Linguistic Insights
Studies in Language and Com

Studies in Language and Communication

Iria Pastor-Gómez

The Status and **Development of** N+N Sequences in **Contemporary English Noun Phrases**

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This volume aims to carry out a comprehensive analysis of those nouns within the structure of the noun phrase which are referred to as N+N sequences (e.g. drug addiction, computer cluster). They are studied from three perspectives, namely their status as syntactic constructs, their evolution as becoming morphological items through a process of lexicalisation - whereby they gradually acquire properties of a semantic, morphological, orthographic and phonological nature -, and their use in which several variables such as speech community, mode and textual category are in operation. Additionally, this volume touches upon the problems in establishing clear-cut boundaries between morphology and syntax in order to define their status and evolution. A comprehensive corpus analysis rounds off the study.

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Table of Contents

1	Introduction	13
1.1	Aims	14
1.2	Overview of the research	14
2	Noun Phrase Structure	17
2.1	Definition, function and structural patterns of noun phrases	18
	2.1.1 Definition of noun phrases	
	2.1.2 Noun phrases and nominals	
	2.1.3 Structural patterns	
2.2	Premodification	
	2.2.1 Component parts of premodification	
	2.2.2 Order of premodifiers	
	2.2.3 Possible combinations	
2.3	The role of premodification as opposed	
	to postmodification	36
	2.3.1 Previous studies	
	2.3.2 Lack of explicitness and context information	
	2.3.3 The pragmatic function of premodification	
2.4	Summary and concluding remarks	
3	Nominal Modifiers: Definition and Characteristics	45
3.1	Nominal modifiers	45
	3.1.1 Nouns as modifiers	
	3.1.2 The variability of stress patterns	
	3.1.3 Morphological properties of nouns as modifiers	
	3.1.4 Suggested reasons for the use of N+N sequences	
	3.1.4.1 Compactness	
	3.1.4.2 Availability	
	3.1.4.3 Predictability	

3.2	Earlier analyses of N+N structures	59			
3.3	Ambiguity in N+N sequences	67			
	3.3.1 Syntactic ambiguity	68			
	3.3.2 Semantic ambiguity	70			
	3.3.3 Categorial ambiguity: gradience and				
	conversion in N+N structures	74			
3.4	The boundary between syntax and morphology	78			
	3.4.1 Criteria for the definition of the status				
	of N+N structures	80			
	3.4.2 The process of acquisition of new lexicon:				
	institutionalisation and lexicalisation	88			
	3.4.2.1 Compounding and compounds	88			
	3.4.2.2 Institutionalisation and lexicalisation	96			
	3.4.3 Concluding remarks. Can N+N structures				
	be considered a method of word formation?	100			
3.5	Nominal modifiers versus other kinds of modification				
	within the noun phrase (genitive phrases, adjectives,				
	prepositional phrases, and relative clauses)				
	3.5.1 The premodifying position				
	3.5.2 The postmodifying position				
3.6	Summary and concluding remarks				
,					
4	Corpus Analysis	111			
4.1	A hypothesis around four variables	112			
	4.1.1 Text category				
	4.1.2 Speech community				
	4.1.3 Time period				
	4.1.4 Mode				
4.2	The corpus				
	4.2.1 The corpora of written English				
	4.2.2 The corpora of spoken English				
	4.2.3 Text sampling				
	4.2.4 Methodology				
4.3	Overview of the data				
-	4.3.1 Text category				
	4.3.2 Speech community				

	4.3.3 Time period	144
	4.3.4 Mode	145
4.4	N+N structures and lexicalisation	146
	4.4.1 Criteria for the classification of lexicalised	
	and non-lexicalised N+N structures	147
	4.4.2 General results	151
	4.4.3 Text category	151
	4.4.4 Speech community	152
	4.4.5 Time period	154
	4.4.6 Mode	156
	4.4.7 Summary	158
4.5	General discussion	160
5	Summary and Conclusions	173
5	Summary and Conclusions	
App	pendices	185
Refe	erences	205
Ind	ex	215
mu	iA	

