing Dixon & Aikhenvald 2002: 6). And this is exactly where our definition of compounding becomes problematic: compounding is both a matter of composing 'words' ('word formation'?) and of combining 'words' ('syntax'?).

This status of compounding as 'undecidable' between syntax and (derivational) morphology is often reflected in descriptive practice. Take, for instance, Rice's analysis of 'possessive phrases' in Slave (2009: 546-547). Assuming that there is a derivational mechanism of compounding in Slave, the structures in (9-11) can be seen as instances of this. They have a fixed order of elements, in which the first noun characterizes the second, which is the head. Their modifier-head order goes against the canonical 'head-modifier' (or noun-adjective) structure in Slave (Rice 1989: 1309 as cited in Dryer 2013a). The suffix *-é* inflects on the N-N combination as a whole. And finally, the nouns can be bound together by specific boundary phenomena (when two word-peripheral fricatives meet, the second is voiced, as shown in (11)), a process of 'fusion' that is often regarded as a cross-linguistically frequent characteristic of compounds.

(9) *k'alɛ-mính-é*
spider-net-PNS
'cobweb'

(10) *ʻidi-kón-é*
thunder-fire-PNS
'lightning'

(11) *gah-**sh**i-é* /gah**ɣ**íné/
rabbit-song-PNS
'rabbit's song'

However, if we take a closer look at the grammar of Slave, we see that there is also a syntactically regular 'possessive phrase' showing the same formal characteristics. In the following example (Rice 2009: 544), the word order is 'genitive-noun' (cf. Rice 1989: 231, 1001 as cited in Dryer 2013b), semantically 'modifier-head', the same suffix *-é* is found at the end of the combination, and the second noun's initial *th* voices to *dh*.

(12) *tʻerɛ **th**ɛ-é* /tʻerɛ**dhɛ**é/
the.girl belt-PNS
'the girl's belt'

In spite of their formal similarities to phrases, Rice continues to treat the structures in (9-11) as instances of 'subordinate compounding'. She suggests that "one path of development of subordinate compounds is through generic possession" (2009: 547). She acknowledges that there is a fuzzy boundary between compounds and phrases in Slave, and she doubts the possibility of formulating a cross-linguistic definition of 'compound' (2009: 548). One of the conclusions we can draw from her discussion is that some phenomena that are generally assumed to apply to compounds but not to phrases – in this case boundary phenomena – may in certain languages blur the line between the two categories.

This conclusion is illustrative of the more general finding that the dichotomy of 'lexical compound' versus 'syntactic phrase' does not consistently hold across languages. A combination of two nouns that is more 'syntactically composed' in one language may be better analyzed as a result of 'word-forming' morphology in another, or something in between, as may be the case in Slave. This conclusion is further exemplified by a comparative study of noun-incorporation in Kapampangan, Mohawk and Yup'ik by Mithun (2010). She shows that 'noun-incorporation constructions' across these languages behave differently when tested against the No Phrase Constraint (Botha 1981) and the Lexical Integrity Hypothesis (Lapointe 1981). In Kapampangan, these principles are most often violated, while Mohawk strictly abides by both constraints. Yup'ik allows a small degree of deviation. Kapampangan noun-incorporation mechanisms could thus be seen as less 'lexically' (more 'syntactically') driven than Mohawk's use of a similar 'word-forming' device (with Yup'ik in between). Pointing to a similar conclusion, Kastovsky (2009:

339) proposes that the process of compounding in Indo-European may have had a syntactic origin: "it goes back to the progressive univerbation and concomitant lexicalization of syntactic phrases". If this hypothesis is valid, or at least plausible, then how can we maintain a clear-cut distinction between syntactic 'phrases' and compound 'words', even across different historical stages of one language?

2.1.3 Provisional conclusions and possible reactions

The previous section illustrates that it is difficult, if not impossible, to come up with a cross-linguistically valid definition of 'compound'. In the past, this has led to the conclusion that compounding is not a linguistic universal (this is how Lieber & Štekauer (2009a: 14) interpret Bauer's (2009) conclusions). Where the universal status of compounding is concerned, I prefer to maintain an agnostic stance: compounding cannot confidently be called a cross-linguistically *identified* (or *identifiable*) category *yet* (cf. Bauer 2009: 355). So how does this affect the typological study of compounds? And what are some possible reactions?

One option is to accept the problem of definition, and use the category of 'compounding' "in an intuitive way". Guevara & Scalise (2008: 102) propose that they "can simply set aside the problem of the definition of compound and start looking for general tendencies in the world's languages" right away. Simply resorting to intuition, however, is never a good starting point for linguistic description, especially when it comes to studying languages that are different from the researcher's mother tongue. Another logical option is to acknowledge that "many of the conclusions that can be drawn about universals of compounding or their typology are as provisional as the definitions ... a problem in definition leads to a problem in typology" (Bauer 2009: 355).

But could there not be a third option? As indicated by the introduction to this section (2.1), providing a good categorial definition is especially important if one wants to search for linguistic *universals*. Typology, however, is not just – not even primarily – concerned with finding universals, but may just as well be seen as the study of variation across human languages. From this perspective, it may seem less essential, even counterproductive, to provide an *a priori* definition of the object one wants to consider. Instead of trying to limit our object of study by asking 'what are compounds?', or 'how do compounds behave across language systems?' and 'what is universal about compounds?', we may start by attempting to answer such questions as 'how can we compare apparently similar categories across languages (without neglecting the inevitable differences they display, being parts of different language systems)?' and further, 'how do separate language systems diverge (or converge) in the area of noun + noun combination?'. Note that the first two, universal-oriented questions presuppose that 'compounding' is a universal category, of which language-specific types are simply instantiations. The last two questions

contain no such presuppositions. A typological approach of compounding in this spirit will be outlined in the following pages.

2.2 An alternative proposal: comparative concepts (Haspelmath 2010)

A suitable workaround, completely in line with the critique of traditional typological approaches to compounding given above, is to apply what Haspelmath (2010) defines as "comparative concepts". In his view, in order to compare language-particular categories, linguists have to devise concepts that are independent of these categories *as such*. These 'comparative concepts' are tools, allowing generalizations to be tested, parallels to be drawn and differences to be elucidated across individual languages' 'descriptive categories', without having to claim an ontologically real link between them. Haspelmath (2010: 670) exemplifies this method for typological analyses of, amongst other things, adjectives.

It is generally known that not all languages have a morphosyntactically defined class of adjectives. Occasionally, semantic arguments can be advanced to divide the 'nominal' class into 'nouns' and 'adjectives' (e.g. Dixon 1972: 39-40), but if these semantic criteria do not coincide with formal distinctions, they are of little relevance for a language-specific grammatical description. For typological purposes, however, it may be useful to distinguish a *concept* of 'adjective', for example to study how 'possessive' N-N combinations (see the discussion of Slave earlier) are related, in terms of word-order, to 'attributive modification' structures (e.g. attributive adjective + noun combinations such as *black bird* in English) across languages. For this purpose, the comparative concept 'adjective' may be defined semantically, for instance, as any lexeme that "denotes a descriptive property" (Dryer 2013a). This *concept* is independent of the language-specific categories it wants to subsume: in some languages, it will apply to a genuine adjective category, in others, it will focus on the verbal word class.

If it is our plan to compare the behavior of the categories that are described as 'compound' in a wide range of individual languages, we first have to set up an array of comparative concepts. To begin with, we need a concept that can identify the parts of which a compound can be composed, and a concept for any resulting unit that can be called a 'compound'. We may also want to delineate an idea of the *process* of compounding, and the function it intends to fulfill. Finally, we need to devise some parameters that can help us investigate the differences and relations compounds (and compound types) may exhibit with respect to other compound-like 'constructions'. These issues will occupy the remainder of this section. Later, in sections 4-6, an enhanced set of concepts will be introduced, to deal with *nominal* compounding and other N-N constructs in Pama-Nyungan languages.

2.2.1 Compound as a comparative concept: A definition

Taking into account the unsuitability of the concept 'word', we can formally define a comparative 'compound' concept as follows:

> (13) Compounding is a specific process of combining two (or more) lexical units. The combinations it produces are compounds, which carry formally identifiable marks that set them apart from phrasal lexeme-combinations.

The concept 'lexical unit' is intended to exclude affixes and clitics and thus sets apart compounding from both inflection and derivation. It is largely equivalent to Aikenhvald's (2007: 24) "potentially free forms" and to 'elements/lexemes that can function independently in other contexts' (Bauer 2001: 695, Crystal 2008: 96), but it is also meant to cover so-called cranberry morphs or forms that occur exclusively in compounds. (14) is an example of the latter from Slave (Rice 2009: 544-545): *tɛh* 'water' is an element which often occurs as the first member of a compound, but the lexeme that is used independently is *tu*. (*tɛh* does, however, occur as an independent lexeme in other Athapaskan languages.)

> (14) *tɛh-za-ɛ́*
> water-bear-PNS
> 'polar bear'

In some languages, the concept 'lexical unit' will target what are described as words. In other contexts, it is better to speak of roots or stems as the elements combining into compounds (cf. Brinton & Traugott 2005: 34; Bauer 2006: 719; Scalise & Vogel 2010: 5-6).

The second part of this new definition specifies that compounds constitute a formally distinct category. If a combination of two nominals in a language is formally identical to what may be expected from a regular phrase, there is evidently no reason to distinguish it from regular phrases. Often, however, a formal difference can be noticed, for example in word order (Polish *wideo-film* vs. *film wideo*) or with respect to separability (*black ugly bird vs. ugly blackbird*). In the next section, an overview will be given of differences that have been suggested in the literature to distinguish compounds from regular phrases. Apart from phrases and compounds, a language may have other means of combining lexical units into constructions, which may be similar to but not completely alike compounds. These may be referred to, on a descriptive level, as 'compound-like constructions'.

In addition to a formal definition, we can suggest a specific 'function' of compounds. For this, it is useful to ask the question why compounding is traditionally seen as an instance of 'word formation', together with, for example, 'derivation'. The reason is probably that they serve a similar function: both

derivatives and compounds provide names for entities or concepts (cf. Bauer 2003: 135). This has been stressed in the onomasiological tradition, where compounding (and 'word formation' in general) is seen as a means of developing "new coinages based on indigenous linguistic material" (Grezga 2009: 218). This 'naming function' of compounds will be discussed in more detail in 5.3.2.

2.2.2 Distinguishing compounds from other constructions

The general notion of compounding as a comparative concept has so far been given a function and it has been contrasted with suffixation/derivation. What has not yet been tackled is the most challenging issue, distinguishing compounds from (contiguous) phrases. Deploying this distinction as a formal comparative concept may not be very helpful or interesting, as all it would do is exclude potentially interesting categories. In fact, it may be more fruitful to ask the more general question how individual languages set apart different 'compound-like' construction types (e.g. different types of N-N combinations). Concrete parameters are best set for each language individually. Still, it may be useful to indicate some domains along which these parameters may vary. I will discuss in turn briefly the phonological, morphosyntactic and semantic domains that have been noted in the literature.

Languages may have a **stress pattern** that is unique to compounds (Brinton & Traugott 2005: 34; Aikhenvald 2007: 25; Lieber & Štekauer 2009a: 11; Bauer 2009: 345; Haspelmath & Sims 2010: 192). Earlier (2.1.1), an example was given of the Wik-Mungkan stress system, but a similar phenomenon can be noticed in English. Compare the phrase *a white house* with the compound *the White House*. Whereas in phrasal N-N combinations, stress can fall on one or both elements, compounds consistently have their left element stressed (but see Plag 2006). Other phonological variation that can apply to different kinds of construction types (which may for example distinguish between different compound types) is the occurrence of **boundary phenomena** (cf. Aikhenvald 2007: 25). We have already seen an example of this in Slave, where initial fricative voicing applies to the second member of 'attributive compounds' (15, repeating 11 above). This frication does not occur in what Rice (2009: 552-554) terms 'composed of compounds' (16):

(15) *gah-**sh**i-é* /gah**ɣ**íné/
rabbit-song-PNS
'rabbit's song'

(16) *dhéh-thɛ*
hide-belt
'hide belt'

Another phonological indication that may set apart a compound (type) from another construction is the occurrence of **linking morphemes** (cf. Bauer 2009: 345). In Dutch, for example, some N-N combinations have an *-s-* linking the morpheme boundaries:

(17) *weer-s-voorspelling*
weather-LE-forecast
'weather forecast'

A number of morphosyntactic criteria to distinguish compounds from phrases have also been proposed. The first of these is concerned with inflection: in general, **compounds are inflected as a whole**, carrying only one suffix, on the last element (Aikhenvald 2007: 26; Bauer 2009: 346; Haspelmath & Sims 2010: 193). Haspelmath & Sims (2010: 193) contrast the phrasal *sister**s**-in-law* with its more recent incarnation, *sister-in-law**s***, in which the final *-s* indicates that the combination is construed more as a morphosyntactic unit. We have also seen (2.2.1) that compounds can have **compound-specific lexical elements** that occur nowhere else in a language system, e.g. cranberry morphs (14) (Aikhenvald 2007: 26). Compounds may also exhibit an **order of modifier and head** that is unusual in ordinary phrases, as is also shown by the Slave examples above (ibid.; Bauer 2009: 349). Generally speaking, compound constituents **cannot be separated** by other morphemes, e.g. it is impossible to say *a black ugly bird* if what is meant is *an ugly blackbird* (Aikhenvald 2007: 27; Haspelmath & Sims 2010: 193). Furthermore, **neither of a compound's elements can be expanded individually** (ibid.). Aikhenvald (2007: 27) gives the following example from Modern Hebrew, where adding a modifier to *yeladim* renders the construction ungrammatical:

(18) *gan* *yeladim* **gan* *yeladim ktanim*
garden child.PL garden child.PL small.PL
'kindergarten' '?garden of little children'

Expanding on this example, she illustrates the **impossibility of coordination ellipsis** in compounds (ibid.; see also Haspelmath & Sims 2010: 194):

(19) **gan* *yeladim ve-xayot*
garden child.PL and-animal.PL
'?kindergarten and zoo'

A related property of compounds in English is that **the head element cannot be anaphorically replaced by a pronoun** (Haspelmath & Sims 2010: 194).

(20) My aunt has one gold watch and three silver ones.
*My aunt knows one goldsmith and three silver ones.
(Haspelmath & Sims 2010: 194)

Note that the last four criteria have to be tested for each potential compound individually to validate its compound status, which is not always possible, especially when dealing with secondary materials for a particular language.

A semantic criterion that is often ascribed to compounds is **idiomaticity** (Aikhenvald 2007: 28; Haspelmath & Sims 2010: 191; Spencer 2011: 502): whereas a 'blue book' may simply be 'a book that is blue', 'blueweed' is not simply a weed that is blue. Rather, it is a type of weed, the 'blueweed' type. If a patch of blueweed were to be genetically manipulated to grow red flowers, it could easily retain its name of 'blueweed', whereas a blue book that is painted red will not be a 'blue book' anymore. Underlying this idiomaticity is something special about the meaning of **the dependent (i.e. non-head) part of compounds: they cannot be referential**, but should be interpreted with generic reference (Haspelmath & Sims 2010: 191-192), or as semantic 'classifiers' (Spencer 2011: 502). This issue will be discussed in more detail in section 5.3.2[1].

Haspelmath & Sims (2010: 192) propose that the difference between syntactic phrases and compounds is a matter of increasing 'cohesion': phonologically, morphosyntactically and semantically a compound behaves more like a 'unit' than a phrase. In a way, this notion could be used as a comparative concept: 'compounds are cohesive combinations of lexical units'. However, as the Slave examples in (9-12) demonstrate, some constructions may be considered as cohesive as compounds (here by 'fusion' of lexeme boundaries, elsewhere perhaps by having a fixed stress pattern, e.g. prefixed nouns in Arabana-Wangkangurru, see 5.1.2), yet should probably receive a different label. There are other dimensions than cohesion along which compound-like constructions can differ from phrases and from each other.

A final remark has to be made on the role of 'lexicalization'. As mentioned before, compounding is often seen as a process of 'word formation'. If this definition has to be adapted to warrant universal applicability, it is tempting to redefine it as 'lexeme-formation'. From this point, it seems but a small step to reanalyze 'compounding' as an instance of 'lexicalization'. However, as Brinton and Traugott (2005: 34) argue, lexicalization and 'word formation' are best viewed as separate phenomena. Still, it is necessary to take the interaction between both processes into account, because lexicalization "interferes with regular word-formation processes and overlaps their result" (Lipka 2002: 111). Compounds that are fully

[1] Parameters that I have not treated are vowel harmony (Bauer 2009: 345; Haspelmath & Sims 2010: 193) and more language-specific phonological marking patterns (Bauer 2009: 345).

analyzable at one point in time may become synchronically irregular, unpredictable or idiosyncratic forms in a later historical stage: the parts of a 'complex lexeme' may undergo a process of 'fusion', merging into a synchronically non-complex lexeme (Brinton and Traugott 2005: 50). This observation may raise some suspicion about a number of characteristics that are often ascribed to compounds: are boundary phenomena, cranberry morphs, idiomaticity etc. all valid properties of compounds, or are they merely side-effects of this process of 'fusion'? One problem is that authors rarely make a distinction between lexicalized and nonce compounds (i.e. compounds that are invented on the spot and are not (yet) 'institutionalized, cf. Bauer 1983: 45; Bussmann 1998: 805-806; Brinton and Traugott 2005: 45-47; Spencer 2011). Some authors even present some properties as defining for compounds that are presumably just effects of lexicalization (such as non-compositionality and conventionalization). Because this study is based on secondary materials (i.e. grammars), and because the authors of these materials do not distinguish non-lexicalized and lexicalized compounds, it is not possible to make such a distinction here. Where it is relevant, however, this problem will be mentioned in the analysis below.

3 Methods and materials

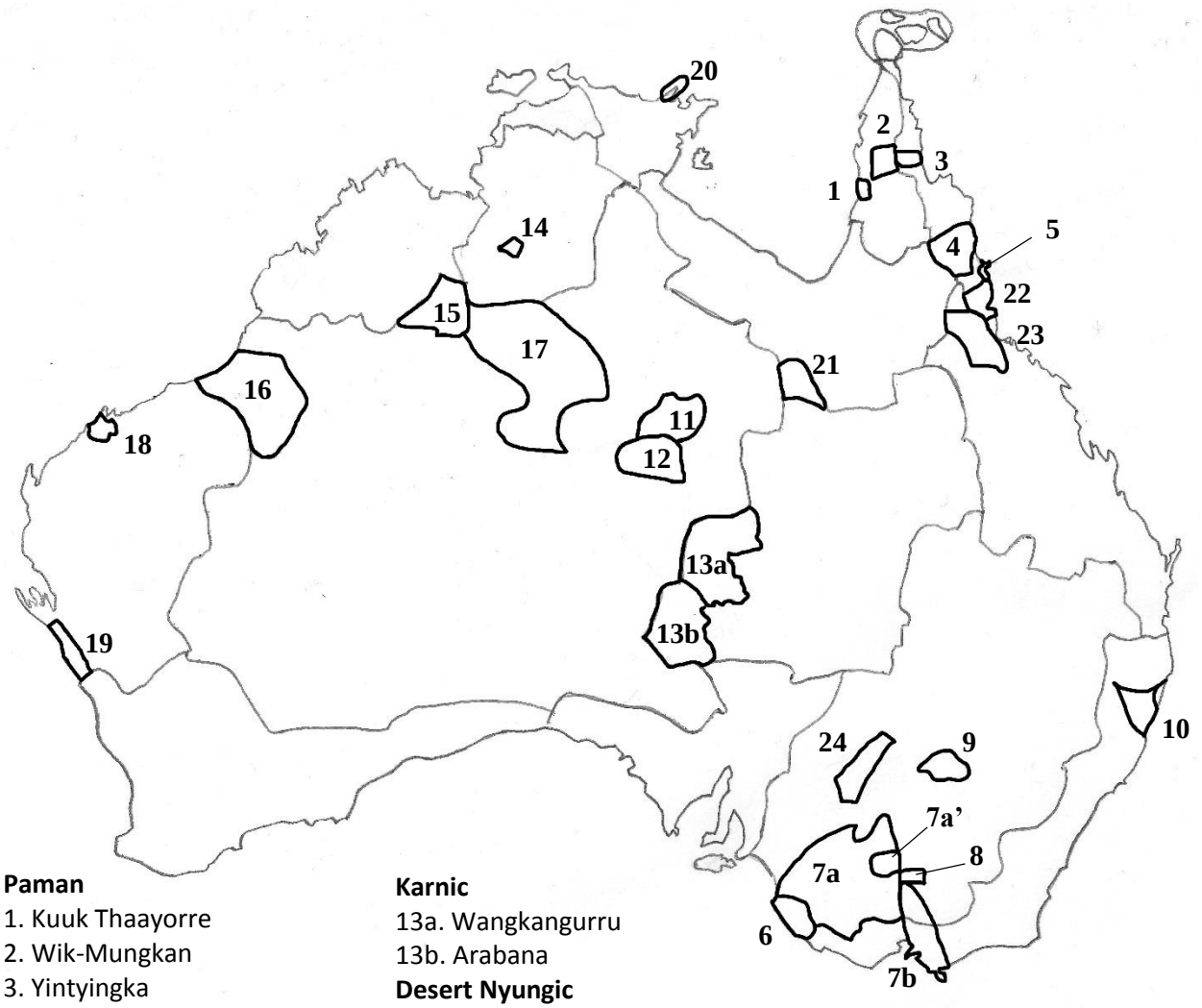
3.1 Sample description

When compiling a sample for this study, our aim was to include some twenty languages classified as Pama-Nyungan, which were not too closely related to each other genetically and which did not show a bias towards one specific region. One problem we faced was that many grammars of Australian languages do not mention anything about compounding and the like, so the availability of relevant data became a decisive criterion on the basis of which languages were in- or excluded. We ended up with a convenience sample consisting of twenty-four languages. Some languages in the sample are linked, either as belonging to the same genetic sub-group, or as being spoken (or having been spoken) in the same geographical region. Some come from entirely different subgroups and/or regions. Table 1 (on the next page) lists the genetic relations between the languages in the sample (based on Bowern & Atkinson 2012 and Nordhoff et al. 2013), first listing languages that are (more or less) closely related to other languages in the sample, and then others that are not closely related to any language in the sample. The map in figure 1 (on page 16) indicates the areas where the languages in the sample were (or are) spoken[2].

[2] Tindale's map (1974), the AIATSIS map (Horton 2000) and Glottolog 2.2 (Nordhoff et al. 2013) provided a starting point for the hand-drawn map rendered here. If more detailed information was available in the consulted grammars of the languages, they were used as primary reference points. The relative location of Yintyingka was described in a talk by J-C. Verstraete in Leuven (Verstraete and Rigsby 2013b). Obviously, the locations indicated on the map are only approximate. They are solely intended to give an idea of the sample's areal distribution.

