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List of Abbreviations/Annotations

CCG	Cognitive Construction Grammar
CG	Cognitive Grammar
CN	common noun
CX	construction
def	definite
Dem	demonstrative
Det	determinative
Ditrans	ditransitive
i	identical (superscript)
indef	indefinite
mod	modified
MN	mass noun

Nom	nominal
Num	numeral
NP	Noun Phrase
P	preposition
PP	Prepositional Phrase
pl	plural
PN	proper noun
PRAG	pragmatic meaning
SEM	semantic meaning
sg	singular
SYN	syntactic form
*	marks grammatically unacceptable phrases/utterances
[]	indicates constructions or phrases within larger utterances
∅	indicates no-article position in NP

I adhere to British spelling rules, except for special terms coined in American English, such as *grammaticalization*.

1. Introduction

The overall aim of this thesis is to develop constructional schemata for several instances in which the so-called ‘zero article’ has been postulated. Analysing the zero article from a Construction Grammar perspective will prove that postulating a covert article category is not necessary and that bare NPs can be explained more elegantly. In the literature, several article-less NP constructions, like for instance NPs headed by a proper noun (1), vocatives (2) nominals modified by numerals (3) or indefinite NPs with a mass or plural noun as head (4) have been said to employ a covert zero article. The lack of an article is indicated via Ø in the examples to follow:

- (1) Has Ø Sophie eaten all the olives?
- (2) Ø Richard, could you get some olives from the kitchen?
- (3) In Ø room 5, they still have some olives.
- (4) I see Ø cars/ Ø water on the other side of the street.

Even though the English article system has been of interest to grammarians for over 400 years (cf. Bullokar 1586), the concept of the zero article was only introduced in the mid-twentieth century (cf. Jakobson 1940). Up to today, most linguistic inquiry is solely concerned with the overt English articles *the* and *a/an*, as researchers appear to shy away from a discussion of the covert article. In this thesis, it will be argued that current models of the NP which employ the notion of the zero article in English are unsatisfactory and often suffer from circular argumentation. In previous approaches (cf. Carlson 1977; Quirk et al. 1985; Downing & Locke 1994; Biber et al. 1999), the existence of the zero article has been postulated rather haphazardly for almost all cases where a NP without a determinative is found.

In his work, *The Myth of the Zero Article*, Berezowski (2009) shows that previous analyses and models of the zero article in English raise more questions than they answer. This is mostly due to the fact that no consistent definition of the zero article has been established to this day. The concept was put forward by structural linguistics, who proposed the existence of a covert article in contexts where no overt article could be found¹, presupposing that English NPs require determination in all cases (e.g.

¹ Next to others, those contexts are: proper NPs, vocatives, nominals modified by numerals, predicate nominals, generic NPs, idiomatic prepositional phrases, bare binomials, and indefinite NPs with mass and plural noun heads.

Christophersen 1939; Mitchell 1985). However, I argue that it is not sensible to postulate a covert article in all those contexts as they do not display similar characteristics and qualities and thus do not warrant the use of a zero article or in fact any article (covert or overt).

This thesis aims at providing explanations for bare NPs from a Construction Grammar perspective to show that the existence of covert categories, like the zero article, is not justified and should, therefore, be rejected. The following research questions are posed in order to achieve this goal: How has the zero article been defined in previous studies/frameworks? Are those explanatory models satisfactory? Is it sensible to describe all instances of missing articles in the English noun phrase as cases of zero article usage? If not, how can those article-less constructions be explained in terms of Construction Grammar?

Related to these research questions, some hypotheses are: The postulation of a covert zero article category is not feasible. The general phenomenon of ‘missing’ articles in the English NP cannot be explained with the concept of the zero article; rather, many different reasons and explanations exist for the different contexts in which English NPs occur bare. For instance, the zero article has been postulated in the past even in some non-referential contexts (cf. Carlson 1977; Quirk et al. 1985; Downing & Locke 1994; Biber et al. 1999; Chesterman 1991) despite the fact that usually only referential contexts require grounding and overt marking through articles (Langacker 2008).

I will argue that in non-referential NPs and in many idiomatic constructions, it is illogical to propose the occurrence of a covert article from a pragmatic point of view. Articles can generally be viewed as default markers of (in)definiteness and referentiality; non-referential NPs are neither definite nor indefinite, thus, they do not require an article. The same holds true for NPs which are inherently referential (see proper nouns and vocatives). On the other hand, idiomatic constructions are fixed, substantive constructions which have both idiosyncratic meaning and special syntactical structures; in some cases, the omitted article distinguishes these idiomatic phrases from their ordinary counterparts (e.g. *in prison* vs. *in the prison*) – i.e. phrases which are non-idiosyncratic.

I believe that a Cognitive Construction Grammar approach (e.g. Goldberg 2006; Hoffman & Trousdale 2013) offers a logical and non-circular way of modelling the phenomenon of ‘missing’ articles in English NPs, which is why this framework will be

utilised for the present thesis. Other than some rule-based generative models, which often postulate covert categories, Construction Grammar rejects the notions of silent or covert categories, which is why I will strongly argue against the existence of an invisible zero article.

Cognitive Construction Grammar is committed to develop a model of language which reflects the cognitive and neuropsychological reality of speakers' brains; 'missing' articles are much more likely conceptualised as simply absent than as covert categories. In strong contrast to rule-based, componential models set up by generative grammarians, grammatical knowledge in Cognitive Construction Grammar is said to be stored in a vast, redundant and structured inventory, which arises out of experience and usage of language (e.g. Croft & Cruse 2004). Instances of bare NPs, then, are thought to be stored separately from NPs with articles, as they are perceived and used differently. Adopting a usage-based, emergent view of grammar (e.g. Goldberg 2013), Cognitive Construction Grammar offers a conclusive, succinct model for bare NPs as it conceptualises them as individual NP-constructions, which differ from article-employing NPs.

Ultimately, it will be suggested that both the concept of bare NPs as well as the concept of the zero article are explanations for the same phenomenon, namely NPs without articles (cf. Berezowski 2009: 7). In other words, article-less NPs can be conceptualised from two different viewpoints. The postulation of a covert zero article in all instances of article-less NPs presupposes the need for articles in NPs in virtually all cases, while the bare NPs concept allows for a group of NPs which do not need to employ articles or other determiners. Naturally, the concept of bare NPs instead of NPs employing a covert article does not adhere to the formalist-structuralist law of obligatory determination in the NP; models featuring bare NPs are, thus, only found in functional grammars (e.g. Payne & Huddleston 2002; Halliday & Matthiessen 2014; Heine 2011).

One major goal of this project is to sketch and discuss potential constructional schemata for some of the cases in which the zero article has been postulated. Those constructions will also be embedded in larger networks (cf. Croft and Cruse 2004). It will be shown that most contexts in which the zero article has been postulated do not require an article at all due to various reasons, which is why the existence of the zero article in those cases will be rejected. However, this thesis will reveal one context in which obligatory marking of definiteness is generally considered necessary, i.e. which requires articles, but which lacks them anyways: indefinite referential NPs with a mass or plural

noun as their head. In sentences like (5) and (6), the underlined NPs should be overtly grounded via some form of determiner, as they are both indefinite and referential. This is, however, not the case – the NPs still occur bare:

(5) He'd needs to buy milk. [indefinite uncountable mass noun]

(6) I see Ø bikes on the road! [indefinite plural noun]

I will argue that the underlined NPs in sentences such as (5) and (6) occur undetermined simply because there is no fully grammaticalized article for mass and plural nouns in indefinite contexts yet. In fact, it will be shown that, according to a theory developed by Sommerer (2018), the article-like determiner *some* is currently undergoing a process of grammaticalization to become an article for mass nouns and plural nouns. This is the reason why the underlined NPs in (5) and (6) are often preceded by *some* without changing their meanings (*He needs to buy some milk; I see some bikes on the road*); the two constructions – one occurring bare, the other employing *some* – coexist at the moment and have given rise to the confusion around the bareness of indefinite mass nouns and plurals. English is at a “hybrid stage” (Sommerer 2018: 301) of grammaticalizing more and more elements as markers of (in)definiteness, the ‘old’ bare version of indefinite NPs with mass and plural nouns coexists with a new alternative NP schema where *some* functions as an article.

Apart from the cases just mentioned, which employ either no article or *some*, there is yet another constructional branch which often takes the same bare syntactic form: generic singulars and plurals. In sentences such as *We all like Ø olives or Ø Cake is unhealthy*, the underlined NPs occur undetermined for a good reason: they are non-referential, generic NPs, which require no marking of reference or specificity. I will introduce a constructional network for these constructions based on their semantic, rather than on their syntactic properties, revealing that while referential and generic bare singulars and plurals might share formal features, they are not related to each other via inheritance; their similar form is a product of convergence and analogy.

This thesis is structured as follows: Chapter (2) will introduce readers to the English noun phrase (henceforth also NP); Its internal structure, its functions and main properties will be discussed, before a discussion of determiners (2.2.) will be briefly presented. The chapter ends with an introduction to reference and specificity (2.3.). The 3rd chapter will focus on the English article system: first, an overview of the English articles will be

provided (3.1.), Second, contexts for the postulated usage of the zero article will be evaluated (3.2.). The 4th chapter will familiarise readers with the concept of bare NPs. The penultimate chapter (5) will present the main tenets of Construction Grammar to lay a theoretical foundation for the constructional sketches devised in the last, and most extensive chapter (6) of this thesis. All contexts which have been said to employ the zero article will be discussed and a constructional approach will be taken by sketching possible constructional templates and networks. Finally, a general conclusion (7) will sum up the main findings.

2. The English noun phrase

Before the English articles and the zero article can be properly analysed, it is important to briefly discuss the larger phrasal structure these linguistic elements are embedded into, namely the English noun phrase. The following section will introduce terminology used when describing English NP structure (2.1), and especially determination (2.2.) as well as the concept of reference and referentiality (2.3.).

2.1. Definition and structure of the English noun phrase

The English NP has been analysed from different linguistic perspectives. Many linguists – be it generative grammarians², functional³ or cognitive linguists⁴– have described and defined the noun phrase, as it is a frequent and important construction in the English language. According to most of these different theories, noun phrases usually consist of one or more nouns, modificational elements and a determiner (cf. Martínez-Insua et al. 2011).

2.1.1. The noun

Since the noun is arguably the most important constituent of the English NP, it is useful to first establish what a noun is. Different descriptions proposed by various linguists exist. For this thesis, however, Payne and Huddleston's analysis will be used. They summarise the following defining properties of nouns:

- | | |
|----------------|--|
| i INFLECTION | Nouns prototypically inflect for number (singular vs plural) and for case (plain vs genitive). |
| ii FUNCTION | Nouns characteristically function as head in NP structure. |
| iii DEPENDENTS | Various dependents occur exclusively or almost exclusively with nouns as head: certain determinatives (<i>a book</i> , <i>every day</i>), pre-head AdjPs (<i>good news</i>), relative clauses (<i>people who work</i>). Conversely, nouns differ from verbs and prepositions in that they do not take objects: <i>I dislike it</i> but not <i>*my dislike it</i> (Payne & Huddleston 2002: 326). |

² For generative approaches to the NP, see e.g. Abney 1987, Coene & D'hulst 2002; Alexiadou et al. 2007.

³ For functional approaches to the NP, see e.g. Halliday & Matthiessen 2014, Fawcett 2011, Van Valin & LaPolla 1997, Hengeveld & Mackenzie 2008, Hopper 2012, Martinez-Insua & Perez-Guerra 2011, Ghesquire 2014.

⁴ For cognitive approaches to the NP, see e.g. Croft & Cruse 2004, Langacker 1991, Langacker 2008, Lakoff 1987, Goldberg 2006, Bybee 2010.

Huddleston and Payne cover the morphological and syntactic behaviour of a noun, but they do not illuminate a noun's semantic and discourse-pragmatic function. Keizer's definition closes the gap which Payne and Huddleston leave open:

Nevertheless it is possible, on the basis of these different criteria, to define the prototypical noun as a linguistic item which is characterized by certain (derivational and inflectional) suffixes and a certain distribution, which **denotes a specific type of entity** ('cat', 'dog'), and which is used to **refer to a token of this type of entity** (a particular cat or dog) (Keizer forth: 2, emphasis added).

In other words, nouns link objects, things or even non-material ideas in the real world to their mental representations. From a cognitive perspective, nouns are essentially defined as *things*: "Suggested for nouns are two abilities [...]: the grouping of constitutive entities, and their conception as a single entity for higher-level purposes. A noun designates a *thing*, defined as any product of these reifying operations" (Langacker 2010: 103). *Thing*, however, must be understood as a very broad category; nouns function as autonomous conceptual units and may, for instance, either describe physical objects (*book*; *phone*) or more abstract units (*love*; *knowledge*) (cf. Langacker 2007; 2010). Table 1 summarises the characteristic features of nouns according to different linguistic criteria:

Criteria	Noun Behaviour
Morphological	Affixes: inflectional, derivational
Syntactic	Nouns are heads of NPs and occur with a number of dependents in the NP
Semantic	Nouns denote entities
Discourse-Pragmatic	Nouns introduce or refer to such entities in a discourse

Table 1: Characteristics of prototypical nouns

Apart from those criteria for prototypical nouns, it is important to introduce the three main noun classes: proper, count and non-count – or mass – nouns, which are presented in Table 2:

nouns				
proper	common			
	count		non-count	
	concrete	abstract	concrete	abstract
<i>Joanne, London</i>	<i>book, phone</i>	<i>skill, difficulty</i>	<i>ink, butter</i>	<i>love, knowledge</i>

Table 2: Noun classes (Quirk et al. 1985: 247)

While proper nouns name specific unique entities, the larger class of common nouns denote classes of “things” (cf. Langacker 2008); common nouns are further subcategorised into count (countable, bounded) and non-count nouns (uncountable, unbounded). Count and non-count nouns, in turn, can be either concrete (i.e. tangible, observable) or abstract (i.e. not accessible to the senses). As can be seen, some of these noun classes deviate from the rigid criteria discussed above. For instance, not all noun types inflect for number or case. Biber et al. report that countable nouns are more frequent than non-countable nouns, and further that single nouns are more common than plural nouns (1999: 217, 243).

2.1.2. The NP: semantic and discourse-pragmatic functions

Now that the form and function of nouns have been defined, a definition of the noun phrase may follow:

[T]he noun phrase [can be defined] as a linguistic unit whose central component element (or head) is a noun, whose designation is based on that of the head noun and whose primary function is to refer to an entity belonging to the type designated by the head noun (Keizer forth: 2).

The following sub-sections will elaborate on the semantic and discourse-pragmatic functions, the syntactic behaviour as well as the internal structure of the noun phrase.

Since the most important constituents of NPs are nouns, their semantic and discourse-pragmatic functions are somewhat similar to those of nouns. Keizer contends that noun phrases serve the semantic function of denoting meaning; that is, noun phrases are the linguistic counterparts of extra-linguistic entities, things and concepts rather than attributions, actions or relations. Thus, they fulfil what might be called a double semantic function: they describe entities (*This is a book about friendship*), but they also refer to those entities in the discourse (*Is this the book you were talking about?*) (cf. Rijkhoff 2008: 65). Their discourse-pragmatic functions are related to their semantic ones: they establish reference to a certain entity or concept in the discourse. According to Payne and Huddleston, “by using [a noun phrase] on a given occasion, a speaker intends to pick out some independently distinguishable entity, or set of entities, in the real world (or in some fictional word)” (2002: 399). It might be said, therefore, that noun phrases are utilised to present and *refer to* the ideas, objects, entities, concepts nouns denote.

Before the NP's syntactic behaviour may be discussed, it is important to introduce yet another definition of relevance: the nominal. The nominal is viewed as an intermediate category between noun and NP; nominals "are not single words, hence not nouns, but nor are they themselves NPs – they cannot function as subject, object, etc. in the clause structure" (Payne & Huddleston 2002: 329). The cline from nouns to nominals to NPs can be more easily understood through an example: *man* simply constitutes a singular noun, *old man* is a nominal, consisting of two words. It is important to mention here that neither *man* nor *old man* are yet referential. The referential properties of these nouns are only activated once they function in combination with a determiner: *the old man* (cf. Payne & Huddleston 2002: 329; see section 2.1.4 below).

2.1.3. The NP: syntactic behaviour

Noun phrases often take on the syntactic roles of subject, object or predicative complements (cf. Quirk et al. 1979; Payne & Huddleston 2002; Haegeman & Guéron 1999; Carnie 2013). As shown in example (7), however, NPs can fulfil many different roles as well (e.g. Payne & Huddleston 2002: 327; Keizer forth: 2):

- | | | |
|-----|--|--------------------------|
| (7) | a. <u>The teacher</u> walked into the class. | [subject] |
| | b. We need <u>a teacher</u> . | [object] |
| | c. Liz is <u>a teacher</u> . | [predicative complement] |
| | d. to <u>the teacher</u> . | [complement in PP] |
| | e. I saw her <u>last Tuesday</u> . | [modifier in clause] |
| | f. <u>three centimetres</u> long. | [modifier in AdjP] |
| | g. <u>six minutes</u> later. | [modifier in AdvP] |
| | h. my mother <u>the teacher</u> . | [modifier in NP] |
| | i. <u>Liz</u> ! | [vocatives] |

The examples in (7) above indicate both that NPs are rather flexible concerning their syntactic role and that their constituents vary from single nouns to more complex phrases.

2.1.4. The NP: internal structure, headedness, dependents

The noun phrase is a construction which has a noun as head. Most comprehensive grammars (e.g. Quirk et al. 1979, Biber et al. 1999; Payne & Huddleston 2002) assert that noun phrases consist of a noun as head plus various other dependents. As head of the

phrase, the noun in the NP is an obligatory element that carries inflection, the most prominent stress as well as the possibility to link with a verb to produce subject-verb agreement – that is, only if the NP is in subject position (cf. Keizer 2007: 9). The internal structure of NPs is often presented in tables to show different functional slots and how they can be filled. Since the ordering of the constituents is mostly linear, such tables provide insights as to how NPs are built up. Slot zone models like the one shown in Table 3 may be useful for categorising elements within the noun phrase, but their plausibility remains highly controversial as they do not include any information about internal scope relations in noun phrases.

Prehead			Head	Posthead*
Determination zone			Head	Complementation zone/ Post-modification zone
Predet.	Determiner	Postdet.	Modification zone (Zones I-IV)**	
<i>all</i>	Articles	Ordinals	Adjectives	Common nouns
<i>both</i>	Demonstratives	Cardinal	Adjective phrases	Proper nouns
<i>half</i>	Possessives	numbers	Genitive phrases	Pronouns
<i>such</i>	Universals	Quantifiers	Participles	Adjectives
<i>what</i>	Existentials		Nouns/nominals	Existentials
<i>by far</i>	Disjunctives			
Multipliers	Distributives			
Fractions	Interrogatives			
	Genitive phrases			

* Note that the complementation zone and the modification zone in the posthead are grouped together. However, complementation precedes modification.

** Certain ordering principles for prehead modification exist and Quirk et al. (1985: 437) distinguish four subzones: (I) Precentral, (II) Central, (III) Postcentral and (IV) Prehead.

Table 3: Modern English NP Structure (taken from Sommerer 2018: 35, adapted from Quirk et al. 1985: 253–331; 1238–1287)

The different slots in the NP are structured around the head; usually the pre-head constituents are regarded as external dependents, while post-head constituents are internal dependents (cf. Payne and Huddleston 2002: 330–31). Most of those dependents are traditionally grouped in one of three categories: determiners, modifiers or complements (Quirk et al. 1985: 62; Payne & Huddleston 2002: 330–331; Martínez-Insua & Pérez-Guerra 2011: 207); apart from the noun, those dependents are usually non-obligatory. This means that a noun phrase would not work without a noun, but very well without, for instance, a predeterminer. According to Payne and Huddleston, however, there is one category of dependents in the NP that is especially important and arguably

obligatory: determiners (2002: 330). These external dependents enable NPs to fulfil their prototypical functions (subject, object, predicative complement). Biber et al. agree in claiming that neither the noun nor the determiner can be left out “without destroying the identity of the noun phrase” (1999: 240). NPs are capable of performing a certain function in a higher linguistic unit, the clause or the sentence, arguably because of determiners: While *old man*, a nominal construction, may stand alone, it cannot function in subject position **Old man gave it to me*. Once a determiner is added, however, the nominal transforms into a noun phrase and can thus function as the subject, *The old man gave it to me*. The same holds true for the object position; *I gave it to the old man* is grammatical, whereas **I gave it to old man* is not (cf. Payne & Huddleston 2002: 329). Arguably, then, the determination zone is especially important for NPs:

The determination zone accommodates all elements concerned with the identification and quantification of the NP referent. Its elements deictically and/or phorically anchor the instances of the type referred to by the NP in terms of such notions as givenness (*the*), relative quantity (*most*), etc. to the information the hearer has already built up from the previous discourse (Langacker 1991: 81–89; Davidse 2004). (Ghesquière 2014: 44)

Halliday and Matthiessen offer a very different model of the NP structure. Table 4 presents their experiential structure of the nominal group:

those	two	splendid	old	electric	trains	with	pantographs
Deictic	Numerative	Epihet attitude Quality		Classifier	Thing	Qualifier	
determiner	numeral	adjective	adjective	adjective	noun	Prepositional phrase	
						'Process'	'Range'
						prep. group	Nominal group
						Head	Thing

Table 4: Nominal group, multivariate experiential structure (Halliday & Matthiessen 2014: 388)

An extensive discussion of the different models for NP structures is not possible here⁵; the most important insight for the purpose of this paper relates to the special function of determiners within the NP structure. According to Langacker (2010) and Halliday and

⁵ For further information on different models of NPs internal structure, see, for example Wolde & Keizer (2016); Keizer (2007); García Velasco & Rijkhoff (2008); Butler et al. (2007) Herburger (1990); Jucker (1993). Quirk et al. (1985: 253–255); Payne & Huddleston (2002); Coene & D’hulst (2003a,b) ; Denison (2006).

Matthiessen (2014), determiners serve as *grounding* elements; without a determiner, nouns prototypically denote general classes of *things*. As soon as a determiner is attached to a noun, it “establishes a connection between the profiled thing [the noun] or process and the *ground*, i.e., the speech event and its participants” (Langacker 2010: 105). In other words, determiners connect the *things* nouns denote to the actual linguistic and discourse-functional context; they “have the function of identifying a particular subset of the ‘thing’ [i.e. the noun] that is being referred to” (Halliday & Matthiessen 2014: 367). Hence, words belonging to the system of determination establish reference; “a form of **orientation** by reference to the speaker – or more accurately, to the ‘speaker-now’; the temporal-modal complex that constitutes the point of reference of the speech event” (2014: 367, original emphasis).

Given the importance of determiners for generating fully functioning NPs, it is necessary to discuss them in more detail; the next section is devoted to delineating determiners as well as determinatives.

2.2. Determiners and Determinatives

As the main topic of this thesis, the zero article, falls into the category of determiners, the following section will focus on determinatives and determiners. As has already been mentioned, determiners elevate nouns or nominals to the level of noun phrase constructions (cf. Payne & Huddleston 2002: 355). Prototypical NP constructions, like the ones formed by singular count nouns or nominals, require determination in almost all cases. The example sentences in (8), taken from Payne and Huddleston (2002: 355) show the determiners' general function: adding information. Determiners ground nouns, they mark them as (un)specific, (in)definite and referential. The provided specification may be definite (*the* or *Ally's* in sentence b.) or indefinite (*one* in sentence b.):

- (8) a. *[New car] was stolen. [bare count singular nominal]
b. [The/One/Ally's new car] was stolen. [determiner + nominal]

Before the determiner function can be analysed in greater detail, it is first important to draw a distinction between the two concepts of *determiner* and *determinative*. The first term, *determiner*, is used to identify a certain function in the NP; the latter, *determinative*, describes a word class. This differentiation might seem superfluous at first glance; upon closer examination, however, it becomes evident that it is needed: The determiner

function is not always fulfilled by a determinative, but can, for instance, be occupied by a Genitive Phrase (*She borrowed the book* vs. *She borrowed my uncle's book*). Furthermore, determinatives can fulfil other functions apart from determiners, e.g. as modifiers in other phrases (*The problem isn't [that serious]*) (cf. Payne & Huddleston 2002: 356).

In the following paragraphs, the concept determiner will be briefly introduced in more detail. As Biber et al. state, “[d]eterminers are function words which are used to specify the reference of a noun” (1999: 258). Most of the comprehensive English grammars agree on this basic function of determiners (see section 2.2.; cf. Payne and Huddleston 2002; Quirk et al. 1984; Biber et al. 1999). The classification of determiners is, however, not uniform: Quirk et al. distinguish *pre-determiners*, *determiners* and *post-determiners* (1985), Payne and Huddleston introduce the categories of *basic determiners*, *subject-determiners* and *minor determiners* (2002) and Biber et al. postulate *pre-*, *central-* and *postdeterminers* (1999). Those different classifications are drawn up to account for co-occurrence phenomena within the NP. For this thesis, the classification provided by Biber et al. will be used:

Predeterminers: *all*, *both*, *half* and multiples like *double*, *once* and *twice*.

Central determiners: articles, demonstrative determiners, and possessive determiners.

Postdeterminers: with two subgroups: (1) ordinal numerals and the semi-determiners *same*, *other*, *former*, *latter*, *last* and *next*; (2) cardinal numerals and quantifying determiners (1999: 258).

Pre-, central and postdeterminers can either fill the determination slot alone (*all guys*) or cooccur in NPs to form long strings of determination (*all those other guys*). Table 5 below shows how the different classes of determiners combine to form complex NPs. Biber et al. identify even more determiners and include *wh*-words as well as specifying genitives (for a detailed account of those, see Biber et al. 1999, for a competing model see Ghesquière 2014).

However, classifications which include the notion of pre- and postdeterminers are highly debated. There is no consensus among linguists as to which elements should belong into those two controversial categories either. For instance, some linguists claim that words like *same* and *all* belong to the group of predeterminers, while others do not even group them among the same category of word class. Halliday and Matthiessen, for instance, define *all* as a positive total Deictic – word class: determiner – but define *same* as an “adjective elaborating identity” (2014: 368-74). Langacker excludes ordinal and

cardinal numerals from the category of determiners and posits them among other type specifiers (1991: 78-81).

Van de Velde asserts that “there is no need to posit a separate postdeterminer slot” (2009: 318), other researchers reject the entire category of determiners (cf. Spinillo 2000).

