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Typologizing nominal expressions: the noun phrase and beyond

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Abstract: This article develops foundations for a new typology of nominal expressions. Despite the significant diversity attested in languages around the world, a view traditionally and sometimes still found holds that languages either have 'classic', rigidly structured noun phrases (NPs) or lack them. A simple dichotomy, however, does not adequately represent the significant language-internal and crosslinguistic diversity of forms and functions of nominal expressions. While many linguists may not in fact think in such binary terms, a comprehensive typology is still wanting. This article offers foundations towards such a typology, with a particular emphasis on language-internal diversity. This diversity within languages has received little attention in previous studies, even while it reveals much about the actual complexity in the nominal domain. Besides surveying structural types and their motivating factors across as well as within languages from around the world, this article approaches nominal expressions also from a variety of other perspectives to enrich our understanding of them. This includes approaching nominal expressions from the perspective of word class systems as well as diachronically. We round off the article by looking at the impact of orality-literacy dimensions and communicative modes.

Keywords: discourse functions; nominal expression; noun phrase; syntax-prosody interface; word classes

1 Introduction

This article offers foundations towards a comprehensive typology of the nominal domain, capturing the significant language-internal and crosslinguistic diversity of nominal expressions. This new typology moves away from the traditional

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approach that is based on the following dichotomy: between languages that have classic, rigidly structured NPs, like English (1), and languages that do not, like Kalkatungu (2), which shows different orders for noun, adjective and demonstrative, and allows discontinuous structures. This dichotomy is often – if perhaps less frequently nowadays – linked with the more general concept of (non-) configurationality, the study of which has its roots in analyses of specific languages, especially from Australia. The presence of 'problematic' structures as in (2) led to the idea that several Australian languages do not or do not clearly have NP units as established for, e.g., Germanic or Romance languages (e.g., Blake 1983; Evans 2003: 227–234; Hale 1983; Harvey 1992; Heath 1986; Rijkhoff 2002: 19–22).[1]

(1) English (Germanic)

three	other	fresh	red	peppers
QUANTIFIER	SECONDARY DETERMINER	ATTRIBUTE	CLASSIFIER	HEAD NOUN

(Breban and Gentens 2016: 41)

(2) Kalkatungu (Kalkatungic)

a. ***cipa-yi*** ***ṯuku-yu*** ***yaun-tu*** *yaɲi* *icayi*
this-ERG[2] dog-ERG big-ERG white.man bite
'This big dog bit/bites the white man.'

b. ***yaun-tu cipa-yi ṯuku-yu*** *icayi yaɲi*

c. ***cipa-yi ṯuku-yu*** *yaɲi icayi* ***yaun-tu***

d. ***cipa-yi*** *icayi yaɲi* ***ṯuku-yu yaun-tu***

(Blake 1983: 145)

1 The concept of non-configurationality is traditionally defined in terms of a cluster of characteristics, including free word order, discontinuous nominal expressions and null anaphora (Hale 1983); languages exhibiting these characteristics were argued to have no NPs or VPs at all (e.g., Blake 1983; Heath 1986). See e.g., Jelinek (1984), Austin and Bresnan (1996) or Pensalfini (2004) for alternatives to the original position; see Nordlinger (2014: 227–232, 237–241) for an overview.

2 Examples are glossed according to the Leipzig Glossing Rules (http://www.eva.mpg.de/lingua/resources/glossing-rules.php). Other glosses used are 2–10 (Bantu) noun classes, I–IV (Bininj Kunwok) noun classes, ACT actualis, ADD additive, ADVZ adverbializer, ANAPH anaphoric, AOR aorist, ASR assertive, ATR neutral attributive suffix, AUG augment, CARD cardinal number, CJ conjunct, COM.APPL comitative applicative, CONTESS contessive, COP copula, DECL declarative, DIR direct case, DIR.EV direct evidence, DM demonstrative marker, FV final vowel, FyB father's younger brother, GENR general TAM marker, HPL human plural, INCH inchoative, ITG intangible, LK linker, LV light verb, MID middle, NEUT neutral, NHUM non-human, NP_N nominal (concord) prefix of class n, NP noun phrase, PERS personal, PPM present participle middle, PP_N pronominal (concord) prefix of class n, PRET preterit, PREV preverb, PRT discourse particle, PUNCT punctual, RDP reduplication, REP reportive, ROG interrogative, SP_N subject prefix of noun class n, SPEC specific article, TRANSLOC translocative, U undergoer, UA unit augmented, VE vegetable noun class, VENIT venitive, x>y: x is agent-like, y is patient-like argument of transitive verb.

However, and leaving aside controversies around the concept of non-configurationality, there is wide-ranging evidence in the literature that the picture is far more complex than a simple dichotomy suggests, and this is reflected in some analyses which make finer distinctions. For example, Rijkhoff (2002: 19–23), in his crosslinguistic study of the NP, distinguishes between integral NPs (where elements that semantically modify the head are also modifiers syntactically), non-integral NPs (where elements that semantically modify the head are in apposition to it at sentence level), and something in between (where each element is a minor NP; all are in apposition within a larger phrasal structure). Rijkhoff further argues that some languages may have appositional modification generally (referring to several Australian languages), whereas others only have it in specific circumstances (e.g., for any additional modifiers which exceed a given limit of integrated modifiers as in Yimas [Foley 1991: 4, 184, 188], or only for certain types of modifiers as in Korean [Lee 1989: 118]). Krasnoukhova (2012; see also this issue) argues that many South-American languages belong to the last category, i.e., where we see a mix of structures: they have both integral and non-integral NPs (in Rijkhoff's sense), often depending on the type of modifier, and with structural and pragmatic motivations for using non-integral NPs. Louagie and Verstraete (2016), building on work by McGregor (1989, 1990, 1997a), Croft (2007), Schultze-Berndt and Simard (2012) and others, show that the nominal domain in many Australian languages should be analyzed as involving a range of structures. Finally, also evidence from diachronic work suggests that we are not dealing with a dichotomy, but that syntactic rigidity and complexity may increase or decrease in piecemeal fashion (Carlier and Combettes 2015; Freek Van de Velde 2009; Himmelmann 1997; Mark Van de Velde this issue; Reinöhl 2016a).

The following example illustrates the diversity in the nominal domain within a single language. Here and elsewhere in the article, we use the label of "(nominal) construal" for the different structural realizations of nominal expressions, i.e., expressions consisting of elements sharing a referential (or sometimes other) discourse role (for more on this see Section 2.1). Bininj Kunwok, a language from northern Australia, generally has flexible nominal expressions, which are functionally, but not syntactically, a unit. Evans (2003: 227) argues that "[a]lthough several nominal words pertaining to the same entity are often adjacent, there is rarely evidence that they form part of a syntactic unit; rather they are related paratactically and the relations between them are worked out from pragmatics rather than syntax." This is illustrated in (3a)–(3c), which shows different orders for the semantic head and its modifiers. In addition, Bininj Kunwok allows discontinuous expressions, which are "particularly common" with measure expressions (Evans 2003: 242), as illustrated in (3d). These are not the only construal types available in the language, however, as Bininj Kunwok also has phrasal

structure available in a small part of the grammar. Example (3e) illustrates rigid NP construal with indefinite 'one', where the indefinite marker is always found initially (Evans 2003: 244).[3]

(3) Bininj Kunwok (Gunwinyguan)

a. *ngale* *ngarrku* *ngurrurdu*
F:DEM our emu
'that emu of ours'
(Evans 2003: 243)

b. *namege* *maih* *ngarrgu*
M:DEM bird our
'those birds of ours'
(Evans 2003: 243)

c. ***Djirndih*** ***ngal-u*** ***na-yahwurdurd,*** *ba-yi-walkka-rri-nj.*
quail F-that M-little 3PST-COM.APPL-hide-REFL/RECP-PST.PFV
'That little quail hid himself away with it.'
(Evans 2003: 243)

d. ***Na-marn.gorl*** *ga-garrme* ***na-gimuk.***
I-barramundi 3-catch.NPST M-big
'He's catching a big barramundi.'
(Evans 2003: 243)

e. *"Njamed,* ***na-gudji*** ***nayin*** *ga-yo!"* *ba-mulewa-ni.*
what M-one snake 3-lie.NPST 3PST-inform-PST.IPFV
'"Hey, there's a snake here!" he'd say.'
(Evans 2003: 681)

It is clear that we need an alternative typology that deals with the full diversity in the nominal domain. This article lays foundations for such an alternative typology, based on the range of construal options for nominal expressions, some of which do and some of which do not show evidence for phrasal structuring (Section 3.1). We also put a particular focus on language-internal diversity and on motivating factors for the choice between construal types (Section 3.2). To further enrich our understanding of this diversity, we discuss the relation between word class and structure of nominal expressions (Section 4), as well as diachronic developments in the nominal domain (Section 5). Section 6 focuses on some higher-level factors

3 Other construal types, not illustrated in (3), include for instance noun-noun apposition (Evans 2003: 247–248), nominal compounding as an alternative for some noun-modifier expressions (Evans 2003: 173, 176–180), and verb-incorporated nouns which can potentially be modified by verb-external elements (Evans 2003: 234–241). The latter two are outside the scope of this article, as they involve strategies below word level.

influencing the distribution of construal choices within language corpora, viz. orality, literacy, and communication modes.

While the article draws on literature and data of a variety of languages from different language families and areas, it is somewhat biased towards Australian languages synchronically and towards Indo-European languages diachronically, as these languages have been most prominent in the respective discussions. Other families and areas have not received the same amount of attention; exceptions include Rijkhoff's (2002) seminal crosslinguistic work and Krasnoukhova's (2012) study of South-American languages. This bias is partly remedied by the contributions to this special issue, which include studies of Bantu, Papuan, Eastern Caucasian and South-American languages besides Australian and Indo-European ones. We will reference the contributions throughout the article to highlight where they are particularly relevant, and also provide brief summaries of each in the final Section 7. Before discussing individual construal types and their distributions within languages, however, we first come to some conceptual preliminaries.

2 Preliminaries

At the outset, we need to clarify our understanding and use of the term nominal expression (NE): we use it as a general term for one or more elements in the nominal domain which together function as a unit, e.g., together establishing or tracking reference or functioning as a nominal predicate, regardless of the construal type they appear in, and thus also regardless of whether they also form a syntactic unit or not (see Himmelmann 1997: 111, 117–119; see Section 4 on word classes appearing in nominal expressions). We restrict the use of the term noun phrase (NP) to such nominal expressions whose elements belong together not only functionally, but also syntactically. Section 2.1 shows the value of a discourse-functional understanding of NEs as guiding principle given the significant formal diversity. This approach also helps exclude cases where we do not in fact find functional unity. Section 2.2 focuses on nominal expressions that are also syntactic units. We discuss different types of evidence often used for the identification of "classic" NPs and show how most of them are not as straightforward as they are sometimes made out to be.

2.1 What makes a nominal expression?

A discourse-functional understanding of nominal expressions as outlined above is essential in delimiting our domain of study. It allows for the identification of less

straightforward cases and the exclusion of cases which may at first sight resemble nominal expressions but are actually different. Several such cases are surveyed in this section to illustrate this point, with a brief mention of the relevance of prosodic phrasing for nominal expressions.

Let us start with a phenomenon which has challenged traditional assumptions of what a typical nominal expression may be, viz. discontinuity of co-referential elements, as illustrated in (4) from Jaminjung. Such examples do not match the expectation that what belongs together stands together (as expressed in Behaghel's [1932] First Law). Nevertheless, for example (4), Schultze-Berndt and Simard (2012) argue convincingly that we are dealing with a single nominal expression *mulanggirr … wirib* 'dangerous dog'. The reason lies in discourse: the dog, but not its fierceness, was already talked about in the preceding utterance. Thus, it is informationally implausible to again find a referential expression consisting of the lexeme *wirib* 'dog' only. As for a likely motivation for the discontinuous pattern, there is a focus interpretation on *mulanggirr* 'dangerous', which is associated with this type of marked word order. The fact that *mulanggirr wirib* forms a single nominal expression is also reflected in its prosody: it is uttered in a single intonation unit (Schultze-Berndt and Simard 2012: 1032). In fact, Himmelmann (this issue) argues that non-phrasally organized nominal expressions are generally only found within intonation units; in the absence of syntactic packaging as a unit, it is prosodic unithood which indicates that the elements in question belong together on discourse-functional grounds (see also Chafe 1994).