Pama-Nyungan (Alpher 2004)	Arandic (Koch 2004b)			Alyawarra
				Mparntwe Arrernte
	Desert Nyungic (Bowern and Atkinson 2012)	Marrngu		Nyangumarta
		Ngumpin-Yapa (McConvell and Laughren 2004)	Ngumpin	Bilinarra
				Djaru
			Ngarga	Warlpiri
	Paman (Hale 1966 as cited by Nordhoff et al. 2013)	Southwest Paman (Black 2004)		Kuuk Thaayorre
		Middle Paman (Verstraete and Rigsby 2014)	Wik (Black 2004)	Wik-Mungkan
				Yintyingka
	Southeastern Pama-Nyungan (Bowern and Atkinson 2012)	North Coast Pama-Nyungan		Gumbaynggir
		Victorian Pama-Nyungan	Eastern Victorian	Yorta-Yorta
			Macro-Kulin (Blake 2011b; Bowern and Atkinson 2012)	Bunganditj
				Western Kulin
				Woiwurrung
		Wiradjuric		Ngiyambaa
	South-west Pama-Nyungan (Koch 2004a)	Kartu-Nhanda (Blevins 1999)		Nhanda
		Pilbara (Koch 2004a)	Ngayarda (Dench 1994)	Martuthunira
	Yimidhirr-Yalanji-Yidinic (Patz 2002)	Yimidhirr-Yalanji		Kuku Yalanji
		Yidinic		Yidiɲ
	Not related to other subgroups	Arabana-Wangkangurru (Karnic) (Bowern 2010)		
		Bāgandji (Hercus 1982)		
		Djambarrpuyŋu (Yolŋu) (Wilkinson 1991)		
		Dyirbal (Herbert River) (Bowern and Atkinson 2012)		
		Kalkatungu (Kalkatungic) (Bowern and Atkinson 2012)		
		Warrongo (Maric) (Tsunoda 2011)		

Table 1 – Genetic relationships within sample



Paman
1. Kuuk Thaayorre
2. Wik-Mungkan
3. Yintyingka

Yimidhirr-Yalanji-Yidinic
4. Kuku Yalanji
5. Yidiɲ

Southeastern Pama-Nyungan
6. Bunganditj
7a. Western Kulin
7a'. Wembawemba
7b. Woiwurrung
8. Yorta Yorta
9. Ngiyambaa
10. Gumbaynggir

Arandic
11. Alyawarra
12. Mparntwe Arrernte

Karnic
13a. Wangkangurru
13b. Arabana

Desert Nyungic
14. Bilinarra
15. Djaru
16. Nyangumarta
17. Warlpiri

South-west Pama-Nyungan
18. Martuthunira
19. Nhanda

Not subgenetically related
20. Djambarrpuyŋu
21. Kalkatungu
22. Dyirbal
23. Warrongo
24. Bāgandji

Figure 1 – Map of Australia plotting the languages in the sample

3.2 Description of materials

As a literature study, this investigation was inevitably hampered by the usual limitations of working with secondary sources. One problem is that there are no means of experimenting with data, through syntactic tests of well-formedness or elicitation from speakers. Furthermore, not much of the relevant data in the sources was presented within a broader syntactic context: compounds are often considered part of a language's lexicon, and are usually simply listed in isolation. This prevents morphosyntactic validation of what are assumed by grammarians to be compounds. Finally, there is the issue of comparability. Many grammarians give examples of 'compounds' but do not provide a clear definition of their understanding of the term, which makes it difficult to compare categories across languages. When working with secondary materials, one is bound to rely on the analysis of others, and if this analysis is not clearly motivated, it may raise some problems, lead to misinterpretations, or prevent the data from being interpreted to the fullest. In this study, I have attempted to rely only on those analyses that were actually reflected in the examples given by authors. Some new analyses are proposed on the basis of these examples and by investigating more data in dictionaries. Where an analysis is my own, this is signaled in the appended reports of the individual languages, by italicizing the relevant text. Mostly, this is not repeated explicitly in the body of this study.

For the sake of clarity, a short 'classification' of the languages may be in order, in terms of what kinds of information are offered on compounds and/or compound-like constructions in their relative sources:

(21) Classification of languages according to types of data provided on compounds:

a. For most languages in the sample, an analysis of compounds and/or related structures is available of some sort, marking distinctive stress patterns, boundary phenomena ... This is the case for
    i. Arabana-Wangkangurru (Hercus 1994)
    ii. Bāgandji (Hercus 1982)
    iii. Djambarrpuyŋu (Wilkinson 1991)
    iv. Djaru (Tsunoda 1981)
    v. Kuku Yalanji (Patz 2002)
    vi. The Kulin group (Blake 1991, 2011a)
    vii. Kuuk Thaayorre (Gaby 2006)
    viii. Martuthunira (Dench 1994)

ix. Mparntwe Arrernte (Wilkins 1989)
x. Nhanda (Blevins 2001)
xi. Warrongo (Tsunoda 2011)
xii. Wik-Mungkan (Kilham 1974)
xiii. Yintyingka (Verstraete and Rigsby 2013a, 2014)

b. For a second group of languages, authors mention a (potential) category of compounds and give a few examples, but they provide no clear definition or analysis motivating a separate treatment of this category. This is the case for
   i. Bunganditj (Blake 2003)
   ii. Dyirbal (Dixon 1972)
   iii. Gumbaynggir (Eades 1979)
   iv. Kalkatungu (Blake 1979)
   v. Ngiyambaa (Donaldson 1980)
   vi. Nyangumarta (Sharp 1998)
   vii. Warlpiri (Simpson 2009)
   viii. Yidiɲ (Dixon 1977)
   ix. Yorta Yorta (Bowe and Morey 1999)

c. Yallop's (1977) description of Alyawarra mentions the term 'compound' a number of times accompanied by some analysis. But when he does, the description only gives examples of reduplication and verbal compounding: no instances of nominal compounds are presented.

d. For Bilinarra, Meakins and Nordlinger (2014) do not seem to mention anything about nominal compounding. When searching through Meakin's (2013) *Multimedia Database*, still no examples of possible compounds are found. This language was kept in the sample, however, because it may be an example of a language without compound-like constructions.

3.3 Summary of procedures followed

Before I attempted a full-fledged analysis of the complete sample, a small-scale comparative study of five languages was performed. This led to an initial idea of what could be found in the bigger sample and gave an indication which areas generally require attention in a study of compounds in Australian languages. Next, a systematic language-by-language analysis was undertaken, the results of which can be found in

the appendix to this thesis, in the form of short reports. One report is included for each data point, presenting what the authors of grammars say on compounds and related structures in the relevant languages. As already mentioned, reports sometimes include some additional/alternative analyses by the current author. Finally, the sample was considered from a typological perspective. Attention was paid to the general recurring features that distinguish compounds from other structures, and a framework was developed that allowed a typological analysis and synthesis of how the languages in the sample treat compounds and compound-like structures. A more detailed presentation and a discussion of the results of this study will be the subject of the next sections.

4 Defining an applicable comparative concept: 'complex nominal head'

In (13), a comparative concept of 'compounding' was defined as a 'lexeme-combining process' that produces 'lexeme-combinations' that are formally peculiar, and systematically unlike other 'regular' sequences of lexemes. As already mentioned, the comparative concept 'compound' need not target structures that are an instance of a language-specific 'compound' category, just like an 'adjective' concept devised for typological comparison can also target what are actually 'verb' categories in languages that have no adjectives. In this sense, it is important to clearly delineate the object of focus of this study: which objects will be investigated? and which concepts/categories will be left aside?

For the time being, we could label the objects to be considered as 'potential nominal compounds', or 'nominal compound-like constructions' – in the descriptive category sense of 'compound'. This study proposes the following preliminary definition:

> (22) In the sample, any sequence of two (or more) (a) lexical nominal stems, (b) the members of which do not appear as separated by any free morpheme, (c) the combination of which exhibits case-marking only on the final element, and (d) the combination of which can fill the functional 'head' slot of a noun phrase, is to be considered a potential nominal compound.

This definition contains four requirements all potential nominal compounds in our dataset meet. In what follows, each of these criteria will be elucidated in turn.

(a) 'lexical nominal stems'

This study will only deal with constructions composed of lexical nominal stems[3]. A separate nominal word class can be distinguished in all Pama-Nyungan languages, the members of which are usually characterized by their ability to inflect for case (e.g. Meakins and Nordlinger 2014: 78 for Bilinarra; Blake 2003: 30 for Bunganditj; Yallop 1977: 68 for Alyawarra). There is at least one language, however, that exhibits no case marking on members of the adjective sub-class (Bāgandji, Hercus 1982: 98). It is, therefore, perhaps more correct to state that a comparative concept of 'nominal' can be recognized as the set of stems that cannot take inflection for tense, aspect and modality. The current analysis will focus on the 'lexical' subclass(es) of the nominal word class, as opposed to the more 'functional' subgroup: only the open classes will be

[3] The term 'nominal compound' can thus be interpreted as 'compound consisting of nominals'. For a study of 'compound nominals' – nominal words created by combining two or more stems from any word class –, see MacFarlane (1987).

attended to. The 'stem' form of a word means its uninflected form, its appearance in discourse minus inflection and possible clitics.

(b) 'not separated by any free morpheme'

The components of a compound are never separated by any other free morphemes (cf. Aikhenvald 2007: 27; Haspelmath and Sims 2010: 193). This implies that the parts of a compound cannot be modified individually: if modification occurs, it always has scope over the whole N-N construction, not just one of the nominal stems (see the recurring *black ugly bird* vs. *ugly blackbird* example in section 2 above). Because it was not possible to find any illustrative applications of this in the sample and because no native speakers of the languages could be consulted, this criterion could not be tested.

The 'inseparability principle' likewise implies that nominal elements which may belong to the same noun phrase but are scrambled across the sentence can never be considered potential nominal compounds. In (23), for example, the whole-part relation *dharpa wana* 'tree branch' cannot be interpreted as a compound, as its constituents are separated by the 'future' particle *dhu*.

(23) *wo* ***dharpa*** *dhu* ***wana*** *bakthu-n*
"or" **tree** FUT **arm** break-1st
'or a tree branch breaks'
(Djambarrpuyŋu, Wilkinson 1991: 491)

A straightforward shortcoming of this property is that it is only meaningful in languages where noun phrases can be (analyzed as) syntactically discontinuous (cf. Louagie 2014).

(c) 'case-marking appears only on the final element'

The third criterion presented in (22) indicates that, in languages that are suffixing for case, case markers can only attach to a compound's final element. In other words, compounds are always case-inflected as a whole (cf. Aikhenvald 2007: 26; Bauer 2009: 346; Haspelmath and Sims 2010: 193), and case suffixes never appear on the first stem. This means that in the following examples, *gurun ba:mir-a* could be assigned potential compound status, but for *mugabangay-gu miri* a similar interpretation is impossible.

(24) *guṛun* *ba:mir-a*
grass long-LOC
'among the long grass'
(Ngiyambaa, Donaldson 1980: 232)

(25) *mugabangay-gu* *miri*
skinny-ERG dog
'skinny dog'
(ibid.)

There are some analytical and typological issues connected with this criterion. To begin with, there are some argument functions that have a zero case form for nominals across Australian languages, specifically the absolutive (intransitive subject and transitive object) ones (cf. Dixon 2002: 153). A sequence of nominals that are all supposed to agree in absolutive case is thus, in isolation, formally indistinguishable from a sequence of nominals that should be inflected for absolutive case on the last element only. For instance, it is impossible to tell whether the following N-N combinations in Ngiyambaa (Donaldson 1980: 230-231, I adapted the glosses) are compounds or simply phrases:

(26) *gugugun* *ŋamu*
cow(.ABS?) breast/milk(.ABS?)
'cow's udder/cow's milk (when it is still inside the cow)'

(27) *dhagar* *malda*
ice(.ABS?) lump(.ABS?)
'lump of ice'

Donaldson analyzes them as phrases, but also confusingly claims that "[s]ometimes collocations of this kind become fixed as compound nominals" (1980: 230). She cites (28) as an example of such a 'compound'.

(28) *wi:m-bara:n*
fire-rib
'fire's rib/the smokeless area of ground around a fire'

If she treats 'to become fixed' as some form of 'conventionalization', then would it not also be possible to treat both (26) and (27) as instances of 'non-conventionalized (or on-line/nonce) compounds' (see section 2.2.2)? In any case, as most examples of potential compounds given in the investigated sources are extracted from their syntactic environment and rendered without any case inflection, it is often impossible to apply this criterion to the data.

The main typological problem is that this feature is not an adequate criterion in the phrase-marking languages in the sample – that is, languages that do not have a case slot following each individual element of a noun phrase, but show case-marking only once, at the end of the noun phrase complex (e.g. Kuuk Thaayorre, Gaby 2006: 12, 277 and Mparntwe Arrernte, Wilkins 1989: 102). Apart from phrase-

marking languages and 'strictly word marking languages' – where all elements of the noun phrase are obligatorily marked for case, e.g. Nyangumarta (Sharp 1998: 391) – there are also a number of languages which may be described as 'falling in between'. In Warlpiri, for example, normally all noun phrase elements are marked, but case inflection sometimes also occurs only on the last element (Simpson 1983: 215). In some languages (e.g. Ngiyambaa, Donaldson 1980: 232), there seems to be no obligatory marking of all noun phrase elements if they appear contiguously, although normally all elements inflect for case. The languages in the sample can be classified as in table 2:

Strictly word-marking [N-CASE + N-CASE ...]Np (11)	**Phrase-marking [[N + N ...]-CASE]Np[4] (7)**	**Not strictly word-marking [N(-CASE) ... N(-CASE)]Np[5] (4)**	**NOT CLEAR FROM SOURCE(S) (2)**
Bilinarra, Djambarrpuyŋu, Dyirbal, Gumbaynggir, Kalkatungu, Kuku Yalanji[6], Martuthunira, Nyangumarta, Yidiɲ, Yorta Yorta[7], Warrongo	Alyawarra[8], Arabana-Wangkangurru[9], Mparntwe Arrernte, Bāgandji, Kuuk Thaayorre, Wik-Mungkan, Yintyingka	Djaru, Ngiyambaa, Nhanda, Warlpiri	Bunganditj, Kulin group

Table 2 – Word-marking versus phrase-marking languages within sample

[4] In the sample, languages of this category are always marked on the final noun phrase element. In other Australian languages, only the head may have to marked, or only the first word of a noun phrase, or any word may be representatively inflected for case (Dixon 2002: 144).
[5] At least one of two adjacent noun phrase elements has to be marked.
[6] Patz (2002: 119) claims that possessive constructions do not require case-marking on the possessive form if they appear continuously. However, she does not give any examples. In section 5.3.2, I will propose an alternative analysis for this claim.
[7] The data cited by Bowe and Morey (1999) suggest this category membership for Yorta Yorta. It cannot be claimed with absolute certainty, however, as there is very little available (reliable) data.
[8] If all noun phrase members are marked for case, the noun phrase structure is not rendered ungrammatical (Yallop 1977: 116).
[9] If the final noun phrase member is an adjective modifying a preceding noun, this noun may also carry case marking (Hercus 1994: 282-283).

(d) 'filling a noun phrase's functional 'head' slot'

The final criterion proposed in (22) is more functional in nature. Any entity-referring nominal compound functions as a 'complex nominal head'. It is complex, because it is composed of multiple nominals. It functions as a head, because these multiple nominals jointly occupy the noun phrase's functional 'head' slot. This means that semantically, they jointly refer to one entity (or one set of entities), and syntactically, they can collectively occupy the 'specific' slot in languages where 'generic-specific' constructions occur (Verstraete and Rigsby 2014). During my research, it was not possible to test examples against this last criterion, as again, no speakers were available to consult. One serious restriction of this criterion is that it can only be syntactically tested in those phrase-marking languages which have a generic-specific construction (i.e. Alyawarra, Arabana-Wangkangurru, Mparntwe Arrernte, Kuuk Thaayorre, Wik-Mungkan and Yintyingka). For Bāgandji, for instance, the syntactic notion of 'complex nominal head' cannot be tested. In all languages considered, however, the semantic notion of 'complex nominal head' can unproblematically be interpreted as two adjacent nominals that jointly refer to one specific entity (set).

The notion 'complex nominal head' as used in this thesis

For the purpose of this thesis, the term 'complex nominal head' will be interpreted more broadly than the meaning it receives in criterion (d) above. Specifically, it will be used as a comparative concept covering any N-N combination adhering to the four principles presented in (22): a complex nominal head is a syntactically continuous combination of multiple nominal stems, that can carry inflection on the last element only, and that can fill the syntactic or functional head-slot of a noun phrase. All structures that were targeted by the comparative concept 'compound' as construed above (13) adhere to these principles. For nominal compounds in a descriptive category sense – those structures that are labeled 'compounds' in language descriptions –, we can say the same: all constructions carrying this label are complex nominal heads. The reverse, however, is not necessarily true: a language can have multiple types of complex nominal heads, only one (or two) of which may be descriptively labeled 'compound'. Other types of complex nominal heads may receive a different name, such as 'close-knit phrase' (Wik-Mungkan, Kilham 1974) or 'classifying construction' (Arrernte, Wilkins 2000). All constructions targeted by the 'complex nominal head' concept can, in other words, be seen as 'potential compounds', both in a descriptive and in a comparative concept sense: there are no (neither descriptive nor conceptual) compounds that are not complex nominal heads, but a complex nominal head needs some extra formal feature setting it apart from other N-N combinations to be considered a 'compound'. The remainder of

this study will be devoted to an exploration of the strategies languages may use to distinguish separate types of complex nominal heads and of how the spectrum of 'complex nominal heads' may be cut up within individual languages.

It should be noted that a number of issues have not yet been solved with respect to the difference between genuine complex nominal heads and compound 'lookalikes'. In word-marking languages, for one, it remains impossible to set apart a sequence of nominals marked for absolutive case from a sequence of nominals which is marked for absolutive case only on the final element. Also, in Bāgandji (a NP-continuous phrase-marking language without generic-specific constructions), by means of the currently proposed criteria, it is not possible to distinguish a regular phrase from a complex nominal head. Keeping these difficulties into account, we may want to consider any construction adhering to the definition in (22), along with any N-N combination that supposedly carries absolutive case twice, as a *potential complex nominal head* (and thus a *potential* 'potential compound'). In this light, it may be interesting to pose the question what additional, language-specific criteria may be used to distinguish different types of complex nominal heads from regular phrases. The question discussed in the remainder of the chapter may thus be broadly formulated as 'how can languages distinguish between different types of *potential complex nominal heads*?'

Finally, it has to be mentioned that a small number of what may be considered 'peripheral' nominal compound types will not be treated in the remainder of the current text. Specifically, what appear to be coordinate compounds (Fabb 1998: 67) have been attested at least in Arabana-Wangkangurru and in Nyangumarta:

(29) *Kurkaru-Yurkunangku-ru*
Kurkari-Yurkunangku-ERG
'(the two old men (Snakes)) Kurkari and Yurkunangku (said ...)'
(Arabana-Wangkangurru, Hercus 1994: 283)

(30) *pipi-japartu*
mother-father
'parents'
(Nyangumarta, Sharp 1998: 142)

Reduplication will also not be considered, although sometimes the borderline between compounding and reduplication may be vague (Fabb 1998: 69). Consider, for instance, the Dutch reduplication/compounding of *meisje-meisje* 'a very girly girl' (Joop van der Horst, p.c.). One example of

reduplication that may be related to compounding in the sample is Ngiyambaa *wi:-wi:*, a reduplicated form of *wi* ‘fire’ that means ‘hot’ (Donaldson 1980: 74).

5 (Potential) complex nominal heads: Formal and semantic properties

Different languages may divide the spectrum of (potential) complex nominal heads in different ways. The attested divisions of this comparative spectrum into descriptive categories will be discussed in section 6. The topic of the current section will be the *strategies* individual languages may use to distinguish different types of potential complex nominal heads. These strategies can be phonological, morphological, and perhaps also semantic. Again, it is important to note that not every grammar is equally informative concerning the distinction between e.g. compounds and phrases, so if, in what follows, certain languages are not explicitly linked to specific phenomena, this does not necessarily mean that those phenomena do not occur in those languages: it simply means that no relevant examples were mentioned or attested in the secondary materials that were consulted.

5.1 Phonological phenomena

5.1.0 Introductory sketch: Arabana-Wangkangurru

In Arabana-Wangkangurru, a number of phonological parameters can be proposed to distinguish compounds from regular syntactic phrases. Considering the compounds in (31) and (32) against their constructed phrasal counterparts (given between brackets), we can make some contrastive observations.

(31) *ngúra-m**à**la* (vs. ?*ngúra m**á**dla*)
camp-bad
'place associated with a person recently deceased'
(Hercus 1994: 41 – stress marking and phrase construction are mine)

(32) *Mídlha-**n**-th**ù**pu-nha* (vs. ?*mídlha th**ú**pu*)
face-n-smoke-PN
'Smokey Face (name)'
(Hercus 1994: 56 – stress marking and phrase construction are mine)

First, whereas in syntactic phrases the second constituent receives full lexical stress, a compound's second member is not fully accented (Hercus 1994: 41). This, in turn, can lead to simplification of consonant clusters in this second stem: in Arabana-Wangkangurru, *madla* 'bad' usually exhibits pre-stopping of the lateral *l*, as it is intervocalic and immediately follows the main stress accent (Hercus 1994: 37). In (31),

because of the loss of main stress on *madla*, *l* is no longer pre-stopped, and the word form reduces to -*mala*.

Second, at the boundary between compound members, a nasal with the same point of articulation as the following consonant may be inserted, as is the case in (32). Hercus (1994: 56) suggests that "the homorganic nasal [is] felt as a link between the two parts of the compound noun". This analysis indicates that this insertion process may not be a purely phonological process: it also carries some morphological weight (see 5.1.1).

In other places, Arabana-Wangkangurru exhibits some clearly phonologically driven 'boundary phenomena'. In (33), when *wimpa* is compounded with *maka*, it loses its initial syllable, which results in the proper name *Macumba* (Hercus 1994: 57). Another feature that is common in Arabana compounds (but not in Wangkangurru!) is the omission of an initial velar plosive *k* in the second member, which often results in a long vowel *aa* which 'replaces' the 'morpheme boundary' (Hercus 1994: 35). In (32), *mayarrukudna* + *karla* results in *mayarrukudnaarla*.

(33) *maka-**wi**mpa* /makampa/
fire-track
'Macumba (the track of the ancestral fire)'
(Adapted from Hercus 1994: 57)

(34) *Mayarru-kudna-**k**arla* /mayarrukudn**aa**rla/
rat-shit-creek?
'Ratshit Creek'
(Hercus 1994: 35)

Phonological distinctions between different N+N-combinations similar to those described for Arabana-Wangkangurru can be found across the Australian continent. Two general contrastive phonological principles may be distinguished: (a) the occurrence of boundary phenomena and (b) the occurrence of divergent stress patterns. Some further phenomena constitute a rest category. These will be discussed here in turn.

5.1.1 Boundary phenomena

If two stems combine into a specific type of complex nominal head, something may happen to the final sounds of the first stem or the initial sounds of the second element. Generally, a process of 'simplification' is involved. There are several ways in which sounds may be simplified. Sometimes, a phoneme or

consonant cluster is elided (deleted). This may happen to stem-initial syllables or consonants, or to stem-final syllables or vowels. Alternatively, a second stem's onset may be lenited (weakened, i.e. made into a semivowel or fricated). The boundary phenomena attested in the sample are summarized in table 3.