Positional Groups of determiners				
predeterminer	Central determiner	Postdeterminer (1) (2)		head
all	the			races
all	those			guys
both	these			problems
half	a			cup
half	the			size
twice/double	the			size
	the		many/few	occasions
	her	first		marriage
	the	last	two	years
	the/those	othert	two	fellows

Table 5: Positions of pre-, central- and postdeterminers (cf. Biber et al. 1999: 259)

Due to limitations of time and space, an extensive discussion of the classification of such words cannot be presented in this thesis. As the main topic of this thesis, the zero article, falls into the category of articles, and thereby, into central determiners, the rest of this section will focus on this less controversial group of determiners and leave the issue of pre- and postdeterminers aside.

The most common and most basic forms of determiners are central determiners. This group is formed by articles, demonstrative determinatives and possessive determinatives. It might be stated that these sub-groups form a cline from neutral (articles) to less neutral, i.e. providing more specific information and reference (possessive determiners). First, articles can either mark NPs as definite or indefinite (*the book* vs. *a book*).⁶ Demonstratives can also function as definite determiners like *the*, but are less neutral in that they also provide a sense of relation and closeness (e.g. *this/that book*). Third, possessive determinatives are the least neutral group to function as central

⁶ More information on the different article usages, as well as the distinction between overt and covert articles will be presented in section 3.

determiners; they relate a noun or nominal to specific person or entity of the discourse community (*my/our/your/his/her/it's/their book*) (cf. Biber et al. 1999: 268-76).

Table 6 sums up the different types of determiners this section has dealt with.

	Determination zone		
Function	Predet.	Central Determiner	Postdet.
Form	<i>all</i> <i>both</i> <i>half</i> <i>Multipliers: double, once</i>	Articles <i>the, at</i> Demonstratives <i>this, that</i> Possessives <i>my, our</i>	Ordinals <i>first, last</i> Cardinals <i>one, two</i> Quantifiers <i>some, many</i> Semi-determiners <i>same, other</i>

Table 6: Structural slot zone model (cf. Quirk et al 1985)

It must be stated at this point that while such structural slot zone models for the determination zone are often to be found in the literature, their relevance and plausibility is a topic of hot debate (cf. Breban & Davidse 2003; Ghesquière 2014); structural slot zones are postulated in order to account for co-occurrence patterns of determiners, but they oftentimes are unable to explain scope relations or how these co-occurrences are governed. Functionally oriented linguists have come up with different classifications of determiners; Ghesquière, for instance, distinguishes between primary and secondary determination and defines different functions of the two groups (2014).

To conclude, all different classes of determiners have a similar purpose: to establish reference. After having discussed types of determiners in this section, their main function, namely establishing reference, must be highlighted; thus, the next section will focus on reference and referentiality.

2.3. Reference and Referentiality

Reference is a pragmatic concept. Payne and Huddleston define a linguistic expression as referential if “a speaker intends to pick out an independently distinguishable entity, or set of entities, in the real world” (2002: 399). It is important to draw a distinction between the concept of *reference* and *denotation*. As reference is always connected to some entity or concept in the linguistic or situational context, it is heavily context-dependent (cf. Lakoff 1974; Halliday & Hasan 1976). In contrast, denotation is not: for example, entries in monolingual dictionaries are concerned only with denotative meaning, i.e. the general meaning of a word. While the word *cat* denotes a “a small animal with soft fur that people

often keep as a pet” (Hornby 2010: s.v. *cat*), the phrase *the cat on the floor* describes a specific cat, connected to individual context. It is no coincidence that the denotive meaning of *cat* is evoked only if the noun is not determined; as soon as a NP (*the cat*) is formed by the addition of a determiner, reference is established (cf. Biber et al. 1999: 232; Payne & Huddleston 2002: 399f; Gundel et al. 1993).

Noun phrases are the primary source of referential specification. Nouns on their own are usually not referential (cf. Biber et al. 1999: 232); without determination, they simply denote a set or class of a certain entity. For example, the noun *book* alone in *I really enjoyed the book you gave me* does not refer to a specific book, but rather to the general concept of *book*: “a written work published in printed or electronic form” (Hornby 2010: s.v. *book*), i.e. it is non-referential. Only because it is combined with a determiner, in this case the definite article *the*, the noun becomes referential; the referential NP now specifically selects a book out of the speaker’s and listener’s context. Therefore, it can be stated that determiners add discourse-pragmatic reference to nouns to build referential NPs (cf. Payne & Huddleston 2002: 399-401). This is also the reason why determiners can transform nouns into noun phrases, i.e. larger constructions which may fulfil certain syntactic roles (e.g. subject, object, see section 2.1.3.). Typically, those roles require referential NPs; exceptions to this tendency will be closely analysed in chapter 6.

Reference is context-dependent. In conversational context, speakers adhere to Grice’s maxim of quantity⁷ (cf. Gundel et al. 1993: 281) and use as little language as possible to deliver their intended information. Often, however, speakers overdo shortening their utterances, which results in a need for clarification:

(9) A: How's **the box** going?

B: **Which** box?

A: **The new one.**

B: Oh **that one** - (conv) (Biber et al. 1999: 233)

Example (9) shows hearer-initiated repair; Speaker B asks for additional information as Speaker A overestimated B’s awareness or knowledge of a certain box. A responds in one of two possible ways: s/he adds information about the entity in question so that it becomes evident which box it is (*the new one*). A could also have used a

⁷ Maxim of Quantity: Q1 Make your contributions as informative as required (for the current purpose of the exchange), Q2 Do not make your contribution more informative than is required (Grice 1975).

demonstrative pronoun – *this, that* – while pointing to the box in question if it had been in close proximity to the speakers (cf. Biber et al. 1999: 233-34).

Reference establishes coherence and cohesion. Biber et al. show that referential information makes up a great amount of linguistic information (1993: 233). Chains of reference combine phrases and sentences into coherent units of language. Those chains are defined as “sequences of noun phrases all referring to the same thing” (Biber et al. 1999: 234). Example (10), taken from *The Study of Language* depicts such a referential chain:

(10) **The human brain** is not... – **it** is... – **it** has... – of **the brain**... – **the speaking brain**... (Yule 2010: 5, emphasis added)

Usually, a detailed description of the referent is provided initially (*The human brain*). Reference is upheld throughout the text by repeating the name of the referent (*the brain, the speaking brain*), using pronouns (*it*), synonyms, ellipsis or various determiners. The different NPs referring to the same entity are related via *co-reference*. Consecutive referential NPs (seen in example 8) are called *anaphoric*, i.e. they point to some entity that was introduced earlier (cf. Biber et al. 1999: 234f). There are, however, also less straightforward types of references, which will be explained below.

2.3.1. Types of reference

This section is an attempt to categorise types of referential and non-referential uses of NPs. First, types of referential NPs (2.3.3.1.) will be categorised; second, non-referential (2.3.3.2.) and ambiguous NPs (2.2.3.3.) will be discussed.

2.3.1.1. Referential NPs

In general, referential NPs are typically specific and definite. Biber et al. present different types of reference in their grammar: *anaphoric, indirect anaphoric, cataphoric* as well as *situational* reference (1999: 264-66). The characteristics of each of those types of reference will be elucidated below.

1. *Anaphoric* reference describes referring back to an entity previously mentioned in the text; it may be called the prototype reference, as it is the reference most commonly known, seen in example (11), which is repeated here for convenience:

(11) A: How's **the box** going?

B: **Which** box?

A: **The new one.**

B: Oh **that one** - (conv) (Biber et al. 1999: 233, original emphasis)

In (11), hearer-initiated is necessary, because speaker A wrongly presupposes B's knowledge of a specific box (*the box*). The box in question has likely been topic of a previous discussion, which is why speaker A assumed B would know which box is referred to. *The box* refers back to this box.

2. *Indirect anaphoric* reference is closely related to *anaphoric* reference; an entity that was previously mentioned is referred to. In the case of indirect anaphoric reference, however, the link is inferred, indirect:

(12) **The Mercedes** took a hard bounce from a pothole. "Christ," said Sherman, "I didn't even see that." He leaned forward over the **steering wheel**. **The headlights** shot across the concrete columns in a delirium. (FICT) (Biber et al. 1999: 263).

Associations related to general world knowledge enable hearers/readers of example (12) to connect the bold NPs to each other; the first NP, *The Mercedes*, functions like a trigger for the referential chain to follow: speakers/listeners/readers are aware of the fact that a Mercedes is a type of car and will be primed for concepts related to cars, such as the steering wheel or the headlights.

3. *Cataphoric* reference might be understood as the opposite of *anaphoric* reference; some determiner in the text refers to some entity that will only later be mentioned:

(13) When **she** arrived, **Claire** was soaking wet.

The pronoun *she* in (13) refers to a female entity which is specified and made definite only later in the sentence: the name of the person, *Claire*, is provided.

4. *Situational* reference describes reference which emerges out of situational context, i.e. shared knowledge of speaker and hearer:

(14) You know last week my aunty she put her down in **the** kitchen and **the** telephone rang. And **the** telephone's on **the** wall in **the** kitchen (Biber et al.

Only speakers familiar with said aunty would know which kitchen and which telephone is referred to. The different types of reference presented above are clearly instances of referential NPs. However, not all NPs are referential, even though NPs are the main means of establishing reference. It follows that existing determination does not automatically lead to referential expressions. NPs can be both referential and non-referential, although referential cases are much more common. The next sections will introduce non-referential NPs (2.3.3.2.) as well as NPs with ambiguous readings (2.2.3.3.), before the complex topic of generic reference (2.3.3.4.) will be discussed.

2.3.3.2. Non-referential NPs

Some NPs can only be interpreted non-referentially: negative NPs (*No cake was made. *It was delicious.*), NPs determined by *either*, *any*, *every* or *each* (*Either cake is fine by me.*), interrogative NPs (*I wonder who told you I like cake so much.*) and bare NPs (*I want to be president.*). None of these subtypes of NPs have the property of being referential, as they do not point to some indistinguishable entity or person in the context; rather, they point to nothing (negative), multiple possible (interrogative and each/either ect.) or concepts of (bare role NPs) entities (cf. Huddleston & Payne 2002: 401). Section 4 will closely analyse the concept of bare role NPs.

2.3.3.3. Ambiguous NPs

There are, however, also non-referential NPs which are, so to say, non-referential by choice, i.e. they could, in different contexts, also function as referential expressions. In fact, most NPs can function both referentially and non-referentially. Other than the non-referential NPs presented above which could never be interpreted referentially, the NPs in this section are different. Those non-referential NP uses result in a variety of special cases of NPs including *metalinguistic*, *ascriptive*, *descriptive* and *indeterminate* uses. Furthermore, indefinite NPs typically result in ambiguous readings and can either be specific or non-specific, giving rise to yet another sub-category, *ambiguous indefinite NPs*.⁸

⁸ The examples for points 1 to 4 below are all taken from chapter 5 in *The Cambridge Grammar of the English Language* (Payne & Huddleston 2002: 400-10).

1. In some cases of non-referential NPs, *metalinguistic* status is achieved: *Mary is still one of the most popular girl's names* vs. *Mary is such a nice girl* (cf. Payne & Huddleston 2002: 401).

2. *Ascriptive* uses describe NPs which simply add properties, i.e. ascribe nouns in contrast to specifying them. In *Mary is a Manchester United supporter*, Mary is not specifically referred to or identified, she is simply defined as someone who supports a certain sports team (cf. Payne & Huddleston 2002: 402).

3. *Descriptive* uses, according to Payne and Huddleston, “arise in constructions which contain *be* in its reference-specifying rather than ascriptive use” (2002: 402). Those constructions usually have a definite NP in subject position and another NP as complement: *The Vice-Chancellor is that guy over there by the piano*; *Paul is that guy over there by the piano*. In both sentences, *that guy over there by the piano* is referential, but neither *The Vice-Chancellor* nor *Paul* are. Otherwise, the sentences would refer to the same person twice. Constructions like these are found in situations in which the speaker assumes the hearer knows of an individual which goes by the name Paul or is the Vice-Chancellor but cannot identify them. Therefore, *Paul* and *The Vice-Chancellor* simply *describe* the person which is then referred to in the second part of the sentence (cf. Payne & Huddleston 2002: 402). (*Definiendum* and *definiens* interpretations follow very similar rules, which is why they will not be discussed here; for further detail, see Payne & Huddleston 2002).

4. *Indeterminate* uses are ambiguous; i.e. both a referential and an indeterminate interpretation are possible: *The boy who wrote this email must be expelled*. Readers will agree that two meanings are possible: either the boy is known to the speakers (definite, specific use) or it is yet to be found out who of the boys wrote the email (indeterminate, i.e. unfamiliar) (cf. Payne & Huddleston 2002: 403)

5. *Ambiguous indefinite NPs* uses are closely related to indeterminate uses in that they also are ambiguous. As Lyons (1999) reports that pairs of readings which can either be specific or non-specific, are usually produced by indefinite NPs. In *Paula believes that Bill talked to an important politician* (taken from Heusinger 2011: 1027), two different readings are possible: it might be true that there is an important politician (specific, referential) or that there is no politician (unfamiliar,). The first, referential reading corresponds to one of the seven types of specificity

On top of those ambiguous uses of NPs, there are, as Payne and Huddleston call them, *restricted non-referential uses of the articles*: first, *class uses* of the definite article (*The African elephant will soon be extinct*; *The Greeks defeated the Persians at Issus*); second, *fixed expressions* containing the definite article such as *Wolfgang can play the piano* or *Hilda can dance the waltz/the rumba*; third, the indefinite article in expressions of price, rate, etc. (*She has a salary of [\$80,000 a year]*) (2002: 408-09). The non-referential status of both those sub-groups can be easily explained without coining a new category of article usages; class uses are merely instances of *genericity* (discussed below), and *fixed expressions* as well as expressions of price or rate are idiomatic constructions with fixed forms which do not include articles.

2.3.3.4. Generic NPs

Generic reference is a highly complex topic; linguists have long debated whether generic reference as such is even feasible and if so, how it should be defined. The present section aims at clarifying genericity and its relation to reference. According to Carlson, “[g]enericity is a phenomenon whereby generalizations are expressed by sentences that typically abstract over events, situations, etc.” (2011: 1154). Generic statements are often utilised to express habits, laws or generalisations of all sorts. Carlson uses a generic example sentence (15 a) to contrast it with, as he calls it, its episodic counterpart (15 b):

- (15) a. Ø Bears eat Ø honey.
b. Some bears are eating some honey.

Readers will agree that the generic statement expresses a “strong tendency for this type of situation – one where a bear or some bears are eating some honey – to recur, without direct reference to any particular such situation” (Carlson 2011: 1154). In strong contrast to sentences describing particular situations, for instance *This morning, a bear ate some honey*, generic statements do not refer to a specific situation.

Biber et al. define reference as *generic* “when a noun phrase refers to a whole class rather than to an individual person or thing” (1999: 265). They claim that generic reference in uncountable nouns (*beer, wine*) is achieved by employing the zero article: Ø *Beer is a lovely beverage* (generic) vs. *The beer we had last time* (definite specific reference). In countable contexts, either the zero article (Ø *Cats make great pets*) or, less commonly, the indefinite article (*A cat makes a great pet*) may be employed to achieve

generic meaning (cf. Biber et al. 1999: 265-66. Finally, it is even possible that a definite article is used in generic NPs (16 b.):

- (16) a. Ø Elephants are fascinating animals.
b. The Elephant is a fascinating animal.
c. An Elephant is a fascinating animal.

The examples above show three sentences, which all refer to a class, a kind of entity. Thus, they all convey generic meaning. It can be seen from the (16 a -c) that 'generic reference' can be marked in three ways: undetermined, determined by *the* or determined by *a/an*. The question arises, however, how sensible such classifications are. If reference is defined as pointing to *specific* entities in the linguistic or situational context (see overall definition of reference at the beginning of this section), it makes no sense to postulate *generic reference* at the NP level at all. I will argue that generic NPs are non-referential.

Rather than describing the phenomena above as *generically* referential, instances of genericity should be termed non-referential. Non-referential NPs express only denotational, or generic meaning. This explains why generic meanings usually do not need an article. That is why it does not make sense to postulate the zero article in such contexts: articles are only needed if reference needs to be established.

Chapter 2 has dealt with concepts which are important for understanding the zero article. The first section was concerned with the English noun phrase, the natural habitat of any article. NPs are usually formed by a noun as head and other dependent constituents. Other than nominals or nouns, NPs can fulfil specific functions (such as subject, object or predicative complement). The most important dependents are the determiners, as they are usually obligatory for the transition from a nominal or noun into a NP. The second section has focussed on English determiners. The main function of determiners is to establish reference and ground nouns. Determination and reference, are thus, closely intertwined concepts. The next chapter will introduce the English article system as well as provide an evaluation of former explanatory models for the zero article.

3. The English Article System

This chapter is mainly concerned with the English article system. In the first section (3.1.), a general introduction to English articles will be laid out. The second section (3.2.) will closely examine the contexts in which the zero article has been postulated.

3.1. The English articles – overt and covert

This section will review and critically evaluate traditional as well as functional approaches to the English article system. First, the concepts of (in)definiteness and specificity will be discussed (3.1.1.). Second, the usage types for definite and indefinite articles will be analysed (3.1.2.). Third, previous models for the zero article will be introduced in 3.1.3., before section 3.2. will provide a detailed account of different contexts in which the zero article ostensibly occurs.

Most comprehensive grammars (Biber et al. 1991; Martínez-Insua et al. 2011; Payne and Huddleston 2002) discuss the so-called overt articles *the* and *a/an*. The indefinite article *a/an* is used with singular countable nouns, the definite article *the* occurs with both countable and uncountable nouns. Some grammars additionally postulate a covert zero article, which, according to Biber et al., fulfils the same function as the indefinite article but in combination with uncountable and plural countable nouns in utterances such as *We have Ø wine on the table, girls!* or *Two of his cousins are Ø teachers* (1991: 260-66).⁹ Table 7 summarises the English article system, indicating which article is used when:

English article system		
Overt articles		Covert article
Definite article <i>the</i>	Indefinite article <i>a/an</i>	Zero article
1. sg./pl. countable: <i>I like the book/I like the books.</i>	1. Sg. countable nouns: <i>Will you pass me a banana? / Will you pass me an apple?</i>	1. uncountable nouns: <i>We have Ø wine on the table, girls!</i>
2. sg. uncountable: <i>Please hand over the butter.</i>		2. plural countable nouns: <i>Two of his cousins are Ø teachers.</i>

Table 7: English overt and covert articles

⁹ While Payne and Huddleston agree mostly with Biber et al. concerning the binary distinction between indefinite and definite article, they call article-less constructions *bare NPs* (NPs with empty determiner slots) and do not mention the zero article concept (2002: 355).

3.1.1. *Definiteness and indefiniteness*

It was pointed out above that the determiners' main function is to establish referential NPs; they do so in marking the NP's reference as definite or indefinite. Definiteness and indefiniteness have been subject of linguistic inquiry for over a century – arguably the first theory on definiteness was proposed by Russell in 1905 – which is why so many competing explanatory models for those concepts exist. Limitations of time and space forbid an extensive discussion of all competing models here; instead Hawkins', Lyon's and Chesterman's theory of definiteness will be briefly introduced,

Hawkins states that “the reason why definiteness and indefiniteness have the logical meanings they do is on account of their usage function. It is because they perform the acts that they do that their logical meanings have to be the way they are” (1978: 89); thus, according to him, definiteness and indefiniteness are concepts which must be explained in terms of pragmatics. He argues for a pragmatic analysis of (in)definiteness, and against a semantic one, presenting ‘hearer orientation’ as one of the most important appropriateness conditions. The fact that speakers need to consider the knowledge they share with their hearers (pragmatic knowledge) and that they cannot simply rely on the inherent semantic properties of the words they chose points to the validity of his argument for a pragmatic analysis (1978: 97). He shows that shared knowledge is not inherent in the linguistic items, but that it is specific to the speakers in providing a referential chain:

- (17) I read **a great book** last weekend. **The author** is known for her YA series *Harry Potter*, but this was her first novel for adults.

Even though *the author* has not been introduced to the discourse before, the speaker chose to use the definite article *the* (while first-mention instances are usually preceded by the indefinite article *a*). This choice of the definite article results in a successful referential chain due to a conceptual relationship between *book* and *author*; the word and concept *book* primes the hearer, which makes it acceptable to use the definite article for *author*. Hawkins shows that such relationships are, however, not inherent in the words themselves; it is the shared knowledge of speaker and hearer that the concepts *book* and *author* are related to each other which makes such referential chains possible. In sum, both ‘hearer orientation’ and the necessity of shared knowledge to form referential chains

and correctly chose between indefinite and definite expressions suggest that definiteness should be analysed in terms of pragmatics.

Hawkins rejects former theories (Russell 1905; Strawson 1950; Searle 1969; Christopherson 1939) of definiteness on grounds of being inconsistent and incomplete.¹⁰ There are six overlapping notions which constitute (in)definiteness: referentiality, familiarity/non-familiarity, identifiability/non-identifiability, uniqueness/non-uniqueness, inclusiveness/non-inclusiveness and specificity/non-specificity.

1. referentiality: It was already pointed out above (section 2.2. and 2.3.) that determiners establish reference. Chesterman points out that “[a] definite NP has a referent which is assumed by the speaker to be unambiguously identifiable by the hearer (in brief, a known or identifiable referent)” (Chesterman 1991: 10), while “an indefinite NP has a referent which is assumed by the speaker not to be unambiguously identifiable by the hearer (i.e. a new, or unknown referent)” (Chesterman 1991: 10). Clearly, (in)definiteness is a property of referential NPs, which is why referentiality must be a criterion for (in)definiteness in return. The following examples prove there is a link between definiteness and referentiality:

(18) I’m watching the blackbird in the grass.

(19) May I borrow your spotting scope?

In (18), the definite article further specifies reference and marks the underlined NP as definite. Without the article, the sentence would be ill-formed (**I’m watching blackbird in the grass*), as English requires overt marking of definiteness, i.e. overt marking of grounding, in such contexts. Of course, this may also be done by other determiners, for instance, pronouns as in (19).

2. familiarity/non-familiarity: The idea that NPs which are familiar to both speaker and hearer are marked as definite, whereas unfamiliar NPs are marked as indefinite led to the postulation of the familiarity hypothesis (Christophersen 1939; Hawkins 1978; Heim 1982). While the underlined NP in (20) is familiar to the speaker, the one in (21) is not:

(20) May I borrow your/the spotting scope?

(21) May I borrow a spotting scope?

¹⁰ For a competing generative-based model, see Heim (2011).

However, there are instances of definite article usage which simply cannot be explained with this theory:

(22) I attended a beautiful wedding last weekend. The groom wore pink.

(23) She just arrived at Zurich. The train was 90 minutes late.

Familiarity theory cannot be used for the examples above, as it might very well be that the speaker actually does not know the groom but is simply aware that there will usually be a groom at weddings, and it would be even less plausible to claim that the speaker is familiar with the train. Such instances of the definite article usage are explained in terms of identifiability.

3. identifiability/non-identifiability: Definite NPs generally refer to entities which are identifiable for the hearer, while indefinite NPs point to non-identifiable entities (Hawkins 1978; Heim 1982; Lyons 1999). In a sentence like *I saw a bird flying by my window yesterday*, the listener is unable to identify which kind of bird it was.

4. uniqueness/non-uniqueness: Yet another criterion that is used to describe (in)definiteness is uniqueness. Especially in cataphoric uses of the definite article, identifiability does not apply:

(24) Franziska has gone butterfly-hunting with the dip net she just bought.

(25) Would you please hand me the binoculars I left in my backpack?

In the above sentences, the information which marks the referent is present only after the referent is named. The underlined NPs refer to entities which have not been introduced to the discourse before, and are neither familiar nor identifiable to the hearer, and still, they are preceded by the definite article *the* (Birner & Ward 1998). The concept of uniqueness is utilised to account for such instances of the definite article: “the definite article signals that there is just one entity satisfying the description used” (Lyons 1999: 8), whereas the indefinite article signals non-uniqueness (cf. Russel 1905; Abbot 2004)

5. inclusiveness/non-inclusiveness: There are, however, instances of the definite article usage which cannot be described by means of uniqueness, presented in (26) and (27):

(26) After days in the jungle, they finally came to the bank of a river.

(27) She hurt her leg.

The underlined NPs in the examples clearly do not point to unique entities; rivers usually have two banks, and people usually have two legs. Abbott asserts that such instances of the definite article refer to “entities which are typically or always NOT the only entity to which the descriptive content of the NP applies, even in a restricted domain of evaluation” (Abbott 2004: 131, original emphasis). Furthermore, the definite article is also found preceding plural and mass nouns which are not unique either:

(28) We are looking for the horses that have broken out.

(29) I cannot find the ink Conny has given me.

Rather, the presented examples do not refer to uniquely definite entities, but the speakers want to find all of the missing horses, and all of the ink that was misplaced. Hawkins introduces the concept of inclusiveness for such cases; “the reference is to the totality of the objects or mass in the context which satisfy the description” (Lyons 1999: 11). Non-inclusive NPs, on the other hand, will be marked by the indefinite article: *We are looking for a horse that has broken out* does not point to all horses, but merely to one.

6. specificity/non-specificity: The last criterion related to (in)definiteness is special. Specificity is a semantic-pragmatic concept which provides explanations for different usages and interpretations of indefinite noun phrases. Von Heusinger states that specificity “corresponds to the referential intentions of the speaker using an indefinite noun phrase. The speaker can intend to refer to a particular entity using an indefinite noun phrase, or not” (2011: 1025):

(30) A student in Syntax 1 cheated in the exam. I know him: It is Jim Miller.

(31) A student in Syntax 1 cheated in the exam. But I do not know who it is.

(taken from von Heusinger 2011: 1027)

In other words, indefinite noun phrases can be either specific (30) or non-specific (31), depending on the intention of the speaker:

When the indefinite description has highest scope the reading is specific. When it occurs under the scope of at least one operator or quantifier, the reading is non-specific. [...] In the specific, higher-scope reading, the speaker has a particular object in mind about which the sentence quantified into predicates some claim, exactly as in all the other examples of specific indefinites [...]. In the non-specific, lower-scope, reading the speaker does not have any particular object in mind. (Hawkins 1978: 204)

Naturally, the question whether a NP is specific or non-specific arises only in indefinite NPs, as definite NPs are – except for generic usages (2.3.3.4.) – specific in referring to a distinct entity in the discourse (Von Heusinger 2011: 1027-34).

