# A Cognitive-Functional Approach to Nominalization in English

# Cognitive Linguistics Research
# 26

*Editors*
René Dirven
Ronald W. Langacker
John R. Taylor

Mouton de Gruyter
Berlin · New York

# A Cognitive-Functional Approach to Nominalization in English

*by*
Liesbet Heyvaert

Mouton de Gruyter
Berlin · New York 2003

Mouton de Gruyter (formerly Mouton, The Hague)
is a Division of Walter de Gruyter GmbH & Co. KG, Berlin

∞ Printed on acid-free paper
which falls within
the guidelines of the ANSI
to ensure permanence and durability.

ISBN 3 11 017809 5

*Bibliographic information published by Die Deutsche Bibliothek*

Die Deutsche Bibliothek lists this publication in the Deutsche Nationalbibliografie;
detailed bibliographic data is available in the Internet at <http://dnb.ddb.de>.

*To Wouter,*
*Judith and Oscar*

# Acknowledgements

The present study reflects a research project to which many people, each in their own way, have contributed. I would like to thank those people here.

First and foremost I would like to thank Kristin Davidse. As my Ph.D. supervisor, she was involved in my research on nominalization patterns from its earliest stages onwards. I am deeply grateful for the continual encouragement she has given me, for the openness with which she has shared her own learning with me, and for the precision with which she has read my texts, time and again supplying extensive commentary. This book, in which any remaining shortcomings are my own, in the first place represents the dialogue I have been able to conduct with her.

I would also like to thank Hubert Cuyckens, Ad Foolen, Ronald Langacker and Willy Van Langendonck for their rigorous comments on an earlier version of this book. In addition, I am grateful to René Dirven and Ronald Langacker who, as editors of the *Cognitive Linguistics Research Series*, guided me through the proposal and writing process and whose careful comments on various chapters of the book I have greatly appreciated. I thank the managing editor of the series, Birgit Sievert, for her patience and for her professional assistance throughout the publication process. I thank Jurgen Benteyn for his swift and always good-humoured help with the formatting of the manuscript, and Hubert Cuyckens, Kristin Davidse and Lieven Vandelanotte for their general support. Thanks also to Lieven Vandelanotte for his help with the drawings and to An Laffut and Lieven Vandelanotte for proof-reading parts of the manuscript.

My thanks also go to a number of people who have in the past years commented on my work and helped me with their suggestions and criticisms. In addition to Hubert Cuyckens, Kristin Davidse, Ad Foolen, Ronald Langacker and Willy Van Langendonck, these are: Eirian Davies, Renaat Declerck, Dieter Kastovsky, An Laffut, Odo Leys, Lachlan Mackenzie, Bill McGregor, Hans-Jörg Schmid, Lieven Vandelanotte, Frederike van der Leek, Jean-Christophe Verstraete and Emma Vorlat. The University of Leuven has contributed to the publication of this book by allowing me to work on it as a postdoctoral fellow of the Research Council (postdoctoral grant PDM/02/034).

I am most grateful to my parents and my parents-in-law for their unfailing support. Finally, I would like to thank Wouter, without whose unconditional support, practical help and love I would never have been able to bring this book to a good end.

# Contents

**Part III Factive nominalization**

# Part I
# Towards a theoretical-descriptive approach to nominalization

# Chapter 1
# Introduction

The focus of the present study is on deverbal nominalization in English. The analysis of nominalization that is presented in it has mainly been prompted by two observations. First, the existing descriptive analyses of nominalization fail to embed the peculiarities of specific nominalization types in a coherent and systematic *theoretical* account of the fundamental constructional mechanisms that underlie nominalization in general. Secondly, the description of nominalization systems tends to be biased towards the *clausal* categories which they realize, to the neglect of their nominal characteristics. Following Lees's (1960) influential analysis of nominalization in English, nominalizations are still basically regarded as clause-like constructions used in nominal units in an unfathomable way. The absence of a coherent theoretical perspective on the process of nominalization has led to descriptive fragmentation. Morphological processes of nominalization such as *-er* or *-ee* suffixation, for instance, seem hardly relatable to nominalization types which incorporate clause-like structures, as in *[His answering the phone] surprised me.* Also, the one-sided, clause-based nature of most descriptions has elucidated only part of the lexicogrammatical and semantic properties of nominalizations.

