New Voices in Linguistics
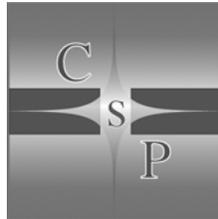
New Voices in Linguistics

Edited by

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INTRODUCTION

This book presents a selection of some of the ongoing, and quite diversified, work among current Ph.D. candidates in linguistics. The selected papers are among the presentations given at *the First Scandinavian Ph.D. Conference in Linguistics and Philology in Bergen*, which was held in Bergen (Norway) 13-15 June 2005.

The conference initiative was taken by *The Research School in Linguistics and Philology*[1] at the University of Bergen, and Ph.D. candidates affiliated to the Research School were responsible for the organization of the conference. The goal was to establish a forum where doctoral students could meet to share ideas and discuss work in progress with other researchers, thus contributing to the establishment of a professional and social network between young researchers working in the fields of linguistics and philology. The 2005 conference, which proved very successful, was the first of its kind in Scandinavia, and the intention is to establish the conference as a biennial event.

Judging from the participant list, it certainly seems that the conference initiative met a demand. Although originally intended primarily as a forum for Scandinavian doctoral candidates, the conference eventually developed a more international profile, attracting participants from all Scandinavian countries as well as from several countries in Europe, Asia, the USA and Canada.

All in all, there were nearly 50 presentations during the three days the conference lasted, reflecting the broad range of topics being dealt with in current research in linguistics and philology. As the conference was largely dominated by linguistic topics, which was also reflected in the papers submitted for the proceedings, this publication has been confined to linguistic research.

This book is perhaps best described as a demonstration of the breadth in linguistic research among current Ph.D. candidates. The selected papers demonstrate a considerable diversity, from the point of view of theoretical frameworks, methods employed and the number of languages under investigation. The research projects span from historical studies of language development, through studies of grammatical and sociolinguistic aspects, to computational studies of language. Thus, this book may be interesting for aspiring as well as more experienced researchers as a window into current linguistic areas of interest.

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[1] See http://www.hf.uib.no/forskerskole/

The first section comprises papers that in various ways focus on theoretical aspects of linguistics or offer theory-driven explanations of empirical linguistic observations. In particular, an interesting property is the broad range of theoretical approaches exemplified. Hence, some of the papers in this section form implicit and exciting antitheses. The papers in the second section present empirically-based or descriptive analyses of linguistic phenomena, either using corpus evidence to test claims about language, or describing linguistic phenomena.

The first section starts out with *Elma Kerz'* paper, which presents a corpus-based analysis of the semantics of research verbs within a theoretical framework based on construction grammar and the usage-based model. Inspired by cognitive approaches and corpus linguistics, this paper represents theoretical currents which have seen a growing importance lately.

Alexandra Holsting's paper represents another theoretical current; systemic-functional linguistics. Her paper aims to develop a model for German based on the systemic-functional framework, representing a new application of this theoretical approach.

New research on Scandinavian languages is presented in the papers by *Tonya Kim Dewey, Björn Rothstein*, *Anna Spirina* and *Petter Haugereid*.

Dewey examines the development of V2 in Germanic languages on the basis of evidence from Eddic verse. Her analysis, carried out within the framework of the HPSG topological fields model, proposes a possible origin for Germanic V2.

Rothstein offers another perspective on Scandinavian language studies. His paper investigates the relation between the inferential present perfect and non-finite perfects in Mainland Scandinavian.

The semantics of resultative reflexive constructions in Swedish is the topic of Spirina's paper. She proposes a semantic description of these structures, widespread in Swedish, and contrasts them with corresponding constructions and forms in other languages, particularly in Russian.

Haugereid discusses the position of sentence adverbials in Norwegian with regard to the finite verb and the arguments and the fact that they differ in main clauses and subordinate clauses. Haugereid rejects the traditional GB analysis of sentence adverbials in Norwegian and proposes an alternative account based on the HPSG approach.

Tommaso Pellin examines the development of Chinese grammatical terminology, on the basis of recent advances in the field of lexicology. Drawing on evidence from the historical and social context of the development of a Chinese lexicon of grammar, he argues that other factors than the strictly linguistic ones should be taken into account in the lexicological description of Chinese grammar.