1 Introduction

The English language is a boundless source of investigation. As with many other fields of scientific study, new discoveries simply lead to new questions, and hence open up further avenues of research. The phenomenon under investigation in this volume has been present in the English language for centuries and has been a major source of word formation, along with borrowing and derivation. However, during the 20th century a sudden and very significant increase in the use of these devices was noted (cf. Biber/Clark 2002). Trends and fashions emerge constantly in contemporary society, and language, as an essential component of social interaction, is also governed by fashion. By implication, the use of nouns in modifying position in Present Day English seems to be the result of a trend, with the use of such forms increasing and spreading through the language. However, this only constitutes a superficial explanation of a linguistic phenomenon which merits a far more detailed and analytical assessment. As we will see in this volume, there is only a small available literature on this topic, and most extant research only deals in a relatively superficial way with it. Indeed, some studies have looked at N+N structures as part of a wider investigation (cf. Jucker 1992; Biber/Clark 2002), while others have addressed very specific issues (cf. Warren 1978 and Benczes 2006, an assessment from a semantic point of view; Giegerich 2004, from a phonetic perspective; Rosenbach 2007, a comparison of N+N sequences to genitive phrases); other studies adopt earlier approaches (cf. Levi 1978, from a Generativist perspective), while others have contributed to the literature with small, although valuable, articles (cf. Varantola 1993; Rosenbach 2005). For this reason, a large-scale monographic study on the topic is now in order.

1.1 Aims

This volume aims to study those nouns which function as premodifiers in noun phrase structure and which, in combination with the head noun they modify, are referred from hereafter as N+N structures or N+N sequences (e.g. *university library*). Their function as premodifiers is far from being prototypical, since nouns usually function as heads of noun phrases, whereas premodifying position is prototypically filled with adjectives. However, the present research will show that their frequency of use in contemporary English is high.

In order to do so, N+N sequences are studied from three different perspectives: their status, their evolution, and their use. In terms of their status, the structures are considered here as syntactic constructs (cf. Huddleston/Pullum 2002), in contrast to other scholars, who have considered them to be morphological compounds (cf. Levi 1978; Warren 1978; Benczes 2006). As for their evolution, some may become part of the lexicon through a gradual process of lexicalisation, acquiring properties of a morphological, semantic or orthographic nature. Finally, from the point of view of their use, it will be shown that several different variables are in operation.

1.2 Overview of the research

Chapter 2 serves as an introductory review of the theoretical framework adopted, and offers some considerations on the structure of the noun phrase. It focuses on the definition, function and structural patterns of noun phrases as well as their dependents, among which premodifiers are emphasised. A summary of different interpretations of the noun phrase in the literature is offered. These have proposed, variously, that noun phrases may be defined in terms of their component parts (head and dependents), their dependency relations (modifiers depend on the head), and their order relations (modifiers may precede or succeed the head noun).

Chapter 3 discusses nouns as modifiers and provides a thorough analysis of their principal features. It also includes a definition of N+N sequences, as well as a series of explanations which justify their use. A review of previous literature on the matter is also given. This chapter also deals with the ambiguity arising from the use of N+N sequences from three points of view: syntactic, semantic and categorial. The problems in establishing clear-cut boundaries between syntax and morphology when trying to define the status of N+N structures are discussed, and in connection with this, the questions of institutionalisation and lexicalisation will also be considered. Finally, nouns as premodifiers are compared to other dependents such as genitive phrases, adjectives, prepositional phrases and relative clauses.

Chapter 4 is in fact the empirical complement of the previous chapter, since it presents and discusses the findings from a corpus study of English texts on the evolution and use of N+N sequences. Firstly, it offers an explanation of the main hypothesis in terms of four different variables: text category, speech community, time period, and mode. Secondly, a thorough description and explanation of the corpora that have been chosen for the research, as well as of the methodology employed here, is given. Next, there is an overview of the data derived from the corpora. Also included is an explanation of findings from the perspective of the above-mentioned variables, as well as findings obtained after the application of various criteria to test the degree of lexicalisation N+N sequences have.