<table>
<tr><th>BOUNDARY PHENOMENA</th><th>RELEVANT LANGUAGES</th><th>RELEVANT COMPLEX NOMINAL HEAD TYPES</th><th>EXAMPLES</th></tr>
<tr><td>Elision of stem-initial /gh/</td><td>Alyawarra</td><td>compounds?[10]</td><td>agharta-agharta > /aghartarta/</td></tr>
<tr><td>Elision of stem-initial /k/</td><td>Arabana</td><td rowspan="2">compounds</td><td>pantya-kardi > /pantyaardi/</td></tr>
<tr><td rowspan="2">Elision of syllable(s)</td><td>Arabana-Wangkangurru</td><td>maka-wimpa > /makampa/</td></tr>
<tr><td rowspan="3">Yorta Yorta</td><td rowspan="2">compounds</td><td>dungudja-wala > /dungula/
galnya-buga > /galnyoga/</td></tr>
<tr><td rowspan="3">Elision of stem-final /a/ (or /ë/ for Mparntwe Arrernte)</td><td>nayga-idjiga > /naygidjiga/</td></tr>
<tr><td>Arabana-Wangkangurru</td><td>prefixed nouns</td><td>wangka-arabana > /wangkarabana/</td></tr>
<tr><td>Mparntwe Arrernte</td><td>compounds</td><td>arre-yenpe > /arryenpe/</td></tr>
<tr><td rowspan="2">Elision/lenition of stem-initial /b/</td><td rowspan="2">Bāgandji</td><td rowspan="2">compounds</td><td>duḻaga-ŋugu > /dulagŋugu/</td></tr>
<tr><td>dadu-bulgi > /datu-wulki/, /datulki/</td></tr>
<tr><td>Lenition of stem-initial peripheral/laminal stops</td><td>Djambarrpuyŋu</td><td>compounds</td><td>mel-porum > /mi:lwu:rum/</td></tr>
<tr><td>Frication of onset</td><td>Kuuk Thaayorre</td><td>compounds</td><td>meer-punk > /me:ɻβuŋk/
ring?-ka:l > /ɻi:ŋɣa:l/[11]</td></tr>
</table>

Table 3 – Boundary phenomena attested within sample

One phenomenon that seems to occur quite widely is the elision of stem-final central vowels (low-central /a/ for Arabana-Wangkangurru, Bāgandji and Yorta Yorta, mid-central /ë/ for Mparntwe Arrernte – in

[10] No examples of genuine compounds are given by Yallop. In fact, this example (reduplication) is the only one he mentions (1977: 20).

[11] I was not able to find the intended orthography for [ɻi:ŋ] in Gaby (2006).

Mparntwe Arrernte, the low-central vowel /a/ does not occur stem-finally[12]). As table 3 shows, lenition of word-initial stops also occurs in at least three languages (Bāgandji, Djambarrpuyŋu and Kuuk Thaayorre).

It is not clear to what extent boundary phenomena should be seen purely as the result of compounding or as co-factored by a diachronic process of conventionalization. Do 'nonce-compounds', created on the spot, exhibit the same simplification processes, or are these processes simply a case of idiomaticization, i.e. are boundaries simply 'obliterated' due to routinized co-occurrence of two adjacent nominals (cf. Brinton and Traugott 2005: 54)? For the data under consideration, it is hard to tell, particularly because authors tend to ignore the fact that there may be a difference between momentarily created and conventionalized compounds. Nonetheless, in the remainder of this thesis, the occurrence of boundary phenomena will be applied as a sound formal criterion to distinguish between phrases, compounds and other complex nominal head types.

Apart from simplification of morpheme boundaries, another possible 'boundary phenomenon' may be considered, namely the insertion of 'linking elements'. This phenomenon was discussed for Arabana-Wangkangurru some pages earlier. Other languages using some sort of linking element are those subsumed under the 'Kulin group' in the current sample, where *-i-* is often found connecting members of 'whole-part compounds'[13, 14]:

(35) *purrp-i-lar*
head-LE-hut
'roof'
(Blake 2011a: 33 - my glosses)

(36) *mart-i-kuli*
big-LE-man
'ancestor'
(Blake 2011a: 51 - my glosses)

As was the case in Arabana-Wangkangurru, insertion of this element is not apparently phonologically motivated. In his analysis of Kulin, Blake (2011a: 33) translates *-i-* as some sort of possessive suffix,

[12] Although it does occur in Western Arrernte (Wilkins 1989: 11).
[13] Blake (2011a: 33) simply calls them 'compounds'. However, they have a different word order from (other) compounds in Kulin, which is why I mention them as a separate category.
[14] Bauer (2009: 346) mentions that Kuku Yalanji also has linking morphemes in compounds. Upon closer investigation, these linking elements only occur in a specific type of verbal compounds, i.e. "Action-causative compounds with *-mani-l*" (Patz 2002: 99-100). They are not considered relevant to a discussion of nominal compounds.

meaning 'its', e.g. for (35) 'head-its-roof', and elsewhere he suggests that it may in fact be the locative suffix *-i* (e.g. head-in-hut) (2011: 50). Although it is possible that the linking element *-i-* goes back historically to a case suffix, it may synchronically be preferable to analyze it as a semantically empty element, the sole function of which is to indicate the connection between two compound parts. It is treated here as a phonological 'boundary phenomenon' because it is signaled phonologically and because it can be described as the insertion of a phoneme. However, as its occurrence is not evidently phonologically motivated, it is arguably more correct to call it a morphological element.

5.1.2 Stress patterns

In a number of languages, stress can be used as a criterion to distinguish between phrases and compounds, or between different types of complex nominal heads. Again, this distinction can work in different ways. In some languages, compounds are characterized by a prosodic reversal of the regular phrasal order of stress accents. Take, for example, the following minimal pair from Wik-Mungkan (37-38): (37) exhibits the regular stress pattern, where primary stress falls on the adjective, which is usually the final element. In (38), however, the first element – a noun – receives main stress. This distinction defines the latter as a compound.

(37) *ɲàŋk* *wáy*
heart bad
'sad'
(Kilham 1974: 50 – my stress indication)

(38) *ɲáŋk-wày*
heart-bad
'out of breath'
(ibid.)

In other languages, the phrasal stress pattern is not necessarily reversed in compounds. Rather, the main difference between the two categories is that compounds have only one clear prosodic peak, whereas phrases may have two main stress accents. This distinction is apparent in Kuuk Thaayorre (Gaby 2006: 144ff) and Warrongo (Tsunoda 2011: 135)[15]. In the sample of 24 Australian languages, nine were described as having specialized stress patterns for compounds. Arabana-Wangkangurru distinguishes yet

[15] In Kuuk Thaayorre, this criterion cannot (always) be used to distinguish N-N compounds from noun phrases: noun phrases, just like compounds, always have exactly one prosodic peak (Gaby 2006: 278). It is only useful for distinguishing verbal compounds from phrasal N-V combinations (Gaby 2006: 144ff).

another category, 'prefixed nouns', on the basis of a third stress pattern (only one stress accent, falling on the second element). In Wik-Mungkan, so-called 'close-knit phrases' are distinct from compounds in that they follow the regular phrasal stress pattern.

STRESS PATTERN	LANGUAGE	RELEVANT COMPLEX NOMINAL HEAD TYPE
Primary (or only) stress on second stem, secondary (or no) stress on first stem (s-S or /-S)	Kuuk Thaayorre, Warrongo	compounds
	Arabana-Wangkangurru	prefixed nouns
	Wik-Mungkan	close-knit phrases
Primary (or only) stress on first stem, secondary (or no) stress on second stem (S-s or S-/)	Arabana-Wangkangurru, Djambarrpuyŋu, Djaru, Kuku Yalanji, Martuthunira, Nhanda, Wik-Mungkan	compounds

Table 4 – Stress pattern distinctions attested within sample

5.1.3 Other phonological processes

Across the sample, a few secondary phonological processes can be noticed. They are called 'secondary' because they do not stand on their own: they are all caused by one of the previously mentioned phonological phenomena.

A first example of such secondary processes was already mentioned for Arabana-Wangkangurru. Because the second member of a compound nominal is not fully stressed, it does not exhibit pre-lateral stopping. Something similar can be noticed for compounds in Alyawarra: when two stems are compounded, it is possible that a nasally released plosive *kng* is brought in an unconventional position, which results in simplification to a nasal (Yallop 1977: 18). In Alyawarra, however, this simplification is not explicitly associated with deviations in stress. It is unclear what motivates this sound change. Yallop does not provide any examples of nominal compounds, only verbal ones:

(39) *aylpura-a**kng**ima* /aylpura**ng**ima/
carry-shoulder
'carry on the shoulder'
(Yallop 1977: 18)

Another example of a secondary phonological process associated with compounding can be witnessed in Bāgandji. Normally, words in this language do not end in consonants (Hercus 1982: 15), nor do they begin with consonant clusters (Hercus 1982: 48). However, in the process of compounding, a final low-central vowel /a/ can be lost, which may result in an uncommon consonant cluster operating as morpheme boundary:

(40) *duḷaga**-**-wada* /duḷa**gw**ada/
bad-heel
'evil-smelling'
(Hercus 1982: 42 - my glosses)

5.2 Morphosyntactic characteristics

5.2.1 Order of modifier and head

Verstraete and Rigsby (2014) propose an analysis of Yintyingka whole-part structures as compounds. One of their arguments is that the word order of these constructions can be interpreted as modifier-head, an order which goes against the canonical head-modifier order in Yintyingka. Similar word-order related arguments can be used to distinguish types of complex nominal heads in other Pama-Nyungan languages. Sometimes, the argument may be that in a certain language a specific type of construction always seems to follow a strict word order pattern, whereas the regular phrasal order of modifier and head is relatively free. This appears to be true for Djambarrpuyŋu, where compounds always exhibit head-modifier order (Wilkinson 1991: 528-529; see appendix, from page 82, for more examples):

(41) *ŋurru-bilkpilk*
nose-flat
'barge'

(42) *manaŋa-dumurr*
thief-big
'thief'

(43) *manikay-dumurr*
song-big
'one who always sings/one who likes singing'

In Gumbaynggir, the following minimal pair, differing only in meaning and word-order, can be found (Eades 1979: 335):

(44) *ŋa:lgan-yu:ŋgu*
ears-bad
'someone who is slow to learn a language'

(45) *yu:ŋgu-ŋa:lgan*
bad-ear
'stupid'

These differences could be indicative of two different types of N-N combinations, but as Eades (1979) does not elaborate on any further differences, not much can be said on this matter.

In some languages, a word-order distinction is made between compounds that are composed of two nouns and compounds that have both a noun and an adjective member. Evidently, this can only be the case in languages where there is a formal distinction between nouns and adjectives. In Mparntwe Arrernte, for example, the order for noun-noun compounds is modifier-head, but if a nominal compound contains an adjective, the order is head-modifier (examples are from Wilkins 1989: 145-146):

(46) *arre-yenpe*
mouth-skin
'lips'

(47) *alknge-arlpelhe*
eye-feather
'eye-lash'

(48) *alknge-therrke*
eye-green
'cat'

(49) *arre-urrperle*
mouth-black
'black-mouth snake'

Word order is significant for distinguishing different types of complex nominal heads in a number of languages in the sample:

WORD ORDER PATTERNS	LANGUAGES	COMPLEX NOMINAL HEAD TYPES
Modifier-head (vs. head-modifier)	Alyawarra	Generic-specific (vs. phrases)
	Arabana-Wangkangurru	Prefixed nouns, N-N compounds (vs. phrases, N-A compounds)
	Mparntwe Arrernte, Kuuk Thaayorre	Generic-specific, N-N compounds (vs. phrases, N-A compounds)
	Kulin group	Attribute-entity compounds (vs. part-whole compounds)
	Warlpiri	Whole-part constructions (vs. phrases)
	Wik-Mungkan, Yintyingka[16]	Close-knit phrases (vs. phrases, compounds)
Head-modifier (vs. no preference)	Djambarrpuyŋu, Djaru, Nhanda	Compounds (vs. phrases)

Table 5 – Word order distinctions attested within sample

5.2.2 Restrictions on phrasal noun + noun combinations

In some languages, a syntactic rule exists that restricts the appearance of adjacent nominals. For Dyirbal, for example, Dixon (1972: 62) specifies that a noun phrase can only contain two nouns if a relation of inalienable possession is expressed. So, if in Dyirbal two adjacent noun stems occur within a single noun

[16] No genuine 'compounds' are attested by Verstraete and Rigsby (2014) for Yintyingka as they are attested by Kilham (1974) for Wik-Mungkan. Those whole-part constructions that are suggested to be compounds for Yintyingka, however, seem to be quite similar to what Kilham dubs 'close-knit phrases' in her writings, both semantically and prosodically. For this reason, Yintyingka is assumed to be of a related type when it comes to distinguishing complex nominal heads, and these whole-part constructions are considered to be close-knit phrases instead of compounds. See the appendix (page 128) for further discussion and examples.

phrase, and they do not express a whole-part relation, they should be considered as forming a compound (cf. Haspelmath and Sims 2010: 190 on German):

(50) *balan* *mala-yigara*
CL2 hand-crayfish
'scorpion (i.e. crayfish-like hands)'
(Dixon 1972: 317)

(51) *bala* *ḏina-guda*
CL4 foot-dog
'softwood tree (i.e. dog-like foot)'
(ibid.)

Similarly, the Yidiɲ noun phrase template does not leave a slot for a second specific noun (except if a whole-part relation is involved) (Dixon 1977: 250). This implies that structures like (52) are preferably analyzed as compounds.

(52) *bayba-gawar*
spring(water)-blood
'squirt blood (a personal 'guiding angel' of George Davis' grandfather who told him what was happening elsewhere)'
(Dixon 1977: 477)

In Bāgandji, only one adjective may precede the head nominal (Hercus 1982: 99), but no examples of obligatory compound analyses following from this principle can be found. In many languages, there is no clear restriction on the number of modifiers that may come after a head noun (e.g. Arrernte, Wilkins 2000: 150; Martuthunira, Dench 1994: 189, 193). In other descriptions, nothing is said about adjacency restrictions applying to nominals combining into phrases.

5.2.3 Compound-specific 'cranberry' morphs

So-called 'cranberry morphs', lexical elements that only occur in compounds, may be used as a type of morphosyntactic evidence signaling an element's compound status (cf. Aikhenvald 2007: 26). In Mparntwe Arrernte, there are at least three such elements : *ake-* 'head', *akwe-* 'hand/arm' and *arre-* 'mouth' frequently figure as the first member of compounds, but do not occur as free morphemes (Wilkins 1989: 145-146). When their respective meanings have to be expressed in isolation, the free forms *(a)kaperte*, *arrekerte* and *iltye*/*amwelte* are used.

(53) ***ake***-*ngkwerne*
head-bone
'skull'
(Wilkins 1989: 146)

(54) ***akwe***-*alyenge* /akwalyenge/
hand/arm-left.hand/arm
'left hand/arm'
(ibid.)

(55) ***arre***-*urrperle* /arrurrperle/
mouth-black
'black-mouth snake'
(ibid.)

'Bound' lexical stems of this kind often correspond formally to words used as free forms in neighboring languages. Wilkins (1989: 146) reports that Katyetye, a language that is genetically closely related to Mparntwe Arrernte, has *ake*, *akwe* and *arre* occurring as free forms. In most cases, the compound-specific lexemes are probably more conservative forms than their free lexical counterparts. For Arabana-Wangkangurru, Hercus (1994: 28-29) shows that the difference between the regular and the compound-specific term for a concept may be the result of a sound change. In (56), the compound form of *pitha* shows the archaic use of a palatal *ty* instead of the modern dental *th*. Although the evidence seems to suggest that generally, processes of lexicalization may lead to the retention of these compound-specific elements, it is not entirely clear whether elements like Mparntwe Arrernte *ake*, *akwe* and *arre* may still be used productively to form compounds.

(56) *pitya*-***murru***	*pitha*
box.tree-bark?	box.tree
'boxbark'	'box tree'
(Hercus 1994: 29)	(ibid.)

Cranberry morphs are attested in, amongst others, Arabana-Wangkangurru (56), Mparntwe Arrernte (53-55), Djambarrpuyŋu (57), the Kulin group (58) and for Kuuk Thaayorre (59). This list is not exhaustive, and I expect this feature to be much more widespread.

(57) *mel*-*parrambarr*
eye-?

‘eyebrow’

(Djambarrpuyŋu, Wilkinson 1991: 129)

(58) *mirri-kar*

?-leg

‘tree frog’

(Wembawemba, Kulin group, Hercus 1992: 29)

(59) *pil-perrk*

hip-?

‘hipbone’

(Kuuk Thaayorre, Gaby 2006: 206)

5.3 Semantic properties

5.3.1 Exocentricity and metonymy

5.3.1.1 The (ir)relevance of ‘exocentricity’

In her study of Australian compound nominals (see footnote 3 above), MacFarlane observes that “[t]he vast majority of compounds in Aboriginal languages are exocentric” (1987: 159). Similarly, Simpson (2009: 615) concludes that in Warlpiri, nominal compounds are “overwhelmingly semantically exocentric”. But what do they mean with ‘exocentric compounds’? And what classificatory relevance does this concept have for complex nominal heads in Pama-Nyungan languages?

Traditionally, a compound is considered ‘exocentric’ if its “semantic head is ‘outside’ the compound” (Haspelmath and Sims 2010: 40), or more precisely, if the construction “denotes something which is not a sub-class of either of the elements in the compound” (Bauer 2003: 42). Candidates for such an analysis are, for example, noun-adjective compounds denoting adjectival concepts in Wik-Mungkan (Kilham 1974: 48):

(60) *kón-tàyan*

ear-firm

‘attentive’

(61) *mé:ʔ-tàyan*

eye-firm

‘awake’

If they are analyzed as 'internally-headed', i.e. 'endocentric compounds', these compounds would seem to have a modifier-head structure, and could be interpreted as 'firm (when it comes to hearing)', 'firm (when it comes to seeing)'. This analysis is, however, not very plausible. Wik-Mungkan generally has a head-modifier word order (Kilham et al. 1989: 403), and a semantic analysis of these compounds as 'exocentric' makes more sense: 'the property of having a firm ear', 'the property of having a firm eye'.

Another potential type of 'exocentric compound' that is widespread across the continent are those expressions that refer to an animal, plant or human by way of one of its prominent features (cf. MacFarlane 1987: 159). In the following examples, *Jinabaji* does not refer to some sort of *jina* 'foot', it refers to a *person* who *has* bad feet. *gundujambi* is not a type of penis, but *someone* who *has* a long penis. *kuna-maju* refers to an emu, not to 'bad excrements' or 'bad prey'. These are the types of exocentric compounds that occur so frequently in Warlpiri and other Australian languages according to Simpson (2009) and MacFarlane (1987).

(62) *Jina-baji*
foot-sore
'Sorefoot (nickname)'
(Kuku Yalanji, Patz 2002: 11)

(63) *guŋḍu-jambi*
penis-long
'one who has a big penis'
(Djaru, Tsunoda 1981: 236)

(64) *kuna-maju*
anus/shit-bad
'emu'
(Warlpiri, Simpson 2009: 611)

(65) *alknge-therrke*
eye-green
'cat'
(Wilkins 1989: 146)

But is an analysis of 'exocentricity' really necessary? And is it meaningful to distinguish an 'exocentric' compound category in our Pama-Nyungan language sample? I would like to suggest an alternative analysis for these examples, one that does not require notions such as 'externally' versus 'internally headed'.

In an overview of compounding in Dutch, Booij (1992: 39) presents an argument that is compatible with this point. In his view, nominal compounds that exhibit an apparent degree of exocentricity, such as Dutch *bleekneus* 'pale-nose, i.e. a pale-nosed person', are simply cases of metonymically interpreted referring expressions: a person part term is used to refer to the person as a whole (*pars pro toto*). They are thus not a separate morphosyntactic category. This mechanism can without any problems be applied to the examples in (62-65) and to alleged 'exocentric compounds' in the Pama-Nyungan language sample in general. There is no need to interpret constructions such as (63) as being 'headless': a 'long-penis person' could just be metonymically named after his 'long penis', and a cat, as in (65), after its 'green eyes'. It is not necessary to assume some sort of 'ellipsis' of a head element. For (60), it could be assumed that a 'firm ear' refers to someone who has a firm ear, i.e. who is attentive. From there, it is just a small step to interpret the name for a person as simultaneously indicating a property of that individual. It is not impossible that all metonymic compounds are in essence polysemous, being able to refer both to a property and to an individual possessing that property.

In this section, it has so far been argued that, even if there was a consistent distinction between two compound types that mirrors the exocentric-endocentric dichotomy, it would not be necessary to distinguish between externally and internally headed constructions: we could just as well make a distinction between typically metonymically interpreted compounds and compounds that are not usually interpreted metonymically. The question that remains is: would making such a distinction be meaningful?

5.3.1.2 Distinguishing a class of 'metonymic compounds'?

Let us look at the potential formal evidence that could be gathered for making this distinction. In section 5.2.1, an argument was presented for distinguishing noun-noun compounds from noun-adjective compounds in Mparntwe Arrernte. The first have modifier-head order and the second are construed as head-modifier. The following examples were given:

(66) *arre-yenpe*
mouth-skin
'lips'

(67) *alknge-arlpelhe*
eye-feather
'eye-lash'

(68) *alknge-therrke*
eye-green
'cat'

(69) *arre-urrperle*
mouth-black
'black-mouth snake'

Observing these examples in the light of the current section, it is tempting to propose an alternative hypothesis. Specifically, it seems that the compounds exhibiting head-modifier order are in fact 'metonymic' compounds: an *alknge-therrke* 'green-eye' is not some kind of *alknge* 'eye', but it is an '*alknge-therrke* animal', a 'green-eyed animal'. An *arre-urrperle* is a 'black-mouthed snake', and not a 'black mouth'. This analysis would be relevant if there was some systematic formal similarity between both metonymic N-A and N-N compounds on one side, and between non-metonymic N-A and N-N compounds on the other. It would predict that metonymic N-N compounds follow a head-modifier order and that non-metonymic N-A compounds have the opposite modifier-head order. But, at least for Mparntwe Arrernte, this does not seem to be the case (Wilkins 1989: 145-146):

(70) *lyeke-kaperte*
thorn-head
'caltrop, spiky headed plant'

(71) *ampe-kweke*
child-small
'baby'

Across the sample studied here, there do not appear to be any word-order differences between metonymic and non-metonymic compounds[17]. On the basis of purely formal criteria, it does not seem necessary to distinguish the two. But could the semantic criterion of metonymy be enough?

[17] The only language that potentially distinguishes the two is Kalkatungu, where exactly one instance of a potential non-metonymic compound is found that cannot be interpreted as a whole-part relation. This potential compound has modifier-head order, which goes against the general head-modifier pattern in Kalkatungu. It is not clear why this construction deviates from the norm. Arguably, it is not really helpful to present a productive rule for 'non-metonymic compounding' based on just this one potential example (see the report for Kalkatungu in the appendix, page 90, for details).

For a number of languages, only metonymically interpretable compounds are attested. This is the case for Djambarrpuyŋu[18], Djaru, Dyirbal[19], Kuku Yalanji and Nhanda. In these languages, the compound category could be inextricably linked with the concept of metonymy. Although it may not be necessary to distinguish a formal category of 'metonymic compounds', it might be interesting to keep this semantic feature into account when describing and comparing languages. In some languages, metonymy may be an intrinsic (and thus necessary) feature of compounds, in others it could help to point to potential compound constructions.

5.3.2 'Names' and non-referential dependents

It has often been noted that compounds resemble words in that they essentially function as names: compounding is a name-coining device. Phrases, on the other hand, are assumed to typically provide 'descriptions' (e.g. Bauer 2003: 135; Booij 2009; Spencer 2011: 500). This does not mean that phrases cannot lexicalize into names, but it might imply that compounds are more easily lexicalized. In any case, compounds never fulfill a unitary 'descriptive' function: whereas a phrase can be a name, a description, or both at the same time, a compound can only be simply a name or simultaneously a name and a description – never just a description. Since section 4, the comparative concept 'complex nominal head' has been used to indicate constructions that are 'potential compounds'. Now, we may want to add a requirement to the definition of 'complex nominal head' that all members of this set have to be a 'name'. By consequence, any construction that is a 'complex nominal head' needs to have some property of 'nameworthiness'[20]. Following Spencer (2011: 501), I will use this term to indicate "the essential import of the Principle of Ontological Coherence" as defined by Olsen (2001: 88)[21]:

(72) **Principle of Ontological Coherence**

A complex concept as the denotation of a morphological object picks out a coherent individual from one of the domains of individuals.