The papers of *Arne Martinus Lindstad* and *Makiko Mukai* present contrastive approaches, comparing Italian and West-Flemish and English, Japanese and Scandinavian respectively.

Lindstad's paper examines negative concord in Italian and West Flemish within the framework of mirror theory. Analysing semantic and morphosyntactic properties, he proposes an account of the differences in negative concord constructions in the two languages.

Makiko Mukai offers a contrastive study of compound words in Japanese, English and Mainland Scandinavian. Based on the theoretical framework of the Minimalist program, the paper proposes a structure of compounds in the three languages.

Emilia Branny's paper proposes an account of the production of meaning in electronic text. Drawing on insights from text linguistics and Espen Aarseth's work on cybertext, she offers an analysis of meaning in a non-linear text, based on data from the chatterbot "Catty".

Section two opens with two phonological papers. *Kristín Jóhannsdóttir* seeks to explain the assimilation in the feature [spread glottis] that takes place in Icelandic. Her discussion focuses on the devoicing of fricatives and the liquid /r/ before voiceless fricatives and underlyingly aspirated plosives. After having pointed to some shortcomings in previously suggested explanations, she proposes an alternative explanation for this assimilation process, stating that a sequence of consonants must be identical with regard to the feature [spread glottis].

In a pedagogically motivated survey, *Hanne Pernille Andersen* investigates Danish learners' perception and production of English vowel sounds. Her findings challenge the traditional descriptions of pronunciation problems given in Danish textbooks. On the basis of these and other recent results, Andersen suggests that traditional Danish textbooks on English pronunciation be revised.

Second language acquisition is also the topic of *Åsta Haukås'* paper. She presents a study of the acquisition of German unreal conditionals by Norwegian L2 learners. The paper combines a longitudinal study of five Norwegian L2 learners with evaluation of existing research to propose a model for the different stages of the acquisition of the unreal conditional, ranging from an absolute beginner's level to near-native competence.

Johanna Ijäs' paper also concerns language acquisition, but with respect to first language. In this case study, Ijäs examines the acquisition of Saami morphology by a bilingual child. The child's use of mixed conjugations is explained by overgeneralizations of certain inflectional patterns and by potential interference from the child's other first language, which is Finnish.

The papers of *Getahun Amare* and *Nana Aba Appiah Amfo* both concern African languages. Amare describes the category of causatives and its expression in Argobba, a highly endangered South Ethio-Semitic language. With this paper, Amare contributes to the important work of describing an endangered language before it is too late. Amfo studies the multifunctional marker *no* in Akan, a Niger Congo language. In contrast to what has been traditionally assumed, Amfo claims that this particle has a single semantic value despite its syntactic multifunctionality. She supports her claim by drawing on evidence from other Kwa languages. *No*'s semantic value is described in terms of the cognitive status of entities referred to.

Computational linguists *Luis Villarejo* and *Gunn Inger Lyse* test and evaluate methods for automatic word sense disambiguation (WSD). Villarejo's starting point is that WSD systems usually only rest on the sense inventory from one lexicon; furthermore the most commonly used lexicon for WSD, the Princeton WordNet, has too fine-grained sense distinctions for efficient WSD. Villarejo has developed a method for combining (coarser) sense distinctions from other lexical resources with the WordNet, thus helping the system to make more informed choices. Lyse's project is two-fold: Firstly, it addresses the "sparse data problem" associated with corpus-based WSD, suggesting a method that (i) automatically sense-tags a corpus and (ii) "enlarges" the corpus by replacing *words* in the corpus with semantic classes. Secondly, WSD serves as a practical task to evaluate the plausibility of 'the Mirrors Method', which derives information about lexical semantic from translations.