3.1.2. The definite and indefinite article

Before the relationship between the definite and indefinite article can be introduced, typical usages of the definite article shall be presented. Following Hawkins (1978: 106-49), Himmelmann (1997: 36) and Sommerer (2018: 51-54), six different types will be listed:

(i) *immediate situation use*: “the intended referent is part of the situation” (Sommerer 2018: 51), as in *Pass me the salt, will you?*

(ii) *anaphoric use*: as its name already suggests, a referent that was introduced earlier is referred to again (cf. Himmelmann 1997), as in *Richard bought a bag of potatoes, but the bag had a hole in it.*

(iii) *abstract-situative use*: here, the referent is known to the speaker via world knowledge, for instance *the moon, the president, the King.*

(iv) *associative-anaphoric use*: General and world knowledge, shared between speaker and listener, facilitates associative-anaphoric use. For instance, a speaker may mention *a wedding*, and can then, without former introduction refer to *the bride, the groom* and *the bridesmaids* (cf. Hawkins 1978: 167).

(v) *unfamiliar uses*: Hawkins (1978) introduces four subtypes of complex NP uses which cannot be included in either of the above presented categories. Other than the four uses presented above, in those subtypes the definite article does not mark the NPs as definite:

(a) relative clause: e.g. *Thomas is happy with the shorts which I have just given him for his birthday.*

(b) NP-complements: e.g. *Richard is intrigued by the fact there are so many different birds in Europe.*

(c) genitive attributes: e.g. *the beginning of the semester, the price of the book.*

(d) nominal attributes: e.g. *the name Thomas, the colour green, the number seven.*

(vi) *generic uses*: As was elucidated in Section 2.2.3.4., the definite article can be also employed to produce *genericity* within NPs, resulting in utterances which denote entire classes instead of referring to specific individual entities (cf. Chesterman 1991: 52-53).

Hawkins (1978: 167) summarises the functions of the English definite article in the following way, alongside appropriateness conditions (see Hawkins 1978):

According to my location theory the speaker performs the following acts when using a definite article. He (a) introduces a referent (or referents) to the hearer; and (b) instructs the hearer to locate the referent in some shared set of objects [...]; and he (c) refers to the totality of the objects or mass within this set which satisfy the referring expression.

The indefinite article, in contrast, is found in different situations:

- (32) A woman came into the bakery last week. When nobody was watching, she stole a black forest cake and a few muffins.
- (33) Would you be so kind and get me a tissue from the bathroom?

Therefore, Hawkins defines the following speaker intentions for the usage of indefinite articles:

The speaker performs the following speech acts when using an indefinite article to achieve (specific) indefinite reference: He (a) introduces a referent (or referents) to the hearer; and (b) refers to a proper subset, i.e. not-all, of the potential referents of the referring expression. (1978: 187)

To conclude, both definite and indefinite article can be categorised and described in terms of their usage functions.

3.1.3. Chesterman's model: introduction of covert articles

Chesterman developed Hawkins location theory further (1991). As Ritva reports, he agrees with Hawkins in criticising models which treat the definite and indefinite article as binary opponents. He further rejects simplistic definitions of definiteness grounded purely on referential properties and instead proposes that both definiteness and reference are scalar phenomena (1992: 653f). Other than Hawkins, however, Chesterman postulates an explanatory model for article-less NP constructions. As one of few researchers at the time, he finds an explanation for bare NPs in suggesting that there are not only two, but five types of articles. He defines three overt articles – *a/an*, *the* and *some* together with its counterpart *any* – and two covert articles – the *zero article* and the *null article*. The zero article (34) corresponds to a covert indefinite article, whereas the null

article (35) is said to be found in definite contexts where no overt article is to be found (cf. Chesterman 1991: 69-89):

(34) Everyone likes *Ø olives*.

(35) The matter was fully discussed in [*null*] *Cabinet* (Chesterman 1991: 54).

While Chesterman's model appears to be satisfactory at first glance, his underlying assumption that English NPs require articles in all cases is – from a cognitive perspective – faulty. Chesterman simply must postulate two covert articles as he adheres to a model of language which requires marking of (in)definiteness in all cases; unmarked NPs must, for him, therefore be marked covertly.

From a Construction Grammar point of view, however, such covert, silent categories must be firmly rejected. In a linguistic framework, which is committed to provide a model of language which reflects the cognitive reality of humans (cf. Evans & Green 2006: 501; Broccias 2013: 192), it would not be sensible to postulate invisible categories: what is not there, is simply not there. Construction Grammar assumes that linguistic knowledge is the result of experience and usage of language; thus, article-less NPs will be stored as article-less bare NP constructions, not as mysterious deviances from NPs with invisible articles.

Instead of postulating the existence of covert articles, a Construction Grammar model can offer a satisfactory explanation for instances of bare NPs. In defining bare NPs as individual constructions, i.e. symbolic form-meaning pairings, Construction Grammarians are not forced to propose invisible categories. Bare NPs are simply conceptualised as a sub-group of NPs without any articles; in such a model, article-less NPs are not seen as defective, but as individual constructions with special semantic and pragmatic meanings.

There are, however, many linguists who have postulated the existence of a zero article in cases of NPs without articles, resulting in a long list of ostensible usages of the zero article.

3.2. The Zero Article

The vague, elusive concept of the zero article has led to its application in various contexts merely by analogy. The following chapter introduces some of the contexts Berezowski (2009) has identified, in which the zero article has been postulated (often falsely): Proper names, vocatives, nominals modified by numerals, predicate nominals, idiomatic

prepositional phrases, bare binomials, as well as indefinite NPs with mass and plural nouns as head. Note that more elegant explanations for the contexts discussed in this section, based on Construction Grammar, will be presented in the 6th chapter of this thesis

3.2.1. Proper names

The first category of contexts, in which the zero article has often been postulated, concerns *proper names*, i.e. proper nouns:

(36) Ø J.K. Rowling was born in Ø England.

Neither *J.K. Rowland* nor *England* are paired with an overt article – or any other determiner –, and still, the phrases are able to function in subject and object position. As Berezowski reports, since traditional grammarians have always assumed that English NPs require an article, it was convenient to postulate the existence of a covert article in cases where no overt article could be found (2009: 13). Most comprehensive grammars define proper nouns by their lack of articles: “Grammatically, these [proper] nouns have the characteristic that they are used **without determiners** and do not vary in number” (Biber et al. 1999: 245, emphasis added). Some researchers have then proposed the existence of the zero article in NPs with a proper noun head, as they had no other explanation for the undetermined type of noun. The problem with such a rule is that many proper nouns do, in fact, co-occur with overt articles (cf. Berezowski 2009: 14):

(37) The Danube empties into the Black Sea.

There are countless other instances of proper nouns which combine with the definite English article like in example (37): *The Rumba*, *The Pacific*, *The Great Smoky Mountains*, etc. – so many, in fact, that Biber et al. set up a whole category for them in their *Grammar of Spoken and Written English*: “Proper nouns regularly occurring with the definite article” (1999: 246). If one wanted to maintain the stance that the zero article grounds proper nouns, one would need to establish different types of proper nouns for such a claim – as clearly, not all proper nouns pair with the zero article. A rule which relies on so many exceptions, though, seems questionable – especially since there are many cases in which ‘normal proper nouns’, i.e. those that normally do not combine with an article, pair with an overt article to achieve different meanings:

- (38) a. \emptyset Jim is a great guy.
 b. Her last boyfriend was also a Jim.
 (39) a. \emptyset Poland is a European country.
 b. The Poland of my youth had many things to offer.

Examples (38) and (39) indicate how the addition of an article can transform the meaning of proper nouns: the underlined NPs in both (38) b. and (39) b. no longer point to a unique entity but to one specific entity among a certain types (people called Jim, several stages of Poland), in other words, they do longer function like proper nouns. This is the reason why Biber et al. claim that such instances of proper nouns are functionally similar to common nouns (1999: 247). This leads to the most important argument against the claim that the zero article is at work in constructions with proper nouns: the fact that a proper noun's referentiality is inherent (e.g. Bloomfield 1933)¹¹. The underlined NPs in (38 a.) and (39 a.) are referential without an article: the name *Jim* already refers specifically to one person, which is why the NP does not need an article to be able to point to a specific entity of the linguistic or situational context, and neither does *Poland*. As Berezowski shows, the fact that proper nouns are referential, or grounded, inherently, shows how illogical it is to claim that the zero article determines them (2009: 13-14). Having the same characteristic features as 'normal' overt articles, the zero article would have to be used to establish reference and to narrow down the meaning of a NP. If, however, like in the case of proper nouns, the noun itself is already referential and narrowed down, the addition of an article is superfluous. Following Grice's maxims of quality and quantity (1975), it is sensible to claim that proper nouns typically do not pair with any article, i.e. that they are bare NPs. If these bare NPs co-occur with articles, however, the articles fulfil another function – they turn proper nouns into common nouns (cf. Allan 1980: 544).

3.2.2. Vocatives

The second context, in which the zero article has been claimed to exist, concerns vocatives. Comprehensive large-scale English Grammars even define vocatives by their lack of overt determination (e.g. Biber et al. 1999; Quirk et al. 1979). As Berezowski

¹¹ It is important to note that many languages actually put an article before proper names. For instance, in the Viennese dialect of Austrian German, names are often preceded by articles as in *Der Richard ist wirklich lustig* (direct translation: **The Richard is very funny.*). Finding reasons and explanations for such phenomena goes beyond the scope of this thesis.

reports, it is maintained that the zero article determines both singular (39 a.) and plural (39 b.) nominals within the vocative construction:

- (40) a. Ø Coach, how can we win this game?
b. Ø Boys, we need more long passes (taken from Berezowski 2009: 18).

Upon first glance, the postulation of the zero article in contexts like (40) appears convincing, but there are good arguments against this position: first, vocatives can only function properly without articles; second, vocatives are inherently referential (cf. Berezowski 2009: 18-19).

The lack of an article in vocatives is part of the constructional schema. In English, vocatives can only occur article-less, or else they lose their vocative-specific properties. This claim can be proved by trying to add an article to the vocative construction. The addition of an article in sentences like (40) results in a noticeable change in sentence structure and meaning. It is impossible to simply add an article to a vocative construction (**A Coach, how can we win this game?; *The Boys, we need more long passes.*), without altering the sentence structure or producing an ungrammatical utterance. Thus, it makes no sense to postulate a missing article in the vocative construction. If the addition of an article to vocatives renders the utterances ungrammatical, it is illogical to postulate the need for an article in those constructions.

Furthermore, if readers keep the pragmatic circumstances of vocatives in mind, they will agree that already the idea that an article is needed in such a construction is groundless: vocatives address people or other entities out of the situational context directly, the referents of vocatives are usually present when they are referred to; the Coach in Ø Coach, how can we win this game? likely stands beside one of his players while the sentence is uttered. Therefore, additional referential information carried out by any article would be unnecessary. If, however, such a conversation was to be repeated after the game, for example, in one of the players' homes, referential information becomes necessary as the coach is most likely not present anymore, which is why it must be specified which coach was asked (*They asked the coach how they could win that game*) – the vocative construction is not appropriate for such a context. Instead, a declarative statement is chosen. Vocatives should be treated as an individual family of constructions; they do not belong in the category of 'normal' NPs.

3.2.3. *Nominals modified by numerals*

Another context, which has been said to invite the zero article, are nominals modified by numerals. Berezowski shows, however, that this is yet another context in which the zero article has been postulated only by analogy:

- (41) a. Passengers flying to Honolulu, please proceed to Ø gate 4 (2009: 19).
b. Doctor Burk is waiting in Ø room 7.

In most such cases, the addition of an overt article results in ungrammatical utterances (**Passengers flying to Honolulu, please proceed to the gate 4*), as it would create redundancy. The nominal (e.g. gate in *gate 4*) is already marked as definite and referential by the numeral; therefore, an additional article would be superfluous. The same holds true for the covert zero article - its existence has only been declared because it was the easiest explanation for the fact that nominals modified by numerals are referential without an article. It is evident, though, that no article (i.e. no zero article) is needed in the example sentences above to ensure the speakers and listeners know which referents are referred to: *gate 4* and *room 7* are already specifically marked places (by their numbers) of the situational context – most airports and hospitals have only one *gate 4*, or, respectively, one *room 7*, which is why further specification of such places is unnecessary.

3.2.4. *Predicate nominals*

The zero article has also been postulated in cases of *predicate nominals* which denote special professions or offices:

- (42) a. F. D. Roosevelt was Ø president of the US for 15 years.
b. Americans elected Roosevelt Ø president four times (taken from Berezowski 2009: 15).

It can be seen that the underlined nominal phrases in (42) a. and b. do not need an overt article to form grammatical sentences. It is, however, not sensible to postulate the existence of the zero article in such contexts for two reasons: first, predicate nominals are usually non-referential; second, they become referential once an overt article is added.

In contrast to proper names and vocatives, expressions like in (42) are mostly non-referential. Neither *president of the US* in (42 a.), nor *president* in (42 b.) point to a specific

person. The underlined, article-less constructions merely add descriptions to the subject/object of the sentence, to which reference has already been established (namely *F. D. Roosevelt* and *Roosevelt*). In fact, such nominal predicates fit nicely into Huddleston and Pullum's sub-category of descriptive non-referential NPs (see section 2.3.3.2.). In other words, those NPs do not refer to a specific entity out of the discourse context, they simply add information. Therefore, it would be illogical to postulate the need for any article: usually, linguistic units fulfil a certain function in a construction– in the case of articles: establishing reference (see section 2.3.). Clearly, this function is not fulfilled in nominal predicates. A better explanation for such constructions, which obviously do not show referentiality, is simply that the nouns occur bare. Section 4 will provide a more detailed account of bare NPs, their structure and their usage.

The second argument against the existence of the zero article in predicate nominals is that they change meaning when they combine with overt articles:

- (43) a. Dr Arnold was Ø headmaster of Rugby.
 b. Dr Arnold was a headmaster of Rugby (taken from Berezowski 2009: 16).

Both (43 a.) and (43 b.) are grammatical, but they do not have the same meaning. This should, however, be the case, were it true that a zero article operated in (43 a.). All articles fulfil similar roles and functions; it therefore makes no sense to claim that the zero article is at work here – it is illogical to assert that the covert form of an article does the exact opposite of its overt counterpart. As Berezowski argues, in (43 a.) *headmaster* simply describes Dr Arnold's profession, i.e. is non-referential, whereas (43 b.) points to the fact that Dr Arnold is one of the headmasters of Rugby: the addition of the article shows that he is one member of a specific group (2009: 17). Other than the article-less construction *headmaster*, *a headmaster* is a distinguishable entity – a specific person that is pointed to. In other words, reference is established through adding *a*. The fact that the addition of an overt article alters the semantic and pragmatic meaning of the construction so drastically indicates that two different underlying constructions are at work in (43 a.) and (43 b.) To conclude, the postulation of the zero article in contexts like (42) and (43) a. is illogical.

3.2.5. Covert countables

The next subsection is concerned with yet another postulated context for the zero article: so-called covert countables. Covert countables are loosely defined as nominals, which are

countable in all contexts. NPs pointing to seasons, meals or illnesses are often called covert countables, but their special countability features are never succinctly explained. Rather, they are separated into different sub-groups, depending on their semantic content. In each of the three categories, one covert countable without an article (44; 46; 48), and a NP belonging to the same semantic category employing an overt article (45; 47; 49) are given.

(i) 'seasons', e.g.:

(44) Ø Winter will be very harsh this year.

(45) They spent an unforgettable summer on Tahiti.

(ii) 'meals', e.g.:

(46) Ø Breakfast is served at seven o'clock.

(47) The spies had a quick lunch before the attack.

(iii) 'illnesses', e.g.:

(48) Ø Rubella can now be prevented by vaccination.

(49) The president was rumoured to have a cold (2009: 23).

The lack of overt articles in examples (44), (46) and (48) prompted linguists to assume the existence of the zero article. There is, however, no evidence, proof or logical argument for this claim, which is why it must be rejected.

Similar to the other contexts that have been analysed within this section so far, the existence of the covert zero article has been postulated merely because no overt article operates in the NPs. Thus, the only argument for the presence of the zero article in constructions like covert countables is the absence of overt ones. Not only do such claims suffer from circular argumentation (cf. Berezowski 2009: 23), they miss the essential point of asking for the function the zero article has in such constructions. This is due to the fact that many linguists wrongly presuppose the necessity of articles in all instances of English NPs; as soon as they encounter article-less NPs, they immediately postulate the existence of the zero article, without considering whether it is logical to use any article in those constructions. Nonetheless, linguistic structures always serve a purpose (e.g. Mackenzie 2015; Croft 2015; Butler 2003) – if no purpose for a certain linguistic unit, such as the zero article, can be found and it is, on top of that, not to be seen or heard, it is certainly more conclusive to simply accept its absence instead of claiming its covertness.

Readers might wonder whether it can be true that the zero article had no function, would it operate in (44), (46) and (48). To answer such a question, the functions of English articles should be emphasised first: establishing reference and specifying the nominal through determination. Keeping those functions in mind, *Winter*, *Breakfast* and *Rubella* can now be analysed: those covert countables might be countable, but they when used without an article they are certainly not referential. They do not refer specifically to one winter, but to the concept of winter in general, i.e. “the coldest season of the year, between autumn/fall and spring” (Hornby 2010: s.v. *winter*); they do not point to a certain breakfast, but to “the first meal of the day” (Hornby 2010: s.v. *breakfast*). The same holds true for *Rubella*: not one specific epidemic is referred to, but merely the concept and definition of the illness; “german measles” (Hornby 2010: s.v. *rubella*).

Thus, the article-less instances are generic NPs and require no determination. Contrasting the article-less nominals with their determined counterparts amplifies this observation. The nominals which are specified by articles (45; 47; 49) are referential: in (45), one specific, distinguishable winter, namely the one spent on Tahiti is *referred to*. The underlined NP in (47) points to a *distinct* time – before the attack – during which lunch was taken. The example in (49) differs from the other two in that it is non-referential, but employs an article due to the fixed construction *a cold* (compare to *a fever*, *a headache*) (cf. Benson et al. 2010: s. v. *cold*; s. v. *fever*; s. v. *headache*). It can be summarised that covert countables merely fulfil a *denotating*, but not a *referential* function, which is why no articles (i.e. no zero article) are obligatorily needed.

3.2.6. Idiomatic prepositional phrases

The sixth context, which ostensibly employs the zero article, constitutes a special subtype of prepositional phrases. As this category is rather broad, it is usually subdivided into phrases describing institutions, means of transportation or time of the day and night:

(i) ‘institutions’, e.g.:

(50) Sean went to Ø school when he was five.

(51) Seamus drove past a/the school.

(ii) ‘means of transportation’, e.g.:

(52) Huck travelled much by Ø boat.

(53) He slept and cooked in a/the boat.

(iii) ‘time of the day and night’, e.g.:

(54) The gunmen met at Ø high noon.

(55) The gunmen met during the day (taken from Berezowski 2009: 20).

As Berezowski reports, article-less prepositional phrases (50; 52; 54) are usually opposed to similar phrases with an overt article (51; 53; 55) to prove the existence of the covert article. However, this argument suffers from circular argumentation: simply assuming the existence of the zero article in such constructions due to the absence of an overt article is merely deduction from analogy (cf. Berezowski 2009: 21).

I suggest that prepositional phrases without an article do not employ the zero article; they should be treated as idiomatic bare noun constructions. Even researchers who postulated the existence of the zero article in prepositional phrases have realised that the missing article is, by far, not a regularity: actually, most prepositional phrases include overt articles (*I left it in the boat; I walked out of the building*; etc.). Quirk et al., for example, concede that article-less prepositional phrases are *specialised exceptions* with *idiomatic usage* (1985: 156). The explanation for the missing article in some prepositional phrases lies in their idiomatic nature – not in the existence of the zero article: Chapter 6 will demonstrate the construction schema for fixed idiomatic phrases like *to school* and *in prison*.

3.2.7. Bare binominals

The arguments for the presence of the zero article in the sixth category of contexts, namely *bare binominals*, are weak, to say the least. As their name suggests, binominals are constructions comprised of two nominals, conjoined by a conjunction:

(56) I cannot wait to meet him Ø face to Ø face.

(57) My wardrobe is full of Ø odds and Ø ends.

As Berezowski observes, “[g]iven their non-compositional meanings, inflexible word order and alliterative rhythm, these structures look even more idiomatic than the prepositional usages” (2009: 22). The only argument for postulating the zero article in such binomial constructions – namely that they lack overt articles – suffers, as was elucidated in previous sections, from circular argumentation: asserting the existence of the zero article based only on the lack of overt articles provides no sensible arguments.

This faulty hypothesis stems, of course, from the obsolete belief that nominals and NPs are obligatorily connected to determining articles (cf. Berezowski 2009: 22). Chapter 4 will show how and why this belief is wrong in delineating bare noun phrases.

Again, similar to article-less prepositional phrases (see Section 3.2.5.), bare binomials should be treated as idiomatic bare nominal constructions. Their idiomatic status accounts for their fixed structure (no article, two words joined by a conjunction) and special meanings, for example, *odds and ends* is not understood literally, but denotes “miscellaneous articles and remnants” (Ayto 2010: s.v. *odds and ends*). Section 6.6. will present a constructional schema which explains the relationship between binomials like *face to face*, *minute after minute* and *dawn to dusk*.

3.2.8. Indefinite NPs with mass and plural nouns

Finally, the last section of this chapter will introduce the only case in which an overt article actually appears to be missing. Indefinite mass nouns and plurals have been the prototypical context for postulations of the zero article for good reasons. As Berezowski asserts, indefinite NPs with uncountable mass nouns as their head and indefinite NPs with countable plural common nouns likely employ ‘the zero article’, i.e. would be required to pair with an overt article, but fail to do so (2009: 12-13):

(58) Do you have a car?

(59) We need to buy Ø ink.

(60) I see Ø cars on the other side of the street.

The examples above show a single indefinite countable noun (58), an indefinite uncountable/mass noun (59) and an indefinite plural noun (60). Even though the presence of an article in (59) and (60) would be expected, the NPs are bare. Interestingly, all three example sentences convey referential meaning, even the ones which lack an article. Other than in the contexts introduced in previous sections (3.2.1.-3.2.7.), here, there is no other explanation for the absence of articles other than that it must be part of the construction. Both example (59) and (60) are referential even though they are not determined, which is why they would be expected to be overtly marked as grounded.

To conclude, the existing explanatory models for the zero article are not satisfactory; most contexts in which zero article was postulated should rather be described as bare NPs (3.2.1.-3.2.6.), i.e. NPs without determiners. Next Chapter (4) will illuminate bare NPs,

before explanatory models for the phenomena presented in this chapter will be introduced in chapter 6.

4. Bare noun phrases

The concepts of bare NPs and the zero article offer two lines of argumentation for the same phenomenon: NPs without articles (cf. Berezowski 2009; de Swart & Zwarts 2007). As the previous chapter has shown, the zero-article-concept does not stand critical evaluation as it is neither conclusive nor consistent. Most of the article-less constructions discussed in the last section (3.2.1.-3.2.7.) can be explained either by their non-referential meaning or by their status as bare NPs. The following chapter will now focus on such bare NP constructions to pave the way for Construction Grammar models of undetermined NPs (presented in chapter 6). First, an introduction to the concept of bare NPs will be provided by discussing their properties and features (4.1). Different explanatory models for bare NPs will be discussed in 4.2.

4.1. Main properties and functions of bare NPs

Bare NPs and NPs employing the zero article are, as Berezowski puts it, “virtually synonymous” (2009:7). Both terms describe the same phenomenon. It is interesting, however, that the linguistic mystery of article-less NPs can be tackled from two different angles; on the one hand, postulating the zero article in article-less constructions presupposes the need for articles in NPs in all cases, while, on the other hand, the idea of bare NPs allows for the existence of a sub-group of cases, which do not have to mark referentiality overtly. Of course, the view of bare NPs breaks the formalist-structuralist law of obligatory articles in the NP, which is why such models for bare NPs are mostly found in functional grammars (e.g. Payne and Huddleston 2002; Halliday and Matthiessen 2014; Heine 2011).

Large-scale comprehensive grammars tend to incorporate either the bare NP or zero article concept into their models of English, which results in different views on article-less NPs. First, this section will compare views on bare NPs presented in traditional and modern grammars; second, the main properties of bare NPs will be introduced.

Traditional grammars tend to adopt the zero-article model, whereas more modern, functionally orientated grammars work with the bare NP concept. Quirk et al. describe all instances of article-less noun-constructions in terms of the zero article; they only mention the concept of bare-ness as a property of verbs and define something bare as “existential, infinitive” (1985: 1677). Biber et al. offer a similar line of argumentation (1999). In

choosing the zero-article model, such grammarians accept the old-fashioned view of obligatory articles in all instances of NPs.

More reasonable approaches to the English NP accept article-less NP constructions and describe them as *bare*. Of the large-scale comprehensive grammars, only Payne and Huddleston include bare NPs in their categorisation of English nouns and define them as “bare in the sense that they do not contain a determiner” (2002: 328). Even though their model is more progressive than that of traditional grammarians, it does not describe bare NPs properly. They provide example sentences like (61) to support their claim that bare NPs can function as predicative complements, but not as singular subjects or objects:

- (61) a. I'd like to be Ø president.
b. I'd like to meet *president/the president.

Their explanation certainly fits the observations that were presented in 3.2.2., but overall, their model of bare NPs is too limited and restrictive as they only include the subgroup of predicate nominals into the category of bare NPs. As a result, most of their observations regarding functions and properties of bare NPs are faulty; Bare NPs produce unusual, yet fully functioning NPs without any articles. Most linguists agree with overall structural definitions similar to that of de Swart and Zwarts in claiming that bare NPs “are noun phrases that lack an article or determiner” (2007: 280). Even formalists, who tend to call bare NPs ‘defective’ due to their lack of determination (e.g. Baldwin et al. 2006; Stvan 2009), have come to realise that these structures can fulfil all NP-typical roles, despite their unusual structural form (cf. Stvan 2007; Stvan 2009; de Swart and Zwarts 2007). Their ability to function not only in predicative complement position or prepositional phrases (*She became Ø treasurer; He went to Ø school*), but also as subjects or objects (*Ø Dinner will be served at eight; We all love Ø dogs*) is special as it confutes traditional definitions of noun phrases. If bare noun phrases, i.e. undetermined NPs, can operate in positions which are usually said to require determination or articles, then the overall concept of English NPs ought to be adapted and loosened.

Bare NPs create special semantic and pragmatic meanings. When compared to their article-using counterparts (62 b.), it becomes evident that bare NPs (62 a.) generate different meanings:

- (62) a. Miss Delaware was Ø headmaster of Fulton.
b. Miss Delaware was the headmaster of Fulton.

The first sentence – using a bare noun phrase as predicate complement – simply adds information on Miss Delaware’s profession, whereas the second one identifies her as being a member of a specific, distinguishable group. In other words, only the NP in the second sentence (62 b.) is referential. Similarly, (63 a.) and (64 a.) do not refer to any specific prison or school, they rather indicate being in a specific state, whereas (63 b.) and (64 b.) point, i.e. refer, to specific, identifiable buildings.