These problems reflect deficiencies of theory as well as of description. A central theoretical problem is, for instance: how can we, given the prevailing emphasis on *structural constituency*, model nominalization, which seems to elude and transcend ordinary constituency relations? A central descriptive problem is: which features of clause and nominal enable the reclassification from the one into the other that is generally held to be involved in nominalization? Most attention so far seems to have gone to the reclassification of verb into noun, and the 'reification' of a situational referent into an entitized one that seems to go with it. However, as a reclassification mechanism, this is too thin. There must be other factors, mainly analogies between clause and nominal, which motivate the possibility of reclassifying a clausal configuration into a nominal one.

To tackle the theoretical as well as the descriptive issues, this study is composed of a general theoretical-descriptive part (Part I) and two case studies (Parts II and III). Part I presents the theoretical and descriptive constructs required to model nominalization. Parts II and III present two case studies and determine in how far the proposed theoretical-descriptive ap-

proach can account for the lexicogrammatical properties and meanings of specific nominalization systems. Part II zooms in on the system of deverbal *-er* nominalization (e.g., *remind* → *reminder*) and in Part III, three types of factive nominalization are considered (viz. *[That he killed her] surprises me, [The fact that he killed her] surprises me* and *[His killing her] surprises me*).

The main theoretical motif in this study is that nominalization strongly calls for a *functional* rather than purely structural approach. Crucially, the reclassification from verbal/clausal starting point into nominal class is *functional* in nature: nominalization involves the functional reclassification of a particular level of assembly in the organization of the clause into a nominal structure. A nominalization always adopts external nominal functions, but, as will become clear, it may also acquire *internal* nominal functional organization. The reason why the identification of nominalizations as constructions of the nominal class requires a functional view on composition is that nominalizations do not always have discernible structural components for each function which they realize: as in ordinary nominals, the internal functions which nominalizations realize are not necessarily reflected iconically in their structure. It is therefore only a functional analysis which can shed light on what nominalized structures have in common with the iconically and non-iconically coded members of the nominal class in general. Moreover, it is only by adopting a functional viewpoint that one can relate nominalizations which contain part of a clause or a full clause (e.g., *her signing the contract, that she signed the contract*) to nominalizations at word level (e.g., *baker*). Like nominalizations based on a simple verb stem (e.g., *bake* → *baker*), nominalizations containing a clausal unit reclassify this clausal unit into a unit with nominal functional behaviour.

Because the analysis of nominalization requires a radically functional approach, I will in Chapter 2 discuss two linguistic frameworks which have shown a particular interest in the functional nature of language, i.e. Cognitive Grammar (as developed in Langacker 1987a and 1991) and Systemic-Functional Grammar (Halliday 1994). I will go more deeply into some of their basic tenets, such as, firstly, the interaction between language usage and the language system (Section 1); secondly, the natural symbolic relationship between lexicogrammar and semantics (Section 2); thirdly, the 'intrinsic' functional nature of linguistic structure and the need for a functional approach to the notions of 'rank shift' and 'class' (Section 3); fourthly, Halliday's multifunctional approach to language (Section 4); and, finally, the need for an accurate analysis of not only the syntagmatic layer of linguistic organization, but also of the paradigmatic, systemic aspect of language (as revealed by the schematic networks or system networks of

related structures and options in which both Cognitive Grammar and Systemic-Functional Grammar situate a construction) (Section 5).

In Chapter 3, I will show how these basic theoretical assumptions enable us to identify some of the lacunae and weak points in the existing approaches to nominalization. Importantly, these principles also point out a possible course of action in the description of nominalized constructions. Going through the main theoretical divisions of Chapter 2 again, I will argue, firstly, that nominalization patterns have to be categorized both by *schematization* and *extension*. It also has to be taken into account that nominalizations may display varying degrees of entrenchment or automatization: they may be *lexicalized* and function as fixed expressions in language, or they may only be established as *grammatical patterns* or schematic units, without themselves being included as conventional units in the language system (Section 1). Secondly, I will stress the importance of viewing nominalizations, like all constructions, as *natural symbolic* units of which the meaning is encoded in the lexicogrammar (Section 2).