Sociolinguists *Johanna Sutinen* and *Eli Marie Drange* use corpus data to describe and explain linguistic usage. Sutinen uses dialogues in a corpus of French films to study French terms of address. She argues that in order to fully understand the social relations that motivate the use of terms of address, studies of pronoun usage need to be combined with studies of nominal terms of address. She also argues that the traditional dichotomy in solidarity semantics between French *tu* and *vous* should be replaced by the idea of solidarity semantics as a continuum where forms like *vous* + first name are intermediate forms. Drange's paper focuses on the use of Anglicisms in two corpora of informal adolescent language, one from Oslo, Norway and one from Santiago, Chile. Her findings indicate that Anglicisms have other pragmatic functions in addition to the traditional function of naming a new invention. For example, Anglicisms are frequently used to stress a message, or to soften the content of a message.

The participants expressed great satisfaction with the conference, and we are proud to present in this book a selection of papers reflecting the multitude of research topics touched upon at the conference. We would like to thank all the contributors of this book for their papers, and we would also like to thank all

PART 1

THEORETICAL APPROACHES

A Constructionist Corpus-Based Approach to the Analysis of Research Verbs in Academic Texts

Elma Kerz

Abstract

The paper is aimed at determining the subtle meaning differences between five semantically related lexical units, viz. *analys/ze*, *examine*, *study*, *survey* and *scrutinis/ze* by specifying the variation and the systematicity in the use of these units in academic texts. We will determine an array of semi-schematic templates with slots within which these lexical units may occur. In this connection, two theoretical frameworks will be of particular importance, construction grammar and the usage-based model. The analysis is carried out on an approximately 16 million-word sub-corpus of the British National Corpus (BNC) which consists exclusively of written academic texts covering various disciplines.

Keywords: construction grammar, usage-based model, genre-specific entrenchment, academic texts, research verbs

1. Introduction

1.1   Determining the scope and objectives of the paper

The list of lemmas selected for this analysis was originally a spin-off from Meyer's study of verbs of coming to know in the academic sub-corpus of the LOB corpus (1997). His study adopted a thoroughly bottom-up inductive approach. The starting point has been the complete academic sub-corpus of specialised non-technical vocabulary as they occur in subject-oriented texts in the J-section of the LOB corpus. After this initial scanning phase, the scope of the study was further narrowed. The lemmas were selected on the basis of their valency. Meyer had provided a complete list of lemmas "that occurred in a

textual context where it designated part (usually the core) of an elementary situation in which a scholar figured as an explicit or implicit actant" (Meyer 1997 : 5). In the next step, based on a scanning of the concordance lines, a preliminary semantic classification of the lexical units was developed. Finally, Meyer decided to focus on those lemmas that centre around the acquisition of knowledge in the process of academic investigation which he refers to as 'coming to know' verbs. From the above-noted Meyer's list, enlarged by a few additional items on second thought, a selection was made according to the following criteria:

- the meaning of the selected lexical units should have meaning potential to designate a complete research cycle subsuming various phases
- selected lexical units should designate a mental process which proceeds consciously and deliberately, actively and dynamically, thus the entity who researches is a prototypical agent who is involved in a research process and studies a phenomenon; in other words, the selected lexical units evoke the Research frame
- in terms of Vendler's classification the selected lexical units can be considered as activities, i.e. they are of atelic nature

The selected research lemmas include, for instance, the verb *analyse* with all its regular inflections (*analysed, analysing* and *analyses*) and the derivations of the word (*analysis, analyst, analysts, analytical* and *analytically*) as well as the American spelling (e.g. *analyze* or *analyzes*).

Within the Berkeley FrameNet Project (www.icsi.berkeley.edu/~framenet), a large lexicon-building project which captures semantic multidimensionality and hence provides the adequate explicit syntactic and semantic representation of lexical units, many of our research lemmas are found in the two different frames, viz. the Scrutiny frame and the Research frame. However, the Research frame subsumes only two lexical units – *research* and *investigate* – while the Scrutiny frame includes most of the other research predicates, such as *analyse, examine, study* and *survey*. For the analysis of our research predicates we provide the following definition of what we will also call the *Research* frame (the lexical item *research* lends its name to the frame studied since its meaning potential corresponds to the core frame semantic structure of Research Frame), which amalgamates the FrameNet's Scrutiny and Research frames and can be viewed as a slightly modified version of the two:

The frame concerns an entity, the Scholar, who is consciously and deliberately involved as agent in a research process and looks into a phenomenon, the Object_Scope. The Object_Scope is frequently studied in terms of a certain aspect, the Parameter, which is part of the Object_Scope.