- (63) a. Julie works in Ø prison.
b. Julie works in the prison.
(64) a. Bill is at Ø school.
b. Bill is at the school.

Not only their non-referential meaning makes bare NPs special, however. Readers will agree that the given example sentences differ greatly in meaning: while (63 a.) identifies Julie as incarcerated herself, (63 b.) simply signifies that she is *at* a prison – to work there. A similar pattern can be observed within (64): While the sentence employing the bare NP indicates that Bill is present at the school he is regularly attending, (64 b.) only tells us that Bill is visiting a school, most likely not the one he is attending. Prepositional phrases like *in Ø prison* or *at Ø school* are strong collocations – or even fixed phrases – which exhibit a much more universal meaning than their article-employing counterparts. However, there are also bare NPs which are referential.

To conclude, bare noun phrases show special structural, semantic and pragmatic characteristics, when compared to typical noun phrases; first, they can fulfil normal NP-functions (subject, object, predicative complement etc.) even though they are not determined, i.e. are not found with articles. Second, other than determined noun phrases, bare noun phrases either express kind, generic or existential (referential) meanings but are mostly non-referential¹².

¹² Indefinite countable singulars and plurals – as in utterances like *I see Ø bikes* – are special in that they express existential, referential meaning. Section 6.4. will provide explanations for such unusual instances of referential bare NPs.

4.2. Potential Explanations for bare NPs

The following section will present a small selection of different explanatory models that have been postulated for bare noun phrases. The present section will focus on functionalist¹³ models, as those are preferred in this thesis.

De Swart and Zwarts provide an interesting explanation for this phenomenon utilising *optimality theory* and the criterion of *markedness*. Before their model for bare NPs might be presented, however, *optimality theory* and *markedness* will be defined. Optimality Theory (OT) is a pragmatic theory, which presupposes that speakers and listeners base their utterances on each other's viewpoints¹⁴ and produce optimality pairs; i.e. optimal pairs of form and meaning $\langle f, m \rangle$ of linguistic utterances or units (cf. de Swart & Zwarts 2007). The concept of markedness is highly interwoven with such optimality pairs; one of the grounding principles of OT is the idea that typical, usual form-meaning pairings are unmarked, whereas less typical, unusual or special form-meaning pairings are marked (cf. de Swart & Zwarts 2007: 284-86). An example for such a relation of marked-unmarked would be English singulars and plurals: usually, plurals are the less typical form of nouns, which is why they are formed with the plural marker -s. In some cases of plural nouns, the plural is the more typical form, which is why the noun is not marked (*cattle, police*, etc.). Now that readers are familiar with OT and the concept of markedness, de Swart and Zwart's model of bare NPs can be demonstrated.

De Swart and Zwarts claim that "[u]nderstanding the enriched meanings of bare constructions provides the key to the insight that stereotypical interpretations are semantically unmarked" (2007: 290). In a nutshell, they assert that the bare NPs (*in Ø prison; in Ø school*) create stereotypical meanings which are richer and stronger (*state of being a prisoner/student*), whereas their 'normal', i.e. article-employing, NP counterparts (*in the prison; in the school*) convey non-stereotypical, weaker meanings (*visiting a prison or school*). De Swart and Zwarts report that more commonplace, or, stereotypical, versions often go unmarked in languages due to the Gricean principle of 'division of pragmatic labour' (2007: 281).

¹³ For formalist models which deal with bare Nps, see for instance Stvan 2007; Stvan 2009; Heycock and Zamparelli 2003; Munn and Schmitt 2005. Limitations of time and space forbid an extensive comparison between formalist and functionalist explanatory models.

¹⁴ For further information on OT, see Blutner 2000; Blutner 2004; Dekker and Van Rooij 2000 or Van Rooij 2004.

NP (bare vs. 'normal')	Meaning	Markedness
<i>in ∅ prison</i>	stereotypical – state; non-referential	unmarked
<i>in the prison</i>	non-stereotypical; referential	marked
<i>in ∅ school</i>	stereotypical – state; non-referential	unmarked
<i>in the school</i>	non-stereotypical; referential	marked

Table 8: Bare vs. article-employing prepositional NP and markedness-status (cf. de Swart and Zwarts 2007)

As Table 8 indicates, they therefore describe the bare NP versions as unmarked – because they carry the typical, more obvious meanings – and the ‘normal’ NPs as marked (cf. de Swart and Zwarts 2007: 289-92) in cases where both forms exist. In sum, bare NPs often have article-employing counterparts (e.g. *in ∅ prison* and *in the prison*); if this is the case, the bare NPs convey stereotypical, common meanings while the determined NPs are utilised to express less typical and frequent meanings. Therefore, bare NPs can be described as unmarked, other NPs as marked, in such contexts.

Apart from de Swart and Zwarts explanatory model connected to OT and markedness (2007), Carlson has made some interesting observations in his work *A unified analysis of the English bare plural* (2002). He analyses bare plural NPs (*∅ Dogs bark*) as abstract proper nouns utilising a cognitive grammar based model. Since this section is concerned with bare NPs in general, and his model focusses only on bare plurals, it will not be presented in detail here; section 6.1.1 will closely analyse the connection between bare plurals and proper nouns.

A more holistic concept of bare NPs within a functional framework is implemented by Halliday and Matthiessen (2014). In their *Introduction to Functional Grammar*, they describe instances of bare NPs (although they never explicitly call them ‘bare NPs’) as *non-specific nominal groups*. Their model of the nominal group entails two different types of determination: specific and non-specific determination (2014: 364-65). According to them,

the absence of a determiner (∅) marks a nominal group as non-specific when it is plural (e.g. *pyramids*) or mass nouns (e.g. *stone*); and *the, those, his, her, whose*, and *the chief's* function as specific ones. Note the characteristic move from non-specific to specific: *great cities – those cities; an old halac uinic, or chief – the chief; a son – the child*; that is, non-specific determiners are used to introduce the discourse referent of the Thing, and specific determiners are used to track this referent in the text. (2014: 365)

They include *a*, *one*, *no* and *each* into the category of non-specific determiners, together with absent determiners (i.e. contexts in which others have postulated the existence of the zero article); those non-specific determiners produce non-referential NPs. Halliday and Matthiessen do not speak of bare NPs as such, but they note that it is possible for a nominal group not to have a determiner – and that is, virtually, the same thing.

They note that “a nominal group may have no Deictic element in its **structure**, but this does not mean it has no value in the Deictic **system** – simply that the value is selected by a from having no Deictic in the expression” (2014: 369, original emphasis). For them, an omitted Deictic element results in non-specific, non-singular meaning (e.g. *Ø Electricity is a great invention.*; *I like Ø trains*). Such a functionally oriented concept of bare noun phrases fits a Construction Grammar model of the zero article best; therefore, Halliday and Matthiessen’s views on bare noun phrases will be adopted within this thesis.

5. Construction Grammar

This chapter will introduce the framework of Cognitive Construction Grammar. Over the past 25 years of its existence, various different versions of Construction Grammar have emerged; Berkely Construction Grammar (Fillmore et al. 1988; Michaelis and Lambrecht 1996; Fillmore 2013); Sign-based Construction Grammar (Ginzburg and Sag 2000; Michaelis 2010; Michaelis 2013); Fluid Construction Grammar (Steels 2013); Embodied Construction Grammar (Bergen and Chang 2013); Cognitive Grammar (Langacker 2008; Broccias 2013); Radical Construction Grammar (Croft 2007; Croft 2013) and Cognitive Construction Grammar (Boas 2013). All present different foci, degrees of formality and views of language within the overarching framework of Construction Grammar (cf. Hoffman and Trousdale 2013). This introductory part of the chapter will focus on the origins and reasons for the emergence of this linguistic approach, focussing on Cognitive Construction Grammar, the branch of Construction Grammar this thesis will adhere to. The following two sections will present the main tenets and characteristics of the model; 5.1. will delineate constructions as form-meaning pairings, as well as the concept of a syntax-lexicon continuum. 5.2. is concerned the hierarchical storage of linguistic knowledge in the so-called constructicon.

Construction Grammar models emerged out of dissatisfaction with existing generative frameworks. Many researchers were frustrated with the explanatory models for idiomatic expressions offered within componential models. As their name suggests, componential models assume that linguistic knowledge is arranged in separated components; phonological, syntactic and semantic information is, according to such generative models, isolated from each other (e.g. Fillmore et al. 1988; Croft & Cruse 2004; Croft 2007).

Cognitive Construction Grammar, as its name suggests, shares many ideas with Cognitive Grammar (Langacker 1987, 2008); it also strives for psychological plausibility while placing high importance on both frequency and item-specific instances. Language is viewed as

an instrument for organizing, processing, and conveying information. Given this perspective, the analysis of the conceptual and experiential basis of linguistic categories is of primary importance within Cognitive Linguistics: the formal structures of language are studied not as if they were autonomous, but as reflections of general conceptual organization, categorization principles, processing

mechanisms, and experiential and environmental influences (Geeraerts & Cuyckens 2007: 1)

This non-reductionist, inventory-based approach views language knowledge not as stored in building structures and components (as generative models do), but as a vast, highly redundant storage of linguistic information (Evans & Green 2006: 481).

In contrast, generative models conceptualise language in the most economical way possible; redundancy is usually not postulated in such models. Rather, generative grammars are derivational and rule-based: to use language means to select individual words out of the lexicon, which intersects with the three horizontal components (phonology, syntax and semantics), and placing those words into fixed syntactic tree modules governed by rules. Lexicon, phonology, syntax and semantics are said to be connected via linking rules. One of the main problems of such a modular theory is that there is no possibility to include idiosyncratic properties of linguistic units larger than a word. Generative grammarians like Chomsky have the underlying assumption that larger linguistic units follow general or universal structural principles; such principles, however, do not allow for satisfactory explanations of idiomatic phrases (cf. Croft & Cruse 2004: 225-29).

This inability to coherently explain idioms in terms of generative frameworks prompted cognitive linguists to devise a new framework; Croft and Cruse (2004: 225) state:

It is not an exaggeration to say that construction grammar grew out of a concern to find a place for idiomatic expressions in the speaker's knowledge of a grammar of their language. The study of idioms led to calls for a rethinking of syntactic representation for many years before construction grammar emerged.

Idioms are generally defined as phrasal structures, which consist of more than one word and which are idiosyncratic (e.g. Croft and Cruse 2004: 230). Fixed phrases like *under the weather*, *barking up the wrong tree* or *don't cry over spilt milk* cannot be explained with the tools a generative model provides. Their non-compositional, unpredictable meaning points to the fact that they must be stored as a whole in speaker's brains (cf. Croft and Cruse 2004: 229-32). The initial analysis of idioms prompted linguists to draw conclusions about the storage of linguistic information in general (cf. Wulff 2013).

A new linguistic framework, which offered a non-modular view of language was established; the underlying idea that linguistic knowledge is stored in the form of

constructions gave the new stream its name: Construction Grammar. Also Hoffmann and Trousdale distinguish constructionist approaches from generative models: “Instead of assuming a clear-cut division of lexicon and syntax, Construction Grammarians thus consider all constructions to be part of a lexicon-syntax continuum” (2013: 1). In contrast to modular, componential models of language, Construction Grammar “expands this notion of the lexicon to include phrasal patterns with or without any morphological specifications in the mental lexicon” (Goldberg & Jackendoff 2004: 533). Another important distinctive feature of Construction Grammar is its non-nativist, non-derivational way of modelling language. That means, language acquisition is not merely an activation of an innate system of linguistic knowledge (often called universal grammar, or, UG), but an extraction and abstraction of linguistic knowledge governed by experiences. Cognitive grammars hold the view that linguistic knowledge is not separated from other parts of knowledge in the human brain, but rather that language acquisition relies on general cognitive abilities; the same abilities that allow humans to calculate or organise their belongings enable them to manufacture a structured inventory which represents their knowledge of language(s) (e.g. Diessel 2007; Tomasello 2000). In other words, only through experience of language use and the processing of linguistic information via general cognitive abilities, grammatical knowledge may be established. Langacker (2010: 90) summarises the principle that linguistic meaning is based on experience and usage in the following way:

Conventional linguistic units are abstracted away from usage events through the reinforcement of recurring commonalities [...] Abstracted patterns are units by virtue of constituting well-rehearsed processing routines (*entrenchment*), and conventional by virtue of being shared by members of a speech community.

Silent, covert categories (like the zero-article concept) are unacceptable in such a conception of grammar; absent linguistic units are simply absent. Instead of postulating invisible categories, Construction Grammarians seek to find answers for the function and meaning of ‘missing’ linguistic units as parts of larger levels of representation, the ‘constructions’ (cf. Bybee 2013: 51). The next section will define constructions as basic units of grammatical knowledge as well as other characteristics of Construction Grammar.

5. 1. Constructions

The following section will delineate two of the three main tenets all Construction Grammar approaches share, while special emphasis is put on Cognitive Construction Grammar. First, constructions – the basic units of linguistic knowledge – are defined as pairings of form and meaning. Second, Construction Grammar assumes a syntax-lexicon continuum among which those constructions are aligned. The third tenet, namely that linguistic knowledge is stored in the constructicon – a vast hierarchical network – will be introduced in 5.2.

5.1.1. Constructions as form-meaning pairings

Before the internal structure of a construction can be introduced, it must first be established what knowledge of a language actually entails. Speakers need to be familiar with concepts like tense, valency, definiteness and indefiniteness, agreement and word order to make sense of the signs and symbols employed by language. Furthermore, successful communication is directly linked to pragmatic and discourse-functional knowledge; effective turn-taking skill as well as awareness of different registers and genre are essential (cf. Evans and Green 2006: 18-20). In Construction Grammar, most of such information is stored in the constructions themselves.

One of the main tenets of Construction Grammar is the belief that linguistic knowledge is stored in the form of symbolic, conventionalised form-meaning pairing called constructions, which are succinctly defined by A Goldberg (2006: 5):

Any linguistic pattern is recognized as a construction as long as some aspect of its form or function is not strictly predictable from its component parts or from other constructions recognized to exist. In addition, patterns are stored as constructions even if they are fully predictable as long as they occur with sufficient frequency.

As Hilpert observes, three major insights are gained through such a definition; constructions are pairs of form and meaning, constructions are units of linguistic knowledge and they are not necessarily predictable (2014: 10). The present subsection will elaborate on those three points.

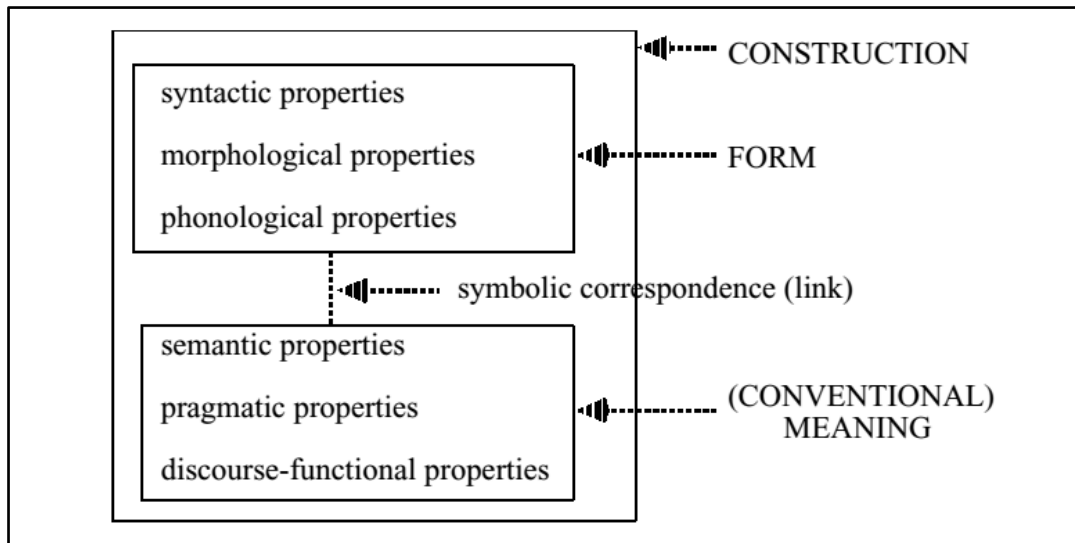


Figure 1: The symbolic structure of a construction (taken from Croft and Cruse 2004: 25)

Derived and elevated from the Saussurean model of signs, which assumes an arbitrary pair of form (*signifiant*) and meaning (*signifié*), constructions not only serve as explanatory models for morphemes and words (like the Saussurean sign) but also for all larger levels of grammatical occurrences, such as phrasal patterns and idioms (cf. Hoffmann & Trousdale 2013: 1-2). Constructions, as basic symbolic units of language knowledge, are special as they offer a non-modular, integrative view of language; their form side includes syntactic, morphological and phonological/prosodic information, their meaning side is especially interesting as it not only contains semantic, but also pragmatic and discourse-structural information (e.g. Croft & Cruse 2004: 247; Heine 2011: 63). Constructions are meaningful in themselves and they vary in size. Not their length, or number of individual morphemes or words, but the conventionalised link established between their form and meaning defines them (see Figure 1). Those form-function units can be either unpredictable (as in the case of idioms) or predictable (for instance, more abstract grammatical constructions, like the NP-construction or the predicative adjective construction).

Even apparently simple and commonplace utterances like *Pat faxed Bill the letter* can be analysed in terms of their underlying construction. Goldberg shows that even highly schematised, i.e. non-fixed, structures like the ditransitive construction constitute a form-meaning pair. The form side consists of a fixed order of constituents: [Subj V Obj Obj₂] – any noun phrase, be it a proper noun (*Pat, Bill*), or a common noun (*the letter*) may be filled into the Subject and Object positions. Naturally, the meaning of such a

schematised construction is abstract: the ditransitive construction conveys a “transfer between a volitional agent and a willing recipient” (Goldberg 1995: 141). In more schematic terms, the meaning side of the ditransitive construction looks like this: X causes Y to receive Z.

Such descriptions of the meaning connected to the formal side of a construction indicate how blurry the lines between lexicon and syntax are. The combination of those two formerly distinct modules (in generative models of the English language) into one continuum points to what Croft and Cruse identify as the fundamental hypothesis of Construction Grammar: “there is a uniform representation of all grammatical knowledge in the speaker’s mind, in the form of generalized constructions” (2004:255). As the next section will show, in contrast to more traditional, modular theories of grammar (for instance the generative approach developed by Chomsky, e.g. 1965); Construction Grammarians view syntax and lexicon not as two distinct components, but as two poles of one continuum.

Another important concept related to constructions is that of constructs. While constructions form the basis of linguistic knowledge and language usage, constructs are defined as the actual realisations of constructions in speech¹⁵; they are “empirically attested tokens [...], instances of use on a particular occasion uttered by a particular speaker [...] with a specific communicative purpose” (Traugott & Trousdale 2013: 16). In other words, constructs carry pragmatic meaning (for instance, the illocutionary message or Gricean implicatures) specific to a certain speech event. Such contextual information and meaning is only part of the construct, not the underlying construction which enables the usage of the construct.

5.1.2. Syntax-lexicon continuum

Syntax and lexicon are not separated from each other but form a continuum (cf. Croft & Cruse 2004: 255). The present section will introduce the concept of a syntax-lexicon continuum, as well as the alignment of constructions among it.

Depending on their degree of schematicity and fixedness, constructions are posited either towards the syntactical or lexical end of the continuum. As the analysis of the predicative adjective construction in 5.2.1. showed, also non-idiomatic syntactic structures convey meaning:

¹⁵ See also Cappelle’s allostructions (2006).

Hence, the difference between regular syntactic expressions and idiomatically combining expressions is not that the former are ‘compositional’ and the latter are ‘noncompositional.’ Instead, the former’s rules of semantic composition are more general and the latter’s rules of semantic composition are more specialized. In semantics as well as syntax, the concept of a construction can be generalized to encompass the full range of grammatical knowledge of a speaker. (Croft and Cruse 2004: 253-54)

As the above quote indicates, more general, abstract schematised constructions like the noun phrase construction [NP] will be found at the syntactical end of the continuum, while highly specialised, fixed, substantive constructions like [*all of a sudden*] would align at the lexical end. Naturally, most constructions are neither wholly substantive or schematic, but combine fixed and more abstract units. An example for such a construction would be the [X-er] construction, operating nouns like *dancer*, *singer* or *toaster*, with an underlying meaning of ‘agent performing an action, specified by the inserted verb’. While the X-slot, which can be filled with verbs like *dance*, *sing* or *toast*, presents the schematised, open part of the construction, the derivational suffix “-er” is stable and fixed.

Individual, single words like *this* or *green* are called *atomic* constructions, as they cannot be divided into meaningful parts, and are put at the lexical end of the continuum; constructions, which consist of different parts, and can thus be divided into units, are called *complex*. The two main criteria of fixedness (schematic – substantive) and complexity (atomic – complex) allow for detailed descriptions of individual constructions and their position on the continuum, summarised in Table 9:

Construction type	Traditional name	Examples
Complex and (mostly) schematic	syntax	[SBJ <i>be</i> - TNS VERB <i>-en</i> by OBL]
Complex, substantive verb	subcategorization frame	[SBJ <i>consume</i> OBJ]
Complex and (mostly) substantive	idiom	[<i>kick</i> -TNS <i>the bucket</i>]
Complex but bound	morphology	[NOUN- <i>s</i>], [VERB-TNS]
Atomic and schematic	syntactic category	[DEM], [ADJ]
Atomic and substantive	word/lexicon	[<i>this</i>], [<i>green</i>]

Table 9: The syntax-lexicon continuum, taken from Croft and Cruse (2004: 255)

Such a syntax-lexicon continuum allows for a unified representation of all language instances as constructions. Other than in rule-based, derivational generative models, the traditional concept of grammatical rules is not utilised in Construction Grammar. Instead of postulating a rule, CG works with the concept of a schema, which can be described as “a grammatical template, or abstract construction, that has evolved through generalization over concrete tokens” (Diessel 2011: 838). Thus, highly schematic and complex constructions like the intransitive construction [SUBJ + V_{intrans}] can be found on one end of the continuum. The same holds true for atomic and schematic constructions which constitute abstract categories like noun [N] or verb [V]. Towards the substantive end of the continuum, both atomic and substantive items like *here* or *there* as well as complex and substantive constructions (e.g. *under the weather*) can be found. Of course, the cline between the two poles is occupied by many constructions which are not completely schematic nor substantive.

To conclude, all constructions, ranging from fixed, substantive, atomic lexical items to highly abstract, schematised constructions, are posited on the syntax-lexicon continuum. Regardless of their degree of schematicity and fixedness, all of those constructions are symbolic units of form (syntax, morphology, phonology) and meaning (semantic, pragmatic, discourse-functional) which are stored in speaker’s minds. The next section will illuminate how grammatical knowledge in the form of constructions is organised.

5.2. The construct-i-con

The third main tenet of Construction Grammar that will be discussed is the storage of constructions in the so-called ‘constructicon’. The question naturally arose for construction grammarians as to how the different constructions, varying in their degrees of abstract- or fixedness, are stored in the speaker’s brain. As constructionists do not subscribe to the nativist view of a universal grammar but believe that knowledge of language is derivative of the speaker’s experiences and interaction with his/her environment, the constructicon is conceptualised as a non-reductionist, massive and redundant inventory grounded in abstraction and analogy (cf. Evans & Green: 2006: 481, Diessel 2011: 834). There is consensus among construction grammarians that constructions are structured within the constructicon; the relations between them are stored via a default inheritance network (cf. Croft & Cruse 2004: 262-70). In other words,

the constructicon is a structured inventory, which systematically coordinates constructions along taxonomic relations (see Figure 2).

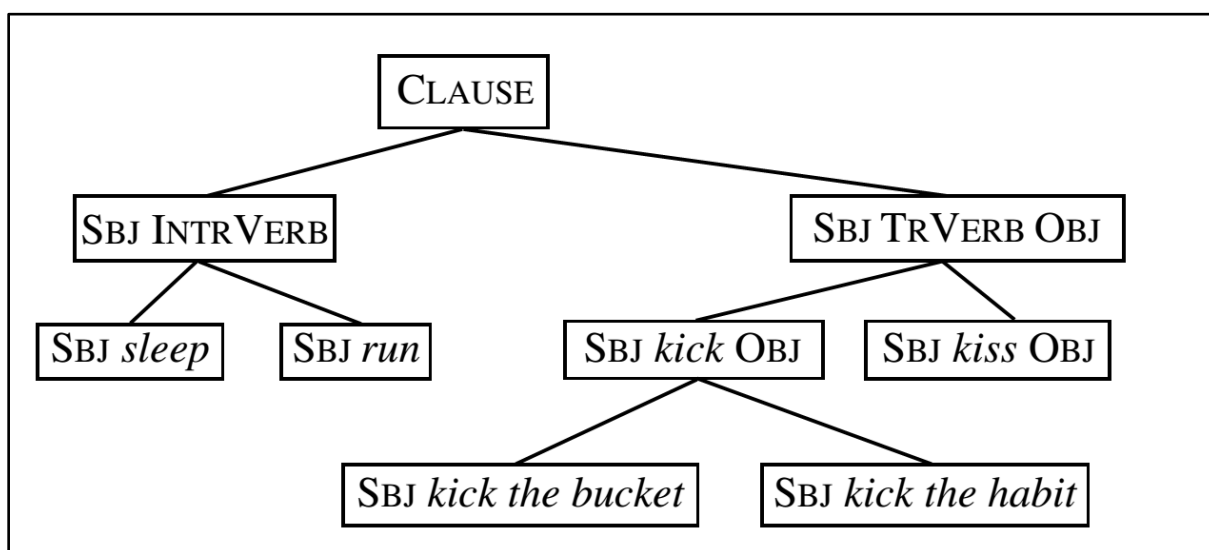


Figure 2: Taxonomic hierarchy in the constructicon (taken from Croft & Cruse 2004: 264)

As Hilpert states, “[c]onstructional characteristics, that is, characteristics of form and meaning, are inherited in a downwards direction, from a higher, more schematic level towards lower, more concrete levels” (2014: 57). In other words, the constructicon may be viewed as a complex hierarchical network of constructions, holding more abstract and schematic constructions like the NP-construction at the top, while more concrete, specific and fixed constructions like *in prison* can be found at the bottom. Each construction is said to have its own node within the complex network of constructions, and is connected to other constructions, much like a nerve cell is connected to others via synapses and dendrites.