(4) Jaminjung (Mindi)

^mulanggirr	*ngantha-ma-ya*	***wirib*** \
fierce	2SG>3SG-have-PRS	dog

'You have a **dangerous** dog!' [highlighting in original]
(Schultze-Berndt and Simard 2012: 1035)

A variety of other cases can be excluded on the grounds that elements do not share the same discourse function. This is particularly important for languages where such cases are not, or not always, distinguishable from true nominal expressions on morphosyntactic grounds, e.g., where word order is quite free and where nominals show the same morphological marking (e.g., inflecting for case, gender, number or other categories) independent of whether or not they form a discourse-functional unit (see Reinöhl 2020b; Schultze-Berndt and Simard 2012). For example, cases involving elements in the left or right periphery may not form nominal expressions with elements inside the core clause, and are set off intonationally (Carroll 2020; Himmelmann this issue; Olsson this issue; Reinöhl 2020b;

Schultze-Berndt and Simard 2012: 1025–1028; for prosodic properties in English, see Kalbertodt et al. 2015).[4] In the right periphery, oft-mentioned types are afterthoughts, right dislocations, and similar phenomena. Consider example (5) from Gooniyandi where *nyamani* 'big' forms an afterthought, further elaborating on the reference established by *jawangari* 'kangaroo'; the slash marks an intonation boundary. Similarly, elements topicalized in different ways, occurring in the left periphery, also do not form a unified expression with elements occurring in the core clause. Consider example (6), where 'books' in the left periphery does not point to the same discourse referent as the clause-internal 'one'.[5] Note that, obviously, afterthoughts or topicalized expressions can involve nominal expressions in themselves. Thus, for instance, *nyamani* 'big' in (5) is a single-element nominal expression in itself.

(5) Gooniyandi (Bunuban)
nganyi-ngga *jawangari* *nyaglooni /* ***nyamani***
I-ERG kangaroo I:speared:it big
'I speared a kangaroo, a big one.'
(McGregor 1997a: 101)

(6) Korean (Korean)
Chayk-un *Peter-ka* *caymiiss-nun* *kes-ul* *han* *kwen(-ul)* *ilk-ess-ta*
book-TOP Peter-NOM interesting-REL thing-ACC one CL(-ACC) read-PST-DECL
'(As for) books(,) Peter read an interesting one'
(Fanselow and Féry 2006: 10; slightly adapted)

Another case, inside the core clause, is that an element functioning as a secondary predicate rather than as an attribute does not form one nominal expression with the participant predicated over. A secondary predicate does not restrict the reference, but adds a predication over the participant in question, the time frame of which overlaps with that of the main predicate (Himmelmann and Schultze-Berndt 2005); thus in (7), *heissi* 'hot' predicates over the argument 'milk'.

4 Note that the peripheral and core elements are in some cases co-referential, in that, for example 'big' in (5) further elaborates on the reference established by 'kangaroo'. This has sparked some research traditions to argue that these elements together form one expression at a higher level, where one or more elements have been extraposed or moved out of the core clause into the periphery. However, as elements in the core and in the periphery do not share a single discourse function, they do not form a single nominal expression from our perspective.

5 Structures as in (6) are sometimes referred to as instances of "split topicalization". According to Fanselow and Féry's (2006) analysis, 'books' and 'one' form a single, discontinuous NP, even though each element has a different information structural role. This, however, clashes with our understanding of nominal expressions (previous footnote and Schultze-Berndt and Simard 2012: 1047–1048).

(7) Swiss German, Wallis (Germanic)

Dü	*müoscht*	*d=Milch*	*de*	***heiss-i***	*triich-u*
you	must	the=milk:F.SG	(then)	hot-F.SG	drink-INF

'You must drink the milk (while it is) hot.'
(Bucheli Berger 2005: 152)

Construal types that make the delimitation of nominal expressions particularly problematic are those subsumed under the label "apposition". This label has been used for several different construction types, some of which form a nominal expression and some of which do not.[6] We will take up apposition in Section 3.1.4.

2.2 Parameters for NP constituency

The preceding section dealt with the delimitation of nominal expressions, which are in the scope of our typology, from other structures, which are not. Among nominal expressions, we find some that can be identified on functional grounds only, while others also behave as syntactic units, i.e., form phrases. This section discusses criteria that are commonly proposed as signs of phrasality, listed in (8). We briefly discuss the merits and pitfalls of each of these in the rest of the section; see for example Krasnoukhova (2012: 167–168) and Louagie (2020: 125–134) for more extensive discussion of these criteria (focusing on South-American and Australian data respectively).

(8) Some criteria for syntactic unithood found in the literature
- i. fixed internal order, some types of flexible order
- ii. restricted number of modifiers
- iii. contiguity
- iv. noun class/number agreement
- v. phrasal marking
- vi. boundary marking
- vii. occurrence in diagnostic slot
- viii. prosodic unithood
- ix. movement as unit
- x. substitution by a single element
- xi. coordination of constituents of the same type

6 The terms apposition and secondary predicate have also been used with a different meaning in some of the literature on non-configurationality. Thus, it has been argued that any co-referential nominal elements are "in apposition" in languages analyzed as lacking phrasal structure overall (e.g., Blake 1983), or that these elements relate as "secondary predicates" to pronominal arguments attaching to verbal or auxiliary forms (e.g., Baker 2001; Jelinek 1984; Laughren 1989; Luraghi 2010). See Section 3.1.3 for our analysis of nominal expressions that lack any formal evidence for phrasality.

A first set of criteria (i–iv in (8) above) concern the internal structure of the nominal expression. In the domain of internal word order, fixed ordering provides evidence for syntactic unithood, as in the English example (1) above. Flexible order is often seen as evidence against syntactic unithood (as in (2) above for Kalkatungu), but Louagie and Verstraete (2016: 34–35, 39–41; see also Louagie 2020: 132, 139–142) argue that different types of flexibility can be distinguished, some of which provide evidence for, rather than against, syntactic unithood. For instance, a type of restricted flexibility is where only determiners are flexible in the sense that they can appear either at the left or right edge of the expression. This actually preserves the boundaries of the expression, arguably as an external rather than internal criterion, thus showing the nominal expression as a syntactic unit. An example of this is found in Umpila (Paman), where the order of head and attributive modifier is fixed, while determiners (i.e., personal pronouns, demonstratives, quantifiers, or possessive pronouns) can occur at either edge, the choice depending on syntactic and discourse-related motivations (Hill 2018: 149–154).

A related criterion is whether there are any restrictions on the number of modifiers allowed in the nominal expression. For some languages, such restrictions are invoked to argue for a clear internal structure, the idea being that if elements did not form a syntactic unit, any number of elements could be used 'in apposition' (e.g., Bowern [2012: 329–330] on Bardi [Nyulnyulan]). This criterion cannot, however, be used negatively, as many languages with well-established noun phrases allow long strings of modifiers in a single phrase (e.g., English). See also Section 6 on the possible impact of narrative flow, and of orality and literacy effects on the structure and length of nominal expressions in use.

Another internal criterion is contiguity, which has primarily been used as a negative criterion. Some of the early studies on non-configurationality in particular argued explicitly or implicitly that when elements do not occur contiguously, they do not form syntactic units (e.g., Blake 1983; Hale 1983), as in (2c) and (2d) from Kalkatungu. Many analyses go one step further and regard the availability of discontinuous structures as evidence against constituency overall (e.g., Jelinek 1984; Laughren 1989). However, studies like McGregor (1997a), Croft (2007), Schultze-Berndt and Simard (2012), and Louagie and Verstraete (2016) argue that discontinuity can also be treated as a separate construal type, without needing to posit a complete absence of phrasal structure for the language system as a whole. In doing so, it is crucial to delimit 'real' discontinuity from the manifold cases in which the nominals do not in fact form a functional unit along the lines discussed in Section 2.1.

A final internal criterion that is regularly invoked is noun class and/or number agreement. This criterion is less straightforward, as agreement of this type signals dependency rather than constituency, and can of course also occur outside of

nominal expressions. For instance, it can be difficult to distinguish secondary predicates from attributes that have the same morphological form (e.g., Casaretto and Reinöhl [submitted] on Sanskrit; McGregor [2005] on Gooniyandi; Simpson [2005] contrasting Warlpiri with English). Moreover, it is not clear that co-referential elements which have the same noun class or number marking are necessarily part of the same syntactic unit: they may also be marked individually as elements in apposition.

It is also unclear how to interpret less conventional types of agreement – if anything, they seem to indicate dependency, and not necessarily bear on phrasality. One such case is found in at least one Bantu language, where nominal elements can show agreement with the adjacent element rather than their (semantic) head, and different nominal modifiers may thus show different class agreement (Van de Velde this issue). This is shown in (9), where the demonstrative in (9b) shows agreement with the modifier adjacent to it (viz. class 2) (compare with (9a) where agreement is shown with the head noun, viz. class 6). Another example of non-conventional agreement is discussed by Olsson (this issue): in Coastal Marind (Anim), a modifier in an adjunct phrase can show class agreement with the subject phrase instead of with its own syntactic head.

(9) Kwakum (Bantu)

a. *ǹtóó* *ìbáà* *mí↓kɛ́*
ǹ-tóó^{L} ì-báà^{H} mí-kɛ́^{L}
6-house 2-two PP_6-DEM
'those two houses'
(Njantcho and Van de Velde 2019: 402)

b. *ǹtóó* *ìbáà* *yí↓kɛ́*
ǹ-tóó^{L} ì-báà^{H} yí-kɛ́^{L}
6-house 2-two PP_2-DEM
'those two houses'
(Njantcho and Van de Velde 2019: 402)

The second set of criteria (v–xi in (8)) are external in the sense that they relate to the treatment of the nominal expression as a unit in the clause. The first two are phrasal marking and boundary marking. Phrasal marking, i.e., where case (or number) is marked only once on a nominal expression, suggests that the expression is treated as one syntactic unit. This is shown for Hup in (10), where the marker *-ăn* is only attached to the nominal *yŭd* 'clothes' but marks the whole phrase 'these clothes' as object (Epps 2008: 179–180). Some markers also delimit the boundary of the nominal expression; this is the case for the right-edge object marker in (10). Of course, when each element is marked for case, this in itself does not provide evidence either way (see also Louagie and Verstraete 2016: 31).

(10) Hup (Nadahup)

yúp	***yŭd-ăn=mah***	*yúp*	*tih*	*cud-d'óʔ-at-áh*
DEM:ITG	clothes-OBJ=REP	DEM:ITG	3SG	be.inside-take-INCH-DECL

'It was these clothes that he put on.'
(Epps 2008: 179; cited in Krasnoukhova 2012: 171)

Another external criterion is the occurrence of a nominal expression in a so-called diagnostic slot: when multi-word nominal expressions are found in a position that otherwise only allows single constituents, this suggests that these expressions also form single constituents. Examples can be found in many Australian languages (Louagie 2020: 148–150; Louagie and Verstraete 2016: 32, 44–45), such as Warlpiri, where an auxiliary complex follows either a single word, or multiple words if forming a functional unit as a nominal expression (cf. Hale et al. 1995: 1431). Consequently, the two elements preceding the auxiliary in (11) can be analyzed as forming a syntactic unit.

(11) Warlpiri (Ngumpin-Yapa)

wawirri	***yalumpu***	*kapirna*	*panti-rni*
kangaroo	that	AUX	spear-NPST

'I will spear that kangaroo.'
(Hale 1983: 6)

An important question is whether phrasality is reflected in prosody. Studies have shown that the primary formal reflection of informational unithood is expression in a single intonation unit, demarcated in particular by pitch contour (Chafe 1994; Himmelmann 2014, this issue). Thus we expect elements forming one nominal expression to occur in the same intonation unit, and it seems that they usually do. However, nominal expressions that are phrasally structured, while also normally occurring within a single contour, can also be spread over more than one intonation unit. This is illustrated in example (12) from German, where the NP *der strecke* 'the route' is spread across two separate IUs. This point is discussed more extensively in Himmelmann (this issue) (see also Himmelmann [2014] on ditropic clitics).

(12) German (Germanic)

a.	*un:*	*dann*	*hab*	*ich*	*plötzlich*	*von*	*weitem* (0.5)
	and	then	have	I	suddenly	from	afar
b.	*gesehen*	*dass* (0.8)					
	seen	COMP					
c.	*en*	*teil*	*von*	***der*** (1 .0)	*äh öh* (0.5)		
	one	part	of	the			
d.	***strecke*** (=)						
	route						

e. *öh* *mit* *schnee öh* (0.7) *ähm* (1.0)
uh with snow
f. *also* (0.3)
well
g. *mit* *schnee* *bedeckt* *war* (0.5)
with snow covered was
(Himmelmann this issue)

Finally, movement as one unit, substitution by a single element, and coordination of constituents of the same type are some of the phrase structure tests traditionally used as criteria for syntactic unithood. However, there are several problems with these tests, some of which touch on challenges already raised. As for movement, when it is unclear whether we are dealing with one syntactic unit to start with, it is difficult to argue with certainty for a single movement operation when the words in question appear in a different slot side by side, as they may have also been moved there separately. With regard to discontinuous nominal expressions, the availability of this construal type may be interpreted as evidence against syntactic unithood, since a contiguous nominal expression can be seen as splitting apart, not moving as one. At the same time, as already pointed out, the availability of discontinuous construal does not necessarily need to be interpreted as precluding the existence of phrasal (i.e., contiguous) nominal units in the same language (e.g., Croft 2007; Louagie and Verstraete 2016; McGregor 1997a; Schultze-Berndt and Simard 2012). Substitution by pro-forms is known to be not a very helpful criterion as units of various sizes can be substituted, while in other languages, pro-forms are used quite sparingly. As for coordination, some languages lack NP-level coordinators (e.g., many Australian languages, see Louagie [2020: 130] for examples). Finally, many grammars of individual languages do not include a discussion of these tests, possibly reflecting the fact that they might not be so useful as traditionally believed. What is clear is that there is no crosslinguistic set of parameters that applies, but that each criterion needs to be evaluated, whether and in what way it yields evidence for NP structure in the language in question.