Finally, Chapter 5 provides a summary of the investigation as well as the main conclusions reached. It also offers a number of suggestions for further research.

2 Noun Phrase Structure

In this chapter a brief account of the structure of the noun phrase (NP) is offered. The main goal of the current volume is the analysis of nouns which are embedded as modifiers in those larger units called noun phrases. In order to understand how a noun may act as a modifier in a noun phrase, attention must be paid to the processes which make this possible. Nouns prototypically function as heads of noun phrases, but the object of study here is their role as modifiers. In order to appreciate the differences between these two functions that nouns can perform, an initial analysis of noun phrases is therefore useful.

Each section below is devoted to one specific aspect of the noun phrase. Due to limitations of space and time, I will focus on the definition, function and patterns of noun phrases as well as the modifiers inside them, and will pay special attention to premodification. Accordingly, Section 2.1 deals with the definition and structural patterns of noun phrases. The phenomenon of premodification, where nouns also play an important role, is then discussed in Section 2.2; issues such as the order of premodifiers, their component parts and their possible combinations are also examined. Section 2.3 is then devoted to the role of premodification as opposed to postmodification; there is a reference to previous works (such as Raumolin-Brunberg 1991 or Biber/Clark 2002) that have made a quantitative analysis of the use of premodifiers. Those earlier works will place nominal modifiers vis-à-vis the rest of modifying devices. I will also analyse aspects such as the lack of explicitness and context information as well as the pragmatic function of premodification.

2.1 Definition, function and structural patterns of noun phrases

The following subsections offer an account of the different approaches that grammars have made to noun phrases. It should be borne in mind, whilst discussing these different approaches, that the present study of the noun phrase is based on the idea that constituents in an NP are built up of a continuous and recursive sequence of items, and that they may be studied from the point of view of their form and function.

2.1.1 Definition of noun phrases

The concept of phrase has been defined in a variety of ways over time. Jespersen (1976 [1914]: 15) defined it as a combination of words put together in order to form a sense unit. Similarly, Kruisinga (1932 [1909]: 177) distinguishes "syntactic groups" as a combination of words which are part of a sentence. On the other hand, Hockett (1958: 152-154) refers to composite forms which are hierarchically organised. As an illustration, the old dog in the old dog lay in the corner is a composite form as well as lay in the corner. Both of them are part of a construction type, that is, a group of constructions which are similar in some specified way, since both constructions involve the modification of one immediate constituent by the other. Thus, in the old dog, old is a descriptive adjective which functions as the second immediate constituent, whereas the noun dog is the first immediate constituent. Hockett also adds that the composite form yields a constitute, which also belongs to the class of singular nouns. What is thus implied is that the form-class of the composite form is identified with one of its immediate constituents; this is why the old dog is a singular noun phrase just as dog is. These constructions are called endocentric. However, it seems that, at the time when Hockett was writing, the boundary between syntax and morphology was somewhat unstable, Hockett himself including constructions such as the old dog and blackbird within the label "endocentric constructions" (1958: 185). Despite this, what constitutes a major advancement in the study of the noun phrase is that he refers to the concepts of **head** and **attribute** when observing that "the constituent whose privileges of occurrence are matched with those of the constitute is the head or centre; the other constituent is the attribute." (1958: 184). One way or another, this notion of endocentrism has survived to the present day.

More recently, Aarts and Aarts (1988: 10–14) refer again to the idea of the noun phrase as a headed phrase in which the head is the only obligatory constituent. They also use categories and functions to describe sentence units. The general idea is that the component parts of syntactic groups can be divided into lower units until the moment at which indivisible units are reached. Within the context of Generative Grammar, X-bar theory (Jackendoff 1977) views all phrases as the product of syntactic rules which are context-free, and makes use of lexical categories such as N, V, A, P (noun, verb, adjective, and preposition) as the starting point of projection paths. These categories are assigned bars and often prime symbols also (X', X", etc.), leading to a three-level structure. Thus for nouns, the noun phrase would be equivalent to N" (N-double-bar), N" or possibly N". It allows any constituent in the X-bar hierarchy to contain another constituent of a lower or even higher level. Example (1) may serve as an illustration of this.