Thirdly, I will argue that nominalizations have to be viewed as *functional configurations* which are situated on a particular level or rank of functional organization (Section 3). As such, they find themselves in between a 'higher' rank in which the nominalization itself serves a function and a 'lower' level that constitutes the nominalization's own internal organization. A full description of a nominalized structure requires an analysis of its external, synthetic functioning, of its internal, analytic functional outlook, and of the way in which the external and internal functions are combined in the construction itself. Put differently, some nominalized constructions may represent an at first sight inexplicable mixture of external, nominal behaviour and internal, clausal categories, but the nominalized structure itself succeeds in combining these seemingly divergent functions into one construction and therefore has to be accounted for. Moreover, for a number of nominalizations, we need a concept of *downranking*, which allows the possibility of functional configurations occurring at a level of organization which is not the one on which they normally function: clause-like nominalizations such as *that*-clauses can then be identified as having been downranked from clausal to nominal level while preserving part of their internal clausal outlook. By the same token, downranking entails its own form of reclassification and involves external as well as internal reclassification: by being reclassified, the clausal structure takes on the grammatical and semantic properties inherent to the nominal unit. Failure to recognize the reclassification involved in the rankshifted type of nominalization has been one of the main gaps in the description of nominalization so far.

Fourthly, nominalizations are best described from a *multifunctional* perspective. They encode representational semantics, they are related to the ground and they serve textual functions. Their import cannot therefore be reduced to their representational semantics (Section 4). Finally, I will also argue that, if it is used systematically, the paradigmatic relationship of *agnation* forms an important descriptive heuristic in the analysis of nominalization patterns (Section 5). It helps to shed light on the *clausal* categories that are present in nominalization, as well as on the similarities and differences between distinct nominalization types such as factive *that*-nominalizations, *the fact that*-constructions and gerundive factives.

The theoretical principles discussed in Chapters 2 and 3 reveal that an insightful description of the functional properties of *nominal* and *clausal* organization is needed before one can tackle those of nominalized constructions. In Chapter 4, therefore, I will complete the theoretical-descriptive framework by elaborating on the internal functional organization of nominals and clauses. I will argue that nominalization or the functional reclassification from processual starting-point to nominal construction is possible due to the fundamental correspondences that exist between the functional organization of the nominal and that of the clause: clausal categories can be mapped onto what is basically a nominal structure because the functional organization of clauses and nominals is to a large extent equivalent (Langacker 1991). Chapter 4 will be organized around the functional categories which Langacker (1991) identifies for the nominal and the clause, i.e. those of type specification, instantiation, quantification and grounding. I will first demonstrate the relevance of these functional categories to the description of clauses and nominals (Sections 1 and 2). In a third section, then, I will formulate a tentative analysis of the basic constructional mechanisms that underlie nominalization. I will argue that the *integration* of clausal and nominal properties in nominalized constructions develops along the lines of the functional categories of type specification, instantiation, quantification and grounding.

Parts II and III of this volume will then present two descriptive case studies. The nominalizations which I will analyze in them broadly cover the spectrum of clausal levels of assembly to which nominal reclassification can apply: they include nominalizations derived from a simple verb stem, i.e. *-er* nominalizations (e.g., *baker, bestseller*) (Part II); nominalizations based on what I will call an atemporal clausal head (e.g., *signing the contract*) and nominalizations which are centred on finite clauses (e.g., *that she signed the contract, the fact that she signed the contract*) (Part III). The latter three structural types of nominalizations will be treated together because they have part of their semantics in common and can all be 'factive'.

Each case study will start with a chapter in which I look at the main insights thus far offered in the literature and establish my own descriptive position. In Chapter 5 an overview will be given of the literature on deverbal *-er* nominalization; Chapter 8 will discuss the most interesting analyses that have thus far been proposed for the system of factive nominalization. In my own descriptive analysis of *-er* derivation and factive nominalization (developed in Chapter 7 and Chapter 9 respectively), I will attempt to show that it is possible to move beyond existing descriptions and provide an answer to some of the long-standing moot points in the analysis of specific nominalization types if the functionally-oriented approach which I set out in Part I is systematically applied. Importantly, my analyses will focus not on the external functioning of the nominalized constructions, but on their *internal functional* organization, i.e. on the clausal and nominal categories which they integrate.

Apart from the general functional perspective which I will take and the central role which I will assign to the functional categories of the nominal and the clause, two main motifs can be said to run through both my descriptive case studies. First, my analysis will be based on the assumption that the semantics of a construction is encoded in its lexicogrammatical properties and can therefore be revealed through a careful analysis of those properties. I will, in other words, not only present a detailed analysis of the lexicogrammar of *-er* nominalizations and factive nominalizations; I will also try to shed light on the basic meanings which these nominalization types encode.