3 Typologizing the nominal domain

The nominal domain shows rich diversity both within and across languages, which can evidently not be captured by a simple categorization based on a yes-no question regarding NP-hood. We need an alternative and more fine-grained typology based on the range of construals languages have available. This point was already briefly illustrated in the introduction for the Australian language Bininj

Kunwok (3). Section 3.1 descriptively introduces some of the construal types that are available crosslinguistically. Section 3.2 focuses on the range of construals available within individual languages and on how these are interrelated. We also take a closer look at factors motivating the choice of a particular construal in a given language. As elsewhere in this article, we here primarily focus on nominal expressions whose sub-constituents are words rather than phrases, as the distribution of words seems generally more formally constrained than that of embedded complex (phrasal) expressions such as relative clauses or adpositional phrases – if there are restrictions, that is. However, we will add a few remarks also on phrasal sub-constituents where appropriate.

3.1 Construal types

The construal types surveyed in this section form a starting point for further research: one of the outstanding questions is precisely which structural possibilities are found in languages across the world. Some of the broad categories presented here may also need to be teased apart further. It is unclear at this point whether each formal pattern constitutes a separate construal type, and whether a single construal may allow for some variability. Note also that the construal types that are suggested here are not all necessarily at the same level, in the sense that some may be more formally defined, others rather functionally. Our choice of the less entrenched label 'construal' – instead of e.g., 'construction' – is a reflection of this heterogeneity. While we consider it important to emphasize this heterogeneity, we believe that the types discussed here are a useful starting point as they are the ones frequently identified in grammatical descriptions.[7]

3.1.1 Rigidly structured NPs

A first construal type is rigidly structured NPs, i.e., nominal expressions with fixed order (and thus also phrasal status). They may or may not in addition show phrasal delimiters or other evidence for NP unithood. Typically, but not necessarily, we expect such NPs to be uttered as one prosodic unit (see Himmelmann this issue). Note that rigidly structured NPs do not have the same status in all languages; they

7 One reviewer suggests taking an even more "ab ovo" approach, where we account for the diversity in terms of linguistic levels (syntax, morphology, morphophonology etc.). While this approach could be descriptively insightful – e.g., when combined with large-scale grammar sampling and multivariate statistics – we want to do justice to how languages operate, namely with construals, not with features.

may for example be the basic construal type in one language and only marginal in another. This is further discussed in Section 3.2.

NPs most uncontroversially of this type are those that correspond roughly to what is traditionally understood under the label of noun phrase, in the sense that they have predominantly one-to-one mappings between word class and syntagmatic slot. An example is found in Kuuk Thaayorre, which exhibits NPs in a similar way as English (see (1)). This is illustrated in the NP template in (13a) and the example in (13b).

(13) Kuuk Thaayorre (Paman)

a. NP template:
((Ngen) (Ngen) (Nspec)) ((Deg) Adj (Deg))* (Poss) (Quant) (DemPron/IgnPron) (AdnDem)
(Gaby 2017: 297–298)

b.

paanth	***pinalam***	***ith***	*ngamal.katp-rr-ø*	*peln*
woman	three(NOM)	DEM:DIST	hug-RECP-NPST	3PL(NOM)

'The three women hug each other.'
(Gaby 2017: 300)

However, a one-to-one mapping between word class and syntagmatic slot (e.g., adjectives follow nouns) is not the only or even main way in which nominal expressions may exhibit rigid structure: they may also be rigidly structured in terms of functional roles (e.g., Qualifiers follow Entities). One could argue that the latter type actually encompasses the former as careful analysis of a number of languages has shown that both nominal expressions with relatively fixed order in terms of word classes and some of those with relatively flexible order in terms of word classes are in fact primarily structured in terms of functional roles (cf. below for some references).[8] In fact, the different relation between word class and functional role is likely to account for a considerable amount of the typological diversity found in the nominal domain. In what follows we briefly illustrate rigid order of functional roles for three languages with varying degrees of word class-function flexibility, going from most to least flexible: Gooniyandi, English, and Umpithamu.

Gooniyandi is argued by McGregor (1990) to display a fixed template of functional roles, see (14a). Each functional role, associated with a particular positional slot, can be filled by elements from different classes. This is illustrated in (14b)–(14c): when *nyamani* 'big' precedes the head, it functions as Quantifier, but when it follows the head, it functions as Qualifier. Not only can each functional role

8 These approaches are often embedded in the traditions of cognitive-functional linguistics and construction grammar (e.g., Bolinger 1967; Croft 2000; Halliday 1985; Langacker 1991; McGregor 1997b; Rijkhoff 2002).

be filled by elements from various word classes (e.g., demonstratives, number words, open class nominals), each word class can also occupy various functional roles (with the exception of kin terms and proper names). In other words, Gooniyandi shows a many-to-many relation between word class and function; see McGregor (1990: 256–267) for extensive discussion. Case is normally marked once per phrase in Gooniyandi (McGregor 1990: 173–174).[9]

(14) Gooniyandi (Bunuban)
  a. NP template:
  (Deictic) (Quantifier) (Classifier) Entity (Qualifier)
  (McGregor 1990: 253)
  b. *nyamani* *gamba*
  big water
  'a lot of water'
  (McGregor 1990: 260)
  c. *yoowooloo* *nyamani*
  man big
  'a big man'
  (McGregor 1990: 265)

The second example is English, where the mapping between slot and word class is more direct, but nonetheless shows some flexibility. An approach in terms of functional slots provides deeper insights both from synchronic and diachronic perspectives (e.g., Adamson 2000; Breban 2009, 2010; Breban and Gentens 2016; Breban et al. 2011; Davidse 2004; Davidse and Breban 2019; Davidse et al. 2008; Denison 2010; Ghesquière 2009, 2014). For example, adjectives in English can have no less than six different functions in the NP, and the position of the adjective in the larger NP structure is different for each of these functions (Davidse and Breban 2019). Example (15a) shows the relative order of adjectives with a secondary determiner, epithet (i.e., descriptive modifier) and classifier function. One and the same adjective can also be used in different functional roles: in (15b), the adjective *different* functions as epithet, attributing "very different personality traits to Gemma than to Nicola" (Davidse and Breban 2019: 351), while in (15c), *different* functions as secondary determiner, conveying the grammatical meaning of non-coreferentiality; "the combination of the indefinite article *a* and *different* specifies

9 Other Australian languages that have been analyzed in terms of functional templates are for instance Martuthunira (Dench 1994), Kayardild (Evans 1995) and Gaagudju (Harvey 2002), all of which show many-to-many mappings of word class and function. In fact, even though Australian languages actually exhibit different degrees of rigidity in their class-function mappings in nominal expressions, it is the pervasive flexibility of some that has received most attention in the literature (see Louagie and Verstraete 2016; Louagie 2020: 151–156, 208–209).

that a new instance of the type 'girl' is involved on every occasion" (Davidse and Breban 2019: 351; see Breban 2002 for more discussion).

(15) English (Germanic)

a. *The same* *unpleasant* *congressional* *procedure.*
SECONDARY DETERMINER EPITHET CLASSIFIER
(Davidse and Breban 2019: 329)

b. *As is usually the case, Gemma is turning out to be* ***a very different girl*** *than Nicola.*
(Davidse and Breban 2019: 352)

c. *I thought about how corrupt I was, always wanting to be drunk or stoned, always with* ***a different girl****.*
(Davidse and Breban 2019: 352)[10]

The final example is Umpithamu, which shows a strict one-to-one mapping (Verstraete 2010), as shown in the NP template in (16): each element is restricted to a single function in the NP.

(16) Umpithamu (Paman)
NP template:

(CLASSIFICATION)	X	MODIFICATION	NUMBER	IDENTIFICATION
[N	N	A	Num]-case	Pron(personal or possessive)

(Verstraete 2010: 11)

So far, this type of functional analysis has not yet been applied to a wide range of languages, and much more research is needed to fully understand its implications for the theory and typology of the nominal domain.

3.1.2 Internally flexible NPs

A second construal type is contiguous nominal expressions with flexible order, but which show signs of phrasality in terms of their outer boundaries, and which can thus be argued to form NPs. With flexible order, we mean that there is no evidence of a rigid structure in terms of word classes or in terms of functional slots, as discussed in the previous section. Obviously, if such evidence were found for some cases after further analysis, these would in fact be instances of the type discussed in Section 3.1.1. At this point, it is an open question whether

10 We acknowledge the sensitive content and choice of words of this natural language example. It is included here, as it, together with 15b, brings out the contrast particularly clearly as a near-minimal pair. This fact is used by the authors of the cited study, who elaborate their argument based on these two examples.

the alternative orders are more productively conceived of as instantiating a single construal, or several ones.

An example is Tagalog, where the determiner *ang* is fixed at the left edge of the phrase, while allowing free order between co-constituents as seen in (17a)–(17d) (Himmelmann 2016: 328). It should be noted that semantic or pragmatic correlates of variable orderings have not been thoroughly investigated (Himmelmann 2016: 328), so the categorization here is preliminary.

(17) Tagalog (Austronesian)
a. *ang malakí-ng bahay*
SPEC big-LK house
'the big house'
b. *ang bahay na malakí*
SPEC house LK big
c. **bahay ang malaki*
d. **malaking bahay ang*
(Himmelmann 2016: 328–329)

Another example can be found in Tanti Dargwa. Lander (this issue) argues that the most frequent construal type in this language involves nominal expressions with the head noun (if present) and phrasal case marker in fixed positions at the right edge. Modifiers occur prenominally and show flexible relative order, as illustrated in (18a)–(18d) for numerals, adjectives and demonstratives.

(18) Tanti Dargwa (East Caucasian)
a. ***č'-al duχːu-se rursːi-li*** *hit b-elč'-un*
two-CARD clever-ATR girl-ERG that N-read.PFV-PRET
'The two clever girls read that.'
b. ***duχːu-se č'u-l -li*** *hit b-elč'-un*
clever-ATR two-CARD-ERG that N-read.PFV-PRET
'The two clever ones read that.'
c. ***hi.l-tːi č'-al=ra gali*** *b-us-kag-un-ne*
this-PL two-CARD=ADD child HPL-asleep-PREV+LV.PFV-PRET-CVB
'These two children fell asleep.'
d. ***aʁʷ-al hitːi admi-ž*** *du qum-kart-ur-la=da*
four-CARD that+PL person-DAT I forget-PREV+LV.PFV-PRET-CVB=1
'Those four people forgot me.'
(Lander this issue)

3.1.3 Nominal groups

Another construal type is nominal expressions which are contiguous while showing flexible internal order and – contrary to the previous type – without evidence for

syntactic unithood. We refer to these as nominal groups, following Himmelmann (1997) (see also Lehmann [1991]). In such expressions, the same content is found with different orderings of elements, and variation seems to be at least in part determined by factors such as information structure or heaviness of modifiers. These factors may also play a role for the internally flexible NPs discussed in the previous section as well as for discontinuity (Section 3.1.5), which also occurs in at least some of the languages showing nominal groups. By 'same content', we understand that there is no evidence for elements occurring in different slots of functional templates in the sense discussed in Section 3.1.1. Certainly, as with the type discussed in Section 3.1.2, future research may reveal that some of the word order variation discussed here may better, or in part, be accounted for by functional or other differences.

Flexible expressions of this type are most famously found in some Australian languages (although fewer than sometimes assumed; see Louagie and Verstraete [2016]). An example is found in Garrwa (Mushin 2012: 36–37, 255–257), where word order in nominal expressions is flexible and determined primarily by information structure. As illustrated in (19a)–(19d), we find different orders for demonstratives, possessive pronouns, and qualifying nominals. Examples from other regions are, for instance, several Cariban languages (Krasnoukhova 2012: 177–181; see also Payne [1993] on Panare) and older stages of Indo-European languages (see Section 5).