Another important concept for understanding the structure of the constructicon is entrenchment, i.e. the idea that frequently used language items are more prominent in the speaker’s mind, and can be, therefore, more easily retrieved. Originally a concept used in psychology, entrenchment was brought into cognitive linguistics by Langacker: “Every use of a structure has a positive impact on its degree of entrenchment, whereas extended periods of disuse have a negative impact. With repeated use, a novel structure becomes progressively entrenched” (Langacker 1987: 59). As Barðdal and Gildea assert, whenever a speaker uses or comes across a certain linguistic unit, a node in the constructicon responds (2015: 32). Linguistic knowledge in the form of cognitive maps has oftentimes been compared to three-dimensional landscapes to explain the concept of entrenchment;

the cognitive linguistic map of a new-born child could be visualised as a plain field in a three-dimensional setting. Once this individual is exposed to linguistic input, its language map changes: frequently used constructions, or tokens, change the contour of the landscape. Peaks and valleys start to form in response to varying degrees of entrenchment. Frequently used language units are conceptualised as vast valleys, and the depressions of such valleys serve as a metaphorical explanation for the processing ease that is characteristic for entrenched units (cf. Kaltenböck 2016). In other words, “[e]ntrenchment denotes the strength or autonomy of representation of a form-meaning pairing at a given level of abstraction in the cognitive system” (Blumenthal-Dramé 2012: 4). Highly entrenched, i.e. highly frequent, constructions of everyday language use, such as [*I love you*] or [*I don’t know*] are conceptualised as independent constructions, even though they are fully predictable (cf. Goldberg 2006: 5).

Entrenchment occurs for constructions which are used and perceived frequently by the speaker; naturally, then, entrenchment and frequency are deeply intertwined concepts:

What we see instantiated in language use is not so much abstract structures as specific instances of such structure that are used and reused to create novel utterances. This point has lead Hopper (1987) to propose grammar as emergent from experience, mutable and ever coming into being rather than static, categorial, and fixed. Viewed in this way, language is a complex dynamic system similar to complex systems that have been identified, for instance, in biology (Lindblom et al. 1984, Larsen-Freeman 1997). It does not have structure a priori, but rather the apparent structure emerges from the repetition of many local events (in this case speech events). (Bybee 2006: 714).

Such local events may be phrases, collocations or idioms, which occur frequently enough to transform into prefabs, or automatised chunks. As Fischer (2007: 139) points out, “this creates not only formulaic phrases on the token-level (fixed collocations, idioms etc.), but also morphological and syntactic ‘formulas’ on increasingly higher type-levels”. In other words, both highly schematised and highly specialised, i.e. lexicalised, constructions may be entrenched. This reveals an important insight about the compositional nature of the construction: if a construction is highly frequent and thus highly entrenched, speakers need not apply the compositional scaffolding, i.e. their knowledge of schematic constructions, to decode the meaning. Highly frequent constructions like [*I don’t know*] are so deeply entrenched that speakers do not need the scaffolding of the [declarative construction] (cf. Schmid 2016: 17). Evans and Green point out, however, that speakers

are usually still able to recognise the underlying construction of such well-entrenched language automatised chunks (2006: 756).

As a consequence, fully lexicalised items can be found close to fully schematic constructions and not only as instances of those schemas if they are highly entrenched (Boas 2013: 251). So, it is possible that certain linguistic units (e.g. *I don't know*) are found on multiple nodes in the constructicon: not only is *I don't know* an instance of the abstract, schematic [intransitive] construction [NP + V_{intrans}], it also holds the individual specific construction node [*I don't know*], in which it functions not as an instance but as an automatised chunk. As Diessel (2011: 834) puts it, “[t]he theory rests on the assumption that language users are endowed with a very rich memory system that allows them to store large amounts of information, which may even survive (in memory) if this information is subsumed under a generalization”. Storing the great amounts of linguistic knowledge is only possible since “memory is cheap and computation is costly” (Diessel 2011: 834). The importance of entrenchment and frequency for the internal structure of the constructicon identifies Construction Grammar as a usage-based framework, which views grammar as emergent and dependent on both frequency and input. Cognitive Construction Grammar may thus be defined as a non-reductionist, inventory-based approach (e.g. Evans and Green 2006: 481).

5.2.1. Inheritance

One of the most important tenets of construction grammar is that the constructicon is a vast structured network of constructional families and individual constructions; these various levels of constructional hierarchy are connected via inheritance links. The following paragraphs will introduce the most commonly used types and classifications of inheritance links. As Sommerer reports, there is usually a distinction between vertical and other inheritance links (2018: 139).

One of the most commonly known ways to classify inheritance links has been coined by Goldberg (1995: 75-81); she distinguishes between four types of links: polysemy, metaphorical, instance and subpart. Polysemy links provide an explanation for one linguistic form which holds different possible meanings and readings; the related constructions are viewed as subschema levels, not as individual nodes. Metaphorical links capture metaphorical mapping of constructions, i.e. extension of meaning. Instance links, as their name already suggests, describe vertical links between constructions of differing

degrees of schematicity, where one construction is an instance of the other. Subpart links describe the relation between constructions which have similar form or meaning but are not instances of each other (cf. Croft & Cruse 2004: 262-70).

Horizontal links are still a matter of debate among linguists. One way to conceptualise horizontal links is to treat them as ‘allostructions’; Cappelle, for instance, claims that constructions which share meaning, but vary in form, should be subsumed under a ‘superconstruction’ (2006:18). He identifies a problematic area of constructional networks: “Extreme constructionalism tries to do away with alternations by studying the constructions linked by any alternation in their own right” (2006: 11). To put it differently, he criticises constructional models for their tendency to postulate many different individual constructions, instead of looking more closely to find horizontal relations between them. He (2006: 13) provides examples of semantically identical idioms, which are present in two or more syntactical forms (e.g. *take away somebody’s breath / take somebody’s breath away*) to show that such constructions should not be treated as individual constructions, but rather as two allostructions of one superconstruction, i.e. as “as variant structural realizations of a construction that is left partially underspecified” (Cappelle 2006: 18).

There are, however, other ways to describe horizontal relations among constructions. Van Velde defines horizontal relations as mutually exclusive choices fulfilling individual functions, i.e. he conceptualises them as paradigmatic relations. According to him, the constructions in question may share meaning on some level but are clearly distinguished from each other either on the semantic or functional level (2014). He maintains, however, that constructions which are connected via horizontal links influence each other (Van Velde 2014: 147). While there is no consensus among linguists as to how horizontal links should be explained, there is one important distinction that can be drawn between taxonomic and horizontal links, no matter to which model for horizontal links one adheres to: while taxonomic links arise out of inheritance, horizontal links arise out of analogy and similarity. In other words, taxonomic links point to relatedness, horizontal links to non-relatedness (cf. Sommerer 2018: 142). All in all, the structure of the construction is, as of yet, a vastly under-researched area of Construction Grammar; many open questions remain to be answered in the future.

This chapter has dealt with the origins and main tenets of Construction Grammar. In strong contrast to generative language models, Construction Grammar takes the view

that linguistic knowledge is stored in the form of constructions. Those symbolic form-meaning pairings are positioned on the syntax-lexicon continuum and are stored in a hierarchical default network, the constructicon. Construction Grammar is unique as it provides an inclusive instead of a modular view of grammar, which is why it lends itself perfectly for an explanation of bare NPs; semantic, syntactic, and pragmatic information must be considered in unison to explain the “zero article” and bare noun phrases, and construction grammar offers such a model.

6. Bare Noun Phrases from a Construction Grammar Perspective

This chapter will present explanatory sketches and schemata for all the contexts introduced in 3.2. Adopting a construction grammar perspective, I will closely analyse the different kinds of bare NPs; a specific focus of the analyses lies on finding reasons for the lack of articles, and thereby proving that the postulation of the zero article is unnecessary.

The chapter is organised as follows: the first part of the chapter (6.1.) will deal with those contexts which are less interesting for a deeper analysis revolving around the wrongly postulated concept of the zero article. Proper names (6.1.1.), vocatives (6.1.2.), nominals modified by numerals (6.1.3.), predicate nominals (6.1.4.) and covert countables (6.1.5) will be analysed rather quickly, as the lack of articles in those constructions is more straight-forward and intuitive than in the three contexts which are analysed more closely. The remainder of the chapter will present a more extensive solution as well as hierarchy networks for idiomatically-combining prepositional phrases (6.2.) and bare binomials (6.3.). The section will end with the analysis of the one context in which an article - according to my presented view on (in)definiteness marking - is really 'missing', namely indefinite NPs with mass and plural noun heads (6.4.)

6.1. Specific cases of bare NPs

6.1.1. Proper nouns

Nouns typically require an article to form fully functioning NPs, which can, for instance, function as subjects and objects and display referential properties. Proper nouns are an exception to this tendency. As nouns, which already refer to a specific entity, e.g. a city (*Vienna*) or a person (*Sophie*), they do not require additional referential information. Section 3.2.1. has introduced the weak arguments which have been posed to justify the existence of the zero article in combination with proper nouns and has shown why such claims must be rejected. The present section offers a more sensible explanatory model for the article-less construction of proper nouns.

Proper nouns should be described as an individual family of constructions. Similar to other types of nouns – like count or mass nouns – they exhibit distinct and special qualities and abilities. Not only their syntactic (i.e. occurring in subject or object position even though they do not pair with articles usually), but especially their semantic and pragmatic behaviour differs from other nouns: proper nouns are inherently referential as

they point to a specific entity of the discourse (e.g. Bloomfield 1933). In that sense, they are unlike mass or count nouns; while those types of nouns demand articles in order to functions as referential NPs in most cases, proper nouns have an innate capacity to generate specific, definite reference and meaning, which is why they do not need additional articles: “bestowing a name in an act of speech establishes a direct link between the name and its referent, and the ease of referring to an entity by using its proper name is a lasting perlocutionary effect” (Berezowski 2001: 58). Halliday and Matthiessen agree in asserting that proper nouns are similar to personal pronouns in that they typically provide unique reference (2014: 384). Similar to definite NPs, or “definite descriptions”, as Berezowski calls them, proper nouns establish reference. They do so, however, based on different grounds (cf. Berezowski 2001: 60). Table 10 presents the differences between proper names and definite descriptions, indicating that proper names deserve an separate node in the constructicon due to their special functions:

Proper names	Definite descriptions
- Bestowed in the speech act of naming by duly authorised individuals	- Coined in any other act of speech by any speaker of the language
- Refer to predefined referent(s)	- Refer to any entities meeting the description
- Not sensitive to changes in the referent/context	- Sensitive to changes in the referent/context
- Used successfully if the hearer has been inducted into the chain of people familiar with the reference	- Used successfully if the hearer can understand the language they are formulated in

Table 10: Characteristics of proper nouns vs. definite descriptions (cf. Berezowski 2001: 60)

Following from their function of bestowing names, proper nouns establish definite, direct reference; as Berezowski (2001: 93) puts it,

The point of naming, after all, is to ensure easy and foolproof identification of referents, and bestowing names on any entities which do not exist for the name givers or do so, but are not uniquely identifiable (i.e. are indefinite) would make the act senseless. The existence and definiteness of any entities being named are thus essential ingredients of the act of naming.

It is evident from the quote above that the act of naming something is always connected to a uniquely identifiable referent, which requires no additional grounding through an article. Furthermore, once an entity is named, its name is not sensitive to changes, i.e. the names of referents do not change simply because the referents change; i.e. Sophie will be

still called Sophie if she dyes her hair black. Hearers and speakers will know which Sophie is being referred to from contextual information.

Keeping in mind all of the above listed features of proper nouns, it makes sense to postulate an individual node in the construction for proper nouns. Such a construction will be found high up in the hierarchy of constructions, as it is highly schematised, see Table 11:

form SYN	$[PN]_{NP_{def}}$ <ul style="list-style-type: none"> - PN: first letter is capitalised - no inflection for number
meaning SEM/PRAG	<ul style="list-style-type: none"> - identifying a specific, definite entity with a name - speech act of naming - referring to predefined referents directly, definite reference - not sensitive to changes in the referent/context - used successfully if the hearer has been introduced to the chain of people familiar with the referent

Table 11: Sketch for the form-meaning pair of the proper noun construction

The constructional sketch for the overarching proper noun construction is, however, not able to explain all instances of proper nouns. In fact, proper nouns can be distinguished into two sub-types: those which pair with the definite article and those which remain undetermined. Nonetheless, both proper nouns preceded by the definite article (e.g. *the North Sea*, *Edward the Confessor*) as well as those which stand alone (e.g. *Windsor Castle*, *Winston Churchill*) convey definite meaning (cf. Berezowski 2001: 97). The question remains why some proper nouns occur without an article and some in combination with the definite article *the*. Berezowski convincingly argues that the definite article is not used for proper nouns if their referent is easily detectable for hearers but is found with less obvious cases (2001: 225-27). To be more precise, proper nouns do not pair with the definite article if:

1. their classifiers induce single and bounded referent conceptualisations, and
2. they are arbitrary (i.e. they do not describe what their referents are like either in their form or lexical content. Any failure to meet these two conditions automatically withholds the application of language economy and leaves the proper name with the definite article. (Berezowski 2001: 232f)

Following criterion 1, the definite article is thus found in cases of collective classifiers; *the Franklins* introduces a number of referents (in this case, a family) while *Benjamin Franklin* points directly and specifically to one person only. Another example would be *Lithuania* (a single country) vs. *the Baltics* (a number of countries) (cf. Berezowski 2001: 226). Criterion 2 can be easily understood with the help of the distinction between proper nouns and definite descriptions that was presented above; proper nouns are bestowed in the speech act of naming and are therefore not required to “identify their referents via the precision of the descriptive detail” (cf. Berezowski 2001: 229); “proper names are made definite by the structure of the act of naming and later on in their lives they are generally presumed to be so, unless the default understanding is overridden by contextual considerations or intentional act of the speaker” (2001: 96). Thus, arbitrary and article-less proper nouns can be understood as the prototypical proper nouns, they do not need to have descriptive value to identify their referent as the link between proper noun and referent is established during the process of naming. *Holland*, for instance, does not need an article, as it is arbitrary in the sense that it does not define any properties of the country it refers to. *The Netherlands*, on the other hand, are descriptive – in that they add the property of a “low lying area” (Berezowski 2001: 229) – therefore need an article, see Figure 3. In sum, the definite article is only employed in proper nouns if they are descriptive of their referent.

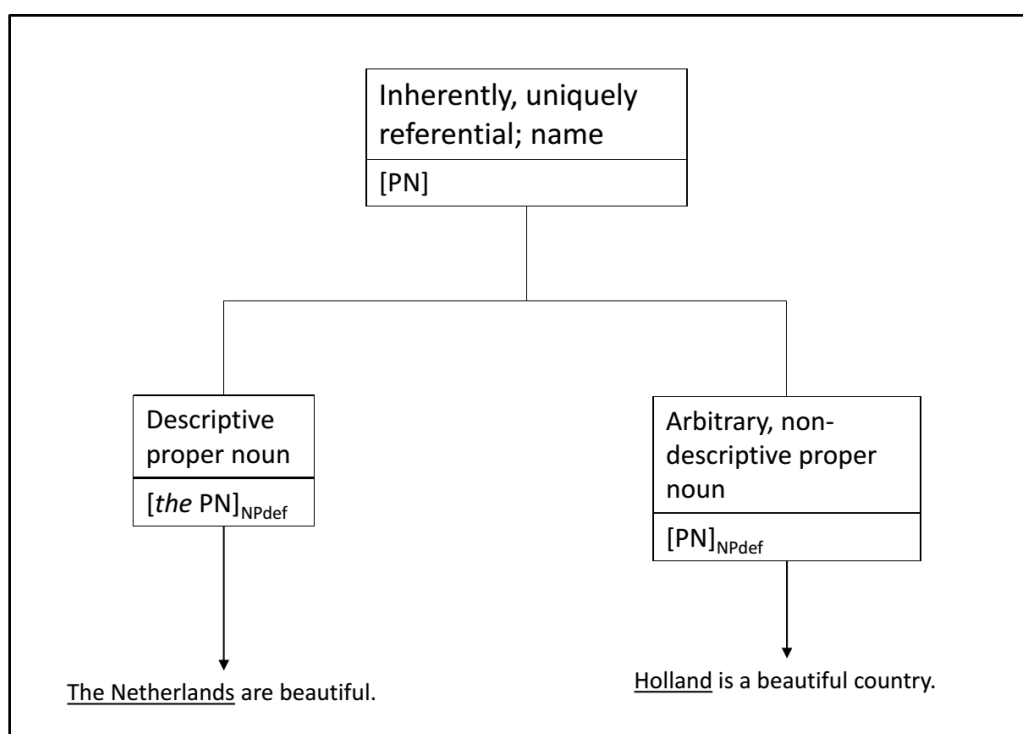


Figure 3: Constructional network for the two types of proper nouns in English

In Figure 3, individual constructions are indicated as boxes consisting of both a meaning and form-side. Elements which are posited higher in the network are conceptualised as broader, more schematic constructions. Clear lines indicate relations between constructions, whereas one-headed arrows indicate the connection between constructions and exemplary constructs.

Apart from the two types of proper nouns, out of which descriptive ones often pair with articles, there is actually another reason why proper nouns sometimes need to pair with an article: context. While the distinction between proper nouns which take the definite article and those which do not above was grounded on the semantic properties of proper nouns (i.e. being singular or plural; adding information about the referent or being arbitrary), the present paragraph will introduce proper nouns which are determined due to pragmatic reasons. In some cases, even arbitrary proper nouns (like *Holland* or *Poland*) will be found with the definite article. Usually no further specification of the arbitrary proper noun is required, as it already points to one unique referent, “in the relevant body of experience” (Halliday and Matthiessen 2014: 384). However, it may happen that multiple possible referents of a proper noun might be referred to and speakers need to further specify which entity they wish to refer to. This special case of arbitrary proper nouns determined by articles was already introduced in section 3.2.1. For convenience sake, the examples out of 3.2.1. are repeated here:

- (38) a. Ø Jim is a great guy.
- b. Her last boyfriend was also a Jim.
- (39) a. Ø Poland is a European country.
- b. The Poland I remember had many things to offer.

The article in (38 b.) and (39 b.) are required as the underlined proper names in these sentences do not point to one specific, definite referent any more, but constitute class members (the class of people called Jim; the list of various perceptions of the country Poland). Some theorists claim such usages should be subsumed under common noun usages, as they differ greatly from typical proper nouns (cf. Allan 1980). Such claims must, however, be rejected, as they solely focus on syntactic features and leave pragmatics out of the equation. Readers will agree that the articles are added in (38 b.) and (39 b.) to indicate a distinction, to show that the proper noun, which usually points uniquely to one definite referent, can be understood in multiple ways. Such a distinction is utterly

pragmatic, the semantic meaning of the proper nouns does not change, which is why it would not make sense to re-classify them as common nouns simply because an article is added.

To conclude, the lack of articles in prototypical proper nouns is inherent to their construction. This construction is embedded high up in the larger hierarchy of the construction. Constituting a sub-type of noun, the proper noun construction will be found below the overall noun construction, alongside common nouns. Proper nouns exhibit special properties, which clearly distinguish them from other types of nouns; they are inherently and uniquely referential, definite and specific.

6.1.2. Vocatives

Section 3.2.2. has already introduced English vocatives as one of the most commonly quoted contexts for an ostensible zero article, as they never combine with any overt determination. It has been shown that the postulation of the zero article in the case of vocatives is illogical, as the special vocative-case construction does not require additional markers for reference. The present section will go one step further and introduce a constructional sketch for the English vocative. I will argue that vocatives are a special family of constructions, which differ from other NP constructions. Their special discourse-pragmatic function makes vocatives inherently referential; since their referents are present at the moment of the utterance, the NPs used to refer to them are inherently referential, definite and specific – without any need for further determination.

For the sake of the reader's convenience, the examples presented in 3.2.2. are repeated here:

- (40) a. Ø Coach, how can we win this game?
b. Ø Boys, we need more long passes (taken from Berezowski 2009: 18).

Readers will agree such sentences will only come about if the person(s) being addressed are actually present in the moment. According to Berezowski (2001: 138),

The identity of the referents of the vocative nominals need not be inferred from the context, recalled from previous mention etc. It is directly defined by the structure of the speech act itself as the referent is simply the addressee [...]. No wonder, then, that the article is not used. Its selection would indicate that the definiteness of the nominals in question is established relative to a set or an anchor available to the speaker and hearer, while in reality it rests on much stronger grounds of direct

experience. Consequently, the function of encoding definiteness is taken over by a context clearly implying its speech acts origins and the definite article is economized on. However, the definite article is free to come back as soon as the implication of the speech act context is gone, since in any such case the identifiability of the referents can be ensured only by inferences triggered by the texts of the reports, i.e. indirectly.

As the quote above indicates, vocatives can be regarded as special speech act constructions, which simply do not require articles to ground their referents due to the special context they are used in. However, as soon as this context, i.e. the discourse-pragmatic circumstance, changes, vocatives cannot be used anymore, and speakers are required to resort to ‘normal’ NP constructions with articles. For instance, example (39 a.) could not be uttered in the same way, were the coach not present. The players of the team could produce a sentence with vaguely similar meaning in the absence of their coach, but then they would use different constructions, e.g.:

- (65) a. We need to ask the coach how we can win this game.
b. We asked the coach how we could win this game.
c. Let’s ask the coach how to win this game.

None of the sentences above (65) utilise the vocative-construction due to the absence of the referent. Instead, ‘normal’ definite NPs are chosen to refer to the coach. As he is not present, the speakers need to further specify and ground the single noun *coach* with the help of the definite article. Example (40) shows that vocatives directly address their referents while they are present, and therefore, do not require articles. As soon as the referents are not present anymore, other NP constructions will be used (65). The fact that vocatives only occur in fixed and highly specialised contexts – in which their referents are present – identifies them as a separate branch of NP constructions.

Vocatives constitute an individual, separate family of constructions. A suggestion for the constructional schema of English vocatives is presented in Table 12. Such a schematic and broad construction will very likely be found high up in the hierarchy of the overall constructional network.

form SYN	[N] _{NPdef} , [phrase] !/? -
meaning SEM/PRAG	<ul style="list-style-type: none"> - Definite, specific reference to referent which is present at the moment of utterance - Speech act, which directly addresses an animate referent - Sensitive to changes in context: if referent is not present, vocative construction cannot be used

Table 12: Constructional sketch for the English vocative construction

The [N] functions as a vocative in the construction, and may either be used alone or in combination with (parts of) phrases, which directly address the referent of [N]. If combined with a phrase (such as *how can we win this game* in *Coach, how can we win this game?*), the [N] addressing the referent is usually separated from the phrase via a common in written form. Furthermore, the vocative is followed by either an exclamation or question mark in written form.

6.1.3. *Nominals modified by numerals*

Subsection 3.2.7. has introduced nominals modified by numerals as definite and referential NPs without the need for determination. It has been shown that the postulation of a ‘missing’ article in this context is groundless; in nominals modified by numerals, the numerals already ground the nominals and make them definite, specific and referential. Thus, in sentences like (41 a. + b.), repeated from 3.2.7., the underlined NPs are referential without any articles:

- (41) a. Passengers flying to Honolulu, please proceed to Ø gate 4.
b. Doctor Burk is waiting in Ø room 7. (Berezowski 2009: 19)

The underlined NPs in (41 a. + b.) specifically select one entity out of the discourse, without employing an article. The numeral grounds the nominal, and, therefore, makes an article unnecessary. What is more, in such contexts, the addition of an article even renders an ungrammatical statement (**Passengers flying to Honolulu, please proceed to the gate 4*), as it generates redundancy. Thus, nominals modified by numerals clearly differ from referential NPs which employ articles; the fact that overt determination via, for instance,

an article, results in ungrammatical utterances identifies them as a separate branch of constructions within the constructicon. The construction for nominals modified by numerals could look like this:

form SYN	[N num] _{NPdef}
meaning SEM/PRAG	- Numbered, referential, specific, definite entity.

Table 13: Constructional sketch for English nominals modified by numerals

As Table 13 indicates, modified numerals always consist of a noun and a numeral as a post-modifier (cf. Martinez-Insua & Perez-Guerra 2011: 207). The numeral indicates quantification and number, thereby grounding the noun and transforming it into a fully functioning NP. The construction shown in Table 15 is very likely an instantiation of a broader, more schematic construction for NPs with post-modification.

To conclude, nominals modified by numerals do not require any form of determination, as the numerals ground the nominals in the construction. The NP ensuing is already definite, specific and referential, which makes an addition of an article superfluous and redundant.

6.1.4. Predicate nominals

It was shown in section 3.2.4. that predicate nominals can occur bare and still form grammatical sentences, as in example (42), which is repeated here:

- (42) a. F. D. Roosevelt was Ø president of the US for 15 years.
b. Americans elected Roosevelt Ø president four times (taken from Berezowski 2009: 15).

The postulation of a zero article in contexts such as (42 a. + b.) does not stand critical evaluation, as the underlined NPs are non-referential: they do not point to a specific entity or person, but rather denote a class, a function, a type of entity. The present section will introduce a possible constructional explanation for such predicate nominals. I will argue that bare predicate nominals are non-referential and fulfil functions similar to adjectives in predicate adjective constructions. To prove this hypothesis, predicate nominals will be

compared to adjectives functioning in English predicative adjective constructions as well as to referential NPs to show how similar their function is to adjectives.

In (42 a.+ b.), the underlined bare NPs add descriptions to the subject (*president of the US* adds description to *F.D. Roosevelt* in 42 a.) or the object (*president* adds description to *Roosevelt* in 42 b.) of the construction, i.e. they fulfil the role of a predicative complement, which is usually done by an adjective. Instead of 'typical' NPs, the predicate nominals in the sentences above do not introduce another entity to the discourse. This is, of course, also due to the fact that the two verbs employed in the sentences – copula *be* and *elect* – select for such an adjectival usage, as they point back to a previously introduced entity. I therefore argue that bare predicate nominals take over functions usually carried out by adjectives within the English predicate adjective construction [NP *be* Adj]. Croft and Cruse (2004: 253) describe the [NP *be* Adj] construction the following way:

The English predicate adjective construction has the form [NP *be* Adj]. It differs from the ordinary verbal construction in requiring the copula verb *be*. One can analyze the semantics of the predicate adjective construction as follows. The members of the Adjective category have a meaning that requires them to be combined with the copula *be* in order to be interpreted as ascribing a property to a referent (unlike verbs). The copula *be* has a meaning that requires combination with a member of the Adjective category in order to be interpreted as doing the job of ascribing (a property) to the subject NP.

I would like to add to their definition is that not only members of the adjective category are allowed to function within the predicate adjective construction; predicate nominals can fulfil this role too. In comparing [NP *be* Adj] constructions, which employ an adjective with the ones shown in (42 a. + b.), utilising predicate nominals, this claim proves to be true. 'Standard' constructs of the [NP *be* Adj] construction, e.g. *Richard is funny*, are not different from the examples shown in (42 a. + b.): they introduce an entity (e.g. *Richard*, *F. D. Roosevelt*) and describe it further. Thus, adjectives and predicative nominals fulfil the same roles within their constructions.