Secondly, in each of these studies, the description of the syntagmatic integration of clausal and nominal properties in the internal organization of the nominalized constructions is supplemented with observations about the *paradigmatic* relations which the nominalized structures hold. In other words, the syntagmatic properties of nominalizations will be systematically considered against the background of the larger system network which they form part of and which they select from. Not surprisingly, the paradigmatic relations that will turn out to be most valuable to the elucidation of nominalizations are those with clausal structures and with nominals. First, due to the clausal nature of their starting point and the clausal categories which they embody, nominalizations tend to be related to *clausal* structures. The identification of related or 'agnate' clause types will be shown to play a crucial role in the analysis of nominalized constructions. In my description of *-er* nominalizations (Chapter 7), I will thus elaborate on the systematic relationship that exists between *-er* suffixation (e.g., *bestseller*) and the clausal middle construction (e.g., *That book sells well*) and I will show how an accurate analysis of the lexicogrammatical properties of middle clauses

(presented in Chapter 6) sheds a new light on the system of *-er* nominalization.

Apart from being related to clausal structures, however, nominalizations also connect with nominal constructions: by being made to function within the *nominal* paradigm, nominalizations enter into relation with other nominal structures, nominalized as well as non-nominalized. The gerundive type of factive nominalization, *that*-factives and *the fact that*-constructions can thus be considered as nominalized structures which are systematically related to each other and are linked up within the system of language. In my analysis of factive nominalization, I will show that it is only by taking into account the properties of each of them that one can come to a more accurate description of the overall system of factive nominalization and its factive reading (Chapter 9). Importantly, the various types of factive nominalizations do not only relate to each other: as nominal constructions, they also enter into relation with specific types of non-nominalized nominal structures. Once again, the elucidation of the precise paradigmatic relations which each nominalization type has with 'ordinary' nominal constructions will be argued to be vital to the elucidation of its properties. In the Conclusion (Chapter 10), finally, I will attempt to answer the question as to what constitutes a nominalization.

# Chapter 2
# Theoretical assumptions

Nominalization represents a theoretical challenge and has to be situated in an overall theory of the language system. It is therefore essential to first clarify the basic theoretical assumptions on which my analysis of nominalization is based. This is even more important as my approach is eclectic and some of the terminology which I use requires clarification. In this chapter I will therefore zero in on the linguistic system and discuss the various 'levels' that can be distinguished in it: in a first section, I elaborate on the language system as such and its relation to language *usage*; the second section deals with the various *strata* that can be distinguished in language and focuses on the natural relation between lexicogrammar and semantics; in Section 3, I deal with the *ranks* or the levels of organization that can be distinguished within the grammar and I introduce two of the notions that are crucial for the analysis of nominalization, viz. *reclassification* and *rank shift*. Section 4 focuses on the multifunctional approach which I advocate for the description of nominalization patterns; and, finally, Section 5 points out the heuristic value of considering the relations that exist *between* different constructions.

## 1. Language: The relation between system and usage

### 1.1. A usage-based approach to language

The analysis of nominalization set out in this study is rooted in a view of language which is at once functional and cognitive. It is functional in that it builds on the assumption that the nature of the language system is "closely related to the social and personal needs that language is required to serve" (Halliday 1970b: 142): the language system is viewed as functional with respect to the particular needs of the language user. More specifically, the language system is claimed to be *shaped* by the functions which it serves, i.e. they are built into it. An analysis that is functional in design can thus "relate the internal patterns of language – its underlying options, and their realization in structure – to the demands that are made on language in the actual situations in which it is used" (Halliday 1970b: 165) (in Section 4 the

functional level of organization in language will be discussed in more detail).

Apart from viewing language as functional, I also adhere to the claim that the language system – and the constructions in it – is determined by certain *cognitive* abilities of the language user: the language system is viewed as an integral part of human cognition (Langacker 1987a). Language is held to refer to "those aspects of cognitive organization in which resides a speaker's grasp of established linguistic convention", and the linguistic abilities of the language user are believed to "not necessarily constitute an autonomous or well-delimited psychological entity" (Langacker 1987a: 57): there are a number of basic psychological phenomena involved in language use which are essential to the language system, without being limited to it (Langacker 1999). Because the cognitive processes which they embody equally contribute to their make-up, an analysis of linguistic structures should articulate what we know of cognitive processing, i.e. it must have "psychological reality" (Langacker 1987a: 42).