(19) Garrwa (Garrwan)

a. *karu=yi* ***nanda*** ***ngawuli-nganja*** ***nanga-ngi***
tell=PST that FyB-ANAPH 3SG-DAT
'(I've) told that one his grandfather (father's father).'
(Mushin 2012: 257)

b. *langandaba* *ja=ngayu* ***ngaki*** ***diraji***
hang.up FUT=1SG.NOM 1SG.DAT dress
'I'm going to hang up my dress.'
(Mushin 2012: 257)

c. ***ngila*** ***walkurra*** *baki* ***juka*** ***walkurra***
girl big and boy big
'big girl and big boy'
(Mushin 2012: 257)

d. *dudijba=yi bula-ndu-yangka* ***walkurra-nyi*** ***miya-wanyi*** ***kukudu-wanyi***
crawl=PST 3DU-LOC-TRANSLOC big-ERG snake-ERG black-ERG
'The big black snake crawled past the two of them.' (from Furby and Furby 1977: 3.1.9)
(Mushin 2012: 258)

e. ***yubal*** ***nayi*** *munyba=yi*
road this cover=PST
'This road was flooded.'
(Mushin 2012: 403)

3.1.4 Close apposition

As mentioned in Section 2.1, apposition is a term that has been used for a diverse collection of structures. Appositions of different types often prove particularly challenging when it comes to identifying them as phrasal or not, as part of a single nominal expression or not. This is partly because apposition, while fairly well-understood for English and some other Indo-European languages, has not been thoroughly investigated for many other languages. It is often unclear how different types of apposition can be identified, what their semantics and discourse functions are, and how they can be delineated from other nominal structures.

Traditionally, two types of apposition are usually distinguished, based on functional and prosodic grounds: close and loose apposition (e.g., Acuña-Fariña 2006, 2009, 1999; Burton-Roberts 1975; Keizer 2007; Lekakou and Szendrői 2011). On the one hand, elements that are in close apposition are traditionally thought to form an integrated construction, in a single intonation unit, which constitutes reference as a whole, as *the colour blue* in (20). Both elements are nominal: one is a uniquely defining element (*blue*), which is semantically modified by the other (*the colour*); neither element is referential in itself (although both could be used independently to refer to the same entity) (Keizer 2007: 38). The internal structure of such close appositional structures has been the subject to debate, in which the issue of headedness has played an especially prominent role (see e.g., Acuña-Fariña [2009: 461–468] for an overview), but there is general agreement that these structures do form a single, complex constituent.

(20) English (Germanic)
I've always liked the colour blue.
(Keizer 2005: 451)

On the other hand, loose appositions, like *Midland, once the greatest bank in the world* in (21), are not generally believed to form a single nominal expression. The element coming first establishes reference alone, while the constituent coming second serves as a "pragmatic insertion" (Koktová [1985]: 458, referring to Koktová [1985]), displaying a non-restrictive modification function (Acuña-Fariña 1999). The latter has an independent syntactic status and is separated from the rest of the clause by prosodic breaks. See for example Acuña-Fariña (2006, 2016) and Keizer (2007, 2016) for detailed analyses of appositional structures in terms of constructional networks.

(21) English (Germanic)
Midland, once the greatest bank in the world, has forfeited its independence.
(Hannay and Keizer 2005: 164)

The identification of close apposition – for only elements in close apposition form a single nominal expression and are thus under consideration here – is not always straightforward. Firstly, prosodic information is often lacking, and it is an open question whether prosodic specifics crosslinguistically identify close as opposed to loose apposition or other structures. Also, while the use of determiners and other function words clearly distinguishes close from loose apposition in English, other languages do not have obligatory function words in nominal expressions. Other potential formal diagnostics include word order and morphological marking. Word order as indication for apposition is illustrated for Ganda in example (22), but it only helps us distinguish between attributes and appositions; it is not mentioned whether the latter are cases of close or loose appositions. Adjectives that are syntactically integrated in the NP precede the adnominal demonstrative, as *néné* 'big' in (22a), whereas they follow adnominal demonstratives (and other integrated modifiers) when they are in apposition, as in (22b) (Van de Velde 2019: 263). The appositional analysis in (22b) is further supported by the use of morphological marking: it is argued that the augment prefix on *nèné* 'big' in (22b) is a sign of nominalization, where the nominalized element is apposed to the preceding nominal expression. Moreover, the augment is not allowed on a noun phrase following a negative verb, which is additional evidence that *è-bì-nèné* 'big' is not syntactically integrated with the preceding phrase *bì-tábó bì-nò* 'those books'; compare to (22a) where none of the elements are prefixed with an augment (Van de Velde 2019: 262–264). See Van de Velde (this issue) on appositional modification of this type, and historical implications in Bantu languages.

(22) Ganda (Bantu)

a. *tè-y-à-láb-à* ***bì-tábó*** ***bì-néné*** ***bì-nó***
NEG-SP$_1$-PST-see-FV 8-book NP$_8$-big PP$_8$-DEM
'He didn't see these big books.'

b. *tè-y-à-láb-à* *bì-tábó* *bì-nò* ***è-bì-nèné***
NEG-SP$_1$-PST-see-FV 8-book PP$_8$-DEM AUG-NP$_8$-big
'He didn't see these big books.' (perhaps, 'He didn't see these books, the big ones' [DL & UR])
(Hyman and Katamba 1993; cited in Van de Velde 2019: 263)

None of these formal diagnostics are unequivocally linked to apposition. For example, Van de Velde (this issue) shows that in some Bantu languages appositional elements may be re-integrated in the NP while still retaining the order and morphological marking typical of appositions. Other examples where word order differences do not involve an appositional construal are NPs with flexible internal order (see Section 3.1.2). Similarly, morphological marking on several co-referential elements can also be a sign of agreement, and need not always imply an appositional analysis. Some

evidence in favor of an agreement analysis may lie in register variation, as found in Djabugay (Paman), where NPs usually show internal agreement, but sometimes have phrasal marking in casual speech (Patz 1991: 290).

For the purposes of this article, we follow the traditional distinction and only consider close apposition as immediately relevant for a typology of nominal expressions. Functionally, close appositions have been associated with a variety of uses. For English, Keizer (2005, 2007) identifies for example a 'functionally identifying use' for *the colour blue* in (20), where the first element indicates that the second element is not used in its usual function, and an 'introductory use', where the first element provides contextually new information that "justif[ies] the use of a first-mention proper noun" (Keizer 2005: 449), as in (23).

(23) English (Germanic)
Oh I remember I was talking to ***this bloke Mark*** *some sort of this really old friend of mine.*
(Keizer 2005: 461)

Overall, these constructions seem to occupy a relatively small functional niche in English (see also Acuña-Fariña 2016). In comparison, it has been argued that close apposition in Australian languages seems to be more broadly used, involving more semantic types like generic-specific structures, as illustrated in (24), and part-whole structures (Sadler and Nordlinger 2010).

(24) Yidiny (Paman)

bama	***muula:rri***	*wulngga:ny*	*bana:*
person(ABS)	initiated.man(ABS)	cover:PST	water:LOC

'The initiated men were drowned by the (rising) water.'
(Dixon 1977: 247; cited in Sadler and Nordlinger 2010: 419)

Appositional qualifying modification, where an element semantically modifying another seems to be structurally in apposition to it, seems crosslinguistically not uncommon (see Krasnoukhova [this issue] on this phenomenon in South-American languages; Van de Velde [this issue] on Bantu languages; and Rijkhoff [2002: 126–127, 133–134, 168–169] for some other examples). Note that it is often unclear whether close or loose apposition is concerned in these cases, i.e., whether we are still dealing with a single nominal expression or not. Overall, mapping out the functions of close appositions across languages is a task that requires much more work.

3.1.5 Discontinuity

Elements belonging together functionally sometimes occur discontinuously, while still forming a single nominal expression (see Section 2.1). Note that we

here primarily focus on non-phrasal elements. While discontinuity on the word level seems less common, the placement of e.g., relative clauses or possessor phrases away from the rest of the nominal expressions they belong to is widely attested (see also Schultze-Berndt this issue). Discontinuity may occur in different types of languages. For instance, languages that have rigidly structured NPs like Polish have been argued to display discontinuity (Siewierska 1984). In other cases, a flexibility analysis may cover not only alternative relative ordering in contiguity, but also discontinuous construals. We will come back to the status of discontinuous construals within individual languages and their motivating factors in Section 3.2.

Discontinuity seems an infrequently used possibility in languages that allow it, it shows certain additional formal properties, and there are usually detectable motivations such as contrastive argument focus (see 3.2.2). Some examples of regularly-found formal properties (e.g., Croft 2007; Louagie and Verstraete 2016; McGregor 1997a; Olsson this issue; Reinöhl 2020a; Schultze-Berndt and Simard 2012) are that (i) discontinuous structures rarely consist of more than two elements; (ii) they are more frequent for core arguments than for adjuncts; (iii) the intervening element is often the verb, auxiliary complex, or other 2nd position elements; (iv) each element is case-marked, if applicable. Some of these characteristics are found in the following examples:

(25) Coastal Marind (Anim)
intagi *ma-h-o-b-ap-olab* ***awe?***
how.many:PL OBJ-ROG-2SG.A-ACT-CONTESS-buy:2/3PL.U fish
'How many fish did you buy?'[11]
(Olsson this issue)

(26) Vedic Sanskrit (Indo-Aryan)
áparimitam *evá asmai* ***jī́vanam*** *ávarunddhe*
unlimitedness.ACC.SG.M FOC DEM.DAT.SG.M enlivenment.ACC.SG.M attain.MID.3SG
'(he) attains unlimited enlivenment for it'
(Reinöhl 2020a: 106)

Sometimes, discontinuity may plausibly involve heavy elements or strings (e.g., Reinöhl [2020a] on non-phrasal sub-constituents), which also particularly affects phrasal constituents including different types of adpositional phrases and relative clauses (compare work on "extraction" of PPs, e.g., Van de Velde [2012], or on

11 This example is not a case merely of so-called quantifier float, because discontinuity in this language involves other parts of speech as well, e.g., possessors or demonstratives (see Olsson this issue: Example (33), for an example involving a demonstrative).

"adjoined" relative clauses, Hale [1976]; see also Schultze-Berndt this issue). It is unclear what other formal correlates there are and to what extent the above-mentioned ones hold crosslinguistically. For example, a few languages do not show case agreement between the discontinuous elements, as only one element is marked for case (e.g., Kuuk Thaayorre [Gaby 2017: 196]; Bardi [Bowern 2012: 337]).

3.1.6 Other construal types

The construals discussed so far cover major types mentioned more or less commonly in the literature. Additional structures can be found, which may or may not be counted as separate construal types. By way of illustration this section gives two more examples of structures which could potentially be analyzed as separate construal types, although in some cases, they may actually be included under one of the previously discussed types. Note also that, while we do not focus in this article on strategies below the word level, e.g., incorporation or compounding, these may of course also impact on the functional and formal diversity of nominal expressions.

The first examples are coordination structures and so-called inclusory constructions. Coordination is traditionally often analyzed as involving multiple noun phrases, and we do not discuss them further here, even though some instances could be considered as representing simplex nominal expressions (e.g., ones displaying phrasal case marking). Inclusory constructions combine a non-singular pronoun with an element that identifies one member of the group referred to by the pronoun,[12] as in (27). From a functional viewpoint, one could argue that, since reference does not fully overlap, these construction types do perhaps not qualify as nominal expressions. Formally, however, this construal type involves (complex) NP-hood in some cases, and may then perhaps be included under for example rigidly structured NPs (Section 3.1.1) or flexibly structured NPs (Section 3.1.2), but this is certainly not always so. See e.g., Schwartz (1988), Lichtenberk (2000), Singer (2001), Bhat (2004), and Haspelmath (2007: 33–35) for more examples and discussion of inclusory constructions.

(27) Toqabaqita (Oceanic)

Kamareqa	***doqora-ku***	*meki*	*lae*	*ma-i*	*qusungadi.*
1DU.EXCL	brother-1SG.PERS	1DU.EXCL.FUT	go	VENIT-at	tomorrow

'I and my brother will come tomorrow.' (literally: we two, including my brother [DL & UR]) (Lichtenberk 2000: 2)

The second example is juxtaposition for the expression of certain inalienable possessive relations like part-whole or kinship, as illustrated in (28). Again, in

12 The construction may in some cases use a comitative or other overt marker as well.

some cases this construal type may show signs of phrasality, in which case they may perhaps be included under close apposition (see Section 3.1.4), while in other cases the construal may for example actually include two separate nominal expressions. See e.g., Nichols (1988), Chappell and McGregor (1996) and Haspelmath (2017) for studies on inalienable possession.

(28) Ewe (Kwa)

ɖeví-á-wó	***tɔ́gbé***	*dze*	*dɔ*
child-DEF-PL	grandfather	fall	sickness

'The grandfather of the children has fallen sick.'
(Ameka 1996: 797)

3.2 Distribution of construals within languages

3.2.1 Range and status of construals in individual languages

The previous section gave an overview of some structural possibilities found in the languages of the world. This section takes the perspective of individual languages and the range of construals they display, and investigates how a typology based on this range could be conceived.

A first question is simply about size: how narrow or broad is the available range in a given language? Umpila, for example, only has a small range: a set of two rigid NP construals (see below), and apposition of NPs in certain contexts (Hill 2018: 139–140, 142–147). By contrast, the available range in Bininj Kunwok is much larger, as illustrated in (3) in Section 1, including at least nominal groups, discontinuous structures, rigid NPs with the indefinite 'one', and N-N apposition (Evans 2003: 227, 242, 247–248).