Moreover, not only the copula verb *be*, but other verbs which add description to the subject, like *elected* or *named*, may function within the English predicative adjective construction [NP V Adj]. In constructions featuring the copula *be*, predicate nominals have the syntactic function of a subject complement (*F. D. Roosevelt was president of the US for 15 years*). In contrast, in constructions featuring verbs like *elected* or *named*, predicate nominals have the syntactic function of an object complement (*Americans elected*

Roosevelt president four times). That said, a constructional schema for predicate nominals might look like this:

form SYN	<p>[NP V_{copula} <u>NP_{predicate}</u>]</p> <ul style="list-style-type: none"> - [NP]_{predicate} fulfils the syntactic role of a subject or an object complement within the English predicative construction.
meaning SEM/PRAG	<ul style="list-style-type: none"> - [NP]_{predicate} semantically functions similar to an adjective, as a complement: adds description to the object. - Non-referential, as [N] generally does not fulfil typical NP semantic behaviour.

Table 14: Constructional sketch for English predicate nominals

English predicate adjective construction featuring copula *be* and other verbs constitute two different branches in the construction, but I argue that these two types are related horizontally and possibly vertically, constituting two instantiating constructions of the overall [NP V Adj] construction.

While the relation between English predicative adjective constructions with *be* and other verbs may be up for debate, it is very clear that predicate nominals are different constructions than referential NPs. Example (43), which was used in 3.2.4., is repeated here to indicate the difference between the two constructions:

- (43) a. Dr Arnold was Ø headmaster of Rugby.
b. Dr Arnold was a headmaster of Rugby (taken from Berezowski 2009: 16).

Example (43 a.) clearly is a construct of the [NP *be* Adj] construction, which introduces a subject and its description (i.e. a complement): the underlined NP is non-referential. (43 b.) is different, as it is referential. It also adds information to the subject, Dr Arnold, but it does more than its non-referential counterpart: not only does it identify Dr Arnold as a human being working in the profession of a headmaster, it makes Dr Arnold one member of a specific group, the headmasters of Rugby. Unfortunately, a close analysis of constructions like (43 b.) goes beyond the scope of this thesis, but it is evident even without a close reading that (43 a.) and (43 b.) constitute two individual constructions.

To conclude, predicate nominals can be viewed as subject or object complements in [NP V Adj] constructions, functioning as adjectives. They are bare, as they are non-referential, and therefore, require no marking of reference.

6.1.5. Covert countables

Covert countables were already introduced in 3.2.5. as yet another context in which the zero article operates. It could be shown, however, that covert countable constructions do not require any determination due to their generic properties, which is why the postulation of a ‘missing’ article is illogical. In sentences such as (44), (46) and (48), which are repeated from 3.2.5, the underlined NPs all convey generic meaning:

(44) Ø Winter will be very harsh this year.

(46) Ø Breakfast is served at seven o’clock.

(48) Ø Rubella can now be prevented by vaccination. (Berezowski 2009: 23)

None of the underlined NPs point to a specific entity out of the discourse but denote entire classes of things. Thus, they can all be viewed as constructs of the generic [NP] construction. A suggestion for a constructional sketch of the schematic generic [NP] construction is presented in Table 15.

form	[N _{sg}]NP _{indef}
SYN	- Undetermined noun produces a generic NP
meaning	- generic: non-specific, non-referential, points to all members of a class.
SEM/PRAG	

Table 15: Constructional sketch for English singular generic NPs without determiners

The article-less [NP] is grammatically correct as it conveys -generic meaning and does not need any determination which grounds the noun. I argue that generic [NP] constructions form a separate, individual branch in the construction, and are only marginally in contact with referential [NP] constructions; referential and generic [NP] constructions are not related via inheritance. Figure 11, which is discussed more extensively in 6.4., introduces the generic [NP] family branch in the construction. The schematic construction for English singular generic NPs (presented in Table 15) likely occupies a node within this family network shown in Figure 11, probably as an allostruction to the [CN_{pl}]NP_{indef} construction, which conveys non-referential class use.

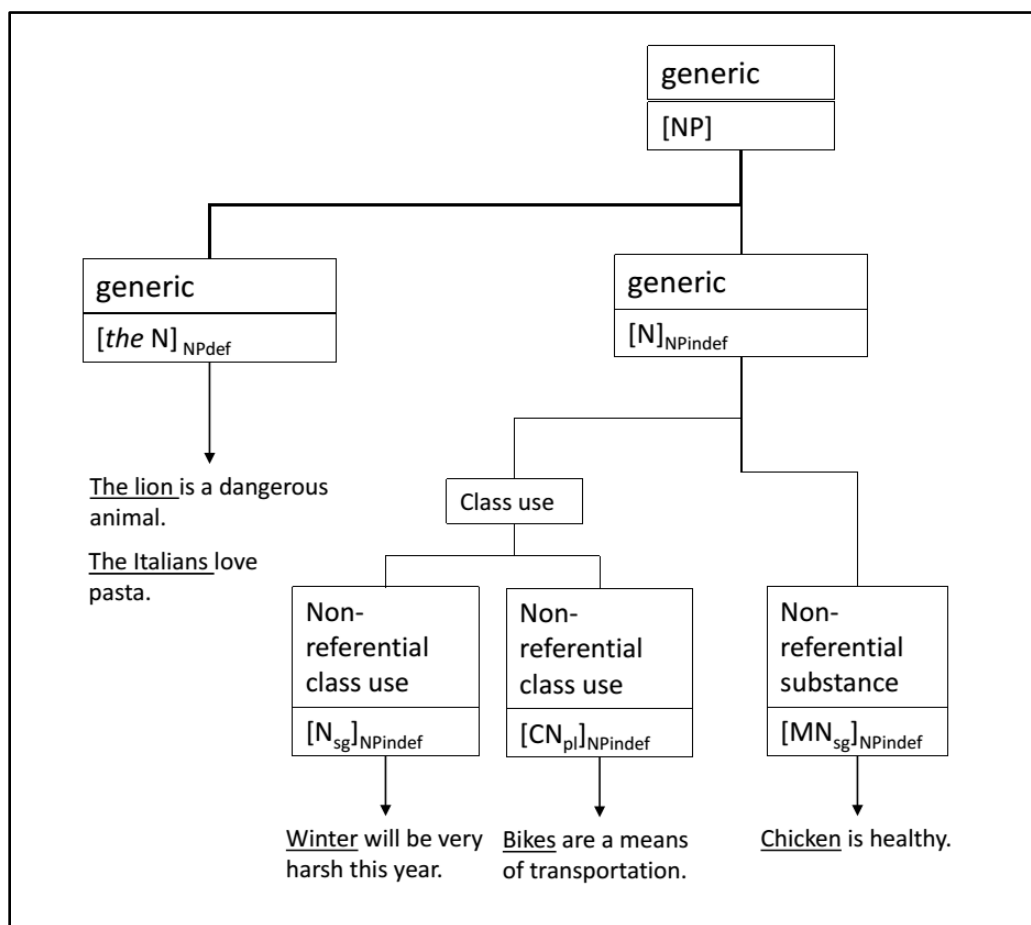


Figure 11: Provisional inheritance network for generic NPs in English.

To conclude, covert countables are instances of generic [NP] constructions and therefore require no determination. In constructions like *Winter will be very harsh this year*, no article is missing as it is not needed. The non-referential, non-specific NP, which denotes all members of a class does not need grounding through determination.

6.2. Idiomatically-combining prepositional phrases

Section 3.2.5. has introduced a subtype of prepositional phrases, in which many researchers have postulated the existence of a zero article. Phrase like *to school*, *in prison* or *at high noon* are grammatical without any articles. As Berezowski (2009: 20-23) shows, such article-less prepositional phrases are usually presented alongside article-employing counterparts such as *to the school*, *in the prison*, *during the day* to prove the existence of a covert article in cases which show no overt article. Such claims, were, however, refuted on grounds of their circular argumentation. The present section aims at devising constructional sketches for some prepositional phrases to explain their article-less nature. It will be argued that those prepositional phrases are idiomatically-combining

constructions; the lack of articles is inherent to the construction and functions as an identification marker for their idiomatic nature.

Before some prepositional phrases may be analysed, it must first be established what the difference between idioms and idiomatically-combining phrases is. In this thesis, I will adhere to the classification provided by Nunberg et al. (1994:496–97) which includes a distinction between idioms and idiomatically-combining phrases; first, idioms, second, idiomatically-combining phrases will be defined.

Nunberg et al. define idioms as “grammatical units larger than a word which are idiosyncratic in some respect” (2004: 230). While it is hard to find an exact definition that will suit all instances of idiomatic constructions, there is one property all idioms share: “conventionality: their meaning or use can’t be predicted, or at least entirely predicted, on the basis of a knowledge of the independent conventions that determine the use of their constituents when they appear in isolation from one another” (Nunberg et al. 1994: 492). As Croft and Cruse report, Nunberg et al. (1994: 492-93) list five more prototypical criteria for idioms:

- a. Inflexibility: restricted syntax, as in *shoot the breeze* vs. **the breeze is hard to shoot*.
- b. Figuration: figurative meaning, as in *take the bull by the horns*, *lend a hand*
- c. Proverbiality: description of social activity compared to a concrete activity, as in *climb the wall*, *chew the fat*, *spill the beans*.
- d. Informality: typically associated with informal speech styles or registers.
- e. Affect: usually have an evaluation or affective stance towards what they describe. (Croft & Cruse 2004:230)

Except for the criterion of conventionality, idioms usually do not fulfil all of the above listed prototypical criteria. Nonetheless, it is useful to keep them in mind when analysing idioms from a constructional perspective. Most of the article-less prepositional phrases that were introduced in 3.2.5. fit neither of these two criteria: their meaning is not arbitrary, and their idiomatic meaning is, in fact, connected to the literal, compositional meaning of the phrases. Such instances of idiosyncrasies have been called idiomatically-combining expressions. In contrast to idiomatic phrases, they are defined as “idioms where parts of the idiomatic meaning can be put in correspondence with parts of the literal meaning” (Croft & Cruse 2004: 232). As Croft and Cruse report, the distinction between idiomatic phrases and idiomatically-combining phrases, postulated by Nunberg et al. (1994: 496–97) corresponds to the distinction between decoding and encoding idioms, proposed by Filmore et al. (1988), see Table 16.

Idiomatic phrases vs. idiomatically-combining phrases		
Nunberg et al. 1994	"Idiomatic phrases"	"Idiomatically-combining phrases"
Fillmore et al. 1988	"Decoding idiom"	"Encoding idiom"
	- non-transparent	- transparent
	- non-compositional	- compositional
	- arbitrary meaning	- meaning connected to meaning of the phrase
	- <i>kick the bucket, odds and ends</i>	- <i>answer the door, in prison, in school</i>

Table 16: Idioms vs. Idiomatically-combining phrases

Encoding – or idiomatically-combining – phrases can be retrieved by speakers utilising standard language rules, but their composition is still, to some extent, arbitrary. Thus, while speakers will be able to understand what idioms like *answer the door* or *in prison* mean (cf. Fillmore et al. 1988), they would not classify such usages as “the natural-sounding English way to describe ‘open the door in response to someone knocking’” (Croft & Cruse 2004: 231). In sum, while speakers will be able to understand encoding idioms through combining the meaning of their components, they would not use the same components in that order to build a new phrase. Decoding – or idiomatic – phrases, in contrast, carry meaning which cannot be decoded by the speakers solely in terms of their composition. Phrases like *kicking the bucket* or *biting the dust* – synonyms for dying – are classified as decoding idioms. In decoding idioms, “there are not any correspondences between the literal and idiomatic meaning of the parts of the decoding idiom” (Croft and Cruse 2004: 232). Now that the difference between idiomatic and idiomatically-combining phrases is established, an analysis of some prepositional phrases may follow.

Article-less prepositional phrases like *in prison* must be understood as idiomatically-combining constructions; the lack of articles is inherent to the construction. The fixed syntax of phrases like *in prison* will be stored together with its non-compositional meaning of *being a prisoner*. Table 17 presents a constructional sketch of the idiomatically combining prepositional phrase *in prison*:

form SYN	[<i>in prison</i>]
meaning SEM/PRAG	state of being imprisoned

Table 17: Constructional sketch for *in prison*

The idiomatic nature of *in prison* becomes even clearer when compared to the corresponding non-idiomatically combining prepositional phrase *in the prison*, which employs the definite article. Other than *in prison*, this prepositional phrase has no idiomatically-combining meaning, and can be encoded by speakers merely through the application of a higher schematic construction. A schema for *in the prison* might look like this:

form SYN	[<i>in</i> + NP _{def}]
meaning SEM/PRAG	specified, definite location/state: one entity being inside another entity.

Table 18: Constructional sketch for [*in* + NP] construction

As Table 18 indicates, *in the prison* is merely an instantiation, a construct, of a broader, semi-specified construction; thus, it does not have an individual node in the construction. Its meaning is derivative of its component parts and specifies a certain location. Thus, in a sentence like *Julie works in the prison*, speakers would not assume that Julie is imprisoned (as they would in *Julie works in prison*), but that she is part of the prison staff, possibly a police officer. The fact that the two prepositional phrases convey such different meanings makes it unlikely that *in prison* is merely a construct to the overarching [*in* + NP_{def}] construction, which governs *in the prison* – especially since *in the prison* is referential and specific, while *in prison* is non-referential and non-specific. Moreover, only the omission of an article in the idiomatically-combining phrase *in prison* allows for its distinction from its non-idiomatic counterpart *in the prison*. Coming back to de Swarts and Zwarts' criterion of (un)markedness, I argue that because the idiomatically-combining phrase *in prison* holds a more stereotypical meaning than *in the prison*, it is used more frequently, and thus, more entrenched (2007: 284-86)¹⁶. Saying that someone is imprisoned is more common than merely saying someone visits a prison – therefore, I furthermore argue that the idiomatically-combining prepositional phrase (without an article) is the unmarked of the two versions.

A fixed, substantive and fully lexicalised idiomatically-combining phrase like *in prison* will be found near the substantive end of the syntax-lexicon continuum. Its form is

¹⁶ Due to restrictions of time and space, I could not conduct a corpus study to prove my theory. According to Bybee (2001), unmarked forms are more frequent and marked ones less frequent. If my theory was correct, article-less *in prison* should be more common than *in the prison*.

fixed, which means that no other words can be inserted instead of *in* or *prison*. This also applies for two other idiomatic prepositional phrases, *in school* and *at school*. As Table 19 and 20 indicate, the two constructions are certainly related in that they are both lexicalised and fixed, but different in their meaning. [*in school*] refers to the state of attending a type of school in general, whether [*at school*] only refers to attending a type of school and being physically present at school in the moment of speaking. The specific choice of one or the other preposition alters the meaning of the prepositional phrase. This change in meaning between the two constructions is not due to the meaning of the different prepositions but because of the idiomatic meaning anchored in the construction.

form SYN	[<i>in school</i>]
meaning SEM/PRAG	state of attending school, not necessarily connected to being located in school at any moment of utterance.

Table 19: Constructional sketch for *in school*

form SYN	[<i>at school</i>]
meaning SEM/PRAG	state of attending school, necessarily connected to being located in school at any moment of utterance.

Table 20: Constructional sketch for *at school*

The reasons for the bareness of the two idiomatically-combining constructions [*in school*] and [*at school*] must be understood along the same lines as for [*in prison*]. These fixed constructions convey a unique meaning, which is – similar to [*in prison*] – non-compositional, at least, not entirely. The comparison to their article-employing counterparts identifies them as the unmarked forms; *in the school* and *at the school* convey less stereotypical, less common, weaker meanings which simply point to a specified, definite location, much like *in the prison*. While *in the school* and *at the school* can be conceptualised as instantiations of higher, schematic constructions, similar to the one shown in Table 18, *in school* and *at school* are so frequently used and entrenched that they have occupied their own nodes in the construction. Since these two constructions are so similar, a vertical relation between them appears plausible. Such a vertical relation would then be based on the semantic function of both constructions, i.e. their meaning of attending school.

Another example for an article-less prepositional phrase construction which is often introduced is connected to means of transportation. Table 21 presents a lexically open idiomatically-combining expression. This means that at least part of the phrase may be filled with more than one word. In the [*by + means of transportation*] construction, however, the range of words which may be filled is also heavily restricted, so it should be termed a semi-specified construction. All vehicles (*boat, bus, car, train, taxi, plane*) can be utilised in connection with the preposition *by* to achieve grammatical phrases. While *I came here by boat* is perfectly fine, *

form SYN	[<i>by + means of transportation</i>] * <i>means of transportation</i> : [boat], [bus], [car], [train],....
meaning SEM/PRAG	using a boat/bus/car/train.... as a means of transportation.

Table 21: Constructional sketch for prep. phrases indicating means of transportation, e.g. *by boat*

Similar to the idiomatically-combining expressions presented above, I argue that the omission of an article serves a similar purpose here: to distinguish the idiomatic phrases (*by boat*) from their compositional, predictable, article-employing counterparts (*by the boat*). In the case of the [*by + means of transportation*] construction, the difference from the ‘normal’ prepositional phrase, which is an instantiation of a higher, schematic construction, shown in Table 22, is even more prominent.

form SYN	[<i>by + NP_{def}</i>]
meaning SEM/PRAG	positioning a subject/object of the sentence beside another definite entity.

Table 22: Constructional sketch for prep. phrases indicating relative position of two entities

The idiomatically-combining construction [*by + means of transportation*] shown in Table 21 conveys a fundamentally different meaning than its article-utilising counterpart (Table 22). The original meaning of the preposition *by* – namely “near sb/sth; at the side of sb/sth; beside sb/sth” (Hornby 2010: s.v. *by*) – is only kept in the prepositional phrase instantiated by the construction shown in Table 22. Only the omission of the article allows

for the different meaning of *by* (indicating the use of a means of transportation). Thus, the lack of an article is part of the constructional schema, and functions as an identification marker of the idiomatically-combining expression. As soon as speakers hear the preposition *by* used without an article, they will connect it to the individual node in the construction pointing to means of transportation.

Yet another type of prepositional phrases which has often been explained with the help of the zero-article-concept are phrases indicating time. Expressions such as *at 6 o'clock*, *at Christmas* or *at New Year's Eve* have been said to employ a covert article. In the case of these prepositional phrases indicating a specific point in time, I do not argue for idiomatic status of the construction. In constructions like *at noon*, the article is simply not required, as the NPs operating in such article-less prepositional phrases are inherently definite and specified. Point-in-time expressions such as *6 o'clock*, *at Christmas* or *New Year's Eve* are inherently definite and specific. Much like proper nouns, they do not require overt marking of definiteness. Fixed points in time as well as well-known celebrations during the year already mark only one specific point in time. Speakers, thus, need not ground them by adding a determiner, as these nouns are already grounded in themselves. This is different for other NPs indicating time; in *at the weekend*, for instance, the definite article is required to ground the noun *weekend* as it is not inherently definite and specified (*weekend* does not point to one specific weekend, but to weekends in general). Table 23 presents a constructional sketch for article-less point-in-time constructions. The time expressions which can be used within this construction must be inherently definite; this includes points on the clock, or points during the day, specific points in the week as well as fixed, special celebrations like *Christmas* or *Easter*.

form SYN	[<i>at + time expression</i> _{def}] time expressions must be inherently definite: points on the clock/the day/in the week/ special celebrations
meaning SEM/PRAG	selecting a specific point in time.

Table 23: Constructional sketch for prep. Phrases indicating specific point in time, e.g. *at noon*

To conclude, no covert article operates in article-less prepositional phrases. Construction Grammar offers a more elegant and logical explanation for instances of

prepositional phrases which occur without overt marking of (in)definiteness. Depending on the type of prepositional phrase, two possible reasons for an omitted article could be found: first, the article is not required at all, due to the noun being inherently definite and specific (e.g. *Christmas* in *at Christmas*). Second, the lack of an article is part of an idiomatically-combining construction (e.g. *at school*). The following section will introduce explanations for bare binomials and reveal some characteristics they share with idiomatically-combining prepositional phrases.

6.3. Bare binominals

Bare binominals were already introduced in 3.2.6., as they are often said to employ the zero article. Phrases like *face to face*, *dawn to dusk* or *odds and ends* consist of two undetermined – i.e. bare –, nominals, which are conjoined by a conjunction. The lack of overt articles prompted many linguists to postulate the existence of the zero article in bare binominals. Such claims were, however, refuted in 3.2.6. Instead, bare binominals should be viewed as idiomatic bare nominal constructions, which show different degrees of fixation. Similar to prepositional phrases, their constructional schemata simply do not include an article, i.e. the lack of an article is part of the constructional schema. I will distinguish two types of bare binominals, according to the classification provided by Nunberg et al. (1994): idiomatic and idiomatically-combining bare binominals; I will first introduce idiomatic bare binominals as individual fixed constructions in 6.3.1., before I present the more interesting family of semi-specified idiomatically-combining bare binominals in 6.3.2.

6.3.1. Idiomatic bare binominals

Before this subsection can focus on idiomatic bare binominals, a distinction needs to be drawn between idiomatic bare binominals and idiomatically-combining bare nominals. Fully specified constructions such as *odds and ends* or *time and time again* belong to the first category, while semi-specified idiomatically-combining bare binominals belong to the latter category (e.g. *shoulder to shoulder*, *face to face*, *eye to eye*, *heart to heart* as constructs of the construction [CNⁱ_{sg} to CNⁱ_{sg}], presented in Table 24).

form SYN	[CN ⁱ _{sg} to CN ⁱ _{sg}]
meaning SEM/PRAG	<ul style="list-style-type: none"> - Close contact, juxtaposition of two identical identities, often two body parts belonging to two different people. - Figurative, signals not only physical, but emotional closeness of two entities/concepts.

Table 24: Constructional sketch for semi-specified juxtaposition N to N construction

Usually, such idiomatically-combining bare binomials are productive with a number of nominals, which is why *shoulder to shoulder*, for instance, is not viewed not as an individual construction, but merely as a construct of a more abstract schema. In contrast, fully specified idiomatic constructions (e.g. *odds and ends*, Table 25) occupy an individual node in the constructicon and cannot be viewed as constructs of constructions higher up in the hierarchy as they do not share any semantic features with formally related constructions. It must be noted that such idiomatic, fully-specified constructions can, of course, be instantiations of more abstract schemata, such as the [X and Y] construction. The difference to idiomatically-combining, semi-specified constructions, however, lies in their lexical fixedness combined with non-compositional, non-transparent meaning. Other than the prepositional phrases that were presented in the previous section, such lexically fixed bare binominals are not only idiomatically-combining, but actual idiomatic expressions. In fact, these instances of bare binominals could be described as prototypical idioms, as they fulfil almost every criterion for idioms set up by Nunberg et al. (1994: 492), which were presented in the previous section. The bare binominal in Table 25, occurring in sentences such as *My wardrobe is full of odds and ends* fulfils 5 out of 6 criteria for idiomatic nature:

form SYN	[<i>odds and ends</i>]
meaning SEM/PRAG	<ul style="list-style-type: none"> - Miscellaneous articles and remnants - Informal, evaluative: of little importance

Table 25: Constructional sketch for fully specified odds and ends construction

First, the meaning of *odds and ends* cannot be predicted solely from its constituents; is not understood literally but denotes “miscellaneous articles and remnants” (Ayto 2010: s.v.

odds and ends). Second, the syntax of the phrase is highly restricted and fixed; it would be ungrammatical, for instance, to use the bare binominal with singular nominals: *My wardrobe is full of *odd and end*. Third, the phrase conveys figurative meaning. Fourth, the bare binominal is informal – it would not be used in formal styles or registers. Fifth, *odds and ends* has “an evaluative or affective stance towards what they describe” (Croft & Cruse 2004: 230); most dictionaries define the objects referred to by *odds and ends* as unimportant or of little value (Ayto 2010: s.v. *odds and ends*). While such fully specified idiomatic constructions are interesting in themselves, the remainder of the section will present an attempt at grouping semi-specified idiomatically-combining bare binomials and including them into the constructicon.

6.3.2. *Idiomatically-combining bare binomials*

Idiomatically-combining bare binomials constitute a highly heterogeneous group of constructions. Jackendoff has already classified bare binomials as so-called “NPN constructions” (2008); he reports that many instances of NPN constructions require the nominals to be identical ([CNⁱ P CNⁱ], such as *face to face* or *brick by brick*), but that there are also instances of bare binomials which employ different nominals ([CN P CN]¹⁷, with constructs such as *boy to man*, *rags to riches*). Furthermore, he identifies five prepositions (*by*, *for*, *to*, *after*, and *upon*) which can function within the [CN P CN] construction (2008: 8ff.). Limitations of time and space forbid an extensive discussion of the various bare binomials which exist in English. Instead, following and adapting Jackendoff’s model for bare binomials, the present section aims at devising a hierarchical network among bare binomial constructions based on their semantic function and present arguments against the existence of an overall schematic construction [NPN] for all bare binomials.

Semi-specified, idiomatically-combining bare binomials should be grouped according to the meanings they convey rather than according to their form. Sensibly grouping bare binomials according to their form, i.e. the preposition they combine with, is virtually impossible. To exemplify and prove this argument, the homonymous semi-specified [CN to CN] construction will be presented; as the constructional sketches below indicate (Table 26-28), [CN to CN] constructions are homonymous in that they convey various types of meanings: first, they can convey close contact or juxtaposition as in *face to face* or *shoulder to shoulder* (Table 26). Second, they may also convey transitional

¹⁷ I will use CN instead of Jackendoff’s N, as bare binomials only employ common nouns.

meaning as in *rags to riches*, *boy to man* or *girl to woman* (Table 27). Third, they furthermore convey successive meaning as in *door to door* or *day to day* (Table 28). Given the different meanings and the different syntactic restrictions among them (juxtaposition *N to N* require identical nominals, whereas transition *N to N* do not), it appears sensible to treat them as individual constructions.

form SYN	[CN ⁱ _{sg} to CN ⁱ _{sg}]
meaning SEM/PRAG	<ul style="list-style-type: none"> - Close contact, juxtaposition of two identical identities, often two body parts belonging to two different people. - Figurative, signals not only physical, but emotional closeness of two entities or concepts.

Table 26: Constructional sketch for juxtaposition *N to N* construction

form SYN	[CN _{sg} to CN _{sg}]
meaning SEM/PRAG	Transition from one state to another.

Table 27: Constructional sketch for transition *N to N* construction

form SYN	[CN _{sg} to CN _{sg}]
meaning SEM/PRAG	Succession – either spatial or temporal. Implies a long process: either a long distance has been travelled, or a lot of time has passed.