This paper is aimed at presenting a constructionist corpus-based analysis of the use of these research lemmas in academic texts by specifying an array of semi-schematic templates within which the selected research predicates may occur. By this we may gain insight into the subtle differences between these semantically related lexical units which seem synonyms at first sight. These subtle usage differences reflect the fact "that synonymy *per se* does not exist, and that every distinction of form in every language is used and interpreted by speakers as a distinction in meaning (semantic or pragmatic)" (Croft 1990 : 165). Due to the limited space, the focus will be placed on the subtle meaning differences of the five research verbs and their corresponding nominalized forms, viz. *analys/ze*, *examine*, *scrutinis/ze*, *study* and *survey* as well as *analysis, examination, scrutiny, study* and *survey*.

Firstly, we will provide a brief introduction to the theoretical frameworks of our study, viz. construction grammar and the usage-based model. In the second part, a preliminary characterization of the selected research predicates will be presented.

2. Theoretical Background

2.1 Construction Grammar

Among different theoretical versions of construction grammar (cf. Langacker 1987, 1991; Croft 2001; Goldberg 1995; Kay and Fillmore 1999; Lakoff 1987) there appears to be a consensus on the following fundamental tenets:

- basic units of grammar are constructions which map items of form with items of meaning (conventionalized symbolic form-meaning pairings)
- constructions may vary in terms of complexity, schematicity or abstractness, ranging from fully lexically filled (substantial) to fully schematic patterns, and degree of entrenchment; hence, the traditional strict compartmentalization between grammar and lexicon has been abandoned, and replaced with a multi-dimensional continuum between the schematic and substantial poles (the syntax-lexicon continuum).
- to pursue a constructionist approach is tantamount to striving to account for the entirety of a given language, i.e. accounting simultaneously for the relatively general patterns of the language and highly idiomatic expressions

Constructions of the type discussed here are semi-schematic templates with a number of various slots which should be viewed as occupying an intermediate

level on the syntax-lexicon continuum. Some of the slots are highly schematic ("NP, "*that*-clause"), others more or less severely constrained by selectional restrictions concerning their lexical filling (e.g. they are constrained to a particular lexical field or a small group of referents) and some are fully lexically fixed, i.e. they allow only one particular lexical unit.

A constructionist approach to grammar allows us to aptly characterize the subtle knowledge that language users have about the differences between near-synonyms: one way of capturing such delicate differences is to specify the types of constructions and collocation that the word in question is typically associated with.

2.2 The usage-based model

The ongoing dissertation adopts a usage-based theoretical perspective on grammar, which has been widely taken for granted within various constructionist approaches (cf. Langacker 1987, 2000; Croft 2000; Tomasello 2003). A usage-based model assumes that the statistical properties of the input shape the language user's repertoire of linguistic configurations and that the capacity to use language for communicative purposes hinges on the predisposition to learn from environmental input. As Barlow & Kemmer point out (2000 : 9),

> Language productions are not only products of the speaker's linguistic system, but they also provide input for other speaker's system (as well as, reflexively, for the speaker's own), not just in initial acquisition but in language use throughout life.

Within this model, grammar is viewed as panoply of both schematic structural configurations and prefabricated chunks of concrete expressions that occur with sufficient frequency in everyday language situations. Since the language system is "experience-driven", there is a strong correlation between frequency of occurrence and the degree of entrenchment of a given linguistic unit. According to Langacker (1987 : 59), a structural configuration no matter how complex it may be becomes entrenched and hence independently stored in the language user's mind, if it occurs with sufficient frequency. Linguistic expressions which occur with a high frequency are simultaneously more deeply entrenched, i.e. more highly activated in the language user's structured inventory of grammatical knowledge than those which occur with low frequency.