A second question is what the status of the different construals is in an individual language: is one construal type more basic than others in some sense, e.g., being the most frequent or being pragmatically neutral, and how do the other construals relate to the basic one? Comparing Bininj Kunwok with Kuuk Thaayorre, we see that they are similar in the number of construal types they have, but they are very different in the way these construals carve up the nominal domain: Bininj Kunwok mostly uses nominal groups (as well as strategies that lie outside of the nominal domain) (see (3)), while Kuuk Thaayorre primarily relies on a well-established rigid NP construal (see (13)). In both languages, however, these are not the only construals available. While the two languages have some construal types in common, like rigid NP construal, expressions with flexible order and discontinuous construal, these have a different status amongst the range of

other available construals. We now first take a closer look at languages that resemble Kuuk Thaayorre and then at languages that are more like Bininj Kunwok.

Kuuk Thaayorre and similar languages have rigid NP construal as their basic construal choice, in addition to several minor construals. For example, in some cases they allow minor variation in word order (in contiguous expressions), which could be analyzed as involving separate construals for different lexical sub-classes (e.g., Itonama [unclassified] has fixed order for all modifiers, apart from borrowed Spanish numerals, which can precede or follow the head [Krasnoukhova 2012: 174–175]).

Alternatively, or in addition, these languages may have one or more minor construal types based on different morphological marking, which is distributionally more restricted (see Louagie [2020: 143–148] on this phenomenon in Australian languages). An example is Oykangand, where case is normally marked on the right edge of the (rigidly structured) NP,[13] as in (29a). When the NP consists of a demonstrative and a noun, case can also be marked on the first element, as in (29b), or on both elements, as in (29c) (Hamilton 1996: 19–20; in Louagie and Verstraete [2016: 44]). It is unclear whether the elements form a single, non-appositional, syntactic unit in all three examples, or whether some involve (close or loose) apposition.

(29) Oykangand (Paman)

a. *aber* *unggul-gh* *uw*
woman DEM:DIST-PURP give
'Give it to that woman there.'

b. *aber-agh* *unggul* *uw*
woman-PURP DEM:DIST give

c. *aber-agh* *unggul-gh* *uw*
woman-PURP DEM:DIST-PURP give

(Hamilton 1996: 20; cited in Louagie and Verstraete 2016: 44)

A final, perhaps particularly intriguing case of minor construals in languages with rigidly structured NPs is that they sometimes allow discontinuous structures as well. Polish is one example (Siewierska 1984). Kuuk Thaayorre also allows discontinuity, albeit very infrequently (Gaby 2017: 196); this is illustrated in (30) with a noun and a quantifier.

(30) Kuuk Thaayorre (Paman)

may *nhul* ***koop*** *mungka-rr* *thon-thrr*
veg(ACC) 3sg(ERG) all(ACC) eat-PST.PFV one-ERG
'the one guy ate all the food!'
(Gaby 2017: 196)

13 In addition to rigidly structured NPs, Oykangand also has construals with adnominal personal pronouns on either side of the head (Hamilton 1996: 2, 6; Sommer 1970: examples).

We now turn to languages like Bininj Kunwok, with flexibly ordered nominal groups as main construal type and availability of discontinuous structures. These languages are often analyzed as lacking NP units altogether. However, rigid NP construal is often not completely absent in these languages. For instance, against the "anarchic background" (Evans 2003: 244) of flexible word order in Bininj Kunwok, a few grammaticalized structures stand out. One of them is the already mentioned rigid structure with an initial indefinite marker, as illustrated in (31), repeated from (3e). In Garrwa, another language with mainly flexible expressions, elements can be construed phrasally too, for example when they have phrasal marking, as in (32), or when multi-word nominal expressions occur in first position preceding the second position pronominal cluster (Mushin 2012: 255). Both of these only occur rarely. Similarly, Panare (Payne 1993) has, in addition to flexibly ordered nominal expressions, some tightly ordered expressions, like strict numeral-N order in clause-initial NPs, as illustrated in (33).

(31) Bininj Kunwok (Gunwinyguan)
"Njamed, ***na-gudji*** ***nayin*** *ga-yo!"* *ba-mulewa-ni.*
what M-one snake 3-lie.NPST 3PST-inform-PST.IPFV
'"Hey, there's a snake here!" he'd say.'
(Evans 2003: 681)

(32) Garrwa (Garrwan)
baki *jadikunumba=yi* ***ngaki-nyi*** ***wulukanja***
and grow.up=PST 1SG.DAT-ERG father
'And my father grew me up.'
(Mushin 2012: 60)

(33) Panare (Cariban)
Asa' ***arakon*** *wï-yaj* *ana.*
two monkey kill-PST.PFV 1EXCL
'We killed two monkeys.'
(Payne 1993: 133)

One question that comes to mind regarding such languages with marginal NP construal is whether certain types of elements are more prone to occur in such construals than others. For example, many examples seem to involve determiner-like elements, which is also interesting from a historical perspective: we know that the grammaticalization of determiners is often a starting point for the emergence and expansion of NP units in a language (see Section 5).

Apart from languages like Kuuk Thaayorre and ones like Bininj Kunwok, there are also many that seem neither to have predominant rigidity nor predominant flexibility. These are prime examples of why the approach in terms of a binary distinction does

not work. At this point, more research is needed to determine which structural repertoires exist crosslinguistically, and how we can meaningfully typologize languages based on the repertoires they have at their disposal; see Louagie (submitted) for a proposal for Australian languages. To illustrate this with just one example, let us have a look at another Australian language, Umpila. In Umpila, determiners can occur at the left or right edge of the NP, as shown in the template in (34a). This may be interpreted as variations of a single construal, but it can also be taken as involving two separate construals: (i) Determiner Head Modifier, or (ii) Head Determiner. The choice between the two determiner positions is partly motivated by syntactic context and type of determiner, and partly by discursive factors (Hill 2018: 149–154). The first set of determiners (pronoun, demonstrative and quantifier) are normally placed at the left edge, but occur at the right edge when the NP is the subject of a non-verbal predicate (as in (34b)), in coordination structures, and in subsequent mentions where the NP adds extra specification (as in the second NP in (34c)). The position of the second set of determiners (only the possessive pronoun) is determined by person: first singular possessives are almost always in initial position (as in (34d)), whereas other possessives are almost always in final position (as in (34e)).

(34) Umpila (Paman)

a. NP template:
(Det) (Entity) (Mod)
(Det)
with Det: [(Pron) (Dem) (Quant)] or [Poss.Pron]
(Hill 2018: 123)

b. ***thul'i*** ***nga'a-l*** *waangka* *mukamukana*
stomach DEM.DIST-DM clay/mud RDP.big
'that stomach is really muddy' (talking about body paint)
(Hill 2018: 149)

c. *pula* *nga'a-l* *pama* *wana-na* *nga'a-l*
3PL.NOM DEM.DIST-DM aboriginal leave-NFUT DEM.DIST-DM
kampinu ***pula***
men 3PL.NOM
'those Aboriginal people leave that one (the emu Charlie), those men'
(Hill 2018: 151)

d. *Rattler* ***ngathangku*** ***kul'a*** *paalnta-nya*
Rattler 1SG.GEN money/stone steal-NFUT
'"Rattler stole my money"'
(Hill 2018: 137)

e. *nga'a-lu* ***ngaachi*** ***pulangku*** *kalma-na* *chinchanaku*
DEM.DIST1-DM place 3PL.GEN come-NFUT night.island
'that one came from their country, Night Island'
(Hill 2018: 137)

Finally, an open question is whether there are any typological correlations between the presence of one construal type and the presence or absence of another. For example, it is often thought that the presence of discontinuity goes hand in hand with the presence of nominal groups in a language. This is certainly the case in a number of languages, but discontinuity also occurs in languages with rigidly structured NPs, as was illustrated with Kuuk Thaayorre above (example (30)). Conversely, however, it is less clear whether there are languages which have nominal groups but no discontinuity. Some authors have also suggested a connection between construal types and other features. Thus, the availability of discontinuous structures has sometimes been linked to a weak or absent N/A distinction, as is the case in Vedic Sanskrit and a number of Australian languages (e.g., Baker 2001: 1438). A related question is whether high (as in Vedic Sanskrit) versus low (as in some Papuan languages) discourse frequency and/or functional breadth of nominal expressions implies anything about their construal types (see Olsson this issue; Reinöhl 2020a: 80).

3.2.2 Selection of construals: motivating factors

We now turn to the important question of what factors determine the choice between construals, or variants thereof, within a given language. Several factors were already mentioned along the way, but a more systematic review is provided here.

First, word classes or subclasses can play a role in the selection of a construal type. Thus, the type of head can play a role in how the NP is structured. In Umpila, for instance, both lexical and pronominal heads can be modified by quantifiers, but, while a lexical head allows a choice between two NP construals (see (34) above), a pronominal head is restricted to a single construal, viz. a rigid NP with pronoun-quantifier order (Hill 2018: 121, 123).[14] Non-heads can also impact on the selection of nominal construals. For instance, determining elements can influence the structure of the construal, as seen in several examples from the previous sections. In Bininj Kunwok, the use of indefinite 'one' is limited to rigid order, while in Oykangand, the use of a demonstrative expands the choice of construals with different case marking loci to three patterns instead of one, and in Umpila the person of the possessor can determine the choice between the two available NP construals.

14 Many languages also show co-occurrence restrictions for certain (sub)classes. Pronominal NPs, for instance, are usually much more restricted in the modifiers they can take (e.g., in Umpila, pronominal heads can *only* be modified by quantifiers). Proper nouns and kin terms have also been shown to have a special status in many languages and are usually restricted in their modification possibilities (see e.g., Hill 2018: 139; Vandelanotte and Willemse 2002; Van Langendonck 2007).

Second, syntactic factors may also impact on construal types. Thus, many languages use alternative constructions when multiple modifiers are needed; this is for example the case in Hup (Nadahup; Epps [2008: 331–332]), Umpila (Paman; Hill [2018: 140–144]), and several Papuan languages (Olsson this issue). Another factor is the role of the nominal expression in the clause. Olsson (this issue), for example, shows that adjuncts are rigidly structured, while nominal expressions in core roles allow head and modifiers to be more freely ordered. In such cases it is not always clear whether a co-occurring syntactic property is merely a correlate of a construal type, or rather a determining factor in its selection. The larger syntactic construction that a nominal expression is embedded in may also impact on its structure. As an example of this, Himmelmann (1998) discusses how the definite article in English has not spread to marking NPs inside certain types of PPs (* She came by the bus).

Third, (syntactic-)semantic factors may also influence the choice between particular construals. For instance, word order may be linked to definiteness. An example is Bunan (Widmer 2017: 361–362). Modifiers normally precede the head (as in (35a)), in both definite and indefinite contexts. They can also follow the head, but only if it is indefinite (as in (35b)). In other words, indefinite contexts allow the choice between two construal types, whereas definite contexts do not. In Ika (Chibchan) numerals precede the head when reference is indefinite, and follow it when reference is definite (Krasnoukhova 2012: 16, based on Frank 1990: 31–32). Another example is where animacy of the referent plays a role in the choice of modifier-head or head-modifier order. This is the case in Mosetén (Mosetenan), where modifiers tend to precede the head when the referent is inanimate, and follow when the referent is animate (Krasnoukhova 2012: 16, based on Sakel 2004: 102).

(35) Bunan (Tibeto-Burman)

a. *gi=dzi* *t^{h}an* ***t^{h}e*** ***niskiŋ*** ***juj*** ***petɕa***
1SG=ERG.SG today this two old book
haʈi$_{LN}$=kuŋ=tɕi *jok-ø-dʑi* *rik-ø-men*
market=LOC=ABL buy-TR-CVB bring-TR-PST.DIR.EV.CJ
'Today, I bought these two old books in the market.'
(Widmer 2017: 361)

b. ***kupat*** ***tedzi=tiki=kuŋ*** *t^{h}ara* *lik-ø-dʑi*
stone.pot big=INDEF=LOC that.other make-TR-CVB
'… in a big stone pot they had made that other stuff (i.e., soup).'
(Widmer 2017: 362)

Fourth, discursive motivations are an important factor in many different construal types. Some examples are related to construals with different word orders (see also Reinöhl 2020a). In Ngiti (Central Sudanic), for instance, numerals are normally

placed before the noun, but can occur in post-head position when they are "emphasized" (Kutsch Lojenga 1994: 354; in Rijkhoff 2002: 161–162). In Umpila, NPs adding elaboration in a subsequent mention are usually of the type Head-Determiner (Hill 2018: 149–154; see above). In fact, "focus" or "emphasis" – if difficult to define precisely and crosslinguistically – seem common motivators for word order alterations, and it is not always clear whether they are different labels for the same or similar phenomena.

Other examples of how discursive motivations play a role relate to the choice between construals with different morphological marking patterns. In Gooniyandi, for instance, case is normally marked once per phrase (on any element), but sometimes a phrase is "fractured", i.e., each element gets a case marker. The latter is associated with contrastive focus (McGregor 1989), as in (36). Note that such fractured phrases are argued to consist of two miniature NPs which are in apposition within a larger phrasal unit (McGregor 1989; see also Sections 2.1 and 3.2.1).