The language system is, however, not only *shaped* by the functions which it serves and by the cognitive abilities of the ones who use it: it also itself *sanctions* language use. "Usage events" (Langacker 1987a: 66) or actual "instantiations" of language (Halliday 1992: 20; Langacker 1999: 99) are sanctioned by the restrictions and options of the system of language underlying them: they are 'systemically motivated' (Langacker 1987a: 426). As Hjelmslev (1961: 39) puts it, an actual instance of language (which he calls a 'process' or 'text') only "comes into existence by virtue of a system's being present behind it, a system which governs and determines it in its possible development". This is not to say that language is a *generative* or *constructive* system which generates well-formed, novel structures as its output: it is not the *language system* which is responsible for assembling novel expressions. Construing language is viewed as "something that speakers do" (Langacker 1987a: 65), which ties in well with Hjelmslev's 'processual' interpretation of language use (Hjelmslev 1961: 39). Actual language use is "a problem-solving activity that demands a constructive effort and occurs when linguistic convention is put to use in specific circumstances" (Langacker 1987a: 65). In short, the language system may provide the necessary "symbolic potential", but it is left for the speaker to recognize this potential, i.e. to "exploit it in a fashion that responds to all the varied constraints inherent in the situation" (Langacker 1987a: 66).

It is the dynamic interaction between *system* and *usage*, or the confrontation of the conventionalized language units in human cognition with the constructive effort of the language user which forms the "crucible of lin-

guistic structure" and the "source of language change" (Langacker 1987a: 70). If we are to elucidate particular constructions in the language system, therefore, we must consider them from a *usage-based* perspective, i.e. we must attach substantial importance to their instantiations in actual language use. Hjelmslev (1961: 11) speaks of the "empirical principle", which states that "a theory must be capable of yielding, in all its applications, results that agree with so-called (actual or presumed) empirical data". A grammar should be at once a grammar of the language system and a grammar of the uses which it is put to (Halliday 1994: xxii); it must work *bottom-up* rather than *top-down* (Langacker 1988: 132).

Langacker's cognitive model of grammar is aimed at modelling the language system in a usage-based and psychologically plausible way (Langacker 1987a, 1988, 1990, 1991, 1999). It describes the interface between system and usage, and the insight into the organization of the language system gained from it in detail and with reference to the various psychological processes that play a role in it. Because Cognitive Grammar posits a fundamental equivalence between, on the one hand, the interface between system and usage, and, on the other hand, the organization of the language system itself, – both of which are argued to be modelled on the same, essentially cognitive principles – I feel that it goes a long way towards the formation of a *usage-based* theory of language. I will therefore start with a brief discussion of Langacker's analysis of the interaction between language use and the language system, and of the model which he proposes to account for the organization of the language system. A more detailed analysis of particular aspects of the language system will follow in later sections, together with a discussion of some basic, *functional* theoretical constructs which I consider to be compatible with Langacker's model and prerequisite for a truly usage-based account of language.

## 1.2. Cognitive Grammar: The interface between system and usage

Langacker considers the following psychological abilities of the language user to be crucial for language use: *symbolization, composition, comparison/ categorization* and *schematization.*

Symbolization builds on the general ability of *association*, whereby "one kind of experience is able to evoke another" (Langacker 1999: 94). Symbolization in language concerns the "relation between a structure in semantic space and one in phonological space" (Langacker 1987a: 77). When an established symbolic relationship becomes automatized and acquires 'unit' status, it forms a *symbolic unit* (e.g., [[OPENER]/[opener]],

which associates the semantic unit [OPENER] with the phonological unit [opener]).

Composition refers to the ability to integrate two or more (component) structures to form a *composite* structure (Langacker 1999: 94). Composition gives rise to relationships on the syntagmatic plane of language (Langacker 1987a: 75). An example of a composite structure is *can opener*, which combines the symbolic units [[CAN]/[can]] and [[OPENER]/[opener]], which in turn consists of [[OPEN]/[open]] and [[-ER]/[-er]].