[18] With one possible example, see the report in the appendix (from page 82).
[19] For Dyirbal, Dixon (1972) gives only one example of a compound, so not much can be said for this language.
[20] Spencer cites Dahl (2004: 252) as the source of this term. Dahl uses 'nameworthiness' to refer to a property of *entities*: "[t]he entity must have a status that in principle makes it possible to invent a name for it." In the current study, the term is used in a different sense, indicating a property of *constructions*: a construction has a property of 'nameworthiness' if it can conveniently be used as a name for an entity or concept.
[21] Spencer (2011: 501) indirectly cites another paper by Olsen (2004: 19) through Bücking (2009: 192).

How is this principle embodied by complex nominal heads? This may be best explained with an example. Take, for instance, the English noun *blackboard*. The head noun, *board*, specifies a 'domain', of which the referents of the compound as a whole form a subset: a *blackboard* is a type of *board*. The dependent nominal, *black*, essentially has the function of narrowing down the possible subsets of *boards* that the speaker wants to refer to. In other words, the only relevant function of a dependent in nominal compounds is a 'classifying' one. Dependent nominals in compounds do not *describe* a property of the referent: they are non-referential, or 'generic'[22]. The difference between 'descriptive' and 'classifying' functions of dependents can be easily visualized and explained using the difference between *a blàck bóard* and *a bláckbòard* in English. The phrasal expression refers to an entity that is both *black* (i.e. that belongs to the entities that have the property of being 'black') and a board (i.e. that belongs to the entities that have the property of being a 'board'). The compound construction refers to *boards* (i.e. entities that have the property of being a 'board') that also have the property of being a *blackboard*, a property that is independent of their color.

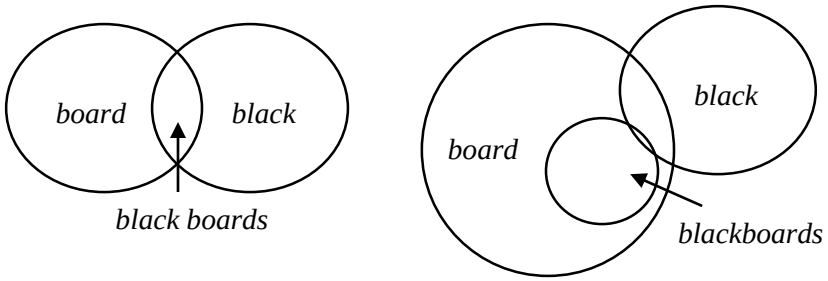


Figure 2 – 'Descriptive phrasal modification' versus 'classifying dependents in compounds'

So, how is this characteristic of (potential) compounds reflected in the sample? It is worth mentioning that the only grammar that comes close to describing its relevance is Hercus' description of Bāgandji (1982). In contrast to many other Australian languages, Bāgandji makes no distinction between alienable and inalienable possession when it comes to using the genitive suffix *-na* or not. Instead, the decision whether or not to use the suffix *-na* on the possessor is conditioned by the genericity / (non-)referentiality of this possessor: if the possessor is 'generic', no suffix is used; if it is 'specific' (or referential), a suffix is used (Hercus 1982: 76)[23]:

[22] Note that this does not mean that the lexical meaning of a dependent may not coincide with a property of the referent. The *White House* is, in fact, white, but the property 'white' is not relevant to the function of the expression *as such*: even if the *White House* would be painted black tomorrow, it would still be able to carry the name *White House*.

[23] Hercus does not explicitly use the generic vs. specific reference dichotomy: she speaks of a difference in 'definiteness'. I believe that it is more informative to use 'genericity' or 'non-referentiality'.

(73) *wīmbadja-na buŋga*
Aboriginal-GEN hut
'The hut of an Aboriginal'

(74) *wīmbadja-buŋga* (pronounced /wīmbatjawūŋga/ or /wīmbatjūŋga/, cf. section 5.1.1)
Aboriginal-hut
'an Aboriginal hut'

This distinction is crucial for considering constructions such as *dalda-balda* 'kangaroo skin', *bandu-birna* 'fish bones' and *baga-walbiri* 'river bank' (Hercus 1982: 76) as potential compounds in Bāgandji. This characteristic of compounds raises the question whether we could use it to analyze a set of constructions, listed below, from languages that allow no other clear distinction between phrasal and compound-like N-N combinations:

(75) *bala gabuga:*
head egg
'brains'
(Ngiyambaa, Donaldson 1980: 334 – my glosses, Donaldson glosses both terms as inflected for absolutive case)

(76) *tjukutjuku ntuu*
ear hole
'ear hole'
(Kalkatungu, Enoch et al. 2007: 52 – my glosses)

(77) *utunthu-kantha*
liver-head
'heart'
(Kalkatungu, Enoch et al. 2007: 55 – my glosses)

(78) *yirra-kunyja*
tooth-bone
'jawbone'
(Nyangumarta, Sharp 1998: 142)

Notably, Patz (2002: 119) mentions for Kuku Yalanji that, although "[a]ll NP constituents have to agree in case marking whether the NP is continuous or discontinuous", possessive constructions form an exception to this rule, "in that case marking is not obligatory for the possessive form in a continuous NP". No examples are given to accompany this observation, but it would be interesting, in light of the current

discussion, to test whether the (non-)referentiality of the possessor plays a role in this exemption to inflect for case. My tentative hypothesis would be that case-marking of both possessor and possessee is not obligatory in cases where the generic is not a specific referent, i.e. in cases of 'generic possession'.

6 Carving up a 'spectrum' of '(potential) complex nominal heads'

6.1 Arabana-Wangkangurru and the 'Kulin group': An illustrative comparison

If, for each individual language in the sample, we consider the set of all constructions that may be labeled 'potential complex nominal heads' as defined in section 4, we may find a number of different ways of carving up the comparative conceptual domain of potential complex nominal heads, if we apply the criteria as discussed in section 5. Take, for example, the following sketches for Arabana-Wangkangurru and the Kulin group.

In Arabana-Wangkangurru, all complex nominal heads are set apart from phrases by boundary phenomena and reduced accent on one of the adjacent nominal stems (see section 5.1.0). Some of these constructions, however, have a head-modifier order, whereas others have a modifier-head order. This word-order criterion can thus be used to distinguish N-A combinations such as (79) from N-N combinations such as (80-82). Within the domain of N-N constructions, another distinction can be made between those constructions that carry primary stress on the first element (80, 81) and those that have a secondary-primary stress pattern (82). In sum, Arabana-Wangkangurru distinguishes three types of complex nominal heads: the first may be conveniently named 'noun-adjective compound', the second 'noun-noun compound' and the third 'prefixed noun' (the third term follows Hercus 1994: 102-103).

(79) *yárri-pùlu* – noun-adjective compound
ears-deficient
'deaf (one)'
(Hercus 1994: 41 – my stress marking)

(80) *kárna-pàlku* – noun-noun compound
man-flesh
'human flesh'
(Hercus 1994: 74 – my stress marking)

(81) *párdi-pìti* – noun-noun compound
grub-quarry
'grub ritual centre'
(Hercus 1994: 100 – my stress marking)

(82) *màka-pírla* – prefixed noun
fire-charcoal

'charcoal'

(Hercus 1994: 103 – my stress marking)

In the Kulin group, one type of complex nominal head (83, 84) is set apart from phrases through a difference in word order (the preferred phrasal word order is reported to be head-modifier (Matthews, cited in Blake 2011: 33)). Another type of complex nominal head has the canonical order of elements, but often occurs with a linking element in between the nominal stems (85, 86) (*-i-* for Western Kulin (Blake 2011: 33), *-(C)* + *i-* for Woiwurrung (Blake 1991: 79)). Taking into account the different semantic relations between the stems in each these two complex nominal head types, they may be called 'attribute-entity compounds' and 'meronymic (part-whole) compounds' respectively.

(83) *tjuwag-pirrk* – attribute-entity compound
long-tail
'cow'
(Western Kulin, Blake 2011: 50)

(84) *kangi-kurrm-kurrk* – attribute-entity compound
waddy-breast-woman
'mid teenage girl'
(Wembawemba, Hercus 1992: 20)

(85) *putj-i-marna* – part-whole compound
stomach-LE-hand
'palm of hand (i.e. hand's stomach)'
(Western Kulin, Blake 2011: 50 – my glosses and translation)

(86) *baba-bi-djinang* – part-whole compound
mother-LE-foot
'big toe (i.e. foot's mother)'
(Woiwurrung, Blake 1991: 79 – my glosses and translation)

If we want to compare the different configurations of complex nominal head types of these two languages, we may want to look at which semantic relations are encoded as separate categories in one language, but are clustered together in the other. For instance, we could say that while 'part-whole relations' form a separate category in the Kulin group, which is contrasted with a formally and semantically distinct group of 'attribute-entity compounds', the same two relations in Arabana-Wangkangurru are subsumed under the general 'N-N compound' category (compare 80 and 81 with 83-86). In other words,

the Kulin group makes a formal distinction between 'attribute-entity' relations and 'whole-part' construals, but Arabana-Wangkangurru makes no such distinction.

In the paragraphs that follow, a comparative framework will be set up that should allow us to make a comparison of all 24 languages in the sample that is similar to what I have just demonstrated for just two languages (section 6.2). Next, this framework will be applied to the sample, and an attempt will be made to formulate some generalizations (sections 6.3-4).

6.2 Different types of '(potential) complex nominal heads'

For the purpose of this study, it is necessary to have a list of all possible concepts that can take on a 'descriptive category' status within individual languages. These concepts together represent a 'comparative spectrum' that can subsequently be described as being 'carved up' by each language individually. On the basis of the sample, the following five conceptual types of potential complex nominal heads can be listed:

(87) a. Attribute-entity relations consisting of two nouns[24]
b. Attribute-entity relations consisting of an adjective and a noun
c. Generic association relations
d. Generic-specific relations
e. Regular phrases (and fixed locutions)

These concepts require some explanation.

First, only concepts a-d are considered to be genuine complex nominal heads. If, in any language, a construction type shows a clear (phonological, morphosyntactic, and/or perhaps semantic) contrast with regular phrases that look like complex nominal heads, but are not necessarily so (i.e. adjacent nominals marked for absolutive case in word-marking languages, or noun phrase-internal N-N/N-A sequences in phrase-marking languages), they are categorized as instances of a specific concept from a-d. If a construction does not show any indication that it is different from a regular phrase, it is taken to be a member of group e. In this way, the super-group of 'potential complex nominal heads' that consists of

[24] For a., one could say 'two or more nouns', and for b. 'an adjective and one (or more) noun(s)', but this is not necessarily relevant. MacFarlane points out that "although compound nominals in Australian Aboriginal languages may consist of more than two components (but rarely more than three), there is a strong tendency for two of these components to in themselves form a compound within the compound, thus the resultant compound still consists of 2 semantic components" (1987: 157).

a-e may be subdivided into 'genuine complex nominal heads' (a-d) and a rest group, whose status as 'complex nominal head' status is unclear (e).

Second, if a construction is a 'genuine complex nominal head', and its parts show a generic-specific, i.e. hyponymic/hyperonymic, relationship, it is classified as a 'generic-specific relation'. This is the case for e.g. prefixed nouns in Arabana-Wangkangurru (82) and classifying constructions in Alyawarra and Mparntwe Arrernte. If it shows a generic association between the parts, it is grouped under c. A generic association relation is meant to subsume instances of inalienable possession (or whole-part relation), kin relations, or objects that are closely associated with but still conceptually separate from their possessor. (85), (88) and (89) exemplify this concept.

(88) *wartip-i-kurre*
child-LE-kangaroo
'young kangaroo'
(Western Kulin, Kulin group, Blake 2011: 50)

(89) *wīmbadja-būŋga*
Aboriginal-hut
'an Aboriginal hut'
(Bāgandji, Hercus 1982: 76)

Some confusion may arise when trying to interpret the following examples according to this scheme. *kuthakurndu* could be seen as a generic association between a 'claypan' and 'water', *ngakwarle untyeye* as a(n) (inalienable) possession relation, i.e. 'corkwood's nectar', and so could *kul'a paapa* (stone set's mother):

(90) *kutha-kurndu*
water-claypan
'thick water'
(Arabana-Wangkangurru, Hercus 1994: 103)

(91) *ngkwarle* *untyeye*
nectar/honey corkwood
'corkwood nectar'
(Mparntwe Arrernte, Wilkins 1989: 102)

(92) *kul'a* *paapa*
stone mother

'lower stone of a grinding stone set'

(Yintyingka, Verstraete and Rigsby 2013a: 3)

However, these constructions also lend themselves to a generic-specific reading in the spirit of Wilkins (2000). The Arabana-Wangkangurru *kutha* generic could have the function of mentally activating the knowledge structures that propose a 'frame' in which *kurndu* has to be interpreted: *kutha* signals to the hearer that the specific noun *kurndu* has to be interpreted in its second meaning, as what it can potentially produce. *kurndu* is, in this view, to be interpreted as a type of water, i.e. 'thick water'. A similar interpretation can be proposed for Mparntwe Arrernte *ngkwarle untyeye*: 'corkwood' needs to be interpreted as the product that comes from it, a type of *ngkwarle* 'nectar/honey'. In (92), the kin term *paapa* depends on the 'generic' term *kul'a* for its meaning: *ku'la paapa*, in this interpretation, means 'interpret the meaning of 'mother' in the frame of a 'grinding stone set', i.e. 'the set's mother-stone''. In the present paper, a generic-specific reading of these and similar examples will be favored. Note that there can be a vague border between generic-specific and whole-part relations. In some languages, this semantic indeterminacy of a number of constructions seems to be corroborated by the difficulties of distinguishing between some generic-specifics and whole-part constructions on a formal basis (e.g. Kuuk Thaayorre, see section 6.3). In other languages, there is no formal distinction between expressions of both concepts, and if they are fit into some semantic categorization, a number of instances seem to be semantically ambiguous (Wik-Mungkan, Yintyingka, see appendix, from page 122 and from page 128).

Combinations of two nominals that are complex nominal heads, but cannot be classified as either a generic association or generic-specific relation will be considered part of the conceptual 'entity-attribute' set. In some languages, a syntactic distinction between nouns and adjectives can be made. For these languages, it is helpful to check whether entity-attribute relations containing an adjective differ formally from similar relations containing only nouns. Languages that do not syntactically distinguish between a separate noun and adjective category will be assumed to automatically merge the N-N and N-A entity-attribute concepts.

By way of illustration, we can apply this framework to a systematic comparison between Arabana-Wangkangurru and the Kulin group. Kulin subsumes the two 'attribute-entity' concepts under a general 'compound' category, and distinguishes a separate 'generic association' construction. It does not have any generic-specific constructions (or at least none that can be analyzed as complex nominal heads). Arabana-Wangkangurru joins together the 'N-N entity-attribute' and 'generic association' concepts as one category, distinguishes a separate 'N-A entity-attribute' category, and has a fully distinct generic-specific category. Figure 3 gives an example of how this comparison can be visualized.

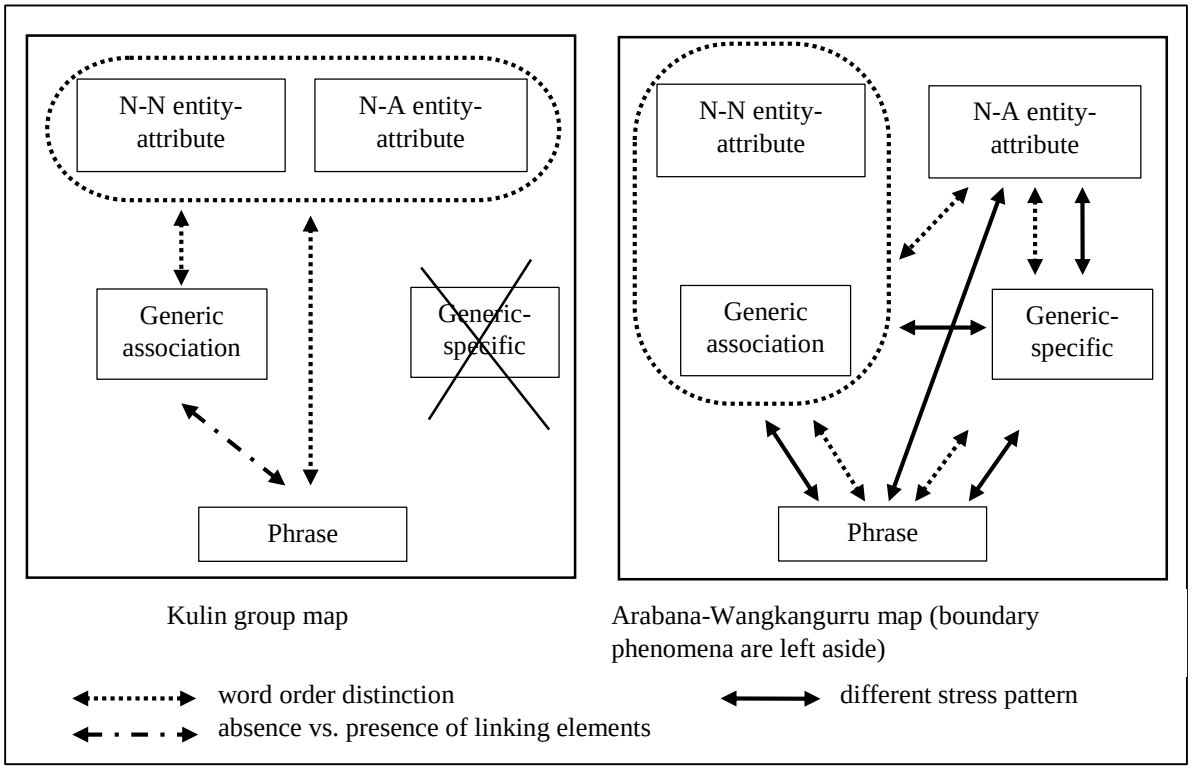


Figure 3 – Visual comparison of complex nominal heads within Arabana-Wangkangurru and Kulin

6.3 Different 'partitioning' types: An overview

By way of overview, table 6 (on page 53) summarizes the configurations that are attested in the dataset. Black cells represent zero attestation. If an area is labeled with 'No CNH', the indicated concept (x-axis) is expressed in the language(s) (y-axis), but by a construction type that is certainly not a complex nominal head (the relevant nominal expression may be discontinuous or both elements may be marked for case). If an area is indicated as 'phrase', this means that there are no decisive formal reasons for treating the

expressions of the relevant concepts in the considered language(s) as instances of 'genuine complex nominal heads', i.e. they remain 'potential complex nominal heads'.

As can be seen in the table, there are six languages for which, at the moment, there is nothing that formally sets apart a 'complex nominal head' category from regular syntactic phrases. In section 3.2, an overview was given of the type of analytical-descriptive materials that were available for each language on compounds. Most languages belonging to the 'zero' group in the table – in fact, all but Bilinarra – are languages that were earlier classified as having examples of (potential) compounds cited in sources, but without a clear analysis. It is possible that in some descriptions, compounds were just subsumed under the heading 'word', for example when it comes to stress patterning, but this is never explicitly mentioned. All that can be said for these five languages is that they have constructions that may be complex nominal heads, but that not enough material or analysis is available to refute or validate this hypothesis. The situation for Bilinarra is different. As stated before (section 3.2), Bilinarra was included in the sample because, in spite of its good documentation status, no examples of (even potential) compounds were given by Meakins and Nordlinger (2014). As was done for Kalkatungu (see appendix, from page 90), a dictionary source was consulted to scan for possible 'lexicalized' N-N combinations (Meakins 2013). In the semantic domains where compounding is usually prevalent – i.e. names for fauna and flora, tools and weapons, place names, body parts ... – no N-N combinations were found. Instead, Bilinarra often seems to make use of other name-coining devices, such as reduplication (93, 94), using more generic terms to refer to refer to things that are nonetheless quite distinctly recognized instances of a generic class (95). These are just some observations that suggest the possibility that complex nominal heads may not exist in Bilinarra. Of course, there are limitations in the data, but it is interesting to leave this possibility open.

(93) *yimiji-miji*
?-REDUP
'eyebrow'

(94) *balinybaliny*
?-REDUP
'Falco cenchroides, also a place name'

(95) *garrada*
'spider'
"All spiders have the same name though many different types of spider are recognised and some are dangerous."

N° OF CNHS	LANGUAGES	ENTITY-ATTRIBUTE		GENERIC ASSOCIATION	GENERIC-SPECIFIC
		N-N	N-A		
0 (6)	Bilinarra	No CNH			No CNH
	Bunganditj,	‘phrase’			
	Gumbaynggir	‘phrase’			
	Kalkatungu, Ngiyambaa, Nyangumarta	‘phrase’		‘phrase’ (but see section 5.3.2)	
1 (13)	Alyawarra		‘phrase’?	No CNH	‘generic-specific’
	Bāgandji, Yorta Yorta	‘compound’			
	Djambarrpuyŋu, Martuthunira	‘compound’		No CNH	
	Djaru	‘compound’			No CNH
	Dyirbal,	‘compound’	‘phrase’		
	Kuku Yalanji	‘compound’		‘phrase’ (but see section 5.3.2)	
	Warlpiri	‘phrase’?		‘whole-part construction’	
	Warrongo, Nhanda	‘compound’			
	Yidiŋ	‘compound’	‘phrase’		No CNH
	Yintyingka		‘phrase’?	‘close-knit phrase’	
2 (2)	Kulin sample	‘attribute-entity compound’		‘part-whole compound’	
	Wik-Mungkan	‘compound’		‘close-knit phrase’	
3 (3)	Kuuk Thaayorre	‘entity-attribute compound’		‘whole-part compound?’	‘generic-specific?’
	Arabana	‘N-N compound’	‘N-A compound’	‘N-N compound’	‘prefixed noun’
	Arrernte	‘N-N compound’	‘N-A compound’	‘N-N compound’	‘generic-specific’

Table 6 – Configurations of complex nominal head concepts attested within sample

In thirteen languages, at least one category of complex nominal head can be discerned. Three of these languages make this distinction solely on the basis of word order: Alyawarra, Warlpiri and Yintyingka. The complex nominal heads in these languages are not fully considered 'compounds' in the current study, because they only express specific relations – whole-part and generic-specific (only the first in Warlpiri and only the second in Alyawarra) – and because no other criteria than word order can be used to set them apart from regular phrases. Furthermore, it is possible that there are structures in these languages that may be more rightfully called compounds, but that have not yet been described. Alyawarra is likely of the same type as Mparntwe Arrernte, being quite similar to the latter in terms of genetic and geographic status. It is possible that Yallop's (1977) description is simply less extensive than Wilkin's analysis of Mparntwe Arrernte. As for Yintyingka, a language that has been extinct since about 1990 (Verstraete and Rigsby 2013b), it is not clear whether any recordings have been made of what may be genuinely dubbed 'compounds' – only the whole-part constructions that have been described in Verstraete and Rigsby (2014) come close to a similar status, but the latter do not differ phonologically from regular phrases. As was argued in footnote 16, Yintyingka's complex of whole-part and generic-specific constructions look quite similar to the close-knit phrases attested and analyzed by Kilham (1974) for Wik-Mungkan. They may arguably be taken to be of the same typological profile when it comes to the behavior of complex nominal heads (see figure 4). On Warlpiri, a contribution by Simpson has appeared in *The Oxford Handbook of Compounding* (2009, Lieber and Štekauer, eds.), where she suggests at one point that "there are no clear phonological differences between the phrase and the compound" (611). She is not clear, however, as to why she considers many instances of N-N combinations to be compounds. There seem to be no proposed formal arguments.