(36) Gooniyandi (Bunuban)

thaarri	*nganyi-ngga*	*gardlooni /*
mistakenly.believed	I-ERG	I:hit:him
ngoorroo-ngga	***yaanya-ngga***	*gardbini /*
that-ERG	other-ERG	he:hit:him

'It was mistakenly believed that I had hit him, but it was really that other person who hit him.'
(McGregor 1989: 213)

Discursive motivations have also been argued to be the main motivating factor for using discontinuous structures in individual languages, more specifically different types of focus. One example is that the nominal expression is split because only one of its elements is in focus, and the other(s) is/are not.[15] This is the case, for example, in Polish (Siewierska 1984). Example (37b) has two split NPs. In Siewierska's account, for each one the first, preverbal element is given (continued from the previous utterance in (37a)), while the second, postverbal element is new and in focus ('crummy' because it contrasts with 'beautiful' from the previous sentence, 'garden' because it is new information). Similar examples can be found in Gooniyandi (McGregor 1997a), Jaminjung (Schultze-Berndt and Simard 2012) and several other Australian languages (Louagie 2020: 160–162; Schultze-Berndt this issue), as well as other languages around the world, including ancient Indo-

15 For theoretical reasons, studies differ slightly with respect to the exact information-structural analysis adopted, e.g., whether focus is attached only to one element or instead a feature carried by the entire expression ("contrastive argument focus"), even while only one element is interpreted as "focused" or "emphasized" (see Reinöhl 2020a; Schultze-Berndt and Simard 2012: 1039–1041).

European ones (Reinöhl 2020a; Rijkhoff 2002: 258–259; Schultze-Berndt and Simard 2012: 1038). The association with a focus reading on the modifier may explain why discontinuity commonly occurs with quantifying elements and qualifiers expressing size, and perhaps also to a lesser extent also with demonstratives.

(37) Polish (Slavic)
a. *Podobno mają piękny dom.*
apparently have beautiful house
'Apparently they have a beautiful house.'
b. *Nieprawda!* ***Dom*** *mają* ***kiepski,*** *ale* ***piękny*** *mają* ***ogród.***
untrue house have crummy but beautiful have garden
'Rubbish! Their house is crummy, but they have a beautiful garden.'
(Siewierska 1984: 60)

Another type of focus that has been described as associated with discontinuity in a handful of languages is sentence focus for out-of-the-blue statements that "alert the hearer to the presence or appearance of an entity with a particular property, or in a particular quantity" (Schultze-Berndt and Simard 2012: 1041; see also Olsson this issue; Schultze-Berndt this issue; for possibly related phenomena see Siewierska [1984: 66] and McGregor [1997b: 96]). An example is given in (38). It is still unclear how widely available this type of functional motivation is crosslinguistically; certainly other strategies for marking sentence focus (like clefts and expletive subjects) have received most attention. See Schultze-Berndt (this issue) for a detailed discussion of sentence focus in connection with discontinuity and other strategies.

(38) Jaminjung (Mindi)
jarndu *ga-ram* ***luba*** *mangurn=mij!*
boat 3SG-come.PRS big white.person=COM
'There comes a big boat with white people!'
(Schultze-Berndt and Simard 2012: 1041)

More generally, information structure and narrative flow influence construal choice and complexity. In this domain, reference tracking, in particular whether a participant is referred to by means of a lexical expression, a pronoun or zero, has received much attention (e.g., Chafe 1976; Du Bois 1987; Fox 1987; Givón 1983; Haig and Schnell 2016; Lambrecht 1994, among many others). The choice of particular construals is influenced in particular by the trade-off between recognition of the referent and minimization of form (e.g., Enfield 2013; Enfield and Stivers 2007; Levinson 2007; Sacks and Schegloff 1979), at the same time observing culturally

specific constraints that may entail the avoidance of a default reference form ('circumspection'; see Blythe 2009, 2013; Garde 2008; Hill 2018; Levinson 2007). Thus, for example, in many Australian languages, structures involving kin terms or kin pronouns are important referential devices, as they observe the principles of recognition and minimization quite well, while also adhering to specific naming and avoidance taboos (e.g., Blythe 2013). Another phenomenon is that on the level of larger discourse units, morphosyntactically more complex structures tend to occur at the start of a new discourse unit (Fox's [1987] Morphosyntactic Markedness Principle): episodes more often start with full NPs than with pronouns in English narratives, for instance. More marked structures can in addition also signal participant switches within episodes (e.g., Verstraete and De Cock [2008] on Umpithamu narrative).

Fifth, socio-linguistic factors may also be involved, even though we are not aware of the existence of much research on the choice of nominal construals, especially in languages that display wider ranges of construals. One factor that may play a role is register variation, which is for example associated with the choice between construals with different case marking patterns in Djabugay (Paman; Patz 1991: 290). Similarly, phrasal marking in Bilinarra (Ngumpin-Yapa) may be associated with language shift, and may reflect a 'younger' variety of the language (Meakins and Nordlinger 2014: 106). Whether a language has a tradition of oral or written literature may also influence the availability of certain construal types; see Section 6 for discussion.

3.3 Concluding remarks

This section surveyed prominent construal types with a particular focus on their distribution in individual languages. We believe that recognizing the diversity of patterns is an important first step, rather than assuming a particular universal preference (e.g., a cognitive bias for NP recursion as in Widmer et al. [2017] based on Indo-European). A remaining question is what other structural types can be found in the languages of the world. Also, it remains to be seen whether the level of categorization we adopt here proves useful in future work, or whether lumping or splitting in one way or another will turn out to be more fruitful. In future work, it will be particularly important to explore how the construals we have surveyed here relate to existing proposals for NP structure such as Rijkhoff's (2002, 2008) layered approach of the NP. Rijkhoff (2008) focuses on contiguous expressions, and particularly on crosslinguistic regularities of NP-internal order. To what extent nominal groups with flexible internal orderings, discontinuity, or other non-canonical construal types can be connected to that analysis is an open question.

Similarly, it would be interesting to relate the diversity portrayed here to more quantitatively oriented approaches on NP-internal ordering such as found in the context of Greenbergian approaches (e.g., Dryer 1992, 2018); see Van de Velde (this issue) for a discussion of NP-internal word order in Bantu in relation to these approaches.

What we have not addressed prominently is the question of whether certain structures or ranges of structures have a specific areal or genetic distribution. Obviously, to answer this question properly, much more research is needed, but we can give some indications here, taking into account the different contributions to the special issue. For instance, it is commonly believed that modern Indo-European languages mainly have structural types that are phrasal and in various respects hierarchical in nature, while discontinuity is also attested for some languages (e.g., Siewierska 1984; see also Himmelmann this issue, Schultze-Berndt this issue, and Section 5). The nominal domains in South-American languages, by contrast, seem to have wider ranges of structures available, often including some rigid phrasal construal as well as appositional structures, though these languages by no means form a homogeneous group in terms of the precise range of structures they have available; several languages employ complex structures such as relativization for modification (see Krasnoukhova [2012] for a study of nominal expressions in a sample of 55 South-American languages, and Krasnoukhova [this issue] for a focused discussion of attributive modification). The picture in Australia is also more complex than sometimes assumed: while there are certainly languages that mainly have nominal groups (in addition to discontinuous construals and marginal rigid NP construal), there are also many languages with wider ranges of structures available, including for example different sets of NP structures along with discontinuous construals (Louagie 2020: 123–163, 209–213; Louagie submitted; see also Schultze-Berndt this issue). Olsson (this issue) argues that the Papuan language Coastal Marind has a tight-knit NP as basic construal, which is limited in the syntactic complexity it allows, as well as more loosely connected nominal expressions, which are used in pragmatically marked contexts; discontinuity is infrequent and associated with specific information-structural motivations. It is unclear whether similar observations may be made for other Papuan languages, but Olsson notes that discontinuous construal is overall very rare, if non-existent in most languages of the region. Van de Velde (this issue) shows that Bantu languages also present a heterogeneous group with regard to nominal expressions. Several languages show what Van de Velde calls cross-constructional variation, where the choice between different construal types is syntactically motivated, for example when the presence of a particular type of modifier leads to a more flexible order of all modifiers while in its absence the order of the other modifiers is fixed. Furthermore, apposition seems to be (or have been) an important construal type in

many of the Bantu languages. Tanti Dargwa (East Caucasian), finally, has an internally flexible NP as most frequent construal (albeit with some restrictions to the flexibility) (Lander this issue). The largest gaps in the special issue and in the literature we surveyed are parts of Africa, South-East Asia, and North America: of course, numerous grammars discuss nominal expressions, but there are no detailed surveys of families or larger sub-groups, as far as we are aware.

4 Word class

This section investigates the relation between word class and construal choice and structure. We here adopt the common typological approach to word classes as form classes based on morphological and syntactic distribution (e.g., Evans 2000; Himmelmann 2017; Sasse 2015; for approaches highlighting relations to referential functions and ontological categories, see Hengeveld [1992] and Croft [2000] respectively). Many studies have discussed the significant diversity in word class systems around the world ranging from just two classes (full words vs. particles) to much more finely partitioned word class systems such as ones found, e.g., in Indo-European languages. The structure of the word class system both in the domain of content and function words can impact on the types of construals found in the nominal domain.[16]

We now survey the main word classes relevant in the context of this article and how they impact on construal options. A language has a class of nouns if there is a morphosyntactically defined word class which primarily encodes entities, while another form class encodes events and, optionally, states (i.e., verbs) (e.g., Himmelmann 2017; Sasse 2015).[17] One such language is English, where elements other than nouns cannot normally be used without special formal adaptation to denote entities. For example, an adjective needs an 'empty' head *one* as in *the red one* (although there are some examples where an adjective is 'coerced' into behaving like a noun, e.g., *the poor*). Verbs can be inserted into the slot otherwise reserved for nouns to carry the discourse function prototypically associated with nouns, i.e., when they are used referentially. However, in order to do so, additional formal means are necessary, e.g., gerund morphology, unless we are dealing with flexible

16 Obviously, the division between content words and function words is not always clear-cut (see e.g., Lander *this volume* on different types of adnominal elements in Tanti Dargwa; see also Section 5 on historical changes).

17 The matter is complicated by the fact that morphological and syntactic evidence for form classes do not necessarily align (see Sasse 2015).

or 'zero-converted' elements such as *play* or *dance*. Example (39) displays both zero-conversion (*the touch*) and the use of a gerund (*a touching*).[18]

(39) English (Germanic)
The touch *may be a pat on the back,* ***a touching*** *of the arm, or an arm around a shoulder.*
(Maekelberghe 2016: 44; from the COCA corpus)

If a language has one morphosyntactic class that primarily expresses entities as well as properties of entities, we speak of 'nominals'. An example is Warao, which has a flexible class of elements which can function referentially (40a) or attributively (40b).[19] Other examples include also Vedic Sanskrit (e.g., Example (26)) and some of the Australian languages cited in this article (see Louagie [forthc.] for a survey). Languages for which it has been proposed that they lack divisions among content words include Tongan (Broschart 1997), Mundari (e.g., contributions in *Linguistic Typology* 9(3)), and Riau Indonesian (Gil 2013).

(40) Warao (isolate)
a. *yakera*
beauty
'beauty'
b. ***Hiaka*** ***yakera*** *auka* *saba* *tai* *nisa-n-a-e.*
garment beauty daughter for she buy-SG-PUNCT-PST
'She bought a beautiful dress for her daughter.'
(Romero-Figeroa 1997: 49–50; cited in Hengeveld et al. 2004: 531)

We discussed in Section 3.1.1 differences between such rigid NP construals where each slot and functional role is more or less tied to a different word class, as opposed to rigid NP construals where members of a word class can occupy several different slots and thus different functional roles. This distributional evidence directly feeds into the classification of, e.g., nouns versus nominals (see also, e.g., McGregor [2013]). Nominals also play a role in numerous languages which display flexible nominal groups and/or discontinuity (e.g., Garrwa or Vedic Sanskrit).

While all languages seem to have a word class covering the reference to entities, not all languages have a word class that expresses properties of entities

18 While this can be characterized as a process of nominalization synchronically, the situation is actually much more complex diachronically (e.g., De Smet 2008; Fonteyn 2019; Fonteyn et al. 2015; Heyvaert 2008). Moreover, constructions of gerunds vary greatly in how they establish or manage reference and some of them show quite "atypical NP behavior" in this respect (Fonteyn et al. 2015: 55; see also Maekelberghe 2016).

19 These elements can also have a manner adverbial function in Warao; hence the term 'non-verbs' (Hengeveld 1992).

attributively without special formal adaptation. If a language does have such a class, this might be a dedicated class of adjectives (i.e., when the class primarily covers properties, but not other semantic categories) or a broader class, e.g., the nominals in Vedic Sanskrit and Warao.