When determining the entrenchment of construction it is important to include register/genre among the variables taken into account. In this section, we will discuss the possibility of postulating a genre-specific notion of

entrenchment: some constructions are frequent in a certain domain of linguistic activity only, and they become entrenched for the users of those linguistic genres that are characteristic for that domain. Register imposes restrictions on lexical selection, semantic subclasses of words and domain-dependent syntactic patterning. Therefore, this paper tries to show that it also makes sense to look for entrenched constructions within a certain genre, not only within language use at large. As Biber notes (1998 : 82),

> any patterns generalized for all of English are not likely to be valid for any actual text or register - rather, generalized patterns would merely level the important patterns of use found across registers. Furthermore, we have illustrated the way in which these registers patterns can be interpreted functionally, in terms of differing communicative goals and characteristics of each register.

Academic discourse is conventionalized to a high degree. This high degree of conventionalization makes this type of genre particularly amenable for analysis in terms of frequently recurring patterns, i.e. entrenched patterns. These patterns have been referred to as 'formulaic sequences', 'chunks', 'semi-schematic patterns', 'multiword expressions', prefabricated routines', 'formulas', etc. The proliferation of terms referring more or less to the same phenomenon can be avoided by adopting the term 'construction' which due to its flexibility has a potential to subsume all of relevant facets designated by these various terms. As mentioned above, throughout this study we will use the term 'construction' to refer to semi-schematic templates with a number of various slots (placeholders) which should be viewed as occupying an intermediate level on the syntax-lexicon continuum. These semi-schematic templates capture the generalization on the basis of the similarities between the selected lemmas from concrete usage event. The limited subject matter within academic discourse, with the research process and its results being the main part of it, has as its consequence lexical, semantic and syntactic restrictions, high frequency of certain constructions, text structure, etc.

As mentioned above, a growing body of research in Cognitive Linguistics, with various versions of Construction Grammar being a part of this approach assumes a usage-based model. This takes for granted the fact that grammatical constructions emerge through usage. Thus, if we adopt a usage-based approach, we have to take a look at corpus data, i.e. authentic representative samples of actual usage provided by corpora in machine-readable form. In other words, usage-based oriented analysis requires methods independent of the analyst's intuitions. Introspection, corpus-based analysis and common sense observation all figure in the analysis of linguistics phenomena. Nevertheless, a corpus-based approach provides an insight into the spectrum of

combinatorial potential of the lexical units that is not traceable through introspection.

The present analysis of research predicates is limited to written academic texts. Hence, for the purposes of this study, a sub-corpus was extracted including academic texts exclusively, covering various disciplines. The extraction of the written academic sub-corpus out of the BNC was done with the help of the program SARA, i.e. more precisely on the basis of Lee's classification. The extracted sub-corpus consists of 15,982,362 words, i.e. it constitutes approximately 16% of the entire BNC. The syntactic categorization was produced by the automatic tagger. The correctness of the part of speech tags produced by this tagger was manually checked. In the case of the deverbal nominalized forms, however, a ceiling of occurrences was set. We used the proportions of occurrences in these smaller samples to make adjustments to the total number of occurrences. Since in the case of deverbal nominalized forms *study* occurs most frequently, the frequency list is controlled by this lexical unit.

3. A preliminary characterization of research predicates

Verbs may occur with a wide range of complement configurations. Table 1 provides the possible constructions within which the research verbs in the sub-corpus may occur.

Table 1: The distribution of the selected lexical units across various constructions

Construction	Lexical unit				
	analys/ze	*examine*	*study*	*survey*	*scrutinis/ze*
I	✔	✔	✔	✔	✔
II	✔	✔	✔	–	–
III	✔	✔	–	–	–
IV	✔	–	–	–	–

Legend:
Pattern I: $<$Scholar$>_{NP}$ V$_{research\ verb}$ $<$Object_Scope$>_{NP}$

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> e.g. *McCormick (1977) analysed the nature of anti-trust enforcement in the US from 1980 through to 1969.* CHL 689

Pattern II: $<$Scholar$>_{NP}$ V$_{research\ verb}$ $<$Object_Scope$>_{NP}$ $\begin{Bmatrix} in\ terms\ of \\ for \\ in\ relation\ to \end{Bmatrix}$ $<$Parameter$>_{NP}$