Two languages, Dyirbal and Yidiɲ, distinguish N-N compounds from regular phrases based on the formal criterion described in section 5.2.2: if two nouns occur adjacently without expressing a whole-part relation, the construction has to be a compound, as this is not allowed in phrases. For these two languages, although they do distinguish separate noun and adjective categories syntactically, it is not clear whether N-A compounds also exist, as no attestations are given in the relevant sources.

Yet two other languages, Bāgandji and Yorta Yorta, set apart a compound category from phrases purely on the basis of boundary phenomena (section 5.1.1). Kuku Yalanji, Martuthunira and Warrongo together form a group of languages that only make a distinction between compounds and phrases on the basis of a different stress pattern (section 5.1.2). Djaru and Nhanda combine stress and a constant word-order pattern to delineate their compound category. Finally, Djambarrpuyŋu appears to have a compound category defined by specific boundary phenomena, stress and a constant word order pattern. The formal

distinguishing criteria for the thirteen languages that have just one (attested) type of complex nominal head are summarized in the following table:

LANGUAGES	BOUNDARY PHENOMENA	STRESS	N-N COMBINATIONS CANNOT BE PHRASAL	WORD ORDER
Bāgandji, Yorta Yorta	1	0	0	0
Kuku Yalanji, Martuthunira, Warrongo	0	1	0	0
Dyirbal, Yidiɲ	0	0	1	0
Alyawarra, Warlpiri, Yintyingka	0	0	0	1
Djaru, Nhanda	0	1	0	1
Djambarrpuyŋu	1	1	0	1

Table 7 – Distinguishing criteria for languages with one complex nominal head type

A third group of languages distinguish two different types of complex nominal heads. In table 6, only two languages belong to this group. The Kulin group distinguishes one category from phrases through word order (attribute-entity compounds). The other (part-whole compounds) is unique because of the occurrence of a linking element. See figure 3 for a visual representation. The other language in this group is Wik-Mungkan. This language contrasts compounds with so-called 'close-knit phrases' through stress and word-order patterns: noun-adjective compounds have a primary-secondary stress pattern and have head-modifier order; close-knit phrases have their primary stress accent on the second stem and can be interpreted as having a modifier-head order, see the appendix (from page 122) for examples and details. The Wik-Mungkan situation can be visually represented as in figure 4:

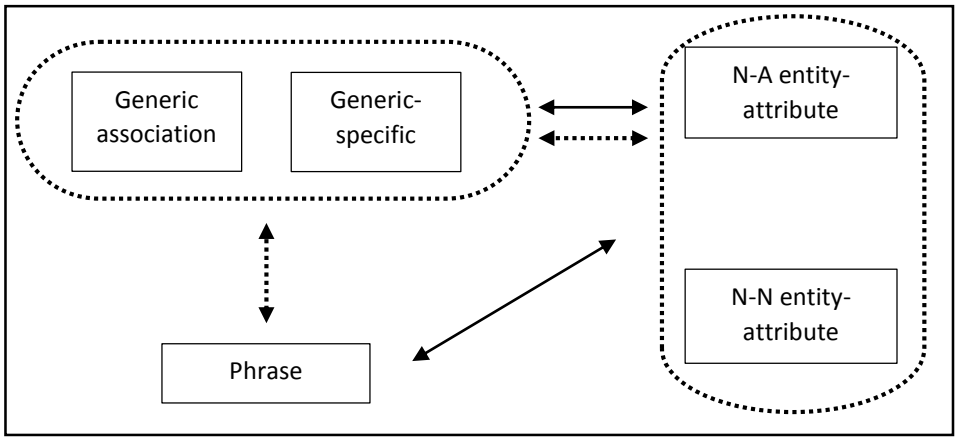


Figure 4 – Wik-Mungkan conceptual map (dotted arrows represent differences in word order, solid arrows signify different stress patterns).

A final group contains three languages that feature three distinct types of complex nominal head. The situation is quite clear for Arabana-Wangkangurru and Mparntwe Arrernte. They both distinguish N-N compounds (including concepts that are elsewhere interpreted as a separate 'whole-part category') from N-A compounds on the basis of word order. Generic-specific combinations assumably have a distinct 'classifying' function and are formally different from 'phrases' with respect to word order. The distinction between generic-specific constructions and both compound classes is mainly guided through stress in Arabana-Wangkangurru and through boundary phenomena in Mparntwe Arrernte. Figure 5 depicts the conceptual divisions in Mparntwe Arrernte, which are almost identical to those in Arabana-Wangkangurru

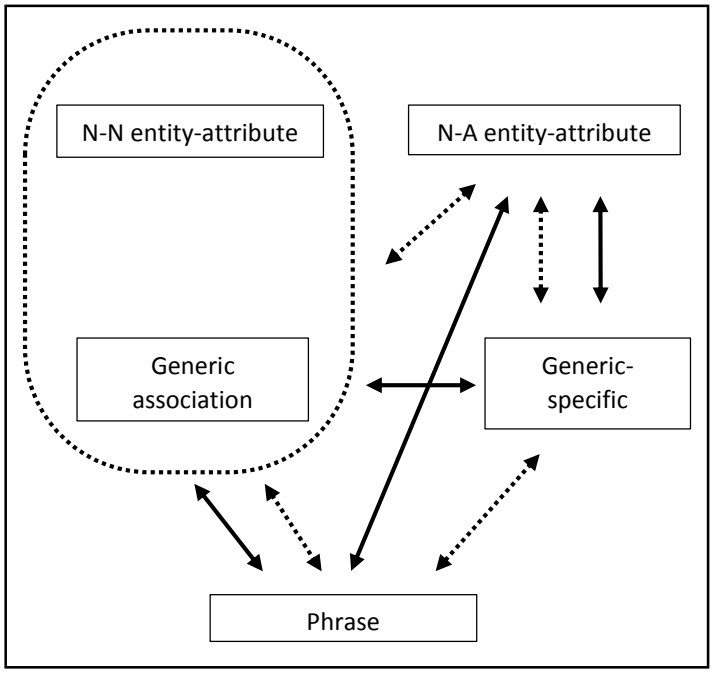


Figure 5 – Map for Mparntwe Arrernte (dotted arrows represent contrasting word orders, solid arrows presence vs. absence of boundary phenomena).

(see figure 3), except that no difference in stress is made and that generic-specific constructions do not have boundary phenomena in Mparntwe Arrernte.

The divisions in Kuuk Thaayorre are less clear-cut. Clearly, there are a number of complex nominal head types. Two are characterized by boundary phenomena and will be referred to as 'compounds'. Their second stem's onset can be fricated (see section 5.1.1 and appendix, from page 98). These two compound types are, in turn, differentiated through different word orders: whole-part compounds have a modifier-head order, entity-attribute compounds are better analyzed as head-modifier structures:

(96) *meer-pork*
eye-big
'star'
(205)

(97) *meer-pancr*
eye-body.hair
'eyelash'
(140)

The status of the third complex nominal head category is not entirely clear. Gaby (2006) calls it a classifying construction, proposing some sort of parallel with the Mparntwe Arrernte generic-specific pairings. However, there appears to be some kind of ambiguity between the whole-part and generic-specific category. Sometimes, the relation between two nouns is indeterminate between whole-part and generic-specific, as in (98): does the fish figure as a 'whole' and the 'liver' as a part of this whole, or is a 'liver' to be interpreted within the frame 'fish'?

(98) *ngat* *thip*
FISH liver
'fish liver'
(279)

In other circumstances, Gaby (2006: 84) describes generic-specific constructions that are 'lexicalized' into compounds: in the following example, *minh-patp* is reanalyzed as a specific noun that is used in a new classifying construction with *ngat* as a generic term.

(99) *ngat* *minh-patp*
FISH MEAT-hawk

‘stingray’

(282)

Apparent lexicalized generic-specific construction may also exhibit frication of the second element’s onset (Gaby 2006: 207), e.g.

(100) *pam-thaaw* /pamða:w/

MAN-mouth

‘friend’

(207)

In the light of these ambiguities, it may be possible to list both ‘generic association relations’ and ‘generic-specific relation’ as expressed by a single formal category in Kuuk Thaayorre. In this perspective, its conceptual divisions of the ‘complex nominal head’ map resemble that of Wik-Mungkan (figure 4) more than that of Mparntwe Arrernte and Arabana-Wangkangurru (figures 3 and 5). This suggestion, however, is tentative: although Gaby’s (2006) comparison of Kuuk Thaayorre’s ‘classifying construction’ with that found in Arrernte may not be entirely solid, she certainly has a point in appointing to it a specialized function. Perhaps whole-part constructions can be seen as a special case of (often lexicalized) classifying phrases?

6.4 Summary

By way of summary, the tree-diagram in figure 6 visualizes the possible categorizations a language can make with regard to (potential) complex nominal heads, and accordingly categorizes the languages in the sample. All languages have been assigned a category, but not all categorizations are equally certain. Those that are hypothetical, for example because there is not enough data available, are given between brackets. Some tendencies may be noted. To begin with, those languages that have the largest number of distinctions between complex nominal head types can often be classified as phrase-marking languages (Kuuk Thaayorre, Wik-Mungkan, Arabana-Wangkangurru, Mparntwe Arrernte, perhaps the Kulin group). If we revisit Kastovsky’s hypothesis on the origin of Indo-European compounding – that it may ultimately go back to “the progressive univerbation and concomitant lexicalization of syntactic phrases” (2009: 339) – we may want to ask whether this is also a plausible scenario for the origin of (a number of) Pama-Nyungan complex nominal heads. In phrase-marking languages it could be easier to reinterpret a phrasal combination of two nominals as a new ‘complex lexeme’ than is the case in word-marking languages. In these languages, this recurring ‘lexicalization’ process may have turned into a productive, on-line

mechanism for creating new specific nouns. A second tendency that is apparent in the data is that languages distinguishing 'generic-specific constructions' from 'attribute-entity constructions' (Arabana-Wangkangurru and Mparntwe Arrernte) also tend to make a distinction between N-N and N-A 'attribute-entity constructions' on the basis of word order. In these languages, 'whole-part relations' are subsumed under 'N-N compounds'. It could be suggested that combinations of two nouns that exhibit no whole-part relationship undergo some kind of influence from the modifier-head structure of whole-part compounds, with which their word-order assimilates. But these findings are not very strong: the tendencies and explanations offered here will probably turn out to be rather weakly founded if a larger study is undertaken of compounds in Australian languages.

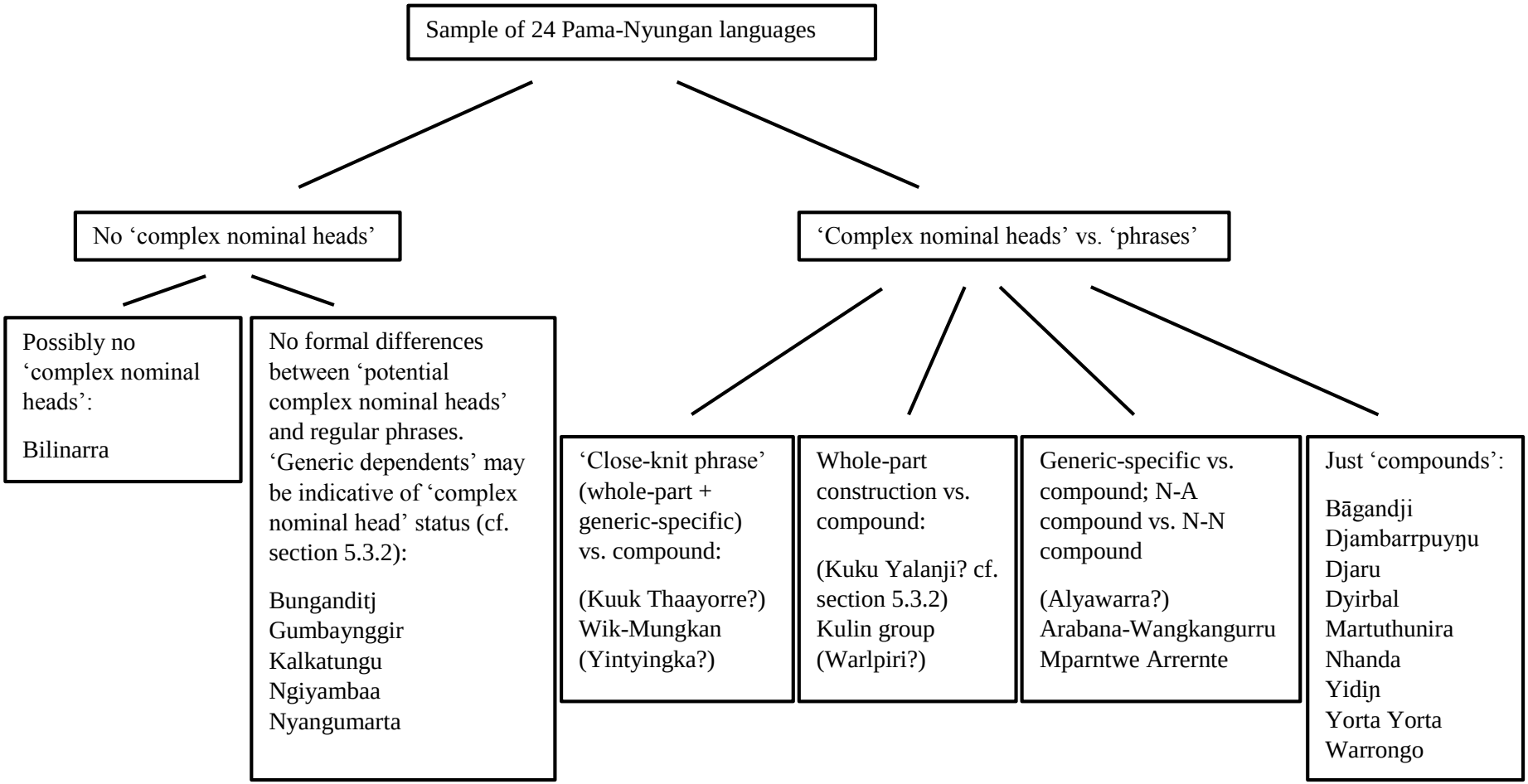


Figure 6 – Summarizing categorization of sample

7 Conclusion

This study has undertaken an attempt to study 'nominal compounding' in Australian languages from a typological perspective. In order to do this, a cross-linguistically applicable notion of 'compound' was construed, to be used as a comparative concept. This notion was further trimmed down to 'complex nominal heads', or eventually 'potential complex nominal heads' before it could be applied to the dataset, a sample of twenty-four Australian languages classified as Pama-Nyungan. In section 5, an overview was given of formal characteristics that can be used to differentiate between potential complex nominal heads in individual languages. Finally, in section 6, a framework was developed that allows an exploration of what divisions of potential complex nominal heads into types can be discovered across the languages in the dataset. This exploratory study has illustrated that there is considerable variation in the behavior of complex nominal heads across the languages of Australia. One of the main concluding points, however, is that current descriptions of compounds and compound-like constructions (or complex nominal heads) of individual languages often leave some questions unanswered, and that these domains require more thorough investigation.

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Appendix: Short reports on ‘compounding’ in individual languages

On the following pages, a number of short reports are provided, one for each language in the sample, in alphabetical order. Each report contains some notes on the nominal word class and its subclasses, on nominal phrases and on (potential) complex nominal heads, based on what was found in available grammars. The main sources that were consulted for each language are cited next to each language’s name. Full bibliographical references can be found in the main bibliography section of this study (from page 62). For genetic and geographical information on each language, see section 3 in the body of this study. Specific page numbers in grammars are mentioned together with relevant notes or next to a report’s relevant ‘subsections’. If a remark is made by the current author, it is printed in italics.

Alyawarra (Yallop 1977)

1 NOMINAL WORDS

a. The nominal word class

Nominals can be inflected for case (68).

b. Nominal subclasses

Adjectives always follow nouns (116).

2 NOMINAL PHRASES

a. Noun phrase continuity

Noun phrases seem to be continuous (116-121).

b. Word order

The NP may be structured as follows (116):

- NOUN + ADJECTIVE
- POSSESSOR + POSSESSEE
- GENERIC NOUN + SPECIFIC NOUN

c. Case-marking across NP members

Normally, only the final noun phrase element is marked, but marking may occur on all members without rendering the structure ungrammatical (116).

d. Other notes: Possession

Possession is expressed adnominally (75). Inalienable possession is expressed with simple juxtaposition and agreement in case. The two nominals are not necessarily adjacent to each other (118). *This indicates that possessor and possessee may be analyzed as two separate noun phrases.*

Note – The examples of possession that are given by Yallop (117-119) are all instances of 'specific possession', i.e. the possessor is a specific entity and is thus referential. It is possible, although not presently confirmable, that expressions of 'generic possession', or 'generic association', where no specific referent is intended, do not allow discontinuity (and are, perhaps, more compound-like).

3 COMPLEX NOMINAL HEADS

a. Compounds

Phonological characteristics: Boundary phenomena and reduction of nasally released plosives.

- If compounding brings *gh* into word-medial position, it is elided (20). *The following instance, an instance of reduplication, is the only example Yallop gives of this phenomenon:*

  agharta-agharta /aghartarta/
  aggressive-aggressive
  'cheeky, a nuisance'
  (20)

- In the process of compounding, nasally released plosives can be brought into an unconventional position, which results in simplification to nasals (18). *Only examples of verbal compounds are given by Yallop.*

  aylpura-akngima /aylpurangima/
  carry-shoulder
  'carry on the shoulder'
  (18)

b. Generic-specific constructions

Generic-specific constructions are marked for case on the specific noun only (119). *They are distinct from regular phrases in that they cannot be analyzed according to the usual head-modifier word order pattern.*

akira *aghirra*
animal kangaroo.NOM
'kangaroo'
(119)

arula *akarli-yika*
wood wild.orange-DAT
'wild orange wood'
(119)

c. Other notes: 'Nominal compounds?' and 'whole-part lexemes'

<u>No examples of 'nominal compounds'</u>

Yallop does not give any examples of nominal compounds in his study, but he does speak of 'compounding' in general (18, 20).

<u>Whole-part lexemes</u>

In an appendix to his study, Yallop supplies some Alyawarra word lists. In the English-Alyawarra 'body-part' section, a number of combinations of two lexemes can be found. It is not clear what their status is and if they should be analyzed as compounds or not. They are not considered in the present study. Some examples:

arruta *alta*
chin hair

‘beard’
(151)

atnirta iltja
belly hand
‘palm of hand’
(151)

atnirta ingka
belly foot
‘sole of foot’
(152)

Arabana-Wangkangurru (Hercus 1994)

1 NOMINAL WORDS

a. The nominal word class

Nominals form an open word class (60). *Nominals inflect for case (60-61).*

b. Nominal subclasses

Adjectives (60)

- Always follow the noun in noun phrases
- Cannot be used with possessive adjectives
- Do not combine with the range of clitics and ‘having’ suffixes
- Follow different semantic rules in reduplication

2 NOMINAL PHRASES

a. Noun phrase continuity

The noun phrase is always continuous (282).

b. Word order

NOUN – ADJECTIVE (282)

wadlhu katyiwiRi-nga
country big-LOC
‘in a big place’
(284)

c. Case-marking across NP members

The final member of the noun phrase is always marked for case, but a modified noun may also be marked for case (282-284).

wadlhu-nga *katyiwiRi-nga*
country-LOC big-LOC
'in a big place'
(284)

3 COMPLEX NOMINAL HEADS

a. Compounds (both noun-noun and noun-adjective)

Phonological characteristics: boundary phenomena, stress and simplification of pre-stopping consonants, linking elements

- Boundary phenomenon 1: In some compounds, a syllable may be elided (57).

  maka-wimpa /makampa/
  fire-track
  'Macumba'
  (57)

  ngama-madla /ngamarla/
  breast-bad
  'pitiful'
  (57 – it is not clear why the *l* becomes retroflex)

- Boundary phenomenon 2: in Arabana, but not in Wangkangurru, an initial *k* can be ommitted in the second member of a compound, often resulting in a long vowel *aa* as 'morpheme boundary' (35).

  Mayarru-kudna-karla /mayarrukudnaarla/
  rat-shit-creek
  'Ratshit Creek'
  (35)

- In compound nouns the second member is not fully accented. As a result, it does not exhibit pre-stopping lateral and nasal consonants (41).

  *ngura-madla /*nguramala/
  camp-bad
  'place associated with a person recently deceased'
  (41)

- A nasal can be inserted before the second member of a compound (56).

  Midlha-n-thupu-nha
  face-LE-smoke-PN
  'Smokey Face'
  (56)

Cranberry morphs

- Some (older) word forms only occur in compounds. The same meaning is usually expressed by a different lexeme in other contexts (26). In some circumstances the difference between the archaic and regular term is probably the result of a sound change (28-29).

maRa-nganti
hand-mother(compound-only)
'thumb'
(26)

pardi-piti
grub-quarry(compound-only)
'grub ritual centre'
(100)

kumpira-piri-piri
dead.person?-ghost(compound-only)
'ghost of a dead person'
(100)

a'. Compound nouns

Order of elements: Modifier-head

Noun-noun compounds differ from regular phrases and noun-adjective compounds by exhibiting an unusual modifier-head order. Hercus does not make a distinction.

Mayarru-kudna-karla /mayarrukudnaarla/
rat-shit-creek
'Ratshit Creek'
(35)

karna-palku
man-flesh
'human flesh'
(74)

b. 'Prefixed nouns'

Phonology: stress and boundary phenomena

- The 'prefixes' tend not to be fully accented, the second member having the main stress (102).
- *In the case of the prefix* wangka- *'speech', the final* a *may be elided if it is followed by a name starting with* a*.*

Wangk'-arabana
speech-Arabana

‘The Arabana language (and people)’
(103)

Function and morphosyntax: headedness and order of elements

- *The whole may be interpreted as some sort of ‘classifying construction’, sometimes indicating that the ‘specific noun’ has to be interpreted ‘metonymically’, e.g. a noun denoting ‘a potential source of water’ comes to designate ‘(a type of) water’ when prefixed with* kutha-*; or ‘a potential source of meat’ refers to ‘(a type of) meat’ when preceded by* kathi-*. In this light, the order of elements may be interpreted as ‘modifier-head’. This analysis is mine.*

kutha-kurndu
water-claypan
‘thick water’
(103)

maka-pirla
fire-charcoal
‘charcoal’
(103)

kathi-kungarra
meat-kangaroo
‘(meat) kangaroo’
(102)

c. Other notes: ‘Coordinate compounds?’

Arabana may have a coordinate compound type, a construction that features co-headedness. It will not be considered in the current study. Hercus mentions the following construction as being a compound, but does not use a further classificatory term such as ‘coordinate’.

Kurkaru-Yurkunangku-ru
Kurkari-Yurkunangku-ERG
‘(the two old men (Snakes)) Kurkari and Yurkunangku (said ...)’
(283)

Bāgandji (Hercus 1982)

1 NOMINAL WORDS

a. The nominal word class

Nominals form an open word class They are not inflected for tense, aspect and modality (51-52).

b. Nominal subclasses

Adjectives normally

- precede nouns (98)
- do not receive case marking (98).

2 NOMINAL PHRASES

a. Noun phrase continuity

The noun phrase is never discontinuous.

b. Word order

ADJECTIVE – NOUN (98)

gumbadja	*gargi*
big	large.bottle/flagon

'a big flagon'
(99)

[ADJECTIVE – NOUN]$_{NP}$ – [ADJECTIVE]$_{NP}$ (99)

- If there are two adjectives, one follows the noun, probably in an apposed noun phrase, as there is a halt in the utterance. Also, an apposed adjective never receives case – *see 2c*.