Apart from symbolization and composition, the abilities of comparison and schematization are also relevant to language use. According to Langacker (1987a), the language user solves the problem of coding a detailed, context-dependent conceptualization in terms of a linguistic expression by making comparisons or *categorizing judgements* (Langacker 1987a: 65–73): he/she assesses whether a specific expression can be categorized as a member of the category defined by a conventional linguistic unit or a unit that is widely shared by the language users of a speech community. A usage event is therefore always systemically motivated or "structured and evaluated with reference to the conventional units of a grammar" (Langacker 1987a: 426).

Because structures which at first sight appear very different, may be "quite comparable in a coarse-grained view" (Langacker 1999: 93), categorization necessarily involves the ability of *schematization*: to determine whether a usage event satisfies the specifications of specific conventional units, one may have to abstract away from certain points of difference and portray the distinct structures with lesser precision and specificity (Langacker 1999: 93). A usage event can then either be identified as *elaborating/instantiating* a category, or it can be said to *extend* it. When a linguistic category is elaborated or instantiated by a usage event, the latter conforms to the specifications of the category but is, schematically speaking, "characterized in finer-grained detail" (Langacker 1999: 93). An elaborative or instantiating novel usage is *conventional* or – in more traditional terminology – *grammatical*: it is conforming to the linguistic convention embodied by the linguistic unit, i.e. it is fully sanctioned by it. When, on the other hand, a discrepancy exists between the category that is defined by the linguistic unit and the usage event which is related to it, the category is extended and the usage event is either *ill-formed* or *non-conventional*.

In general, a novel usage, irrespective of whether it merely elaborates or extends a conventional unit, can become conventionalized or acquire unit status via *entrenchment* (Langacker 1987a: 59). When the unit [[MOUSE]/[mouse]], for instance, was first used with reference to a piece of computer

equipment, its meaning was extended. This extension has by now achieved unit status because of its frequent use and the entrenchment resulting from it (Langacker 1999: 108). Entrenchment or the automatization of certain structures is a matter of degree and the boundary between units and non-units fluctuates continually because "every use of a structure reinforces it and entrenches it more deeply, whereas non-use has the opposite effect" (Langacker 1999: 100).

## 1.3. The language system as network

Crucially, the relationships of symbolization and composition, comparison and schematization, which the language user establishes when construing language, are also claimed to determine the internal organization of the language system itself. The terminology used to describe language *use* consequently applies to the language *system* as well.

The language system consists of three types of units: firstly, *semantic* (e.g., [PRINT]), *phonological* (e.g., [p]) and *symbolic* units (the latter associate a semantic with a phonological unit, e.g., [[PRINT]/[print]]); secondly, *schematic* symbolic units or grammatical patterns (e.g., [[V/...]-[[-ER]/[-er]]), and, thirdly, the categorizing relationships of *elaboration/instantiation*, *extension* and *mutual similarity* (Langacker 1988: 134, 147). These units have acquired unit status because they are *entrenched*: the language user can employ them "in largely automatic fashion" because they constitute 'pre-packaged assemblies' (Langacker 1987a: 57). They are *conventional* in that they are shared and recognized as being shared by a substantial number of language users (Langacker 1987a: 62).

The simplest kind of symbolic unit is the morpheme, "in which a semantic and a phonological structure participate as unanalyzable wholes in a symbolic relationship" (Langacker 1987a: 58; see also Halliday 1961). The combination or (syntagmatic) *integration* of basic symbolic units leads to the formation of a composite symbolic structure or a grammatical construction. The term 'grammatical construction' applies to the component structures which the composite structure consists of, to the relationship of integration that exists between them and to the resulting composite structure (Langacker 1987a: 277).

In Cognitive Grammar, a construction is situated on the syntagmatic plane of composition, as well as on a *schematic* plane, which is orthogonal to that of the syntagm and distinguishes between *schemata* and specific *instantiations* of schemata. The patterns for combining simpler symbolic units into larger ones are in this perspective analyzed as *constructional*

*schemata*, which capture generalizations and serve as 'templates' for the assembly of novel expressions (Langacker 1988: 148): the schema [[V/...]-[[-ER]/[-er]] is thus instantiated by [[OPEN/open]-[-ER/-er]]. Because it is believed that a speaker's knowledge of a construction is not restricted to a single rule or schema standing in isolation, but also embraces the speaker's "knowledge of how the rule is 'implemented' with respect to more specific structures" (Langacker 1988: 151), the more specific instances of constructional schemata are argued to be part of the system of language as well. As Langacker puts it (1987a: 29), it is "gratuitous to assume that mastery of a rule like N + *-s*, and mastery of forms like *beads* that accord with this rule, are mutually exclusive facets of a speaker's knowledge of his language; it is perfectly plausible that the two might sometimes coexist". In addition to being *composite*, a grammatical construction is therefore also *complex*: it does not reside in a single structure, but rather in "a family of structures connected by categorizing relationships" (Langacker 1988: 149).