> e.g. *Zener (1948) analysed the double-potential well for relaxation in metals.* H0U 723
> *Lishman and McMeekan (1977) analysed dichotic listening data from neurologically intact subjects in terms of familial sinistrality* FED 966

Pattern III: $<$Scholar$>_{NP}$ V$_{research\ verb}$ $<$Object_Scope$>_{NP}$ *as* $<$Ascription$>_{NP}$

> e.g. *He analysed the great 1789 uprising as a conflict between the four 'estates' of the ancien regime.* CS3 871

Pattern IV: $<$Scholar$>_{NP}$ V$_{research\ verb}$ $<$Object_Scope$>_{NP}$ *into* $<$Ascription$>_{NP}$

> e.g. *We have analysed our results chronologically into three groups; the first and second 50 cases and the last 68.* HU3 3313

As shown by Table 1, the verb *analyse* occurs with the widest range of complement configurations. Within the constructions of type III and IV, *analyse* describes a process inducing change of state, thus the notion of a resultant state becomes salient within the meaning of this verb, i.e. this verb which is normally atelic acquires telic quality. This type of construction also reflects a more resultative interpretation of this unit as compared to the others. In contrast, when the verb *examine* occurs within the *as*-construction it does not obtain the resultant state interpretation and together with *examine* this construction can be paraphrased as follows: 'to examine X in terms of Y'. The research verbs *study*, *survey* and *scrutinis/ze* are not compatible with the constructions of the type III and IV which points to the strong atelicity orientation of these units.

A survey of the concordance lines indicated the following most frequent object scope of the selected research verbs:

- The typical object scope of the verb *study* is a concrete, general one, such as *people*, *countries*, *patients*, *language*. Because of its complexity or its very general nature, it tends to be studied for a long time period:

(1)   *In the nineteenth and early twentieth centuries reflexes were studied with enthusiasm.* CMH 48

- A very frequent object scope of the verb *examine* is the noun *effect*, *process*, *impact* or *influence*, which points to a more abstract nature of the process designated by *examine*.
- The verb *survey* necessitates as its object a large number of similar entities. In most cases, its Object_Scope is realized by a count noun in the plural form or by a collective noun, e.g. *survey of population*. In the case of *survey,* the analysis is not focused on the individual phenomenon but on a range of different instances of the similar phenomenon. A typical example would be:

(2)   *In Section One we surveyed the major approaches to discourse analysis.* F9W 1652

- The typical Object_Scope of the verb *analyse* is *data*. This underlines the fact that analysis belongs to a late stage in a research process, since data is already the result of a scholarly effort.
- Similar to *survey*, the object scope of *scrutinis/ze* tends to be conceptualized as a large number of congenerous entities.

3.1 Deverbal research nouns

Since academic discourse displays an overall preference for nominal rather than verbal structural configurations (Biber et al. 1998 : 69), we will to devote this section to the analysis and use of the deverbal research nouns.

There may be several reasons for favouring the use of the nominalized forms in academic texts. One of these could be the fact that the author of academic texts tends to adopt the detached outlook, i.e. he deliberately selects 'the optimal viewing arrangement' (Langacker 1987: 129) on the situation to be encoded by the language resources. One of the central tenets of the theoretical framework pursued in this study (cf. section 2.1) is that language is influenced by extralinguistic factors such as knowledge of the world, the role of a language user as a conceptualizer of such world, etc. Hence, constructionist approaches to grammar study the choices speakers make from the options available to them. This selection is motivated by the language user's experience of the situation in question. Langacker (1987 : 117) lists the following specific parameters which the speakers use to construe a specific situation: 'selection', 'perspective' and

'abstraction'. He uses the term 'focal adjustment' to refer to variation in terms of these parameters. The dichotomy 'subjectivity/objectivity' refers to the construal operation that includes the speaker's role in conceptualizing a scene. The contrast between subjective and objective construal results from the asymmetric relation between a perceiving individual and the phenomenon perceived. In this connection Langacker introduces the notion of "optimal viewing arrangement" which is given

> …when the perceiver is so absorbed in the perceptual experience that he loses all awareness of self, and when the object perceived is well-delimited, wholly distinct from the perceiver, and located in a region of high perceptual acuity. (Langacker 2002 : 316)

In academic discourse, it is always desirable that conceptualization takes place from the maximally objective oriented conceptualizer-scholar's view. This can be realized, for instance, by employing nominalizations since they allow the omission of the agent.