Besides such dedicated or flexible word classes used for attribution, there are other structural solutions, like relative clauses, polysynthetic structures, complex nominal expressions or adverbial structures. For instance, several languages allow lexemes from the verb class to modify a nominal head, resulting in a variety of construction types. In Bororo, a relativized construction is used, resulting in a complex nominal expression, as illustrated in (41) (Krasnoukhova this issue). In other languages, modification is encoded outside of nominal expressions. In Tuscarora, for example, one strategy is predicational apposition, where the verb modifies the nominal semantically, but does not form a nominal expression with it, as illustrated in (42) (analysis of Hengeveld et al. [2004: 531–536]; see also Mithun [2000]). In Nivkh, finally, verbs can modify the head in a polysynthetic construction, as illustrated in (43) (analysis of Rijkhoff [2002: 138]). See Krasnoukhova (this issue) for a discussion of word class and attributive modification for South-American languages; see Riessler (2016) on attributive modification in Asian and European languages.

(41) Bororo (Bororoan)

a-re	***ia***	***kare***	***[ø-ro-re***	***wü]***	***ge***	*e-bitö*
2SG-ASR	some	fish.PL	3SG-be.good-ASR	REL	PL	3PL-kill

'You caught delicious fish.' (Lit. "You caught fish which are delicious.")
(Nonato 2008: 143; cited in Krasnoukhova this issue; own highlighting)

(42) Tuscarora (Iroquoian)

tá:ko:ʔ	*yaw-vhey-vʔ*
cat	NHUM.OBJ-die-PRF

'the dead cat' ('the cat, it has died/is dead') or 'The cat has died/is dead.'
(Mithun 1976: 256; cited in Hengeveld et al. 2004: 536)

(43) Nivkh (Nivkh)

hun-tleulan-ʈĭř
that-be.white-hill
'that white hill'
(Mattissen and Drossard 1998: 51; cited in Rijkhoff 2002: 138)

Quantification can also be expressed by various means across languages, either internally or externally to nominal expressions, e.g., by adverbial, preverbal or verbal elements. For instance, in Karo, quantification is expressed by sentential adverbs (which are thus not part of the nominal expression), as illustrated in (44) (Gabas 1999:

51; in Krasnoukhova 2012: 179). In Samoan, the numeral is a predicate in an embedded clause (introduced by the general TAM marker *e* [GENR]), resulting in a complex nominal structure, as illustrated in (45) (Mosel and Hovdhaugen 1992; in Rijkhoff 2002: 169).

(44) Karo (Tupian)

maʔwɨt	*ip*	*ʔɨy-t*	*matet*	***cagârokõm=tem***
man	fish	catch-IND	yesterday	two=ADVZ

'The man caught two fish yesterday.'
(Gabas 1999: 135; cited in Krasnoukhova 2012: 180)

(45) Samoan (Austronesian)

Sa	*fau=sia*	*e*	*Tagaloaalagi*	***fale***	***e***	***tolu***…
PST	build=ERG	ERG	Tagaloaalagi	house	GENR	three …

'Tagaloaalagi built three houses …'
(Mosel and Hovdhaugen 1992: 318; cited in Rijkhoff 2002: 169)

We round off this section with some remarks on determiners, specifically articles, and argument-marking adpositions.[20] We have already commented on the impact of determiners on word order (see Section 3.2.2). More generally, the presence of strongly grammaticalized adnominal determiners, i.e., articles, has been argued to impact on construal choices in the nominal domain. Himmelmann (1997) argues that the grammaticalization of articles can bring about the phrasal organization of nominal expressions, and the same has been argued for the grammaticalization of postpositions in Indo-Aryan (Reinöhl 2016), both of which we discuss in a bit more detail in Section 5. As for internal construal structure, determiners have sometimes been interpreted as impacting on headedness relations, most famously in the context of the NP/DP debate. As we are here primarily concerned with construal choice, rather than with differences in how internal formal and semantic relations between sub-constituents are interpreted in terms of headedness relations, we refer the reader to the dedicated literature on this question (e.g., Abney 1987; Himmelmann 1997: 144–157; Matthews 2007: 27–60; Zwicky 1985, 1993).

5 Diachronic developments

Nominal expressions may over time develop (greater) phrasal rigidity. For some languages and language families it has been shown that this development is tied to

20 Other types of elements are flexible between determiner and other (e.g., qualifying) roles in some languages. Possessive pronouns are a well-known example (e.g., Koptjevskaja-Tamm 2003; Louagie 2017; Lyons 1999: 24, 130–134; Plank 1992; Willemse 2007; see also Section 3.1.1).

the grammaticalization of adnominal function words such as articles or adpositions (Himmelmann 1997; Reinöhl 2016a). Starting points towards rigidity can be reanalyses of syntactically co-ranking constituents as one phrase (e.g., Himmelmann 1997; also called symmetrical groups in Reinöhl 2016a). An example is found in Latin, when demonstratives and nouns, which could occur and refer independently, were reanalyzed as one NP as a side-product of the grammaticalization of the demonstrative into an article. Another example of symmetrical groups are adverbs and local case-marked nominals which developed into prepositional phrases in most branches of Indo-European (Hewson and Bubenik 2006; Reinöhl 2016b). In other cases, we are dealing with head-dependent relations or asymmetrical groups as starting points, as in the development of phrasal nominal expressions in Indo-Aryan (Reinöhl 2016a, 2016b). Old and Middle Indo-Aryan relational nouns, adverbs and participles combining with possessors and other types of arguments developed into the rigidly organized nominal expressions of modern Indo-Aryan languages (Hindi, Punjabi, Nepali etc.), taking the form of postpositional phrases. This is illustrated by the development of the Old/Early Middle Indo-Aryan adverb *upari* 'above' into the Hindi postposition *par* 'on' in examples (46)–(47). In modern Indo-Aryan languages, postpositional phrases appear not only as adjuncts, but also by default in core argument roles, see example (48).

(46) Pali (Indo-Aryan)

seyyathāpi	*[…]*	***payasotattassa***	***nibbāyamānassa***	***upari***
just_as		boiled_milk.GEN.SG	cool.PPM.GEN.SG	above
santānakaṃ	*hoti,*	*evam*	*evaṃ*	*pātur*	*ahosi*
scum.NOM.SG	become.SG	just	so	manifest	be.AOR.SG

'Even as scum forms on top of boiled milk that is cooling, so did (the earth) appear.'
(Reinöhl 2016a: 89, 91)

(47) Hindi (Indo-Aryan)

kitāb	***mez***	***par***	*hai*
book.DIR.SG.F	table.OBL	on	be.SG

'The book is on the table.'
(Reinöhl 2016a: 168)

(48) Hindi/Urdu (Indo-Aryan)

maĩ	***ne***	*laṛkī*	***ko***	*dekhā*
1SG	ERG	girl.SG.F	DAT/ACC	see.PFV.SG.M

'I saw a girl'
(Reinöhl 2016a: 195)

While some studies focus on the very early stages of phrasality in a language or language family (such as Reinöhl 2016a), others describe the development of additional slots in the phrasal template. Thus, it may be argued that Latin already possessed some rigidity in the nominal domain in the form of prepositional phrases, but that the syntax of nominal expressions complexified through the grammaticalization of articles and further determiners (Carlier and Combettes 2015; Himmelmann 1997). Freek Van de Velde (2009, 2010) studies how the Dutch NP accumulated structure over its history in the form of more and more slots for different types of determiners and modifiers.

Another path towards further NP-internal slots is proposed by Mark Van de Velde (this issue) for some Bantu languages, where appositional modifiers following NPs, marked by a prefixed augment, have in some languages become reanalyzed as part of the NP. Based on marked word order, as well as prosodic and other evidence, Van de Velde argues that the right-edge modifiers are appositional for instance in Bemba (49). By contrast, they are integrated in Haya (50), as evidenced for example by the fact that the order in (50) is standard for NPs. Van de Velde argues that the integration of appositives is the third stage in a diachronic scenario, where the first stage involves the emergence of a nominalized, appositional construal.

(49) Bemba (Bantu)

à-báá-ntù	*bà-bìlì*	***á*-bà-kúlú**
AUG-2-person	NP_2-two	AUG-NP_2-big

'the two BIG men' (lit. 'the two men, the big ones')
(Kasonde 2009; cited in Van de Velde this issue)

(50) Haya (Bantu)

enjú	*zaŋge*	*ibily'*	*êz'*	*é-zi-lúŋgi*
10.houses	10.my	10.two	10.these	AUG_{10}-10-good

'these two good houses of mine'
(Byarushengo 1977: 13; cited in Van de Velde this issue)

Krasnoukhova (this issue) tentatively proposes another diachronic pathway further expanding the NP, viz. where predicates expressing properties develop into attributive modifiers in integrated NPs for some South-American languages. Support for this hypothesis is found, first, in the fact that in many South-American languages, predication is the preferred (or even only) way of semantically qualifying a reference. In some languages, predicative structures involving juxtaposition of a subject noun and a descriptive predicate may be reanalyzed as head-attribute nominal

expressions, although more evidence is needed to further substantiate this (Krasnoukhova this issue). Second, many elements expressing properties are verbal in nature, so that complex structures are needed to express modification within a nominal expression (such as relativization). This is illustrated in (51), where the property word 'good' is relativized to modify the head noun 'dog'. This may historically derive from a sequence of paratactic clauses with a topicalized subject: 'dog, this one (is) good, it dies'. In fact, this interpretation is still synchronically available in a closely related language (Krasnoukhova this issue).

(51) Canela-Krahô (Macro-Ge)

rɔp	***ita***	***mpɛi***	*nɛ̃*	*i?-t̪ik*
dog	DEM/REL	good	SS	3-die

'The nice dog died.' (Lit. 'Dog this/which is nice it dies')
(Alves 2004: 59; cited in Krasnoukhova this issue)

As for the integration of new syntactic material (in whichever of the pathways described in the previous paragraphs), Himmelmann (this issue) argues that a reanalysis necessarily requires that the elements in question can be prosodically chunked together, with prosodic phrasing reflecting what belongs together informationally (Chafe 1994).

Nominal expressions are also known to lose complexity in the form of syntactic slots. A primary pathway involves the reanalysis of syntactically independent forms as clitics or affixes. With regard to nominal expressions, this type of development is particularly well known from the development of postpositions into case markers (see e.g., Lehmann 2002 [1982]). One such change in progress can be observed in Indo-Aryan. The previously syntactically and phonologically independent postpositions have become phonologically dependent clitics. As for their syntactic status, authors disagree on whether they are currently still best analyzed as postpositions or are best treated as case affixes (for the former analysis see Reinöhl 2016a, for the latter Butt and Ahmed 2011). Another example is found in the emergence of construals with nominalized modifiers in apposition to the phrase containing their semantic head in Bantu languages, as discussed in detail in Van de Velde (this issue).

Finally, contact influence, more specifically the presence of a significant number of L2 learners, has been argued to play a role not only in morphological simplification, but also in an increase in analytic patterns, both in the nominal and in other syntactic domains (e.g., DeLancey 2014 on Tibeto-Burman languages; Lupyan and Dale 2010; Trudgill 1989, 2011). While analytic does not necessarily mean rigid, a concomitant rigidification of nominal expressions is often implicitly or explicitly assumed. For instance, the rise of phrasal nominal expressions in Indo-Aryan has been argued to be due to contact with Dravidian and other

language groups of the sub-continent (e.g., Thomason and Kaufman 1988: 141–144). It can be difficult to prove such contact scenarios, however, and the case of Indo-Aryan is no exception. At this point, it appears that contact may have been involved in the fixation of pre-existing patterns, but did not introduce altogether novel structures (see Reinöhl 2016a: 119–122 for discussion).

Obviously, whether and how languages develop under contact is influenced by numerous factors: besides population size, contact duration and number of L2 learners, these include geographic, socio-economic and political factors, as well as social structure (e.g., marriage traditions and kinship systems) and, importantly, social identity and language ideology (see e.g., Evans 2019; Thomason and Kaufman 1988; Trudgill 2011 for discussion of some of these factors). Thus, Meakins et al. (2019) for example show that it is not a preference for simplification which steers the adoption of a particular expression in the mixed language Gurindji Kriol, but a bias towards one of the source languages (Kriol) over the other (Gurindji). This resulted in the selection of several complex variants over simpler ones. Other research has shown that diversity, whether syntactic or on other linguistic levels, can remain remarkably stable and even increase under intense, even multilingual contact (e.g., Evans [2019] reporting on languages in southern New Guinea and northern Australia).

6 Orality, literacy, communication mode

A fuller understanding of diversity in the nominal domain needs to take into account not only crosslinguistic and language-internal evidence of construal types, but also their language-internal distribution. We have already touched on the impact of information structure and narrative flow on construal choice (Section 3.2.2). Here, we round off the discussion by mentioning some ways in which the higher-level parameters of orality and literacy, as well as of communication mode, impact on the types of nominal expressions attested.