The 'family of structures' that makes up a complex category is best viewed as a *schematic network* or a network in which "linguistic structures of any kind and any size are linked in pairwise fashion by categorizing relationships" (Langacker 1999: 103): the superordinate nodes in the network are then schematic and the subordinate nodes are either subschemata or more specific structures which *elaborate/instantiate* or *extend* the schema. An example of a schematic network is given in Figure 1 (based on Langacker 1988: 131):

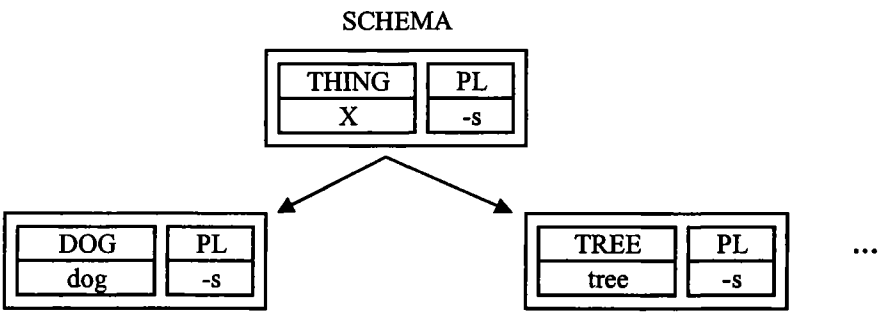


*Figure 1*. A schematic network

In including not only the categorizing relationship of *extension*, which is focused on in *prototype theory* (e.g., Rosch 1975, 1978, cited in Langacker 1987a; Lakoff 1987), but also categorization based on *schematization* (i.e. elaboration or instantiation), the network model distinguishes itself from prototype theory. As Langacker (1988: 139) points out, it is necessary to in-

clude schematization among the categorizing relationships because a category's extension from the prototype tends to be "accompanied by a certain amount of upward growth, as schemas are extracted to generalize over a more diverse array of category members".

The vision of the language system that emerges through Langacker's model "is one of massive networks in which structures with varying degrees of entrenchment, and representing different levels of abstraction, are linked together in relationships of categorization, composition, and symbolization" (Langacker 1999: 95). The description of a construction involves the elucidation of the relationships which the construction embodies as well as the relations which it contracts with other constructions in the network.

In the following sections, I will zoom in on specific aspects of these relationships. I will start with the relationship of *symbolization* and briefly discuss the *natural* or *non-arbitrary* nature of the symbolic relation between lexicogrammar and semantics (Section 2). In Section 3, I will consider the *syntagmatic* relations that exist between the components of a construction and lay out the main properties of a radically functional view of composition and classification. Section 4 will go more deeply into the various types of functional relationships that are at work in linguistic patterning and it will discuss Halliday's tristratal functional interpretation of linguistic structure. Finally, in Section 5, I will look at the various types of paradigmatic relationships that obtain between specific constructions in the language system and I will point to their value as a descriptive 'heuristic'. I will argue that, apart from the categorizing relationships of elaboration/instantiation, extension and mutual similarity which Langacker discusses, the relation of *agnation*, introduced in Gleason (1965), should be included in the description of linguistic patterning as well.

## 2. The natural symbolic relation between lexicogrammar and semantics

### 2.1. A natural description of language

The idea that a description of language, apart from being usage-based, should also be natural is prominently present both in Langacker's cognitive model of grammar and in Halliday's systemic-functional approach. In general, the notion of 'naturalness' refers to the concern to develop a description of language which "deals with data in their own terms, with full regard for the richness, subtlety, and complexity characteristic of linguistic phe-

nomena" (Langacker 1987a: 13). A natural model of language is a model which respects the nature of language as a complex system. In Langacker (1987a), a natural analysis of language is, for instance, argued to accommodate not only discrete, but also non-discrete aspects of language structure; it is said to carry the simplifications and idealizations which are sometimes needed to begin with the analysis of language not too far, so as not to lose sight of the actual complexity of the subject matter; and, finally, a natural description is claimed to operate with substantive constructs, or constructs which are sufficiently clear to be elucidated "with a certain amount of precision and detail" and which are real in that they correspond to "some actual feature of linguistic organization" (Langacker 1987a: 22).