The preferred use of nominalization can also be motivated by the fact that syntactic combinability of many elements is achieved by using a deverbal nominalized form which cannot be realized by the verb form. Hence, the use of nominalizations as condensation device may be a further reason why this form frequently occurs in academic texts (cf. Meyer's parcel effect 1997). The major function of this is to achieve event integration. The semi-schematic construction for the complex noun phrase including a deverbal research noun may be formulated as follows:

<Scholar's>$_{NP}$ <Evaluation>$_{AdjP}$ <Method>$_{AdjP}$ research noun of <Obj_Scope>$_{NP}$

Table 2 displays some of the most frequent semi-schematic constructions within which this complex noun phrase may occur (parentheses indicate optionality of the slot, while angled brackets indicate a schematic representation of the filler):

Table 2: Some of the semi-schematic constructions within which the selected research nouns frequently occur

I. Evaluating research

a.	(<Scholar's>$_{NP}$) (<Method>$_{AdjP}$) research noun (*of* <Object_Scope>$_{NP}$) V$_{linking verb}$ <Evaluation>$_{AdjP}$ e.g. *Examination of outcome, furthermore, is intriguing.* ALP 805

II. Performing research

a.	(<Scholar>$_{NP}$) V$_{"light" verb}$ (<Evaluation>$_{AdjP}$) (<Method>$_{AdjP}$) research noun (*of* <Object_Scope>$_{NP}$) e.g. *Chandrasekhar and Xanthopoulos (1988) have conducted a thorough perturbation analysis of this particular solution.* B2K 1151

III. Showing results

a.	(<Scholar's>$_{NP}$) (<Evaluation>$_{AdjP}$) (<Method>$_{AdjP}$) research noun (*of* <Object_Scope>$_{NP}$) V$_{result verb}$ <Result>$_{that-clause}$ e.g. *Our survey showed that there were strong partisan influences on switches in economic perception over the winter of 1986-7.* A62 493
b.	(<Scholar's>$_{NP}$) (<Evaluation>$_{AdjP}$) (<Method>$_{AdjP}$) research noun (*of* <Object_Scope>$_{NP}$) V$_{result verb}$ <Result>$_{NP}$ e.g. *Factor analysis of these images indicated just one general factor underlying image scores for Kinnock, Steel, and Owen, but two general factors underlying scores for Thatcher.* A62 570

IV. Requiring research

a.	<Object_Scope>$_{NP}$ V$_{verbs of requiring}$ (<Evaluation>$_{AdjP}$) (<Method>$_{AdjP}$) research noun e.g. *The question of crisis teaching needs closer examination.* B33 929

As indicated by Table 2, the complex noun phrase construction can follow or precede the VP. Some of the very frequent verbs which fill the V slot within the VP and co-occur with the selected research nouns can be classified in the following groups:

1. verbs of result, such as *indicate*, *show*, *find* or *reveal* (within this semi-schematic construction, the complex noun phrase containing research noun functions as the subject of verbs of result)
2. so-called 'light' or 'support' verbs, such as *make, do, conduct, undertake* (within this semi-schematic construction, the complex noun phrase containing research noun functions as the object of light verbs)
3. verbs of requiring, such as *necessitate*, *require, need* (within this semi-schematic construction, the complex noun phrase containing research noun functions as the object of verbs of requiring)

A detailed survey of concordance lines reveals that the nominalized form *analysis* displays a strong tendency to occur with an adjectival premodifier designating a method such as *statistical*, *computational*, etc. Its close connection to method is what distinguishes this verb stem from all others. Since *analysis* is strongly connected with the method applied in the research process, we frequently encounter *analysis* as a part of the noun compounds used for method description (thereby, *analysis* is frequently used as part of a technical term): *stratigraphic analysis*, *multi regressions analysis*, *digital overlay analysis*, etc. Besides the adjectival modifier referring to a method, in the slot preceding *analysis* we frequently encounter a wide range of evaluative adjectives, such as *elucidatory, detailed, precise, subjective, unique, thoroughgoing, deconstructive* etc.