ŋaba	*ŋidja*	*wīmbadja,*	*gugirga*
I	one	Aboriginal,	black

'I am the only Aboriginal (left), a full-blood'
(99)

c. Case-marking across NP members

The noun phrase as a whole is marked for case, on the final element. If an adjective follows the final noun, it is not marked for case, which may indicate that it is in a separate noun phrase (99).

ŋūya-l-ḏ-adu	*ŋandi-ndu,*	*yaḷḏi-mari*
fear-TOP-FUT-3.sg	teeth-ABL,	long-very

'He will get scared of those long teeth.'
(78)

d. Other notes - Possession

Possession is expressed through simple juxtaposition. If a 'definite' possessor is expressed, it receives a genitive suffix *-na*. If the possessor is 'indefinite', no such suffix is used (76). *In the current study, this characteristic is connected with the issue of compounding: compounds always have a 'generic' (i.e. non-referential, indefinite) dependent.*

wīmbadja-na	*buŋga*
Aboriginal-GEN	hut

‘The hut of an Aboriginal’
(76)

wīmbadja-buŋga
Aboriginal-hut
‘an Aboriginal hut’
(76)

3 COMPLEX NOMINAL HEADS

a. Compounds

Phonological features: boundary phenomena, secondary boundary phenomena

- The initial bilabial plosive *b*, appearing in a second compound member, may be weakened to a fricative or may disappear (in rapid speech) (26).

  ḏaḍu-bulgi /ḏaṭuwulki/, /ḏaṭulki/
  head-hair
  ‘hair’
  (26)

  wīmbadja-būŋga /wīmbatjawūŋga/, /wīmbatjūŋga/
  Aboriginal-hut
  ‘Aboriginal hut’
  (26)

- Consonant clusters do not usually occur word-initially (48), and words normally don’t end in consonants (15). *In the juncture of compound constituents, however, a trisyllabic first root’s final vowel* –a *can be lost, giving way to a consonant cluster. Note: Hercus does not call this characteristic of compounds, but simply asserts that a final* –a *can be elided in rapid speech “when a closely associated word follows within the same noun phrase” (41).*

  duḷag’-waḍa
  bad-heel
  ‘evil-smelling’
  (42, 283 – waḍa *is translated by Hercus as ‘smelling’ in this compound. Its dictionary translation, however, is ‘heel’ (297)*)

  duḷag’-ŋugu
  bad-water
  ‘alcohol’
  (283, 305)

Bilinarra (Meakins and Nordlinger 2014)

1 NOMINAL WORDS

a. The nominal word class

Nominals inflect for case and constitute an open word class (78).

b. Nominal subclasses (78-82)

Adjectives typically function as modifiers of heads, highlighting its properties. Nouns primarily function as heads, but are occasionally found as modifiers (including generic-specific contexts). Adjectives can precede or follow the noun they modify. Modifying nouns always precede the head (see under 2b.).

Adjectives can be derived from coverbs.

Adjectives behave differently semantically in verbless versus verbal clauses: in the first, they denote an entity's properties; in the latter, they describe a state.

2 NOMINAL PHRASES

a. Noun phrase continuity (102-103)

Pronominal clitics tend to occur in second position. They can follow a sequence of nominals, which can be interpreted as a complex noun phrase constituent.

- When a sequence of nominals is split by a pronominal clitic, it is assumed that the nominals belong to simple NPs in apposition.
- Separation of nominals with a pause is interpreted to be an instance of nominals in apposition.
- Discontinuity is interpreted as absence of constituency, but not as functional and semantic unrelatedness (108).

Conclusion: the 'functional' nominal complexes are not equal to 'syntactic' noun phrase complexes.

b. Word order (103-105)

(MODIFIER) + (MODIFIER) + HEAD + (MODIFIER) + (MODIFIER)

- Adjectives can appear before or after the noun, with no clear preference for either pattern.

Ngayirra=ma=rnawula	*wuugarra*	*yalu-wu*	***warlagu-wu***	***guliyan-gu****.*
1UA.EXC=TOP=1UA.EXC	scared	that-DAT	dog-DAT	aggressive-DAT

'We're frightened of that cheeky dog.'
(103)

Gula=lu	*jayi-nya*	***janggarni***	***dan.gu****,*	*burdurr*	*na*	*ya-ni.*
NEG=3AUG.S	give-PST	big	tucker	leave.huff	FOC	go-PST

'They didn't give him much food, so he left in a huff.'
(112)

- Nouns acting as modifiers can express the type of something and e.g. be part of a generic-specific construction. They always precede the noun they modify (111).

Mirndiwirri	***ngarlaga***	*ma-na*	*nyila=ma*	*Nanagu-lu=ma*
plant.sp	seed	get-PRS	that=TOP	subsect-ERG=TOP
gamba-rnu-wu	*garu-wu,*	*yabagayi-wu.*		
cook-INF-DAT	child-DAT	small-DAT		

'Nanagu gets *mirnidiwirri* seeds for treating the babies.'
(79, 111)

c. Case-marking across NP members (105-106)

Each NP member is marked for case (but NPs do not always agree in discourse marking).

3 POTENTIAL COMPLEX NOMINAL HEADS AND ALTERNATIVES

Meakins & Nordlinger do not describe complex head types such as compounds. Perhaps generic-specific combinations (and other noun + noun constructions), could be considered some form of compounding. It is not clear from the following examples whether or not both constituents require case-marking. It is plausible that there just are no 'complex nominal heads' in Bilinarra as defined in the current study.

Baya-la	***mardumardu***	***ngawa***	*garu-nggu=ma*	*yalu-nggu=ma.*
bite-PRS	antbed	water	child-ERG=TOP	that-ERG=TOP

'That child drinks the antbed slurry mix.'
(79)

Mirndiwirri	***ngarlaga***	*ma-na*	*nyila=ma*	*Nanagu-lu=ma*
plant.sp	seed	get-PRS	that=TOP	subsect-ERG=TOP
gamba-rnu-wu	*garu-wu,*	*yabagayi-wu.*		
cook-INF-DAT	child-DAT	small-DAT		

'Nanagu gets *mirnidiwirri* seeds for treating the babies.'
(111)

In semantic domains where other languages frequently use compounding as a naming strategy, e.g. body part terms, fauna and flora ... Bilinarra seems to make use of (unanalyzable) reduplication, 'metonymic/generic' meanings of other terms (e.g. place names simply receive flora/fauna names), or of other (monomorphemic) words.

yimiji-miji
?-REDUP
'eyebrow'
(Meakins 2013)

balinybaliny
?
'Falco cenchroides, also a place name'
(Meakins 2013)

garrada
'spider'

"All spiders have the same name though many different types of spider are recognised and some are dangerous" (Meakins 2013).

Bunganditj (Blake 2003)

1 NOMINAL WORDS

a. The nominal word class

Nominals are marked for case (30).

b. Nominal subclasses

There is probably no grammatical distinction between nouns and adjectives (30).

2 NOMINAL PHRASES

b. Word order

Word order seems to have been free, both head-modifier and modifier-head orders are attested (52).

3 POTENTIAL COMPLEX NOMINAL HEADS

Both modifier-head and head-modifier orders are attested. Perhaps the modifier-head order can be distinguished as 'attribute-entity compound' and the head-modifier order as 'inalienable association'. Blake explicitly calls the following examples "compound nouns" (except for the last two, which are mentioned elsewhere in his grammar). He does not mention any characteristics that set them apart from phrases.

kuma-mir
green-eye
'white person'
(50)

murndal-mraat
thunder-ground
'earthquake'
(50)

muka-pup
rug-head
'headcloth'
(50)

ngurla-wuru
hair-mouth

‘moustache’
(50)

Drualat-ngolonung
man-speech
‘speech of the man, Bunganditj’
(3, cited from Smith 1880: 125)

Booandik-ngolo
Boaandik-speech
‘speech of the Boaandiks’
(3, cited from Smith 1880: 125)

Djambarrpuyŋu (Wilkinson 1991)

1 NOMINAL WORDS

a. The nominal word class

Nominals are inflected for case (112).

b. Nomen subclasses under consideration

Human nomens have distinct patterns of case marking for transitive subjects (A), intransitive subjects (S) and transitive objects (O). They may also inflect for ACC, OBL, OBLS and OR case (114).

Non-human nomens follow an ergative/absolutive case-marking pattern and can inflect for LOC/ABL case (114).

Adjectives are not inherently human/non-human. They inflect according to the humaneness of their particular referent. Adjectives also do not occur with adnominal suffixes in regular adnominal case functions (114).

Body-parts never inflect according to the human case-pattern, even when their possessor is human. They also never occur with adnominal suffixes in regular adnominal case functions. They often occur as the first member of a compound (114).

2 NOMINAL PHRASES

a. Noun phrase continuity

‘Nominal expressions’ are often discontinuous (124).

Note: Wilkinson uses the term ‘phrase’ for continuous, strictly ordered units, but acknowledges that “possible noun phrase constituents” do not have to meet adjacency or ordering criteria (124).

b. Word order

In ‘nominal expressions’, modifiers and heads occur freely in any order. The same goes for the order of genitive and noun (Buchanan 1978: passim as cited in Dryer 2013a,b). *Wilkinson says nothing about ordering constraints in phrases.*

Generic – specific appositions can occur in any order and may feature an intervening morpheme (481-482). *The same seems to be more or less true for ‘social classification and “narrowing”’ apposition (485-489) and, although in other respects it is very different from other appositional constructions, for whole-part appositions (490-497).*

makayuk *dharpa*
pandanus tree/shrub
‘a pandanus tree’
(482)

maranydajlk-thu-n *lawu-m* ***bul’manydji-y-nha***
stingray/shark-ERG-SEQ bite-1st shark-ERG-SEQ
‘(or a) **stingray/shark shark** bites (you)’
(482)

c. Case-marking across NP members

Normally, each NP member is marked for case (124).

3 COMPLEX NOMINAL HEADS

a. Compounds

Phonological features: stress, boundary phenomena

- Primary stress falls on the first syllable. The second syllable may carry secondary stress (63).

  /mí:l-T̲á:l/
  eye-hard
  ‘staring’
  (63 – *My indication of stess; no orthographic transcription is provided*)

- Root-initial peripheral or laminal stops in the second part of compounds may undergo a process of lenition (75).

  *mel-porum /*mi:lwu:rum/
  eye/seed-edible fruit/ripe, cooked
  ‘boy ready to be circumcised’
  (75 – *My orthographic transcription*)

Morphosyntactic features: compounds behave as roots and function as a single unit where inflection is concerned (127, 526), cranberry morphs

- Compounds may be unanalyzable (129).

ŋurru-paṉḏala
nose-?
‘Bush apple’
(129)

mel-parrambarr
eye-?
‘eyebrow’
(129)

Semantic features: body-part terms, metonymy

- Compounds often have a body part term as initial part (114, 121, 151, 526-548).

buthuru-wuŋgan
ear-dog
‘Hammer Oyster’
(528)

makarr-yindi
thigh-big
‘mainland’
(528)

ŋurru-bilkpilk
nose-flat
‘barge’
(528)

dhapi-weyin
foreskin-long
‘type of bee/hive entrance’
(528)

l̪iya-ḏäl
head-firm
‘smart/persistent (one)’
(528)

- (Other nominal compounds do not have a body part term (529-530)).

manikay-ḏumurr
song-big
‘one who always sings/one who likes singing’
(529)

dhäruk-ḏumurr
words-big
‘talkative; someone who is always talking’
(529)

dhuwurr-yätjkurr
path-bad
'sinner'
(529)

- *All attested compounds have to be interpreted metonymically (except perhaps the one mentioned below?). This characteristic is not mentioned by Wilkinson.*

manaŋa-ɖumurr
thief-big
'thief'
(529)

Djaru (Tsunoda 1981)

1 NOMINAL WORDS

a. The nominal word class

Nominals inflect for case (51).

b. Nominal subclasses

There are no grounds for distinguishing separate adjective and noun classes (50).

2 NOMINAL PHRASES

a. Noun phrase continuity

Members of the same NP tend to occur together, but this is not necessarily so (94).

b. Word order

The order of modifier and head seems to vary (95).

biɖa-ŋga *juga-ŋga*
bed-LOC sinifex.grass-LOC
'grass bed'
(93)

milbun *ŋaba*
water.hole water
'water from a water hole'
(93)

c. Case-marking across NP members

Normally, all noun phrase members are marked for case, although this is not necessarily the case when noun phrase elements are adjacent (cf. neighboring language Warlpiri) (94).

e. Other notes – 'generic-specific constructions' and 'inalienable possession'

Generic-specific combinations appear. The only two generics that are frequently used in this way are *maŋari* 'vegetable food' and *guju* 'meat'. The generic noun tends to precede the specific noun (but this is not always the case) (93). *Generic-specific pairings show case-marking on both elements.*

guju-wu *ɖaɖi-wu*
game-DAT1 kangaroo-DAT1
'a kangaroo'
(93)

Inalienable possession can be expressed through simple apposition, in which possessor and possessed take the same case ending (197). There is no strong evidence to argue that the possessor and possessed constitute one single NP (202).

mawun-da *laŋga-ga*
man-LOC head-LOC
'on a man's head'
(198)

Note: Tsunoda makes no distinction between 'generic possession' (with a non-referential possessor) and 'specific possession' (with a specifically identifiable entity acting as possessor).

3 COMPLEX NOMINAL HEADS

a. Compounds

In compounds, stress falls on the first syllable of the first word (47).

Compound nouns consist of a body part + a descriptive noun (236). *They are always interpreted metonymically – at least those given by Tsunoda.*

guŋɖu-jambi
penis-long
'one who has a big penis, also a swearword'
(236)

mangirgir-ɖuwal
ear-long
'donkey'
(236)

ɖirdi-ɖuwal
nose-long
'pig'
(236)

wiri-ɖuwal
neck-long
'bottle'
(236)

maɭa-ɖilawaɖa
hand-many
'crab'
(236)

maɭa-jambi
hand-big
'one with big hands (personal name of Old Toby)'
(201)

Dyirbal (Dixon 1972)

1 NOMINAL WORDS

a. The nominal word class

Nominals are inflected for case (42).

b. Nominal subclasses

Nouns can occur with just one class of noun markers – occasionally two. Adjectives can occur with noun markers belonging to any of the four classes (60-61).

2 NOMINAL PHRASES

a. Noun phrase continuity

Words belonging to one noun phrase may be freely scattered across the clause (Dixon 2002: 143).

b. Word order

NOUN MARKER + NOUN + ADJECTIVE(S) (60)

- NPs can as well contain only one of these three elements or a combination of two of them (60).
- Only in the case of inalienable possession can a NP contain two nouns (62).

c. Case-marking across NP members

All noun phrase elements are marked for case.

3 COMPLEX NOMINAL HEADS

a. Nominal compounds

Guwal has some compounds, made up of two simple roots (317). Dyalŋuy generally uses simple words (324).

balan *mala-yigara*
CL2 hand-crayfish
'scorpion'
(317)

bala *ɖina-guda*
CL4 foot-dog
'softwood tree'
(317)

Noun-noun combinations that do not exhibit a whole-part relation are automatically analyzed as compounds, because, as mentioned above, 'only in the case of inalienable possession can a NP contain two nouns (62)'.

Gumbaynggir (Eades 1979)

1 NOMINAL WORDS

a. The nominal word class

Nominals (i.e. 'ordinary nouns') inflect according to an ergative-absolutive system (246).

b. Nominal subclasses

There are no consistent formal arguments for distinguishing adjectives from nouns (271).

2 NOMINAL PHRASES

a. Noun phrase continuity

Noun phrase elements may be scrambled across the sentence (313).

yari *ŋali:* ***yaraŋ*** *bu:mba* ***gula:na***
PART 1DU.INC.A DEM kill-IMP 3SG.O
'Let's kill him'
(337)

b. Word order

There appears to be a fair amount of flexibility in the ordering of modifier and head. In elicited sentences, the order is modifier-head, but this could be due to English influence (313).

c. Case-marking across NP members

All noun phrase members are marked for case.

e. Other notes

Inalienable possession can be expressed with simple juxtaposition, but may also be marked with genitive case. Alienable possession is always marked on the possessor (316). *No distinctions are made by Eades with respect to 'definiteness' or 'referentiality' of the possessor.*

3 POTENTIAL COMPLEX NOMINAL HEADS

Both modifier-head and head-modifier orders seem to be found in 'idiomatic expressions'. Only the first two examples given here are explicitly called compounds by Eades (265).

gu:wa-mi:lar
fog-cave
'Smokey Cape'
(265)

wiɖir-ɖagi
meat-initiation.ceremony
'cannibal'
(265)

ŋa:lgan-daɽi
ears-though
'pigheaded'
(335 – *my glosses*)

ɖala:ɲ-daruy
tongue-good
'someone who is fluent in a language'
(335 – *my glosses*)

ɖala:ɲ-gura:m
tongue-wretched
'abuse of chatterbox'
(335 – *my glosses*)

yu:ŋgu-ga:li
bad-head
'stupid'
(335 – *my glosses*)

ŋa:lgan-yu:ŋgu
ears-bad
'someone who is slow to learn a language'
(335 – *my glosses*)

yu:ŋgu-ŋa:lgan
bad-ear
'stupid'
(335 – *my glosses*)

Note: when orders are rearranged, the meaning changes (as apparent in the last two examples cited here). There may be some difference between phrases and compounds with respect to word order, or different word orders may reflect some other difference in categories. It is not possible to provide an exact hypothesis, let alone to prove that there are any substantial differences.

Kalkatungu (Blake 1979)

2 NOMINAL PHRASES (108-109)

a. Noun phrase continuity

Noun phrases are commonly split, especially ergative noun phrases.

ŋa-ci-ka	***kuḷa-ji***	*l̲aji*	*ṯuar*	*maḷṯa*	***japacara-ṯu***
me-DAT-0	father-ERG	kill	snake	mob	clever-ERG

'My clever father killed the snakes.'
(108)

b. Word order

HEAD – MODIFIER

ṇṭia-aṉa	*jaun-kuṉa*
mountain-ALL	big-ALL

'to the big mountain'
(108)

POSSESSOR – POSSESSED ITEM (110)

ŋarkun	*ṯapantu*
wallaroo	foot

'wallaroo's foot'
(110)

c. Case-marking across NP members

All noun phrase constituents receive case marking.

d. Other notes: Possession

Possessor and possessee may be felt to be separate noun phrases (110).

No distinction between 'specific possession' and 'generic possession' is made by Blake.

3 POTENTIAL COMPLEX NOMINAL HEADS

The following two constructions are listed as 'compounds' by Blake (94): *Note: no concrete arguments are given for treating them as compounds as opposed to (fixed) phrases.*

pilṯi-maḷi
soft-tongue
'soft (of speech/singing), dumb'
(94; Enoch et al. 2007: 41 – *perhaps* mali *metonymically refers to speech, making this an 'endocentric compound' Enoch et al. 2007 do not mention the meaning 'dumb', only 'soft of speech'*)

ṯuṉṯal-putu
moon-stomach/pouch
'crescent moon'
(94; Enoch et al. 2007: 49 – *Blake seems convinced that this compound has a head-modifier structure. It is also possible, however, to interpret it as a whole-part construction (see 3c): 'stomach/pouch of the moon' – alternatively, this is a fixed locution*)

Note: Blake states that modifier-head order is exceptional (94). One could suggest the alternative analysis that modifier-head order may only occur in 'endocentric compounds' like pilti-mali *above. However, only one example of a potential 'endocentric compound' (that is not a whole-part relation) is found. It is thus not clear whether a rule for 'endocentric compounding' should be formulated.*

It might be that Kalkatungu has just two types of compounds: whole-part compounds and body part-entity compounds. If it has compounds at all, that is.

Other potential compounds are:

a. Fauna/flora compounds

thaka-munthu
bark-face/forehead
'possum'
(Enoch et al. 2007: 46 – *my glosses; this can be interpreted as a whole-part structure*)

antha-kurlayangu
mouth-male
'python'
(Enoch et al. 2007: 12 – *my glosses*)

kantha-thaku
head-grindstone
'bottle tree/caterpillar'
(ibid: 18 – *my glosses*)

mapa-matjin
head-black
'python/black-headed'
(ibid: 26 – *my glosses*)

mintji *kurri-kurri*
back red

‘spider/redback’
(ibid: 29 – *my glosses*)

b. Weapon/tool compounds

antha-umuyan
mouth-waxed
‘barb (on spear)’
(ibid: 13 – *my glosses*)

intha-mari
ear-?
‘boomerang/hooked’
(ibid: 15 – *my glosses*)

c. Whole-part compounds (denoting body parts)

antha-pirnkut
mouth-chin
‘chin’
(ibid: 13 – *my glosses*)

marli-ngurtu
tongue-testicles
‘testicles’
(ibid: 27 – *my glosses*)

tjukutjuku *ntuu*
ear hole
‘ear hole’
(ibid: 52 – *my glosses*)

utunthu-kantha
liver-head
‘heart’
(ibid: 55 – *my glosses*)

Kuku Yalanji (Patz 2002)

1 NOMINAL WORDS

a. The nominal word class

Nominals inflect for case (42).

b. Nominal subclasses

Nouns can be distinguished from adjectives on semantic grounds, but the categories also differ morphologically: adjectives can carry comparative and intensity markers (43-44).

2 NOMINAL PHRASES

a. Noun phrase continuity

Noun phrases may occur in continuous chunks, but they may also occur discontinuously (119).

b. Word order

Modifiers usually follow the head (120).

Possessive constructions always have the order possessor-possessee (121).

c. Case-marking across NP members

All NP-elements are marked for case (119).

Possessive constructions do not always require case-marking on the possessive form if they appear contiguously (119). *Note: No examples of this are given. Perhaps possessive forms mainly occur without case-marking if they are involved in a generic possession relation – see section 5.3.2 of the current study.*

d. Phrasal stress patterns

The last word of a (stressed) noun phrase receives most prominent stress (37).

Kaya-ngka	*yunu*	*minya*	***ngáwuya***	*nuka-ny.*
dog-ERG	your	flesh.food	turtle.ABS	eat-PST

'The dog ate your turtle meat.'
(37 – *my glosses and stress marking*)

e. Other notes: 'Generic-specific constructions' and 'inalienable possession'

'Classifying constructions' do appear, but not all that often. Only *minya* 'flesh food' and *mayi* 'plant food' are often used, to contrast edible from inedible meat/plants (120). *This construction seems not to be prosodically different from regular syntactic phrases. Patz also analyzes them as having case-inflection on both elements.*

mayi	*wukay*
plant.food	hairy.yam

'hairy yam'
(120)

minya	*ngangkin*
flesh.food	porcupine

'porcupine'
(120)

baya *kubu*
fire.ABS smoke.ABS
'smoke'
(231)

Whole-part relations can be expressed through apposition, both elements agreeing in case (186). *Note: this configuration could require a transitive reading, e.g. 'on the girl (by the) foot'.*

maral-anda *jina-nga*
girl-LOC foot-LOC
'on the girl's foot'
(186)

3 COMPLEX NOMINAL HEADS

a. Compounds

Compounds are head-modifier constructions that can be interpreted metonymically. They are distinguished from phrases because they inflect as a whole and carry primary stress on the first syllable only (24, 35-36, 63). They often have a body-part as first compound member (63-64).