One of the unnatural distinctions which circulate in linguistics is that between lexis and grammar, and, related to it, the assumption that linguistic theory needs the constructs of lexicon and syntax to describe it. Syntax is thought of as the "domain of generality and regularity, of productive rules with fully predictable outputs", and the lexicon is viewed as "the domain of irregularity, idiosyncrasy, and lists" (Langacker 1987a: 26). The distinction between lexicon and syntax has, for instance, been argued to underlie the differences between nominalizations such as *John's refusing the offer* and *John's refusal of the offer* (Chomsky 1970: 187): the latter, so-called 'derived' type of nominal has been argued to form part of the lexicon, mainly because the semantic relation which it has with the verb from which it is derived tends to be idiosyncratic. Nominals of the former, i.e. gerundive, type, by contrast, are claimed to be part of the syntactic component of language, being derived from clauses by means of 'syntactic transformations' without fundamental changes to the clausal meaning (Lees 1960; Chomsky 1970): their meaning is argued to be related to that of the underlying clause in a regular way.

Gerundive nominals of the 'mixed' (Chomsky 1970: 215) or 'action' type (Lees 1960), such as *John's refusing of the offer*, however, make clear that the constructs of 'lexicon' and 'syntax' lack substance and cannot be strictly distinguished between. Like gerundives of the type *John's refusing the offer*, the meaning of action nominalizations seems regular, which suggests that they are 'syntactically' derived; and yet, action gerundives are not fully productive (e.g., **the being of a woman*; **his having of a car*) and they have the internal structure of a nominal, two features which are alleged to classify them with *lexically*-based nominals. The problematic use of the constructs of 'lexicon' and 'syntax' in the analysis of nominalizations thus illustrates that there is no reason to assume that the distinction between lexical and grammatical issues is a sharp one (as also argued in Langacker 1987a: 18, 26). In Halliday's work, lexis is for that reason referred to as

"most delicate grammar" (Halliday 1961: 267), its relation with grammar is argued to take the form of a *cline* or a *continuum* (an idea which is also found in Langacker's work) and the term *lexicogrammar* is used instead of *grammar*.

Apart from the artificial distinction between lexis and grammar, the relationship that has most often been misrepresented is the fundamental relation between lexicogrammar and *semantics*: grammar and semantics have often been conceived as autonomous entities or separate 'components' of language (Langacker 1987a: 12; see also Halliday 1988). A description of language which is truly *natural*, however, can only be arrived at when the relation between grammar and semantics is recognized to be *natural* or *non-arbitrary*.

## 2.2. The natural or non-arbitrary relation between grammar and meaning

Language is essentially symbolic in nature in that it consists of an open-ended set of linguistic symbols or signs, "each of which associates a semantic representation of some kind with a phonological representation" (Langacker 1987a: 11). In the case of most of the lexical items which are not further analyzable into morphemes, the symbolic association between meaning and form is arbitrary, i.e. there is no natural relation between the meaning of the lexical item and the particular phonological form it is mapped onto (Saussure 1972). Well-known exceptions to the arbitrariness of unanalyzable lexical items are instances of onomatopoeia, such as *hiss* and *buzz*.

One of the basic tenets of both cognitive and functional models of language is that not only lexical items but also grammatical patterns are signs or symbolic combinations of meaning and form. As Langacker (1987a: 12) puts it, "morphological and syntactic structures themselves are inherently symbolic" and this "above and beyond the symbolic relations embodied in the lexical items they employ". A grammatical construction is thus symbolic not only in that it contains symbolic elements: the patterns along which these symbolic components are integrated is held to be symbolic as well. Grammatical patterning itself is believed to associate a particular meaning with a particular form.[1] Most importantly, and unlike in most simple lexical items, the symbolic relationship established in grammatical patterns is held to be non-arbitrary or natural, with the grammar 'encoding' or 'realizing' the semantics (Halliday 1994: xvii).

However, without further qualification, the Saussurean, bipolar interpretaton of the linguistic sign, which posits a link between meaning and pho-