Table 28: Constructional sketch for succession *N to N* construction

Connecting these individual constructions to each other is, however, not an easy task since they do not, apart from their syntactic form, exhibit any similarities. Jackendoff (2008) includes a hierarchical network of bare binominals, based on their form (see Figure 4). The network he proposes, however, fails to provide real insight about the relations between the different constructions, as Jackendoff (2018: 18) focussed on their form only.

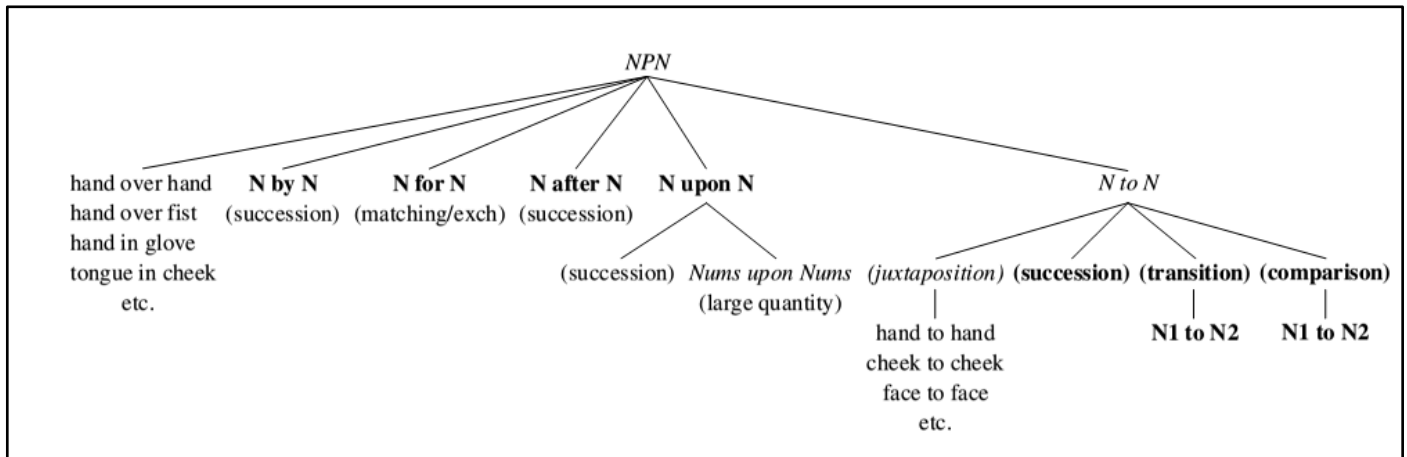


Figure 4: Inheritance hierarchy for bare binomials, introduced by Jackendoff (2008: 18)

The network includes only vertical relations, and is, thus, not very informative. Furthermore, Jackendoff (2008: 13) proposes the existence of a higher schematic construction that validates all bare binominal constructions, the “NPN”. From a Cognitive Construction Grammar perspective, however, such a construction high up in the hierarchy which governs all bare binominals is implausible; constructions are always a pairing of form and meaning, and while the form side of the NPN construction might appear convincingly obvious, it is impossible to find a meaning for such an overarching construction that could match all bare binomial instances.

I therefore argue that, in the case of syntactically homonymous bare binominal constructions, it is more sensible to structure them according to their meanings. Of course, it is a matter of debate as to whether the construction should be structured according to the form or the meaning of the constructions, but one might argue that the psychological reality of human brains favours a network based on semantics rather than on syntax. In the case of bare binomials, it clearly makes more sense to structure them according to their semantic-pragmatic features: while the observed semi-specified bare binominal constructions have multiple possible forms (taking one of the five prepositions and combining with either identical or different nominals), and within those possible forms often multiple homonymous meanings (compare, for instance the CN to CN construction, which can convey juxtaposition, transition or succession), the range of possible meanings is actually very limited. Even though I do not agree with the inheritance network Jackendoff has set up, his semantic analysis of bare binomials has proven to be very useful. While one and the same form may convey up to four different meanings, Jackendoff was able to identify only “3 independent meaning components that mix and match [which]

arrive at the categories of bare binominals that can be identified: pairing, multiplicity, time” (2008:18), he further distinguishes 4 main types of meaning based on these three meaning components (2008: 18) that are conveyed by semi-specified bare binominal constructions:

1. Juxtaposition = pairing (juxtaposition *N to N*)
2. Transition = pairing + time (first one place then the other) (transition *N to N*)
3. Matching = pairing + multiplicity (many pairs matched up) (*N for N*)
4. Succession = multiplicity + time (many instances in succession) (*N by/to/after N*).

Instead of grouping all bare binomial constructions with similar prepositions together, I will group them according to their meanings. I will adopt the 4 types of meaning Jackendoff has proposed for my analysis. A provisional sketch of bare binomial constructions based on their meanings is presented in Figure 5. Apart from the fact that a hierarchical network based on meanings can provide both horizontal and vertical links, it further enables us to understand why some bare binomials require identical nominals and why some require different ones. A network based on form solely could not reveal that the preference for identical or different nominals lies in the basic semantic functions the constructions carry: for instance, in comparison-[CN to CN] constructions, two different words are required. It is only logical to choose two different words to compare two entities – were the entities similar, the comparison would be useless, as there would be nothing to compare. The same holds true for the transition [CN to CN] construction: a transition always implies a form of change, from one entity to the other. Naturally, then, the employed common nouns need to be different. In contrast, the matching-[CNⁱ to CNⁱ] construction demands two identical CNs, as matching is always connected to sameness and similarity – thus, the semantic meaning is reflected within two identical CNs. Furthermore, also the juxtaposition-[CNⁱ to CNⁱ] and the succession-[CNⁱ to CNⁱ] require similar CNs. The idiomatically-combining juxtaposition-construction in English signals close contact only if the two objects are similar. The same is true for successions; the two CNs need to be identical to convey the idiomatic meaning of a temporal or spatial succession. Interestingly, the meaning side of the succession-[CNⁱ to CNⁱ] construction matches common dictionary entries of the word *succession* in English: “a number of people or things that follow each other in time or order” (Hornby 2010: s.v. *succession*). Readers might wonder now why the succession construction requires two identical CNs, and there are two reasons for it: first, successions usually consist of similar people or

things and convey a meaning of similar events happening multiple times. Second, in order to distinguish the succession and the transition construction, a syntactic marker is necessary for speakers to grasp which meaning is intended: succession has two identical CNs, transitions have two different ones.

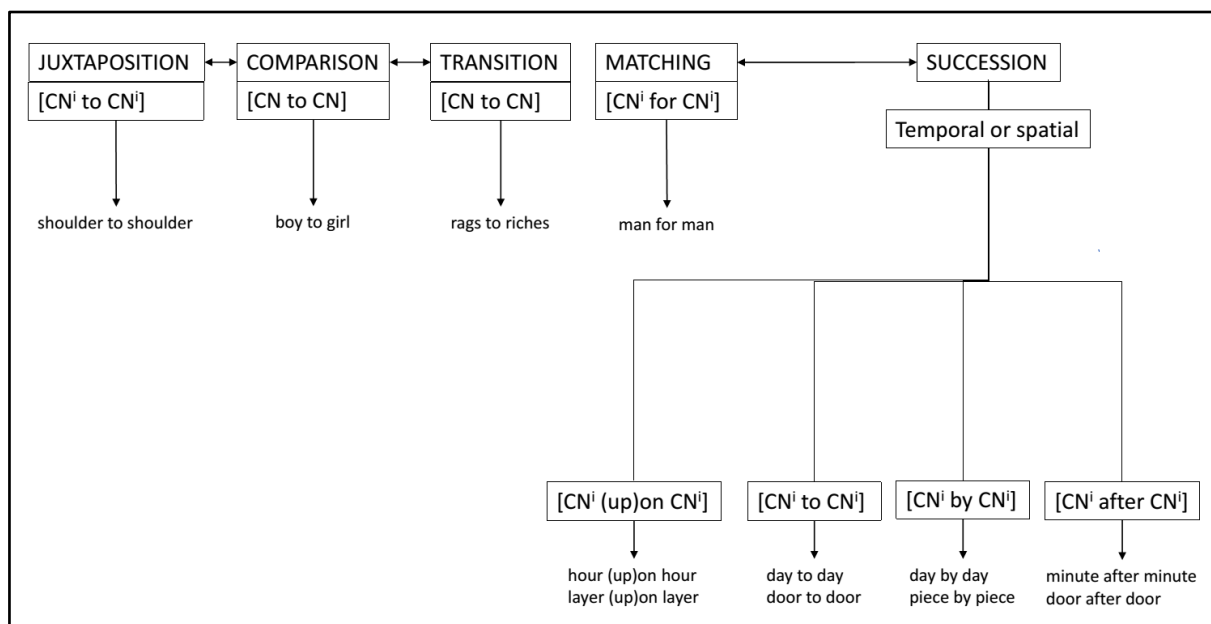


Figure 5: Provisional constructional sketch of idiomatically-combining bare binomial constructions, based on their meanings

Figure 5 presents a provisional sketch for bare binomials according to their meaning. The five types of [CN P CN] constructions (*juxtaposition*, *comparison*, *transition*, *matching* and *succession*) are grouped according to their semantic relations. It is no coincidence that the different [CN P CN] occupy the highest hierarchical position in the network presented; I strongly argue against an overall schema which unites all of the different constructions, as it would be impossible to find a semantic side for such a NPN construction. In Figure 5, horizontal links are indicated via two-headed arrows. Vertical links of inheritance are indicated via clear lines, one-headed arrows connect constructions to an exemplary construct (e.g. transition-[CN to CN] to *boy to girl*). The explanation of the network shown in Figure 5 will be presented from top to bottom.

First, the horizontal relation between the individual constructions (shown as boxes consisting of a meaning and a form side) will be discussed. Figure 6 and 7 present the identified semantic links between the individual constructions, based on Jackendoff's three meaning components *pairing*, *multiplicity* and *time* (2008: 18). As Jackendoff has shown, the five semantic types of [CN P CN] constructions can all be described in terms of

three underlying, broader semantic concepts, namely time, pairing and multiplicity (see previous page). Thus, *juxtaposition* and *comparison* are related via their shared semantic property of pairing, *comparison* and *transition* also share pairing (see Figure 15), and *matching* and *succession* are horizontally related via their meaning of multiplicity.

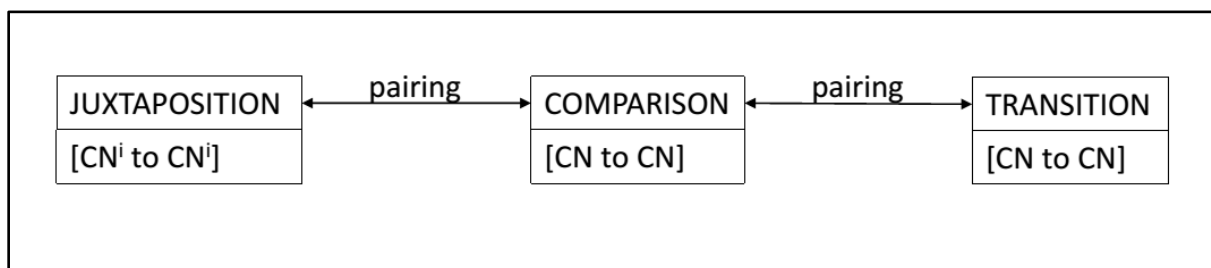


Figure 6: Horizontal relations between juxtaposition, comparison and transition [CN P CN] constructions

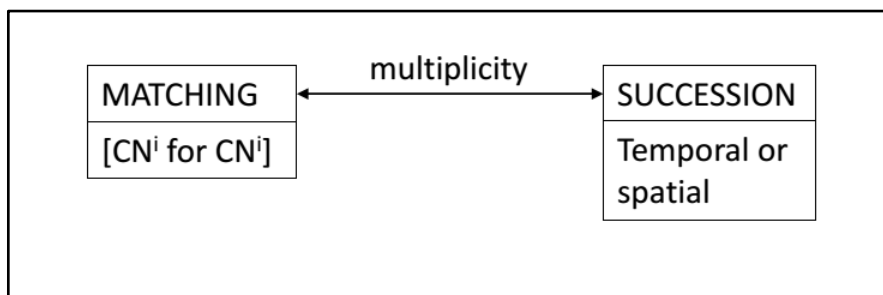


Figure 7: Horizontal relations between matching and succession [CN P CN] constructions

Moving from the horizontal links between the individual constructions onto possible vertical relations and inheritance to other constructional families, it must be stated at this point that the vertical links presented in Figure 5 are limited to idiomatically-combining bare binomial constructions. It seems highly plausible, however, to assume other vertical links to constructions that have not been mentioned in this thesis. It remains to be seen whether future constructional models will structure the constructicon according to semantic rather than formal features, and if so, whether they expand the links presented here. While Figure 5 suggests only one syntactic form (namely [CN to CN]) for each semantic type, for instance, *comparison*, it could very well be that other constructional forms are subsumed under the semantic concept of *comparison* (see Figure 8). Other semi-specified constructions, for instance with the fixed preposition *against*, instantiating, for instance, *set against*, *stack up against* or *weigh against* might be related to the comparing-[CN to CN] construction on grounds of their comparing function.

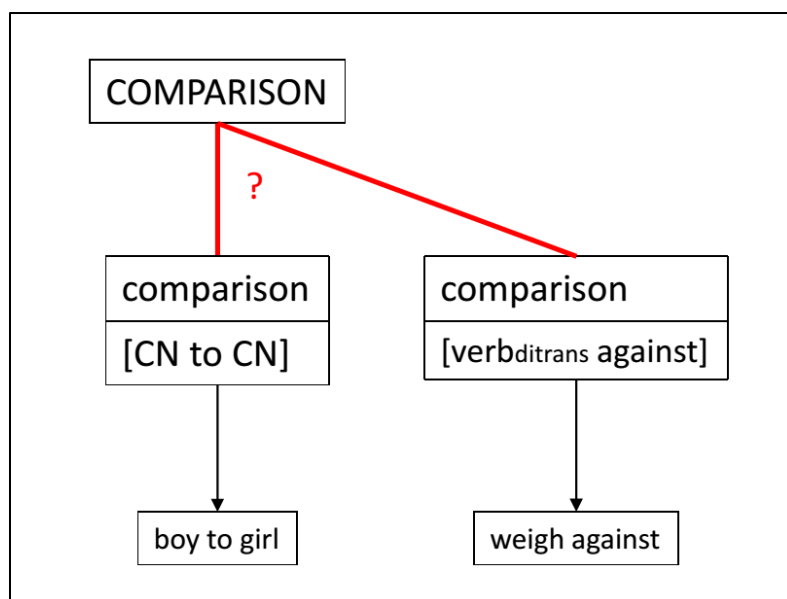


Figure 8: Possible relation of two constructions governed by the semantic concept of comparison

Unfortunately, limitations of time and space forbid an extensive analysis of constructions governed by semantic concepts. There are, however, some insights that can be drawn from structuring the constructions according to their semantic properties without having to go beyond the scope of this thesis. It has already been pointed out above that a semantic structuring principle explains why some bare binomials require identical nominals and other different ones. Depending on their semantic meaning, some constructions only make sense with different nominals: a comparison, for instance, can only be drawn between two different entities. Furthermore, it could be shown that bare nominals indicating succession can convey either temporal or spatial progression, depending on the nominals they occur with; while nominals denoting time entities, e.g. *hour* or *minute*, result in temporal succession (*hour to hour*, *minute to minute*), other nominals, e.g. *door* or *house*, result in spatial succession (*door to door*, *house to house*).

In conclusion, bare binomials are a heterogeneous group of constructions, which share some structural characteristics: they consist of two undetermined bare nominals, which are conjoined by a conjunction. They all have in common that the lack of articles is inherent to their constructional schemata. Two basic types of bare binomials could be identified: idiomatic and idiomatically-combining bare binomials. The fully lexicalised idiomatic constructions (e.g. *odds and ends*) are prototypical idioms and occupy individual nodes within the construction. In contrast, syntactically homonymous idiomatically-combining bare binomials (e.g. *dawn to dusk* as an instantiation of [CN to CN] transition) are semi-specified, productive constructions that are related to each other via semantic

principles. Both types of bare binomials need to be examined more closely in future researches.

6.4. Indefinite mass and plural NPs

The last section of this thesis will discuss the only context in which it can be argued that an overt article is really ‘missing’. Section 3.2.8. has already introduced indefinite NPs with mass nouns and plural nouns¹⁸ as the most commonly quoted and the most prototypical context for postulations of the zero article. Both indefinite NPs with uncountable mass nouns as heads (66) as well as indefinite NPs with countable plural common nouns (67) occur article-less, and still remain grammatical. Even though grounding the NPs would be necessary, as they are referential, they still remain undetermined:

(66) I need to buy Ø milk.

(67) I see Ø cars on the other side of the street.

Bare indefinite plurals often hold referential meaning, as already Quirk et al. observe¹⁹: In sentences such as *Nora has been studying medieval mystery plays*, the underlined NP occurs bare but is referential. The bare indefinite plural results in reference to only a subset of medieval mystery plays, and therefore fulfils functions typical of a determined NP (Quirk et al. 1985: 281). However, bare singulars and plurals can also convey generic meanings: “[t]he generic [...] with both plural nouns and noncount nouns identifies the class considered as an undifferentiated whole²⁰” (Quirk et al 1985: 282). In sentences such as *Ø Cigarettes are detrimental to your health* or *Ø Cake is unhealthy*, the underlined bare NPs employ genericity and are non-referential. In (68) and (69), the bare underlined NPs convey generic meanings:

(68) Ø Children like milk.

(69) Studies have shown that Ø birds prefer attractive people.

¹⁸ In the following, I will use the term ‘bare singulars and plurals’, referring to bare indefinite plural NPs and bare uncountable mass NPs.

¹⁹ It must be pointed out here that Quirk et al. postulate the existence of the zero article in such cases of bare nouns.

²⁰ Even though Quirk et al. work with the zero article concept, which is rejected within this thesis, their observations for bare NPs are helpful.

In contrast to the underlined NPs I (66) and (67), the bareness of the NPs in (68) and (69) can be explained via the concept of genericity. Apart from the fact that bare singulars and plurals can convey either generic (68, 69) or referential (66, 67) meaning, there is yet another fact that has to be mentioned. The referential examples in shown in (66) and (67) may be determined by *some* without changing their meaning:

(70) I need to buy some milk.

(71) I see some cars on the other side of the street.

Both (66) and (70) have the same semantic meaning: the speaker wishes to purchase milk. In the two examples above, *some* has the properties of an indefinite article. The same holds true for (67) and (71): the two sentences convey the same meaning. As Sahlin (1979: 13-14) reports, *some* has two different grammatical forms: first, the stressed form of *some* (sʌm) conveys partitive meaning in the form of an adjective; in a sentence like *Some papers are better than others*, *some* selects a “certain extent” (1979: 13) of the noun it precedes: it selects not all, but only a few papers. Second, the unstressed form of *some* (səm) functions as an article in indefinite and non-specific NPs. In the examples (70) and (71), *some* does not have a partitive function, it works as an article. It is interesting that this specific form of *some*, the ‘article-*some*’ can only be combined with referential bare NPs. When combined with the generic bare NP shown in (68) and (69), *some* results either in an ungrammatical sentence (72) or a phrase with different meaning (73):

(72) *Children like some milk.

(73) Studies have shown that some birds prefer attractive people.

Example (72) is ungrammatical in formal British and American English, but may sometimes be used in informal, colloquial utterances such as *We all like us some milk* or *I like me some milk*, which then require the addition of personal pronouns. It is clear, however, that (68) and (72) do not convey the same meaning. The same holds true for (69) and (73); while (69) clearly is a generic statement which describes all individuals of a class, (73) specifically selects some indefinite individuals of said class (for instance, only a specific species of birds, like chickens), and is, thus, referential. This is, of course, due to the fact that the employed *some* in this case does not function as an article, but as a partitive adjective (cf. Sahlin 1979: 13-14). It can be summarised thus far that bare singulars and plurals either occur as generic, or as referential forms.

Figure 9 presents a dichotomous network for a possible relation between referential and non-referential bare NPs which is structured according to their syntactic form. The problem with such a network is that no semantic meaning for the overarching schema [bare singulars and plurals] can be identified. The instantiations of such a schema can be either, as has been shown above, generic or referential. Thus, if it were true that both generic and referential constructions are governed by the same overarching construction, such a construction would have a semantic side that was both generic and referential. As genericity and reference constitute two semantic-pragmatic opposites, a semantic side of a construction featuring both those concepts is very unlikely.

Furthermore, since referential and non-referential bare singulars and plurals have exactly the same form, designing a network based on their form is not sensible; it makes more sense to introduce semantically-motivated branches in a network, as different branches are only produced if different heritage or different characteristics are visible in two different constructions. Thus, I argue that an inheritance network which assumes a structural pattern as its highest instance cannot reflect the horizontal and vertical relations among the individual bare singular and plural constructions. I therefore opt for a network based on meaning, similar to the one presented in 6.3.

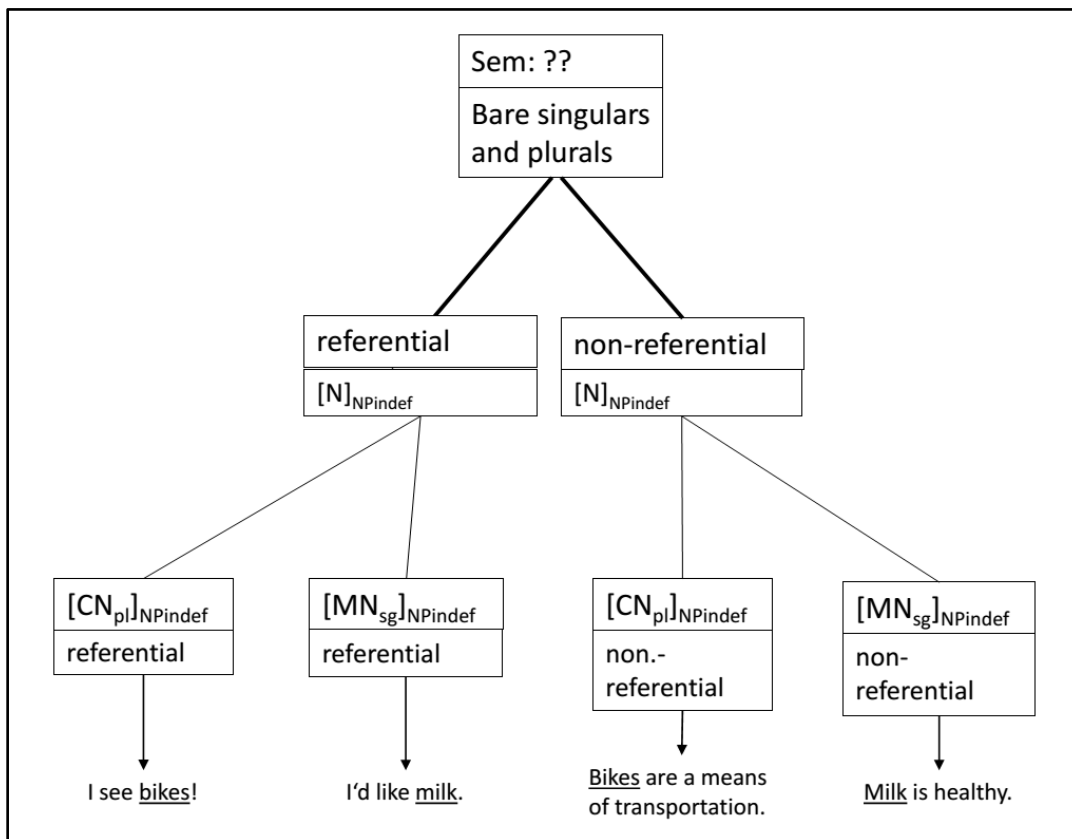


Figure 9: Unsatisfactory dichotomous network for bare singulars and plurals based on their form

I furthermore argue that non-referential and referential bare singulars and plurals do not share a common ancestor, i.e. they are not related via inheritance. Their structural and formal similarities stem from analogy, not inheritance; the two structurally identical forms are a product of convergent evolution. This might be compared to the convergent evolution of wings in bats and butterflies; both animals have wings, but they do not share a common ancestor; rather, wings have evolved individually, separately from each other. I argue it is the same for referential and non-referential bare singulars and plurals: both constructional families share the same form, but this does not mean they are related. A more appropriate hierarchy network for the two constructional families might look like Figure 10. The highest instances on this hierarchy network are two separate [NP] constructions, one being generic, the other being referential. Figure 10 only presents the part of the construction which is relevant for bare singulars and plurals, even though structuring the network according to semantic and pragmatic properties already provides a glimpse into potential vertical relations to other constructional families: e.g. referential NPs featuring the definite article *the* (*This is the book I've told you about.*) as another instantiation of the overall referential [NP] construction.

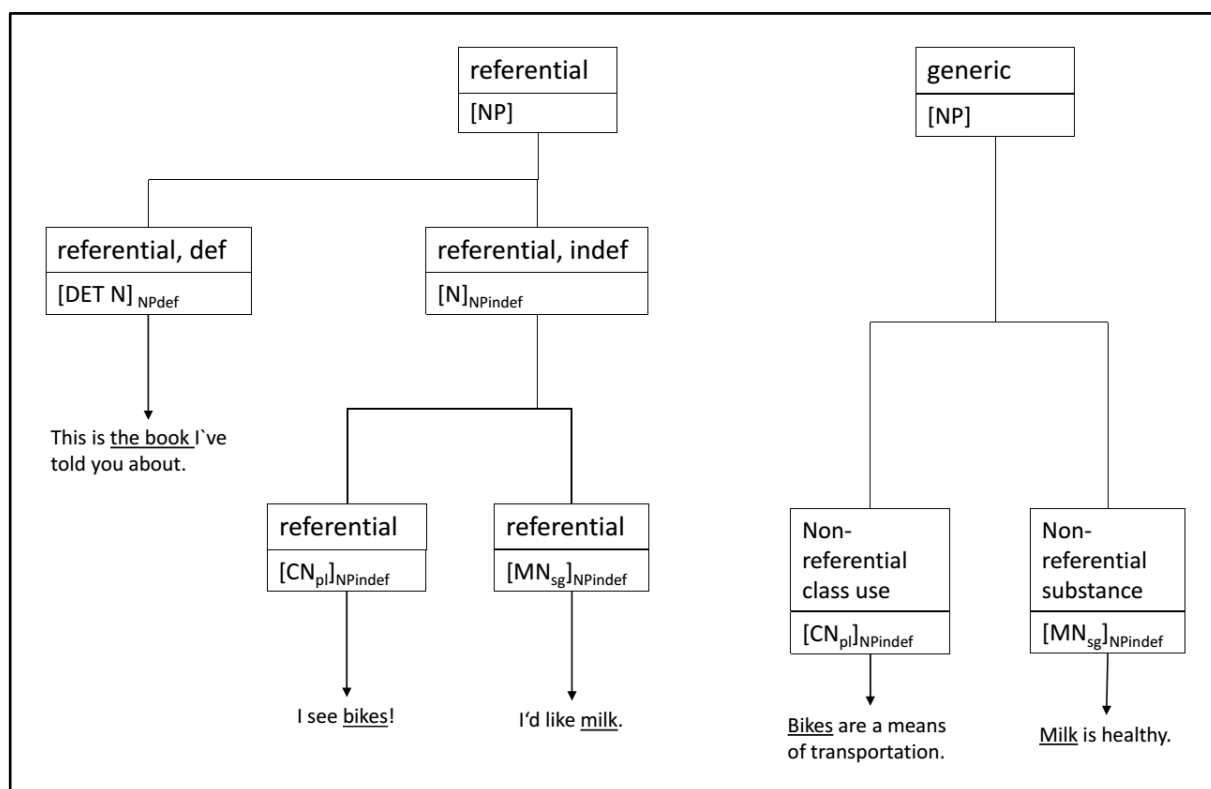


Figure 10: Provisional inheritance network for bare singulars and plurals based on their semantic and pragmatic properties

The following paragraphs will first introduce a close analysis of non-referential bare singulars and plurals, and only afterwards, explain their structurally similar referential counterparts.