*miyil-dudu /*míyildùdu/
eye-blunt
'illiterate'
(35, 63)

miyil-dandi
eye-hard
'sleepless'
(24)

miyil-wujurr-wujurr
eye-darkness-REDUP
'dusk'
(64)

milka-dandi
ear-hard
'good memory'
(64)

walu-dandi
face-hard
'stubborn, disobedient'
(64)

mara-jalajala
hand-loose/broken
'generous person', 'clumsy person'
(64)

manu-buray
throat-spring.water
'squeamish feeling'
(64)

Jina-baji
foot-sore
'Sorefoot (nickname)'
(11)

The following are unanalyzable compounds (63). *They are not considered in the current study, as they seem to deviate from the regular word order tendencies observed in compounds.*

marrka-bina
salt.pan(Kuku Yalanji)-ear(Djabugay)
'oyster found in mangrove swamp'
(63)

kalka-muku
spear-back
'green tree snake'
(63)

Kulin group (various sources)

A. Western Kulin (Blake 2011a)

2 NOMINAL PHRASES

b. Word order

It is not clear whether there was a preferred order of modifier and head, but one source (Matthews) mentions head-modifier order as the basic one (33).

3 COMPLEX NOMINAL HEADS

An affix *-i-* is often found connecting compound parts (33). *Blake translates it as some sort of possessive a suffix 'its', but perhaps it could be seen as a semantically empty linking element.*

purrp-i-lar
head-LE-hut
'roof'
(33 – *my glosses*)

mart-i-kuli
big-LE-man

‘ancestor’
(51 – *my glosses*)

Compounds are often part-whole combinations (in that order) or other inalienable possession types (49).

jatjin-mir
water-eye
‘tears’
(49)

tjatji-nhawi
sister-sun
‘star’
(49)

miRk-purrp
egg-head
‘brain’
(49)

putj-i-marna
stomach-LE-hand
‘palm of hand’
(50 – *my glosses*)

Compounds can also have modifier-head order. This type can be interpreted metonymically.

murt-wirimbul
short-ears
‘deaf’
(49)

tjuwag-pirrk
long-tail
‘cow’
(50)

Tjap-wurrung
broad?-mouth
‘broad language?, i.e Tjapwurrung’
(11)

Nunda-tjali
good?-tongue
‘good language?, i.e. Nundatjali’
(11)

Djadja-wurrung
yes?-mouth
'yes-language?, i.e. Djadjawurrung'

B. Compounds in Woiwurrung (Blake 1991)

Part-whole constructions appear. And so do apparent attribute-body part compounds (at least one). Blake states that "a word for a generic substance is followed by a word for a specific body part" (78).

galk *gawang*
bone head
'skull'
(78)

yarra *mirring*
hair eye
'eyebrow'
(78)

yarra *ngurnduk*
hair chin
(78)

budhun *djinang*
sore foot
'chillblain'
(78)

bik-gurn
earth-throat
'mushroom'
(78)

buladu-gaang
big-nose
'greedy'
(80)

A linking element *(C)i* can appear in between compound members (43).

baba-di-marnung
mother-LE-hand
'thumb'
(79 – *my glosses*)

baba-bi-djinang
mother-LE-foot
'big toe'
(79 – *my glosses*)

dhirribi-marnung
nail-LE-hand
'fingernails'
(79 – *my glosses*)

C. Compounds in Wembawemba (Hercus 1992)

kangi-kurrm-kurrk
waddy-breast-woman
'mid teenage girl'
(20)

kuli-wutyup
crowd-belly
'hatred in the belly, savage, fierce'
(23)

mirri-kar
?-leg
'tree frog'
(29)

tyurung-pility
long-leech
'worm'
(46)

Kuuk Thaayorre (Gaby 2006)

1 NOMINAL WORDS

a. The nominal word class

Nominals may carry case (except for predicate adjectives) (75).

b. Nominal subclasses

Adjectives

- may freely combine with any generic; specific nouns may only combine with one or two generics (78);
- may be modified by degree adverbs (79);
- always follow the noun they modify (76, 85).

Generics

- precede the noun they 'modify' (76);

- *when they occur as the only member of a noun phrase, they are formally equal to specific nouns.*

2 NOMINAL PHRASES

a. Noun phrase continuity

Case suffixes only attach to the final constituent of a noun phrase (12, 277); word order within the noun phrase is fixed (277); noun phrases are characterized by a single intonation contour with a single primary stress peak (278).

b. Word order

The head noun is generally followed by all modifiers; generic nouns precede specific nouns (11, 76, 277):

[GENERIC – SPECIFIC] – ADJECTIVE PHRASE

c. Case-marking across NP members

Only the last noun phrase element is marked for case (12, 277).

e. Other notes

Part and whole are apparently referred to by separate NPs, as they can be separated by other constituents (327). *It is, however, possible, that this mostly goes for 'referential' wholes. Gaby does not make a difference between 'generic' and 'specific' possession (or association).*

nhinh	*ngay*	*wuump*	*walmeerem*	***name***	***nhangkn***	*ngay*
2.sg.ACC	1.sg.NOM	CONTR	remember	name	2.sg.POS.ACC	1.sg.NOM
possessor				possessum		

'I remember your name'
(326 – name nhangkn *refers to a specific person here*)

3 COMPLEX NOMINAL HEADS

a. Compounds

<u>Phonological characteristics: boundary phenomena, stress</u>

- The second component of a compound usually has a fricated onset (34). *The only examples that are given by Gaby concern whole-part relations. In the current study, it is assumed that all compounds share this feature.*

  meer-punk /me:ɻβuŋk/
  eye-knee
  'eyebrow'
  (34, 140)

  kul-punk /kʰulβuŋk/
  lap?-knee

‘crowd’
(34)

*ring?-**k**a:l* /ɻɪ:ŋɣa:l/
?-ear
(34 - *I was not able to find the intended orthography for [ɻɪ:ŋ] in Gaby’s grammar*)

- The second root of a compound generally receives primary stress (66). *This feature does not distinguish Kuuk Thaayorre nominal compounds from nominal phrases, as phrases all have a single stress peak. It is only useful if one wants to contrast a verbal compound with a sequence of a noun and a verb (cf. 146ff).*

punk-paant /puŋk-pá:nt/
knee-head
‘kneecap’
(66)

meer-kun-waarr /mè:ɻ-kun-wá:r/
eye-guts-bad
‘pitiful’
(66, 205)

Morphosyntactic characteristics: word order, (word classes,) cranberry morphs

- The lexical head is (mostly) not the word-initial morpheme in compounds (66). *I argue that **noun-adjective compounds always have head-modifier order – which may sometimes have to be interpreted metonymically – whereas noun-noun compounds always have modifier-head order.***

meer-pork
eye-big
‘star’
(205)

thaa-porpr
mouth-soft
‘kind’
(204)

koo-miing
nose-daytime
‘face’
(140 – *here,* miing *is an adverb used as an adjective (cf. 114)*)

meer-pancr
eye-body.hair
‘eyelash’
(140)

meer-pungk
eye-knee

‘eyebrow’
(140)

meer-ngok
eye-water
‘tear’
(206)

- The word class of a compound word is not predictable from its components’ word classes (205). *Instead, I would argue that some compounds automatically receive a metonymic reading (cf. section 5.3.1.1 in this study)*

meer-pork
eye-big
‘star’
(205)

thaa-porpr
mouth-soft
‘kind’
(204)

- The second element of compounds may be a cranberry morph (205-206).

pil-perrk
hip-?
‘hipbone’
(206)

Semantic characteristics: initial body part, body part compounds, compositionality

- Most compounds have a person part term as their first element (204).

kun-yangkar
bum-calf
‘sibling’
(204)

thaa-porpr
mouth-soft
‘kind’
(204)

- Many person part terms are compounds of other person part terms. Usually, the first element refers to a part that includes/spatially relates to the denotatum of the entire term. The second element is physiologically similar, in terms of form, function or structure (205-206).

meer-kay
eye-metal

‘spectacles’
(84)

meer-pancr
eye-body.hair
‘eyelash’
(140)

meer-pungk
eye-knee
‘eyebrow’
(140)

- Bodily products are referred to using their source (206).

meer-ngok
eye-water
‘tear’
(206)

kun-thomp
bum-smoke
‘vapor trail of a jet plane’
(207)

- Semantic compositionality varies greatly, but most compounds are idiomatic and lexicalized (205). *At least, this is the main criterion used by Gaby to distinguish compounds from phrases. I do not consider it a strong criterion.*

b. ‘Classifying constructions’

Arguments for distinguishing classifying constructions:

- Semantic function (cf. Wilkins 2000): generic nouns categorize entities of social and cultural importance (279).
- Generic nouns syntactically and semantically resemble numeral classifiers of Asian and Central American languages (cf. Smith & Johnson 2000) (279).
- Frequency of co-occurrence of generic and specific nouns (cf. Sands 1995) (279)

Semantically, generic-specific constructions exhibit a ‘whole-part’ or superordinate relationship between the generic noun and the specific noun (279).

ngat *pinporro*
fish barramundi?
‘barramundi’
(279)

ngat *thip*
fish liver

‘fish liver’
(279)

Combining the same specific noun with two different specific nouns may result in a completely different meaning. This is related to the issue of providing a monosemous definition for certain specific nouns (280).

may *kermpl*
plant large.white.berry?
‘large white berry’
(280)

minh *kermpl*
meat corella?
‘corella’
(280)

A generic-specific construction can in its turn be treated as the specific noun of a new generic-specific construction (281).

ngat *minh-patp*
fish meat-hawk?
‘stingray’
(282)

c. Interaction/ambiguity between generic-specific constructions and compounds

In 3b., some characteristics are summed up of generic-specific constructions. However, if we consider the same characteristics from a different perspective, they may be accounted for by an analysis of these constructions as ‘compounds’:

- *Compounds also tend to exhibit a whole-part/superordinate relationship between their parts.*

ngat *pinporro*
fish barramundi?
‘barramundi’
(279 – *same example as in 3b.*)

ngat *thip*
fish liver
‘fish liver’
(279 – *same example as in 3b.*)

- Some specific nouns may co-occur with multiple generics, a system which resembles classifier systems. However, the resulting combinations are rarely compositional, which suggests that they are stored in the lexicon (84) *or could they be considered instances of compounding instead?*

pam *wang*
human whitefella/white?
‘whitefella’
(84)

minh *wang*
meat eagle/white?
'eagle'
(84)

kuuk *wang*
word English.language/white
'English'
(84)

may *kermpl*
plant large.white.berry?
'large white berry'
(280 – *same example as in 3b.*)

minh *kermpl*
meat corella?
'corella'
(280 – *same example as in 3b.*)

- Generic-specific combinations may be(come) compounds (84) *and can thus enter into the specific slot of a generic-specific combination*.

ngat *minh-patp*
water meat-hawk
'spotted eagle-ray'
(84 – *same example as in 3b.*)

Furthermore:

- Some kin terms obligatorily combine with a generic. These instances could perhaps be seen as compounds (139).

pam *kun_yangkar*
male.human brother
'brother'
(139)

- Proper names and 'bush terms' are often composed of compounds referring to important events in mythology or history (146).

Raak *Yak* *thorkorr*
place snake long
'Long snake place'
(147)

- In some circumstances, it is hard to distinguish compounds from generic-specific constructions semantically, and on the basis of other formal criteria (207-208).

pam-thaaw
MAN-mouth
'friend'
(207)

yuk-ngat
OBJECT-fish
'cyclone'
(208)

Concluding note: I am not sure to what extent generic-specific constructions in e.g. Arrernte (Wilkins 2000) and those in Cape York languages such as Kuuk Thaayorre, Wik-Mungkan and Yintyingka are comparable. There are some semantic and syntactic similarities, but I feel that generic-specific combinations take on a different function in the Arrernte language system than they do in Cape York language systems. In Kuuk Thaayorre they often seem to be similar to compounds (both structurally and semantically); in Wik-Mungkan, they can be clustered together with whole-part constructions into the close-knit phrases category.

Martuthunira (Dench 1994)

1 NOMINAL WORDS

a. The nominal word class

Nominals inflect for number and case (51).

b. Nominal subclasses

Subclasses may be established, but the sets are not mutually exclusive (52-53). There are no general syntactic or semantic rules to distinguish adjectives from nouns (55).

- Nouns are nominals which almost always appear as heads.
- (Prototypical) adjectives are nominals which typically function as modifiers of heads. They may appear as heads and may occur in apposition to other nominals in simple asciptive clauses.
- Other nominals may take any functional nominal position.
- 'Active adjectives' always require a copula and function as second predications of manner.

Proper names may be considered a nominal subclass, taking a special set of genitive and accusative case suffixes (55-56).

2 NOMINAL PHRASES

a. Noun phrase continuity

Typically, a noun phrase is covered by one intonation contour (189). *Noun phrases do not normally appear discontinuously? (no examples of this were found in Dench's grammar)*

b. Word order

Noun phrase structure can be described as consisting of an ordered sequence of functional slots, of which the following are relevant for the current report (189):

CLASSIFIER + ENTITY(+ QUALIFIER(S)) (189, 193)

CLASSIFIERS restrict the reference of the head (ENTITY) by narrowing the set of possible referents (189). They may

- describe one of its properties (190-191) – *i.e. GENERIC-SPECIFIC, MODIFIER-HEAD*

Ngunhu *kartatha-lalha* *marruwa-a* *wirra-a.*
that.NOM chop-PAST snakewood-ACC boomerang-ACC
'He chopped a snakewood boomerang'
(191)

- name a specific type of entity belonging to the subset of the generic class denoted by the ENTITY nominal (191) – *i.e. SPECIFIC CLASS – GENERIC CLASS*.

Thathu-rnu *warnu* *pala* *ngaliwa* *ngurnu* *tharnta-a* *murla-a.*
send-PASSP ASSERT IT 1PL.INC that.ACC euro-ACC meat-ACC
'Well, it's because we were sent that euro meat.'
(191)

Generic – specific constructions may be interpreted similarly, but sometimes also as instances of entity – qualifier (195).

Ngayu *manku-layi* *thanuwa-ngara-a* *maan-ngara-a.*
1SG.NOM get-FUT vegetable.food-PL-ACC seed-PL-ACC
'I'll get some food, seeds.' OR 'I'll get some seeds (by way of food).
(195 – *my alternative translation*)

- indicate a stage-of-life term before an animate ENTITY (191)

Nganarna *yanga-lalha* *kupuyuwaja-a* *muyi-i*
1PL.EXC chase-PAST little.one-ACC dog-ACC
'We chased off those little dogs.'
(191)

QUALIFIERS have a non-restrictive modifiying function (189). They may also be part of an independent noun phrase. Their status is not completely clear (193) – *See also* thanuwangaraa maanngaraa, *two examples earlier.*

Nhuwala *puni-layi* *manku-lu* *kurlany-ku* *Kurlanypungkunhu-u.*
2DU go-FUT get-PURPss knife-ACC Kurlanypungkunhu-ACC
'You two go and get a knife, a Kurlanypungkunhu (place name) knife.'
(193)

c. Case-marking across NP members

All elements of the noun phrase are marked for case (57, 60, 189).

d. Other notes: Part-whole composites

Part-whole composites may function as complex fillers of the NP ENTITY slot (191, 193). *Apparently both whole-part and part-whole orders are possible. Only isolated examples are available, extracted from their syntactic environments. There seems to be no reason to treat them as complex nominal heads, as they are not phonologically different from phrases and can be separated by a modifier of the part. Perhaps they could be analyzed as CLASSIFIER-ENTITY or ENTITY-QUALIFIER constructions instead of complex fillers of the entity slot?*

marli *kartawura*
cadjeput butt
'butt of a cadjeput tree'
(193)

murtiwarla *yinyjin*
car engine
'car engine'
(193)

mirntiramarta *punga*
goanna guts
'goanna guts'
(193)

jamanu *muyi*
track dog
'dog track'
(193)

yilhi *wirra*
chip boomerang
'boomerang chip'
(193)

The part can be modified, but then the modifier and part are involved in a fixed construction which could 'almost' be called a compound. The modifier does not agree in case. If it would, it would scope over both the part and the whole. These 'fixed constructions' are no compounds because (1) the suffix choice is phonologically determined by the 'part-noun' only (i.e. modifier and part are not phonologically felt to be a unit) and (2) adverbs and clitics may separate the part and modifier (193-194).

mulha *jurirri-lu* *jumpirirri-lu*
point sharp-EFF knife-EFF
'with a sharp-pointed knife'
(193-194)

muyi-ngku *tharta* *para-ngku*
dog-EFF crutch hollow-EFF
'hollow-crutched dog'
(194)

3 COMPLEX NOMINAL HEADS – DESCRIPTIVE CATEGORIES

a. Compounds

Compounds are typically exocentric and have a body part-property structure. They are often used to indicate fauna and humans. Compounds with a monosyllabic first member have no stress on the second member (44).

tháa-puwa
mouth-rotten
'rotten mouth(ed fellow)'
(44)

The following structures are listed as compounds in the lexicon:

yirra-puwa
teeth-rotten
'poor hunter'
(355)

jina-mirtali
foot-big
'camel'
(329)

kanta-wanarra
leg-long
'tall person'
(331)

kuliya-wanarra
ear-long
'donkey'
(333)

mulha-jurirri
nose-sharp
'fox'
(337)

nyinkurlu-winparri
front-long
'horse'
(342)

punga-pangkira
guts-protruding
'flagon, potbelly'
(346)

purnji-karta
back-bony
'shell of turtle'
(347)

purnji-pangkira
back-protruding
'camel'
(347)

b. Note: A 'whole-part compound'?

One instance of a possible whole-part compound is found in the dictionary appended to Dench's study. It is not analyzable as both components have the same lexical meaning. As it is an isolated example, it will not be considered in the present study.

thurla-paniya
eye-eye
'pupil of eye'
(349)

Mparntwe Arrernte (Wilkins 1989)

1 NOMINAL WORDS

a. The nominal word class

Nominals can be the sole member of an NP and can be marked for case. They may be negated through cliticization with *–kwenye* (70).

b. Nominal subclasses

Nouns always precede adjectives (104).

NPs may contain only one specific noun, but they may contain multiple adjectives (105).

2 NOMINAL PHRASES

a. Noun phrase continuity

Noun phrases are always continuous.

b. Word order

[GENERIC NOUN – SPECIFIC NOUN]$_{Hd}$ – ADJECTIVE PHRASE – QUANTIFIER PHRASE (Wilkins 2000: 150)[25]

c. Case-marking across NP members

Only the final element of a NP is marked for case (102).

[25] Where Arrernte classifying/generic-specific constructions are concerned, I refer to Wilkins' (2000) article, where he argues for a model which more comprehensively accounts for this phenomenon than the occasional treatments it gets in his 1989 grammar.

3 COMPLEX NOMINAL HEADS – DESCRIPTIVE CATEGORIES

a. Compounds

Phonological features: boundary phenomena

- If (a) a compound's left root ends in /ë/ and (b) its second member begins with a vowel, then the /ë/ is elided (100).

  arre-yenpe
  /arryenpe/
  mouth-skin
  'lips'
  (145)

  arre-urrperle
  /arrurrperle/
  mouth-black
  'black-mouth snake'
  (146)

Morphosyntactic features: cranberry morphs

- There are three morphemes that do not occur as free forms, namely *arre-* 'mouth'; *ake-* 'head'; *akwe-* 'arm/hand' (145-146).

  akwe-alyenge
  /akwalyenge/
  hand/arm-left.hand/arm
  'left hand/arm'
  (146)

  arre-utne
  /arrutne/
  mouth-?
  'jaw'
  (147)

  ake-ngkwerne
  head-bone
  'skull'
  (146)

a'. Noun-noun vs. noun-adjective compounds

A division can be made between compounds that have a noun and an adjective member and compounds that have two noun components. The first follow the regular head-modifier word order (and may often be interpreted metonymically, the latter have a modifier-head order.

Noun-noun compounds:

alknge-arlpelhe
eye-feather

‘eye-lash’
(145)

lyeke-kaperte
thorn-head
‘caltrop, spiky headed plant’
(146)

Noun-adjective compounds:

alknge-therrke
eye-green
‘cat’
(146)

ampe-kweke
child-small
‘baby’
(145)

b. Generic-specific constructions

Generics and specifics are clustered as a complex head. Generics do not fulfill a classic modifying function as do head-external modifiers (103). Instead, the classifying construction as a whole “functions to highlight just those knowledge structures in the lexical conceptual package of the [specific noun] that are relevant to it being [an entity belonging to the set denoted by the generic noun], and backgrounds all the other knowledge structures that characterize an understanding of the [specific noun]” (Wilkins 2000: 184). *The glosses provided here for the generic nouns should not be seen as comprehensive translations. The reader is referred to Wilkins (2000) for a more elaborate discussion of the problems and possibilities associated with defining generics.*

ngkwarle *untyeye*
nectar/honey corkwood
‘corkwood nectar’
(102*)*

Classifying constructions can be of different types, which can be defined with respect to the semantics of the generic term and the function of the construction as a whole (cf. Wilkins 2000: 152-154).

- Social status generics – these emphasize that the speaker has to view the referent in relation to its social relevance (cf. Wilkins 2000: 195-198).

artwe *alartetye*
initiated.man leader
‘spokesman’
(106)

ampe *yeperenye*
child kind.of.caterpillar
‘child of Yeperenye totem’
(106)

pmere *Mparntwe*
place *Mparntwe*
'Alice Springs'
(106)

- Inherent nature generics – these activate the knowledge structures identifying the referent with its habitual behaviour as a species/object. At the same time, other potential 'functions', e.g. medicinal, nutritive are backgrounded (cf. Wilkins 2000: 189-190).

yerre *lkerrke*
ants black.meat.ants
'black meat ants'
(106)

ure *kwerte*
fire smoke
'smoke'
(106)

kwatye *urewe*
water flood/river
'flood/river'
(106)

- Function/use generics – these highlight the features of the referent related to how they are obtained, prepared and used (cf. Wilkins 2000: 190-193).

kere *aherre*
meat kangaroo
'kangaroo'
(107)

merne *langwe*
plant.food banana
'bush banana'
(107)

awelye *untyeye*
medicine corkwood.tree
'corkwood tree medicine'
(107)

If two generics are used together – FUNCTION/USE + INHERENT NATURE, in that order –, they are meant to activate two different knowledge structures at the same time. This use is very rare (cf. Wilkins 2000: 198-200).

Kere	***thipe***	***ilentye***	*thipe*	*akngerre*	*re,*	*kere*	*akngerre*
	arlkwe-me						
meat	bird	galah.NOM	bird	big	3.sg.NOM	meat	big.ACC
	eat-NPP						

'The galah is a big bird with a lot of meat on it.'
(Wilkins 2000: 199)

Ngiyambaa (Donaldson 1980)

1 NOMINAL WORDS

a. The nominal word class

Nominals form an open class. They inflect for case (68).

b. Nominal subclasses

One class of nominals refuses reduplication. Reduplicated forms can be translated as 'more or less x' (70). *It is therefore possible to semantically identify non-reduplicating nominals with the traditional 'noun' class, the members of which identify entities, as opposed to 'adjectives', which describe properties of entities. Donaldson, however, postulates that it would have no descriptive purpose to use the word 'noun' for this class, at least not in his grammar (71).*

> **miri-miri*
> dog-REDUP
> 'more-or-less dog'
> (70 – *my glosses*)

There are no additional syntactic or morphological criteria to distinguish nouns from adjectives (71).

> *gi:djan*
> green
> 'green/green one'
> (71 – *my glosses*)

2 NOMINAL PHRASES

a. Noun phrase continuity

The constituents of a noun phrase can be spread across the sentence (232).

b. Word order

POSSESSOR – POSSESSED ITEM (except with enclitic pronouns) (236)

HEAD – MODIFIER
MODIFIER – HEAD
(there seems to be no fixed order, 236)

A noun phrase can contain a sequence of nominals with identical reference (229-230).

dhudhubaynj-djul	*mayi*
honeyeater-DIM.ABS	person.ABS

‘little honeyeater fellow/someone who is both bird and man’
(230, 320)

c. Case-marking across NP members

Usually, all members of a noun phrase receive case marking (232).