Nominal expressions in spoken language are affected by the segmentation of language into intonation units as opposed to into sentences (e.g., Chafe 1994; Himmelmann et al. 2018). English and morphosyntactically similar languages show an average of only about 4–5 words per "substantive", i.e., content-supplying intonation unit (e.g., Chafe 1994: 63–64; Himmelmann this issue). Accordingly, nominal expressions in spoken language also tend to be simpler in comparison to ones found in written language, with extreme cases of the latter found e.g., in legal, administrative, political or academic genres (see e.g., Maas [2010: 106, 112, et passim] on the frequency of attributes and relative clause in German writing vs. speaking). Afterthoughts and other types of add-ons also seem characteristic of oral

language production, whereas writing tends to encourage longer, integrated nominal phrases. Other studies elaborate on discourse constraints on what content is found in intonation units, and consequently in nominal expressions. Chafe's (1994) "one new idea constraint", developed on the basis of spoken data from Seneca (Iroquoian) and English, holds that nominal (or verbal) expressions containing two or more content words contain maximally one term which expresses a new referent, state or event, or the expression is an entrenched collocation (see also Himmelmann this issue). It is an open question whether there is a link to the finding reported for some languages that there is a limit on NP complexity (see e.g., Louagie and Verstraete 2016: 50; Olsson this issue; Rijkhoff 2002: 330, this issue).

In analyzing orality/literacy effects, many authors have pointed out the need to consider not only the 'medial' distinction between oral and written language, but also differences in terms of 'conceptual' orality and literacy, i.e., language structure that is typical, but not exclusive to oral and written language respectively (e.g., Chafe 1994; Koch and Oesterreicher 1985; Ong 1982; Tannen 1982). Thus, e.g., a prepared speech may be medially oral, but at the same time show signs of conceptual literacy, having been carefully "worked over" (Chafe 1994: 43), shaped into full sentences, with less repetitions, no or fewer false starts, longer and more complex sentence structure etc.

Orality has also been studied intensively for societies lacking (wide-spread) writing, so-called 'primary orality' (Ong 1982). In the context of the present article, this research tradition is particularly relevant given that many of the indigenous languages reported on here are either still or have until recently been cultures of primary orality. While early work in this domain focused on historical attestations, and particularly on historical oral art forms (e.g., the seminal work by Parry [1928] on the Homeric epics, and similar studies following in his footsteps), more recent research has expanded this approach to living cultures (e.g., contributions in Carlson et al. [2011]). However, it is still not widespread in typological studies to analyze syntactic structures and variation in detail from the perspective of (primary) orality and literacy.

Ong (1982: 36–57) mentions a variety of characteristics that are typical of primary orality. Some of these apply particularly to oral art forms, whether recorded or written down at some point, such as the Homeric epics, the Jewish Bible, or the living traditions in areas of former Yugoslavia (Carlson et al. 2011; Ong 1982). Among other things, this includes a discourse preference for paratactic over hypotactic structures (e.g., Ong [1982: 36–37] comparing the syntactic structures of the original Jewish bible with modern renditions).[21] Also some more

21 See also Höder (2010) on the rise of particular relativization strategies in the history of Swedish under the influence of writing in a multilingual setting with Latin and Low German.

content-oriented or performance-related characteristics mentioned by Ong (1982) impact on the internal structure of nominal expressions. For instance, Ong highlights the role of collocations in the "aggregative" style favored in oral art forms: "[o]ral folk prefer, especially in formal discourse, not the soldier, but the brave soldier; not the princess, but the beautiful princess; not the oak, but the sturdy oak" (1982: 38). This observation ties in with findings of an abundance of epithets in nominal expressions in some oral art forms (e.g., Gonda [1959] on the Rigveda). At the same time, this field remains very much in need of further investigation; for instance, oral art forms in Australia do not seem to be particularly characterized by complex nominal expressions.[22]

Turning to communication modes, the (non-)interactional character of storytelling may also affect the shape of nominal expressions. We here restrict ourselves to one striking example to illustrate the importance of communication mode. While modern day European narratives are often produced by single-party storytellers, Australian Aboriginal narratives are often produced in a multi-party setting (e.g., Hill 2018; McGregor 2004; Walsh 2016). Hill (2018) shows that, in multi-party stories in Umpila, reference is often co-constructed, and may include numerous repetitions and elaborations. For example, initial reference in multi-party Umpila narratives is often not expected to lead to immediate recognition of the correct referent, but is often semantically more general to invite and encourage co-telling. This is illustrated in (52), where little information is given by the first speaker to identify the referents, which invites the other speakers to contribute more details, like the number of people involved and where they are from.[23]

(52) Umpila (Paman)

1	SP	*kampanhu*	*ngampula*	*waathi-ny (.)*	***ku'unku'unchi***
		big	1PL.INCL.NOM	go-NFUT	RDP.old.woman
		'a big lot, we all went with the old women'			
2	(0.9)				
3	DS	***kukuthi***	***ku'unchi***		
		three	old.woman		
		'the three old women'			
4	(0.4)				
5	EG	***nga'a-l***	***ku'unchi***		
		DEM.DIST-DM	old.woman		
		'those old women'			
6	(0.6)				

22 Thanks to one reviewer for pointing this out.

23 In the widespread phenomenon of active listening (e.g., Payne 1997: 357–358), listeners repeat e.g., nominal expressions, but do not so much shape the narrative by co-elaborating on referents.

7 SP *aa* ***ku[kuthi-*** (coughing)
aa three
'ah three'

8 EG ***[Wenlock-munu***
Wenlock-ABL
'from Wenlock'

9 (.)

10 MB *thanka* *nga-* *muunga-na*
pandanus ? cut-NFUT
'(we) cut the pandanus'

11 (0.2)

12 DS ***pa'amu*** ***ku'unchi*** ***blo*** ***Wenlock***
two old.woman GEN Wenlock
'two old women came from Wenlock'

13 (0.3)

13 DS ***nhi'i*** ***nhi'ilama*** ***ku'unchi*** ***blo*** ***[Night Island***
one one old.woman GEN Night.Island
'one old woman came from Night Island'

15 MB ***[Night Island***

16 (0.4)

17 DS *ngana* *kuku* *aa-*
1PL.EXCL.NOM three aa
'we, three, ah-'

(Hill 2018: 223–224)

7 Overview of the contributions

This section summarizes the contributions to the special issue. They include both general articles and studies focusing on a particular language or area. The articles overlap in different ways, making it hard to order them thematically. We discuss them in alphabetical order.

Nikolaus Himmelmann develops a new, crosslinguistic framework for understanding the relationship between prosodic and syntactic phrasing in building larger units, whether in the nominal domain or elsewhere. Rather than considering prosodic phrasing as derivative of syntactic phrasing, as is often assumed, Himmelmann argues that these constitute two alternative strategies of relating words to each other. On the one hand, syntactic phrasing proper is "prosodically robust" in the sense that it does not depend on an alignment with

prosodic structuring. For instance, noun phrases are commonly uttered within single intonation units, but they can also be spread over two or more intonation units. On the other hand, "prosody-dependent" constructions are such structures where prosodic phrasing is not accidental to the construction, but determines its meaning composition. Typical examples are afterthoughts or appositions. While independent, the two organizational principles are connected insofar as the development of prosodically robust constituent structure or "phrase structure proper" presupposes that the syntagm in question is sufficiently often – if not always – produced as a prosodic unit.

Olga Krasnoukhova studies the different nominal construals that are attested in a genetically diverse sample of 65 South American languages, focusing on one functional role, viz. that of attributive modification involving properties. She shows that both within and across these languages, property concepts are expressed by roots belonging to a range of different word classes, with a majority involving verbs, and others involving adjectives, nouns, adverbs or flexible elements which may be used both for establishing or modifying reference and for predication. The variety of word classes involved leads to considerable diversity in available construal types. These include for instance appositional modification with property lexemes that are nouns ('the good one, the chicken'), complex noun phrases involving relativization of verbal property lexemes ('the clay which is white') or possessive constructions with property lexemes that are nouns ('the house's smallness'), simple noun phrases ('the small lake'), and compounds ('big-head'). Krasnoukhova also suggests a diachronic pathway from predication to attribution in noun phrases.

Yury Lander investigates noun phrase structure in Tanti Dargwa, an East Caucasian language. Noun phrases are typically head-final, while modifiers show flexible ordering with respect to each other, their order possibly determined by factors like information structure and heaviness. In other words, there are no dedicated syntactic positions for modifiers with descriptive semantics (such as adjectives) or those with determining semantics (such as demonstratives). Nonetheless, there are morphological differences between these elements in terms of the attributive suffixes they may or may not take. In addition, only descriptive modifiers but not determiner-like elements may appear in an alternative NP construal type, viz. where they follow the nominal head. Lander focuses on two types of modifiers which show characteristics of both descriptive and determining elements: contrastive modifiers, and a set of modifiers including possessor NPs, 'other' and 'every'. These elements are never fully like either descriptive or determining modifiers with respect to the above-mentioned morphological and distributional features, and a functional account in which they alternatively have attributive or determiner roles does not successfully account for them. For

instance, possessors may occur in post-head position like descriptive modifiers, but they may do so without the attributive suffix attached, i.e., showing a formal property of determining modifiers. Lander suggests that determiners form a category which is grammaticalizing but has not reached a stage of obligatorily showing certain characteristics.

Bruno Olsson surveys NP structure in Coastal Marind against the wide-spread background assumption of particularly simple NP structures among Papuan languages. Olsson argues that Coastal Marind essentially allows for two construal types: a tight left-branching structure with a single modifier, besides looser configurations, including discontinuity, which are more seldom employed and only in pragmatically marked contexts. Olsson also shows that the only construal option for attributive qualification is an adjective-noun compound, which has both word-like and phrase-like properties. The second part of the article focuses specifically on discontinuity and observes that it is largely conditioned by information-structural factors similar to those observed in Schultze-Berndt and Simard (2012) for the Australian language Jaminjung, viz. argument focus and sentence focus. He identifies a third function of discontinuity, viz. directing attention. Olsson makes the novel proposal that an underlying condition for discontinuous and other looser construals in Coastal Marind is high ranking of the nominal expression on an "aboutness" scale (i.e., where the utterance provides more information about the referent of the nominal expression).

Eva Schultze-Berndt investigates a hitherto understudied function of discontinuous nominal expressions: they may be a strategy for marking thetic constructions (a subtype of sentence focus constructions). She builds her argument both on the phenomenon of extraposition from subject NP/DP and on discontinuity in a number of Australian languages including Jaminjung/Ngaliwurru, Ngarinyman, and Wagiman. Whereas weight could account for extraposition phenomena, it can be ruled out as a factor triggering the sort of discontinuity she discusses for Australian languages. Instead, sentence focus is a function plausibly signaled by both of these construction types given the contexts in which they appear. Moreover, Schultze-Berndt argues that discontinuity is an iconic strategy reflecting the "informational integration" of the clause as all-new. Like other thetic constructions, discontinuity thus involves detopicalization, i.e., the dissolution of the bipartite topic-comment structure.

Mark Van de Velde investigates patterns of word order, agreement, and prosody in nominal expressions in Bantu languages, all of which show typologically unusual characteristics. Van de Velde specifically draws attention to NP-internal word order patterns which deviate from typological expectations, such as noun-demonstrative-adjective order. He also discusses patterns of widespread semantic agreement in nominal expressions and illustrates the significant variety

of agreement marker paradigms across the Bantu languages. Finally, he notes that several languages show evidence for prosodic breaks within the noun phrase, such as the blocking of high tone spreading across the elements of the phrase, or penultimate vowel lengthening appearing in the middle of a phrase. Van de Velde argues that all these characteristics may be explained by two processes of morphosyntactic change that are recurrent across the Bantu family. The first involves modifiers such as adjectives or numerals which are nominalized and used in apposition to the noun phrase they semantically modify. The second development is that in some languages, appositional modifiers are integrated into the noun phrase. Van de Velde thus not only surveys the diversity of nominal construals in Bantu languages, but also suggests a novel pathway of change for nominal expressions.

8 Conclusions

This article lays the foundations for a new typology of how nominal expressions are structured both language-internally and crosslinguistically, and of what motivates the distribution of different construal options. In approaching this vast field of study we have placed particular foci on some issues which have not been in the center of attention, but which we believe play important roles in shaping the variation space of the nominal domain. Particular emphasis is placed on language-internal diversity. Languages differ significantly with regard to the range of construals that are available, and with regard to the role that a particular construal plays within its linguistic and communicative system. Taking one allegedly "basic" construal type as representative of a language, as is done in traditional and more recent large-scale typologies, vastly under-represents the actual data. In understanding construal choices, we discussed a variety of motivating factors including lexical, semantic, and information-structural ones. In order to enrich our understanding of nominal expressions, we adopted several further perspectives. Thus, we discussed the impact of word classes on the structure of nominal expressions. We also considered ways in which nominal expressions may change over time in terms of their structural realizations, how they build up or loose rigidity and/or complexity. We rounded off the discussion by studying the impact of orality, literacy, and communicative modes shaping construals and choices between them.

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