6.4.1. Non-referential bare singulars and plurals

The first constructional branch of bare singulars and plurals convey generic meaning. To be more precise, these non-referential forms of bare singulars and plurals are instances of genericity, pointing to all members of a class (cf. Carlson 2011: 1154). As Figure 10 has shown, the semantic-pragmatic structuring principles predict an overarching construction higher up in the hierarchy which constitutes a [NP] conveying generic meaning; generic bare singulars and plurals, then, are conceptualised as lower-level descendants of such a schematic construction. While generic bare singulars and plurals are arguably not related to their formally identical, but referential counterparts, they are part of their own family of constructions. Figure 11 presents a provisional inheritance network for generic NP constructions in English, including the node for covert countables (discussed in 6.1.5.).

As in the other networks presented, clear lines indicate inheritance, higher positions constituting more schematic constructions, lower positions indicating constructional ‘descendants’ of those higher instances (i.e. instantiations of more schematic constructions). One-headed arrows indicate the relation between individual constructions in the hierarchy network to their constructs (e.g. *Chicken is healthy* as a construct of [CN_{pl}]_{NP_{indef}}). The overall schematic construction of generic [NP] constructions can be understood as an antecedent of both generic bare singulars and plurals, but also of generic NPs with a definite article²¹. Both constructions fall into the category of so-called ‘class uses’, which point to all members of a class non-referentially (cf. Hawkins 1978; Payne & Huddleston 2002). All the presented instantiations in Figure 11 point to classes instead of individuals (*The Italians*: people from one country, *The lion*: an animal species, *Bikes*: a type of means of transportation and *Chicken*: an animal-based food substance), regardless of whether the constructions employ an article or not. In fact, I argue that the article-less constructions are, in this case, the unmarked versions of

²¹ I am aware of indefinite NPs with generic meanings, such as *A lion is a dangerous animal*. However, such instances of genericity are less clear than those employing the definite article, which is why I chose to exclude them from the provisional network.

generic NPs, while the ones being determined by *the* are marked (de Swarts & Zwarts 2007: 284-86)²².

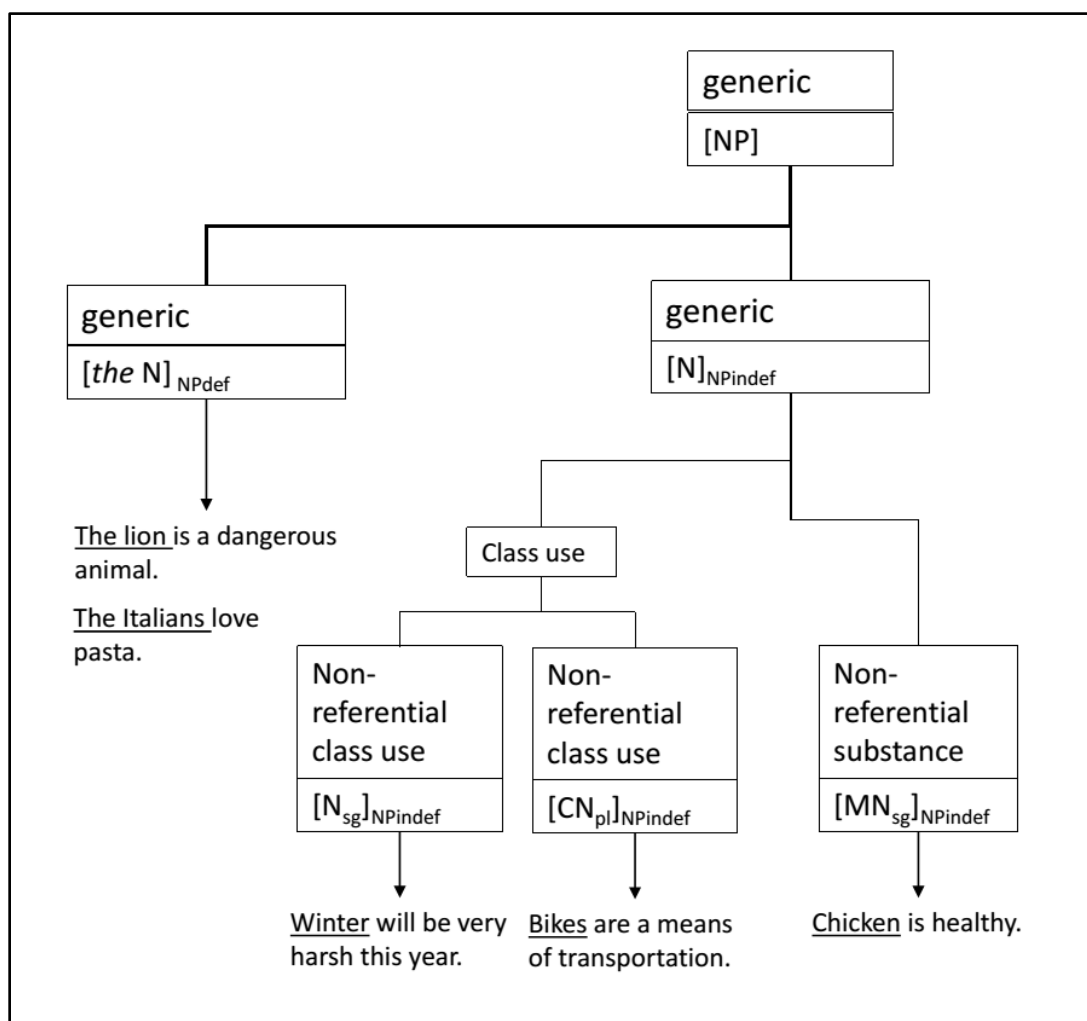


Figure 11: Provisional inheritance network for generic NPs in English

It has already been shown that determination in NPs is only necessary for producing reference. As the underlined NP in generic sentences such as *Cake is unhealthy*, or *Bears eat honey*, is non-referential²³, there is no need for an article or any other form of determination. Combining generic NPs with a definite article then, appears to be counterintuitive; generic NPs determined by *the* clearly are marked. There are, however,

²² Due to restrictions of time and space, I could not conduct a corpus study to prove my theory. According to Bybee (2001), unmarked forms are more frequent and marked ones less frequent. If my theory was correct, article-less generic NPs should be more common than those determined by *the*.

²³ Carlson describes such instances of bare singulars and plurals as proper nouns for abstract individuals (2008: 60). While it is true that neither proper nouns nor bare singulars and plurals require any form of determination, the reasons for their article-less-ness could not be more different: proper nouns are inherently referential, while generic bare singulars and plurals are non-referential.

some special contexts which seem to favour this marked version of genericity. Especially in relation to biological or economical systematics, the addition of the definite article results in a generic singular NP pointing to, for instance, all individuals of a species (*The Peacock Butterfly*, *The Eurasian Wren*, *The Igneous Rock*) or part of the world (*The Italians*, *The Americans*, *The Europeans*).

6.4.2. Referential bare singulars and plurals

Referential bare singulars and plurals pose a different problem; their article-less-ness cannot be explained via their semantic-pragmatic properties. As referential NPs, they should be grounded overtly, i.e. determined. This is normally done by a variety of word classes, the articles being, of course, default markers for (in)definiteness and reference. However, bare singulars and plurals lack such determination and still remain referential. The following paragraphs aim at explaining how this is possible. I will show that English does not have any default markers for bare indefinite plural and uncountable mass NPs (yet), which I will interpret as a reason for the missing article in bare singulars and plurals. I will furthermore argue for the existence of two competing constructions: indefinite singulars and plurals which employ no article and those which utilise *some* as a determiner. According to a theory developed by Sommerer (2018), *some* currently is in the process of being grammaticalized into a default marker for indefinite plural and mass noun reference which is why the two competing constructions exist.

Referential indefinite countable plurals or mass NPs are either undetermined or determined by *some*. These two competing individual constructions are both conceptualised as descendants of the more schematic, higher construction that serves as an antecedent of all referential [NP] constructions: Figure 12 introduces a provisional inheritance network for referential NPs in English. Apart from these two competing constructions for indefinite plural and mass NPs, there are other indefinite referential constructions, which constitute the family of [NP]_{indef} constructions. Of course, this constructional branch is vertically related to the family of referential definite NPs, the [DET N]_{NPdef} constructional family.

The two competing constructions [CN_{pl}/MN_{sg}]_{NPindef} and [*some* CN_{pl}/MN_{sg}]_{NPindef} must be viewed as two coding options for the same meaning; apart from the fact that one employs *some* and the other does not, the two constructions are astonishingly similar. Not only does *some* determine exactly the same two NP contexts, which usually occur bare

(namely indefinite countable plural and uncountable mass NPs), the two constructions also convey similar meaning: the underlined NPs in both *I see bikes!* and *I see some bikes!* refer to an indefinite number of bikes, more or less close to the speaker. The same holds true for *I'd like milk* and *I'd like some milk*: the speaker refers to a limited quantity of milk (for instance, a glass of milk) that might not be within his/her reach, but part of his/her knowledge.

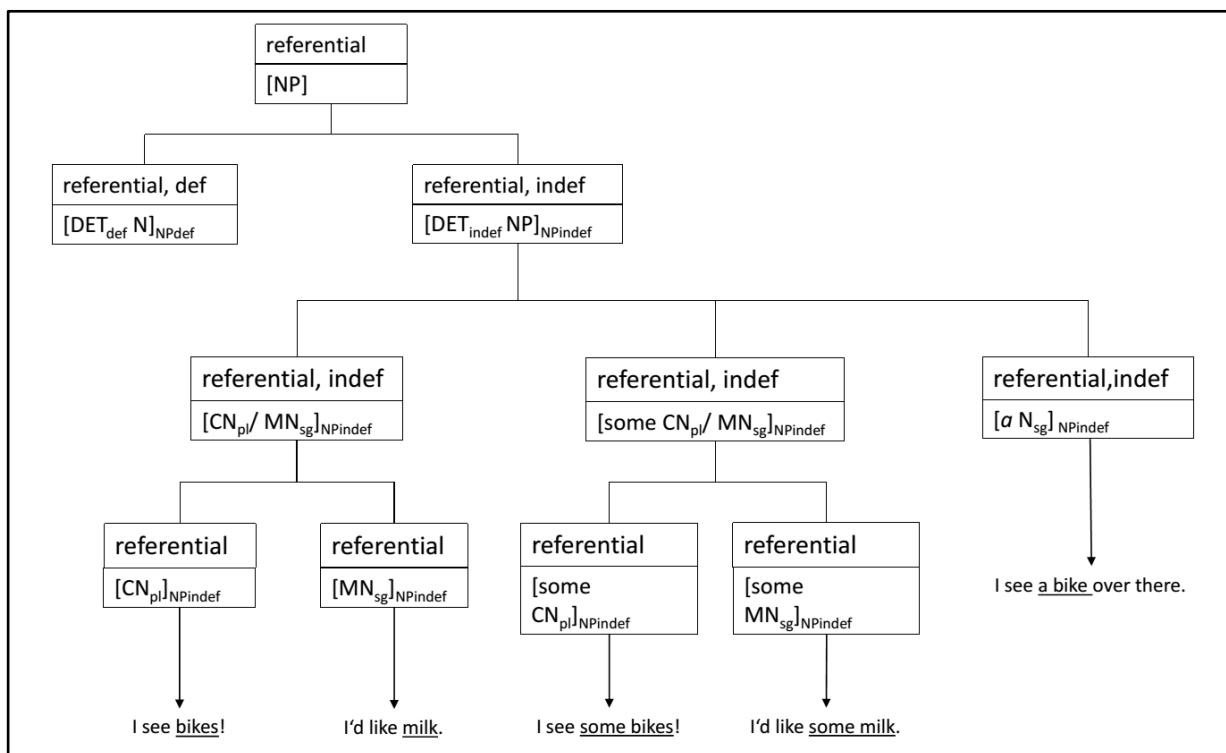


Figure 12: Provisional inheritance network for referential NPs in English

Sommerer (2018: 287-302) provides an explanation for this phenomenon: English is currently at a “hybrid stage” (2018: 301) of grammaticalization, introducing more and more overt default markers of (in)definiteness in the form of articles. The grammaticalization process of former OE spatial deictic *se* (*that*) into the definite article *the*, and OE numeral *an* (*one*) into the indefinite article *a* is already completed. *The* nowadays overtly marks singular and plural referential count nouns as definite. Indefinite article *a* overtly marks singular referential count nouns as indefinite. Table 29 presents the grammaticalization process English is currently undergoing, indicating which marker grammaticalized during which period. It can be seen from Table 29 that indefinite plural and mass nouns do not have a fixed article (yet), but that this might be changing at the moment.

	referential NPs				non-referential NPs	
	overt obligatory definiteness marking		overt obligatory indefiniteness marking			
	singular	plural/ mass	singular	plural/ mass	singular	plural
early Old English	-	-	-	-	-	-
middle Old English	+	+	-	-	-	-
late OE/ early ME	+	+	+	-	-	-
Modern English	+	+	+	(+)/-	-	-
(future develop- ments)	+	+	+	+	-	-

Table 29: Changing strategies for indefiniteness marking from Old English to Present Day English, taken from Sommerer (2018: 300)

The most important insight for this thesis is that currently, *some* is transforming into an indefinite plural and mass noun article, thereby widening the article category of English and including *some* as one of them (cf. Sommerer 2018)²⁴. As this process is not yet completed, both the undetermined form, [CN_{pl}/MN_{sg}], as well as the newly determined form by *some*, [some CN_{pl}/MN_{sg}], coexist. As a result, two competing constructions are at work in English at the moment, resulting in the previously inexplicable case of referential bare singulars and plurals. Table 30 presents the modern English article system, according to Sommerer (2018):

	DEFINITE		INDEFINITE	
	Count	Non-count	Count	Non-count
SINGULAR	the book	the ink	a book	some ink
PLURAL	the books		some books	

Table 30: Article paradigm in Modern English, taken from Sommerer (2018: 301)

²⁴ It must be mentioned here that this hypothesis still needs to be tested further.

To conclude, bare singulars and plurals do not constitute a homogenous constructional family, but must be viewed as two formally homonymous constructions, which either convey generic or referential meaning. Generic bare singulars and plurals are non-referential, and thus, do not require any articles. Referential bare singulars and plurals, in contrast, would require overt marking of indefiniteness, but still do not employ an article due to the simple reason that there is no fully grammaticalized article for indefinite plural and mass NPs (yet). Referential indefinite plural and mass NPs are actually present in two competing codes as of now: they either occur bare or in combination with *some*. *Some* will, in the future, probably function as an article for indefinite plural and mass NPs. Due to the lack of shared traits, generic, non-referential bare singulars and plurals and referential bare singulars and plurals are not conceptualised as being related in the construction. Rather, they occupy individual nodes among the families of generic [NP] constructions and referential [NP] constructions.

7. Conclusion

To conclude, the postulation of a zero article in English is not feasible. Constructional analyses of the contexts in which the zero article has been postulated before show there are more elegant ways to explain article-less bare NPs. In order to present the outcomes of this thesis, the answers to the posed research questions will be summarized. Previous studies have introduced unsatisfactory explanations for the zero article; the existing models suffer from circular argumentation and are inconclusive. Furthermore, it is not sensible to describe instances of bare NPs in English as cases of zero article usage. As the various contexts in which the bare NPs occur are very different, it is impossible to provide a general explanation for the lack of articles which applies to all those contexts. A close constructional analysis of the various contexts in which the zero article has been postulated before was able to reveal reasons and explanations for the lack of articles in some English NPs.

NPs which lack articles have been conceptualised as bare NPs. The functionalist concept of bare NPs acknowledges the existence of English NPs without overt determination. Bare NPs are defined as NP constructions without articles, which can fulfil the same syntactic functions as 'normal' NPs with articles. However, bare NPs are different from determined NPs in that they convey specialised semantic and pragmatic meanings. Close analyses of the eight different bare NP contexts which are usually named as instances for the zero article revealed weaknesses of the zero-article concept and inspired new explanatory models based on construction grammar. It could be shown that the zero article does not operate in any of the contexts on the list; I argued that the concept of a covert article itself is illogical and should be rejected entirely. Instead of attempting to find a one-fits-all-solution that cannot account for any of the contexts in detail, I devised constructional sketches for the individual contexts of bare NPs.

The following paragraphs summarise the main findings of this thesis. The constructional models for proper nouns, vocatives, nominals modified by numerals, predicate nominals, covert countables, idiomatically-combining prepositional phrases, bare binomials and indefinite NPs with mass and plural noun heads will be briefly presented once more.

Proper nouns are uniquely, inherently referential. They are different from other types of nouns, for instance, mass or common nouns, in that their semantic properties produce inherent and unique reference. That is, in using a proper noun, speakers

automatically refer to an individual, distinguishable entity in their discourse; the speech act of naming any entity is only possible if the referent is known, specific and definite to the speaker. The fact that proper nouns are inherently referential accounts for their lack of articles: they do not need any.

Similarly, vocatives are inherently referential due to their special pragmatic restrictions. In English, vocatives may only be uttered if the addressed referent is present at the moment of speaking. Sentences such as *Girls, get the wine!* can only be uttered if the addressed girls are present. This distinctive discourse-pragmatic context offers explanations for the lack of articles in the vocative-case construction.

Nominals modified by numerals are also referential; the numeral in the construction grounds the nominal which would make any further determination redundant. Thus, no article is needed: the NP is grounded already.

Predicate nominals also do not require articles. In this case, however, because they are non-referential. Predicate nominals such as *treasurer* in sentences such as *Helen was named treasurer last year!* occur bare because they are not referential. I have argued that this is the case because predicate nominals function as subject or object complements in [NP V_{copula} NP_{predicate}] constructions. Instead of introducing a referent of the discourse, they add description to either the subject or the object in the sentence. Their lack of articles can thus be explained through their non-referential properties: non-referential NPs do not require any form of determination.

Covert countables convey generic meaning, are non-referential, and thus do not require determination. I have suggested that utterances such as *Lunch is at twelve* are constructs of generic [NP] constructions; in such constructions, no article is missing, there is simply no need for determination. Generic constructions point to all members, all entities of a class instead of selecting one specific entity. Therefore, no grounding through determination is needed. What has to be explained is why it is possible in English to add a definite or indefinite article to generic NPs, a question which invites further research on the topic.

Idiomatically-combining prepositional phrases are article-less either because they are inherently referential or because the lack of an article is part of their constructional schema. Both cases were analysed in 6.2. First, idiomatically-combining prepositional phrases are sometimes article-less, as they are inherently definite and specific. For instance, in phrases such as *at Christmas*, *Christmas* already points to a very specific,

identifiable point in time, which is why no article is required in the ensuing prepositional phrase. Second, the lack of an article can also serve as a marker for idiomatic meaning; in phrases such as *at school* or *in prison*, the lack of an article is part of the construction and signals a specific, specialised meaning. Other than their determined counterparts *at the school* and *in the prison*, the two idiomatically-combining prepositional phrases convey more meaning than their components. *At school* conveys the state of attending school and is necessarily connected to being located in the school one is attending at any moment of utterance. *In prison* does not simply locate a person in a prison, it conveys that said person is actually incarcerated. I argue that the lack of an article in such prepositional phrases can not only be explained through their non-definite and non-specific nature, but first and foremost through their idiomatic meaning. Furthermore, I argue that the article-less constructions are the more frequent, idiomatic and unmarked version compared to their article-employing, less frequent, marked (through an article) version.

Bare binomials were separated into two basic types: idiomatic and idiomatically-combining bare binomials. While they all consist of two undetermined bare nominals, which are connected by a conjunction, the two types constitute two different branches of constructions. First, idiomatic bare binomials are fully lexicalised constructions which occupy individual nodes in the constructicon (e.g. *odds and ends*). Second, the family of idiomatically-combining bare binomials hold semi-specified, productive constructions which are lexically open for various nominals, and therefore, highly productive. For instance, the idiomatic phrase *dawn to dusk* can be viewed as a construct of the overarching transition-[CN to CN] construction. In my analysis, I have opted for structuring the different branches of the bare binomial family according to their semantic properties instead of according to their syntactic form. Even though both idiomatic and idiomatically-combining bare binomials need to be analysed further in the future, it is evident that neither of these two constructional families ‘miss’ an article, as the lack thereof is part of their constructional schema.

Indefinite plurals and mass nouns can occur article-less for two very different reasons; similar to bare binomials, indefinite countable singulars and plurals constitute a syntactically homogenous family. They are, in fact, two individual branches of constructions, which happen to share their syntactic form. Unmarked mass and plural nouns either convey generic or referential meaning. The first group occurs article-less due to their generic properties; NPs which point to all members or entities of a class are non-

referential, which is why they do not require articles. For instance, the underlined NP in a sentence like *Bikes are a means of transportation.* is non-referential as it points to all bikes in the world.

The explanation for the lack of an article in the latter group is less obvious; in phrases such as *I see bikes!* or *I need to buy milk,* the underlined NPs are referential. Thus, the NPs would require overt marking of indefiniteness, but they nonetheless occur undetermined. The reason for the missing article in referential bare singulars and plurals is that there is no article for indefinite plurals and mass nouns in English (yet). However, according to a theory by Sommerer (2018), *some* (in a non-partitive function) is currently grammaticalizing into an article for indefinite singulars and plurals, which is why two competing codes for bare singulars and plurals exist at the moment. Speakers may either use *I see bikes!* or *I see some bikes!* without altering the meaning of the utterance; as the grammaticalization process of *some* is not fully completed yet, both constructions coexist. I have introduced constructional schemata for both generic and referential bare singulars and plurals and have argued that they are not related to each other due to the lack of shared traits. Instead, I conceptualised them as individual nodes among the families of generic [NP] constructions and referential [NP] constructions.

Due to limitations of time and space, I was unable to cover all relevant aspects of bare NPs in English. I could only analyse three contexts (idiomatically-combining prepositional phrases, bare binomials and indefinite NPs with mass and plural noun heads) in detail; however, the remaining five contexts should also be investigated further and integrated into the construction, based on their semantic properties. Furthermore, since my paper is purely theoretical, it would be interesting to examine bare NP constructions from a more empirical point of view. In the future, to arrive at holistic analyses of English bare NP constructions, empirical data needs to be employed to test the hypotheses I proposed. Using a corpus data analysis, the presented constructional sketches should be investigated further to evaluate whether the marked-unmarked distinctions I have drawn should be rejected or kept. Furthermore, corpus data might be utilised to devise more extensive family networks.

Word count (running text, excl. references): 34,375

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Abstract (deutsch)

Das Ziel der vorliegenden Arbeit ist festzustellen, ob es sinnvoll ist, die Existenz eines unsichtbaren Artikels in nackten, nicht determinierten Nominalphrasen (NPs) der englischen Sprache zu postulieren. In einigen Werken zur englischen Grammatik wurde ein verdeckter ‚zero article‘ vorgestellt, der angeblich in nackten NPs operiert. Die vorhandenen Abhandlungen zu besagtem unsichtbarem Artikel sind jedoch weder schlüssig noch ausreichend - ein Umstand, der sich daraus ergibt, dass sich alle Argumente für die Existenz eines solchen verdeckten Artikels auf die Behauptung stützen, dass englische NPs zwingend determiniert werden müssen. Aus der Perspektive der Konstruktionsgrammatik werden solche präskriptiven Behauptungen allerdings abgelehnt. Im Falle des ‚zero article‘ bedeutet das, dass aktiv nach Erklärungen für das Fehlen eines Artikels in nackten NPs gesucht wird, anstatt automatisch anzunehmen, dass ein unsichtbarer Artikel am Werk ist. Nackte NPs werden also nicht als von unsichtbaren Artikeln determinierte Spezialformen von NPs betrachtet, sondern als eigene Konstruktion, die ohne Determination auftreten. Eine konstruktiv motivierte Analyse der verschiedenen Kontexte – Eigennamen, Vokative, von Numeralen modifizierte Nominale, Prädikativ-Komplemente, versteckte Zählbare, idiomatische Präpositionsphrasen, nackte Binominal- und indefinite Plural- und Massennomen –, in denen ein unsichtbarer Artikel bisher postuliert wurde, erlaubt es, individuelle Konstruktionsnetzwerke zu skizzieren, die die einzelnen Arten nackter NPs erklären. Das Fehlen eines Artikels in den meisten dieser Kontexte lässt sich auf eine von zwei Erklärungen zurückführen: entweder die NPs sind nicht referenziell und benötigen deswegen keinen Artikel. Oder sie sind referenziell, sind aber trotzdem nicht auf einen Artikel angewiesen, weil entweder ein anderer Bestandteil der NP die Rolle des Artikels übernimmt oder weil das Nomen innerhalb der NP inhärent referenziell ist. Im Falle von indefiniten Pluralen und Massennomen allerdings trifft keiner der beiden Erklärungsansätze zu; die NPs dieses Kontexts sind referenziell und müssten von einem Artikel determiniert werden. Die Analyse von solchen ‚bare singulars and plurals‘ zeigt, dass sie nur deswegen nicht determiniert sind, weil es noch keinen vollständig grammatikalisierten Artikel für diesen bestimmten Kontext gibt. Abschließend lässt sich zusammenfassen, dass die Postulierung eines unsichtbaren Artikels nicht sinnvoll ist, da sich das Fehlen von Artikeln in nackten NPs effizienter durch Konstruktionsgrammatische Modelle erklären lässt.