(1) a broadcast of the new show

This is an N" which contains an N' which contains a P" (of the new show) and an N" (the new show) within it.

Other approaches to the noun phrase have been made within the framework of Functional Grammar, which focuses on the communicative function of language. With Functional Grammar a new pragmatic perspective is added to the study of language. It seeks to find an explanation for phenomena according to their function in language use. Functional Grammar describes the English clause as a combination of three different structures deriving from distinct functional components, namely:

- (i) Ideational. Clause as representation \rightarrow transitivity.
- (ii) Interpersonal. Clause as exchange \rightarrow mood.
- (iii) Textual. Clause as message \rightarrow theme.

The group structure is also a combination of these three components. *Group* is a term which Halliday (1985: 158–159) uses instead of *phrase*, arguing that "a group is in some respects equivalent to a word complex – that is, a combination of words built up on the basis of a particular logical relation." The differences between *group* and *phrase* are mainly that "whereas a group is an expansion of a word, a phrase is a contraction of a clause." (1985: 159). Halliday recognizes the existence and relevance of noun phrases, which he calls *nominal groups*. He emphasizes the value of groups (or *phrases* in the terminology employed here) since they provide very important aspects of meaning. Were it not for phrases, the lack of an intermediate level between clause or sentence and word would entail an enormous loss of insight. That is, describing a sentence as a construction of words is rather like describing a house as a construction of bricks, without recognizing the walls and the rooms as intermediate structural units (Halliday 1985).

Cognitive Grammar offers a different approach to the study of noun phrases. In principle, it starts from the same premise as do the generativists when it conceives of language as knowledge in the mind. However, it differs in its conception of grammatical organisation and of the specific proposals concerning semantic structure (Langacker, 1990: 1). In fact, Langacker regards grammar as non-generative and non-constructive, not an algorithmic device giving a well-defined class of expressions as output, and contends that there is no such a thing as a form without meaning. Since meaning drives grammatical encoding, judgements about the grammaticality of some structures are not categorical but simply a matter of gradience. Grammatical structures do not constitute an autonomous formal system but, rather, are symbolic. Thus, lexicon, morphology and syntax belong to a continuum of symbolic units.

This notion of grammar gives a new perspective to the definition and use of noun phrases, both in terms of the categories of which they are comprised as well as the functions of each of their component parts. Thus, Langacker points out that categories such as nouns may be defined in notional, rather than grammatical, terms (Langacker, 1990: 59). As far as functions are concerned, the consideration of the determiner as the head of the noun phrase will be explained later in this chapter.

Traditionally, there is a distinction between the lexical category *noun* and the syntactic category *noun phrase*. As Taylor (2002: 343) points out, noun phrases, or nominals, may exhibit considerable internal complexity. In terms of their conceptual organisation noun phrases have four components:

- (i) Specification. A given noun is a type that may be specified by using an adjective modifying it (e.g. *red apple* still designates an apple but it is more specific).
- (ii) Instantiation. The relation between the type and its instances (i.e., those which are candidates to be selected by the noun phrase). While the noun designates a type, a noun phrase designates an instance of the type (e.g. *red apple* refers to a specific apple and not any other).
- (iii) Quantification. Refers to the quantity of the designated instances (e.g. *a red apple* vs. *some red apples*).
- (iv) Grounding. The speaker locates the designated instance from the perspective of the speech event (e.g. whether it is definite or indefinite as in *this red apple*).

These four aspects stand in relation to one another. Thus, specification is internal to instantiation, and quantification is internal to grounding. Dependents define specification, determiners specify grounding, while quantifiers specify quantification. Figure 1 serves as an illustration.

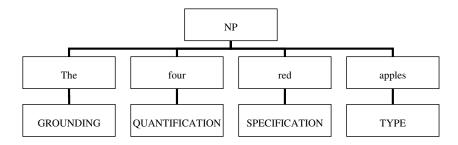


Figure 1. Noun phrase components regarding their conceptual organization.