It may happen, however, that inflection is left off one of two adjacent constituents (232).

gabada: bilaŋa:l-a
moon next-LOC
‘next month’
(232)

guɽun ba:mir-a
grass long-LOC
‘among the long grass’
(232)

mugabangay-gu miri
skinny-ERG dog
‘skinny dog’
(232)

3 POTENTIAL COMPLEX NOMINAL HEADS

When referring to a part, that part can be preceded by a nominal denoting the whole of which it is part (230). *These could be interpreted as compounds. The last example is lexicalized and because of this it is interpreted as a compound by Donaldson (see sections 2.2.2 and 4 of this study).*

gugugun ŋamu
cow breast/milk
‘cow’s udder/cow’s milk when it is still inside the cow’
(230, 231 – *my glosses; Donaldson’s interpretation has an absolutive case on both constituents*)

dhagar malda
ice lump
‘lump of ice’
(230 – *same as previous examples*)

mayi waraŋun
person *waraŋun*
‘someone’s *waraŋun* (the ‘spirit’ which animates people when alive)’
(231 – *same as previous examples*)

bala gabuga:
head egg
‘brains’
(334 – *same as previous examples*)

wi:m-bara:n
fire-rib
'fire's rib/the smokeless area of ground around a fire'
(230 – *my glosses*)

Nhanda (Blevins 2001)

1 NOMINAL WORDS

a. The nominal word class

Nominals take basic nominal inflections and have ergative-absolutive case-marking (46).

b. Nominal subclasses

There are no morphological or syntactic arguments to distinguish nouns from adjectives (1).

Proper names follow a nominative-accusative case-marking pattern (47).

2 NOMINAL PHRASES

a. Noun phrase continuity

Noun phrases tend to be contiguous (129).

b. Word order

Word order is relatively free and headedness is largely indeterminate in the noun phrase (120).

c. Case-marking across NP members

Case marking may appear on all elements, but this is not obligatory: when a noun phrase is contiguous, only the last element has to be marked (2, 129).

3 COMPLEX NOMINAL HEADS

a. Compounds

Compounds are often prosodically structured as simplex words, the first part's first syllable receiving main stress (28, 45).

ngunda-mini /ngúndamìni/
face-light/shiny
'whitefella'
(28)

Body part-property compounds have a fixed order of parts: head-modifier. They are (almost) always interpreted metonymically.

warla-pitkili
head-bald
'bald'
(45, 71)

ngunda-ku'arlu
face-good
'good looking, attractive (one)'
(71)

wirdaa-ku'arlu
leg-good
'pretty-legged (one)'
(71)

mutha-pididi
nose-flat
'big-nosed (one)'
(71)

b. Notes: Alleged compounds

Other alleged compounds have modifier-head order. The distinction may be random, or it may have to do with exocentricity/metonymic interpretation of the previous examples. Alternatively, these aren't compounds but just fixed locutions. They are not formally (phonologically) distinct from phrases.

pudi-abarla
small-child
'baby'
(71)

war'a-wangganhaa
bad-language
'curse words'
(71)

Nyangumarta (Sharp 1998)

1 NOMINAL WORDS

a. The nominal word class

Nominals inflect for number and case (104).

b. Nominal subclasses

Common nouns and names typically function as noun phrase heads and can occupy argument positions. Descriptive nominals typically function as secondary predications of attribute or manner (107).

2 NOMINAL PHRASES

a. Noun phrase continuity

Noun phrases that appear discontinuous are interpreted as sequences of syntactically separate noun phrases (388).

b. Word order

Attributive nominals tend to follow nominal heads. This is not a strict rule (389).

The functional noun phrase template gives the following order (393):

CLASSIFIER – ENTITY – QUALIFIER

- The classifier specifies the referent according to some type of classification (i.e. it specifies a subset of potential referents) (394).
- The qualifier narrows the potential set of referents according to a property that can be attributed to it (394).

c. Case-marking across NP members

All noun phrase members receive appropriate case marking (391).

d. Phrasal stress patterns

The first 'word' of a phonological phrase receives primary stress. Any following word is marked for secondary stress (97)

e. Other notes: 'Part-whole sequences' and 'generic-specific constructions'

Part-whole constructions are analyzed as instances of classifier-entity constructions: if suffixes occur, they are attached to both members of the constituent (398).

Generic-specific constructions can be analyzed both as classifier-entity constructions and as entity-quality constructions (398-399).

kuyi-ku	*kartantarri-ku*
meat-DAT	duck-DAT
'duck meat'	
(403)	

3 POTENTIAL COMPLEX NOMINAL HEADS

A number of constructions are labeled as 'compounds' by Sharp. In these examples, both modifier-head and head-modifier orders are attested. Perhaps the difference between both can be described in terms of the noun phrase template: the first nominal can be classifier or entity; the second nominal is either an entity or a qualifier. No differences with phrasal N-N constructions are mentioned, except that neither of the parts is inflected. The examples may be instances of fixed locutions rather than compounds.

yirra-kunyja
tooth-bone
‘jawbone’
(142)

wika-minti
fire-charcoal
‘hot coals’
(142)

mitu-jawa
lie-mouth
‘false teeth’
(142)

wirtirr-ngumpa
severe-face
‘policeman’
(142)

kaluru-jawa
black-mouth
‘carpet snake’
(142)

kawu-wirtu
body-big
‘fat, plump’
(142)

jina-puka
foot-rotten
‘boots’
(142)

Warlpiri (Various sources)

1 NOMINAL WORDS

a. The nominal word class

Nominals are marked for case (Nash 1980: 14).

b. Nominal subclasses

There is no clear-cut distinction between nouns and adjectives (Nash 1980: 15).

2 NOMINAL PHRASES

a. Noun phrase continuity

The auxiliary normally appears in second position, so a group of words preceding it can be seen as a single constituent (Simpson 1983: 215).

b. Word order

The usual order is head-modifier (Simpson 2009: 609).

c. Case-marking across NP members

Both modifier and head are marked. In a few instances only the last element is marked (Simpson 1983: 215).

3 POTENTIAL COMPLEX NOMINAL HEADS

a. Whole-part constructions

There appear to be some whole-part constructions that denote body parts. Because they differ from the usual head-modifier word order, they can be seen as instances of complex nominal heads.

lirra-pinpina
mouth-thin.flat
'lip (i.e. 'thin/flat one of the mouth')'
(Simpson 2009: 612, Nash 1980: 39)

milpa-ngipiri
eye-egg
'eyeball'
(Simpson 2009: 612)

b. Some potential compounds

The only apparent formal difference between potential compounds and phrases is that phrases usually have case-marking on both elements. We should consider the option that there is no clear-cut distinction between phrases and entity-attribute expressions (which may be interpreted metonymically).

jaka-larra
buttocks-split
'prickly bush'
(Nash 1980: 39)

mulyu-kuna
nose-excrement
'black-nosed python'
(Nash 1980: 39)

langa-parraja
ear-coolamoon
'bat-ears, ears wich stick out'
(Simpson 2009: 612, Nash 1980: 39)

jurru-marntarla
head-gidgee.tree
'insensitive and stubborn person'
(Simpson 2009: 611)

mulyu-larra
nose-split
'bloody nose/nose-bleed'
(Simpson 2009: 612, Nash 1980: 39)

langa-larra
ear-split
'ear-mark'
(Simpson 2009: 612)

c. Note: 'loan-translated modifier-head compounds'?

Some apparent modifier-head constructions are mentioned as compounds in Nash (1980:38). They seem to indicate functions that have come about since the white settlements. Perhaps they should be considered calques of some sort. They are not mentioned by Simpson (2009) and will not be treated in the current study.

jija-wati
nurse-man
'hospital worker'
(Nash 1980: 38)

kuurlu-wati
school-man
'school worker'
(Nash 1980: 38)

Warrongo (Tsunoda 2011)

1 NOMINAL WORDS

b. Nominal subclasses

Nouns and adjectives are not inflectionally or syntactically distinguishable (157, 351).

One point that could be argued for is that 'adjective-like nouns' cannot occur as the first part of compounds (cf. 241).

2 NOMINAL PHRASES

a. Noun phrase continuity

Although there are some configurational types of noun phrases, canonical noun phrases are not configurational (347).

b. Word order

No order of modifier and head is significantly more common. Adjective-like nouns, however, precede their heads slightly more often than they follow (60% in a sample of 89 examples) (347-350).

c. Case-marking across NP members

All noun phrase members receive case marking (342).

d. Note: 'Whole-part appositions'

Whole-part appositions generally require both constituents to agree in case (644). The order of whole and part is mostly whole-part (74% in a sample of 73 contiguous examples) (657). *Apart from case-marking, they differ from compounds in that whole and part can be syntactically separated.*

jombi *jawa* *bogara-n*
penis.NOM mouth.NOM swell.up-NF
'the mouth of (my) penis has swollen up'
(656)

jawa *bogara-n* *jombi*
mouth.NOM swell.up-NF penis.NOM
'the mouth of (your) penis has swollen up?'
(656)

3 COMPLEX NOMINAL HEADS

a. Compounds

- Compounds have a single intonation contour: primary stress falls on the first syllable of the second root (135).

  mara-gona /màragóna/
  hand-faeces
  'lazy person'
  (135, 242)

Many compounds are of the type body part-property. They are generally interpreted metonymically. There are also compounds that do not begin with a body part.

Jina-barro
foot-bent
'bent foot, name of Maurice Palmer'
(21)

mara-minya
hand-game
'hunter'
(242)

mara-nganyi
hand-face
'someone who is very swift when fighting'
(242)

mara-yigarra
hand-freshwater.shrimp
'scorpion'
(244)

bama-goman
man-other
'different men'
(243)

raba-goma
fork-other
'another fork shaped branch'
(243)

Wik-Mungkan (Kilham 1974; Kilham et al. 1989)

1 NOMINAL WORDS

b. Nominal subclasses

Nouns can carry case marking (different from the pronominal paradigm) (1989: 402).

Adjectives usually follow the noun they describe (1989: 403)

2 NOMINAL PHRASES

a. Noun phrase continuity

Noun phrases are usually continuous.

b. Word order

HEAD + ADJECTIVE, with primary stress on the adjective (1974: 53; 1989: 403)

ɲàŋk *mín*
heart good
'happy'
(1974: 49 – *my stress marking*)

ɲàŋk *wéntj*
heart sore
'happy'
(1974: 49 – *my stress marking*)

ɲàŋk *wáy*
heart bad
'sad'
(1974: 50 – *my stress marking*)

ADJECTIVE + HEAD – only in cases of special emphasis, with primary stress on the adjective (1989: 403)

The HEAD may consist of (1989: 402, 417)

- A single NOUN (or adjective in cases of ellipsis)
- A GENERIC + SPECIFIC combination
- Any other 'close-knit phrase'

c. Case-marking across NP members

Case markers are added to the last word of the noun phrase (1989: 402).

3 COMPLEX NOMINAL HEADS

a. Compounds

Phonology

- PRIMARY STRESS + SECONDARY STRESS (1974: 58; 1989: 416).
- Consonant clusters may occur which do not occur in monomorphemic words (1974: 60).
- The second stem may have a long vowel, which does not normally occur in second syllables (ibid.).

Semantics

- Compounds tend to show a higher degree of semantic fusion than do (syntactic) phrases, i.e. they are more often idiomatic and their parts' meanings are not always transparent (1989: 416).
- Compounds can express relations of modification and coordination and may be used metaphorically to name entities (1989: 416-417).
- Body parts are often recruited as parts of compounds, and may be used both in literal or extended senses (1974: 45; 1989: 417)

Some compounds with a body part as the first element refer to actions associated with that body part (1974: 46). *Note: Kilham also mentions this as characteristic of 'close-knit phrases'. Compounds may be interpreted metonymically.*

máʔ-tàyan
hand-firm
'trustworthy with things'
(1974: 46)

kón-tàyan
ear-firm
'attentive'
(1974: 48)

méːʔ-tàyan
eye-firm
'awake'
(1974: 49)

méːʔ-ʔèŋkan
eye-clear
'a clear place'
(1974: 49)

méːʔ-ɲùtaŋ
eye-night
'very early morning'
(1974: 49)

ɲáŋk-ʔìk
heart-split
'to be deeply shocked'
(1974: 49)

ɲáŋk-wày
heart-bad
'out of breath'
(1974: 50)

táːʔ-mòtjan
mouth-quiet
'shy person'
(1974: 50)

Some noun-adjective compounds are names for fauna (1974: 54).

mìn *máʔ-wùnt*
protein.food hand-wind
'prawns, crayfish'
(1974: 47 – *my stress marking*)

tàl *máʔ-wùnt*
centipede hand-wind
'scorpion'
(1974: 47 – *my stress marking*)

mìn *ká:lʔ-wèʔar*
protein.food ear-wide
'frilly necked lizard'
(62 – *my stress marking*)

b. Close-knit phrases

What Kilham and collegues call close-knit phrases may express a generic-specific relationship in which "the first word gives the broader setting and the second narrows the field". The use of such combinations resembles that of classifying constructions (1989: 417). Using generics, however, is not obligatory (1974: 52).

puk *wanch*
child woman
'female child'
(1989: 417)

minh *pangk*
protein.food wallaby
'wallaby'
(1989: 417)

Kilham and colleagues subsume whole-part constructions under this category (1989: 417). (Body) parts are often specified using a 'whole' followed by a 'part' term, the latter being the head (1974: 46).

màʔ *ʔék*
hand shell
'fingernail'
(1974: 46 – *my stress marking*)

màʔ *púk*
hand child
'finger'
(1974: 46 – *my stress marking*)

màʔ *pú:y*
hand crab
'handcuffs'
(1974: 47 – *my stress marking*)

màʔ *kú:y*
hand rope
'sorcerer'
(1974: 47 – *my stress marking*)

tù:t *mé:ʔ*
breast eye
'nipple'
(1974: 49 – *my stress marking*)

ɲàk *mé:ʔ*
water eye
'spring'
(1974: 49 – *my stress marking*)

tùm *mé:ʔ*
fire eye
'lighted firestick'
(1974: 49 – *my stress marking*)

yù:ntj *tá:ʔ*
tree mouth
'stump'
(1974: 50 – *my stress marking*)

Conclusion: there are no formal differences between expressions of whole-part and generic-specific relations in Wik-Mungkan.

Yidiɲ (Dixon 1977)

1 NOMINAL WORDS

a. The nominal word class

Nominals inflect for case (121).

b. Nominal subclasses

Each specific noun has just one (sometimes two) appropriate generic term with which it can occur. Adjectives can occur with multiple generics. They also do not occur often without a noun (122).

Generic nouns are a closed set which divide up the universe into mutually exclusive areas (480-496).

2 NOMINAL PHRASES

a. Noun phrase continuity

Word order is relatively fixed within the noun phrase (247). *Dixon proposes that this is "an aesthetic (or pedantic) fad, rather than a syntactic necessity", as "sentences showing unusualy orders are generally quite grammatical, any oddity being at the level of 'style' (247). Although word orders deviating from the*

norm probably have a specific function (Dana Louagie, p.c.), it is not clear what kinds of deviations are allowed, and whether Dixon includes discontinuity among such deviations. He gives no examples.

b. Word order

GENERIC(S) + SPECIFIC + PART + ADJECTIVE(S) (250)

Note: this template does not leave room for combinations of two nouns that are no whole-part sequence. Non-whole-part N-N combinations can thus be analyzed as compounds.

c. Case-marking across NP members

All constituents of a noun phrase receive case marking (247).

d. Other notes: Apposition and genitive marking of inalienable possession (248)

Genitive marking can be employed in case of inalienable (part-whole) relationship (248). An alternative way of expressing inalienable possession through apposition of possessor and possessee, without any special marking. Both have to take the case inflection appropriate to the whole NP. Normally, the possessed 'part' noun will follow the 'whole' possessor noun (248). *Note: does the head-modifier analysis hold in these cases? Also, the only examples given are in absolutive case, so there is no evidence that both possessor and possessed nouns are inflected for case.*

ɲundu!	*bama*	*dungu*	*numaŋ*
hey!	person.ABS	head.ABS	move.about-PRES

'Hey! That's a person's head moving about.'
(248)

ɖugi	*gubu*	*gana*	*ŋayu*	*waŋgi*	*wawa-lna*
tree.ABS	leaf.ABS	TRY	I.SA	up	look-PURP

'I must try to look up at the leaves on the trees [to see what color they are, when the clouds have turned yellow just before a volcanic eruption.]
(248)

3 COMPLEX NOMINAL HEADS

a. Compounds

Proper names can be formed by compounding two nominals (477).

bayagawar
bayba- gawar
spring (water)-blood
'squirt blood (a personal 'guiding angel' of George Davis' grandfather who told him what was happening elsewhere)'
(477)

Yintyingka (Verstraete and Rigsby 2013a)

1 NOMINAL WORDS

b. Nominal subclasses

Adjectives always follow nouns (3).

2 NOMINAL PHRASES

a. Noun phrase continuity

There are no attested discontinuous noun phrases (1).

b. Word order

HEAD – MODIFIER (8-9), in which the head can be complex, existing of

- a whole-part construction
- a generic-specific construction, in which
  - the specific may be a whole-part construction/compound

c. Case-marking across NP members

Only the last noun phrase element receives case-marking (1).

3 COMPLEX NOMINAL HEADS

a. Whole-part constructions

At least some whole-part constructions can be considered compounds: (a) they occur as a single lexeme in the 'specific' slot of generic-specific constructions, (b) they have a modifier-head structure and (c) they are often lexicalized body-part terms.

yu'u *athi*
hand nail
'finger nail'
(2, 7)

manu *wintyi*
neck boomerang
'collarbone'
(7)

Some whole-part constructions may be more (semantico-functionally) akin to generic-specific constructions, or to e.g. 'close-knit phrases' in Wik-Mungkan: they indicate a 'generic object class' which specifies in what 'frame' the 'specific' noun has to be interpreted. The specific noun often seems to be a kin term.

kul'a *paapa*
stone mother
'lower stone of a grinding stone set'
(3)

altyi *poko*
milling.stone child
'upper stone of a grinding stone set'
(4)

Finally, some whole-part constructions may be ambiguous between these categories.

ko'o *manta*
eye child?
'eyelid'
(7)

a'. Generic-specific constructions

Generic-specific constructions don't occur often and their function is not certain. They typically occur in elicitation contexts. They indicate a hyperonymic relationship between the generic and specific term, or may signify a product of the generic concept (6). *Generic-specific constructions are not formally distinct from whole-part constructions. It may be possible to propose a term covering both constructions. In the current study, the term 'close-knit phrase' will be used for this category, to highlight the similarity with Wik-Mungkan's divisions.*

mayi *punpinhu*
plant.food lily.root
'water lily root'
(2)

mayi *wontene=nhang*
plant.food sugarbag.type
'type of sugarbag'
(4)

minha *ninani*
game.animal wallaby
'wallaby
(4)

kaka *pankati*
spear bullet.spear
'bullet spear'
(4)

yuku *wanhampe*
tree grass.tree

‘crying stick’
(5)

thuma *kaykarra*
fire ashes
‘ashes’
(7 – *This is listed as a whole-part construction in Verstraete and Rigsby*)

Yorta Yorta (Bowe and Morey 1999)

1 NOMINAL WORDS

b. Nominal subclasses

No arguments are given for a separate treatment of nouns and adjectives.

2 NOMINAL PHRASES

a. Noun phrase continuity

No examples of discontinuous noun phrases are given in primary sources.

b. Word order

Both head-modifier and modifier-head order seem to be possible (106-107).

dungudja-l *yiyir-al* *datin* *badja*
big-ERG man-ERG kill.PAST possum.ABS
‘A big man killed a possum.’
(56)

yiyir-il *dungudja-il* *badja* *datin*
man-ERG big-ERG possum.ABS kill.PAST
‘A big man killed a possum.’
(56)

Both genitive-noun and noun-genitive order seem to be possible.

yiyir-an *wanya*
man-GEN boomerang
‘a man’s boomerang’
(57)

galinya *maan* *winyar-in*
good face woman-GEN
‘the woman’s pretty face’
(57)

c. Case-marking across NP members

Both head and modifier are marked for the same case (see examples in 2b.) (82).

3 COMPLEX NOMINAL HEADS – DESCRIPTIVE CATEGORIES

a. Compounds

At word boundaries, syllables of compounds may be elided. This may be an effect of lexicalization. The constructions exhibiting this feature may have both modifier-head and head-modifier order. It is perhaps also possible to interpret (some) modifier-head constructions as part-whole constructs, e.g. 'the big one of the water'. The last example given here, galnyoga*, may be an exocentric property-body part compound.*

dungudja-wala /dungula/
big-water
'the great water, the Murray River'
(38)

gaiya-wala /gaiyala/
father-water
'father of the water, the Goulburn River'
(38)

*nayga-idjiga /*naygidjiga/
duck-little
'little duck'
(38, 182)

*yarrga-idjiga /*yargidjiga/
child-little
'little children'
(38, 175)

galnya-buga? /galnyoga/
good-head?
'bald-headed'
(167)

Body-parts may be signified relative to the larger part they belong to. The order seems to take the form of part-whole. This construction may be used metaphorically to name places/people.

gaiya-wala /gaiyala/
father-water
'father of the water, the Goulburn River'
(38)

nhanha beyin
mother hand
'thumb'
(101)

mithurra *biyala*
fork.of.a.tree gum.tree

‘Gum Tree Fork, personal name of Susanna Crow’
(131)

dolela-borrinyu
short?-arm
‘upper arm *(i.e. ‘the short one of the arm’?)*’
(166)

b. Some additional examples of possible compounds

galnya *yiyirr*
beautiful man
‘handsome’
(101)

galnya *yitiga*
good meat?
‘good, pleasant smell’
(101)

galnya *woka*
good land
‘heaven’
(195, 257)

(y)itjumatj *buli*
sick stomach
‘sick in the belly’
(222)

Samenvatting (Abstract, Dutch)

Deze studie omvat een onderzoek naar nominale samenstellingen en gerelateerde N-N combinaties in een sample van vierentwintig Pama-Nyungan talen (Australië), dit vanuit een typologisch standpunt.

Uit een overzicht van de typologische literatuur rond samenstellingen (sectie 2) blijkt dat het moeilijk is om een duidelijke definitie van 'samenstellingen' op te stellen die cross-linguïstisch kan worden toegepast. Wel is het mogelijk om voor aparte talen enkele parameters aan te geven die het toelaten een categorie van 'samenstellingen' te onderscheiden van N-N 'phrases'. Op fonologisch vlak kunnen samenstellingen 'grensfenomenen' vertonen, alsook 'linkmorfemen' en/of een gespecialiseerde klemtoon. Op gebied van morfosyntaxis kunen de elementen waaruit samenstellingen zijn opgebouwd moeilijk gesplitst worden. Ook kunnen samenstellingen 'cranberry-morphs' hebben, lexemen die enkel voorkomen in samenstellingen en nergens anders in een taal. Qua semantiek functioneren samenstellingen als 'namen': ze worden makkelijk gelexicaliseerd, worden vaak idiomatisch en ze hebben een niet-referentieel 'afhankelijk' element (d.i. het element dat niet het 'hoofd' is van de N-N combinatie).

In sectie 4 wordt het concept 'complex nominal head' gedefinieerd, dat een studie toelaat van nominale samenstellingen in het licht van andere 'non-phrasal' N-N combinaties in de talen van het sample (dat wordt beschreven in sectie 3). Sectie 5 biedt een overzicht – gebaseerd op de parameters die werden voorgesteld in sectie 2 – van de fonologische, morfosyntactische en semantische eigenschappen die deze constructies vertonen. Uiteindelijk wordt, in sectie 6, geschetst hoe verschillende talen in het sample een onderscheid kunnen maken tussen verschillende types 'complex nominal heads', waaronder samenstellingen.