It is frequently the case that *analysis* co-occurs with *study,* being an intermediate level of the research process designated by *study*. Hence, the relationship of *analysis* to *study* is in many cases one of meronymy. When occurring with *study/ies, analysis* frequently expresses a preliminary process, a sub-process of study on which a study can be based, as in

(3)   *Maturation studies, based on geochemical analysis, demonstrate that gas-generative maturity is largely dependent on Jurassic burial.* B2J 320

The process of resolution, decomposition, breakdown, ascertainment is also prominent in the meaning configuration of *analysis,* and hence, unlike other semantically related units, this linguistic unit is somewhere between atelicity and telicity.

The nominalized form *examination* is frequently modified by a term of evaluation realized as an adjective, such as *moderate, comprehensive, thoughtful,* etc. The frequent object scope of *examination* points to a more abstract nature of this unit.

In the case of *scrutiny,* visual perception augments its prominence in the conceptual content of this lexical unit and is more salient than in other selected lexical units. Besides this visual aspect, the conceptual content of *scrutiny* encapsulates careful and detailed study of a phenomenon in question. Furthermore, the deverbal noun *scrutiny* denotes a repetitive more close examination of the phenomenon already studied.

The survey of concordance lines for the lexical item *scrutiny* revealed that this item frequently occurs with a set of verbs in constructions which carry negative connotations: *to subject to scrutiny; to come under scrutiny; to submit to scrutiny; to bring under scrutiny; to undergo scrutiny; to hold/stand up to scrutiny; to withstand scrutiny;* etc. This phenomenon has been commonly

discussed under the term 'semantic prosody', which is used to refer to a situation where "a favourable or unfavourable connotation is not contained in a single item, but is expressed by that item in association with others, its collocates" (Partington, 1998 : 66). One of the primary functions of semantic prosody is to express speaker/writer's attitude or evaluation. In the case of *scrutiny,* the negative connotational aspect does not reside in the word itself, but in combination with units which accompany this nominalized form. If we take a look at the above constructions, we may note that *scrutiny* tends to be conceptualized as something being above the phenomenon to be scrutinised and hence occupying a higher level on a vertical scale. Hence, these constructions imply that the object scope under scrutiny is seriously negative affected, as demonstrated by the following instantiations:

(4)   *The technique of 'hunt the analogue' is a favourite one practised by palaeontologists, but it is certainly not a foolproof one, because there are many fossil animals that defy comparison with living organisms, and some analogues <u>do not stand up to detailed scrutiny</u>.* AMM 1616

(5)   *In this chapter, then, the term 'permissiveness' <u>is subjected to further critical scrutiny,</u> and an attempt is made to isolate those 'factors' or characteristics that are most usually invoked by moral entrepreneurs in their discussions of the 'permissive society'.*

The noun *survey* refers to a study of a large number of similar entities. The primary evidence of *survey* seems to be in the outside world. The analysis of concordances lines of *survey* yielded that this nominalized form is most commonly used in contexts which refer to some kinds of discussion of methodology used in a survey.
        Among the selected research nouns, the lexical unit *study* is the most general member. It can be regarded as a superodinate term which includes the other research nouns. When surveying concordances lines of *study* which also involve some other research verb stem, *study* is frequently used in a more general sense subsuming this other research verb stem:

(6)   *The main aim of Franz Coetzee's intriguing <u>study</u> For Party or Country is to explain this phenomenon through an <u>examination</u> of the outlook and activities of three of larger groups: the Navy League (NL), the Tariff Reform League (TRL), and the Anti-Socialist Union (ASU).* A6G 1121

4. Conclusion & Future Work

To conclude, a constructionist, usage-based oriented approach provides a unified treatment of various facets of meaning potential of lexical units, hitherto discussed under various theoretical concepts, such as 'selectional restrictions', 'semantic prosody', 'subcategorization frames', etc. The five selected lexical units display different distributional profiles across various constructions and within these they tend to co-occur with certain lexical units. These profiles and the corresponding collocates throw light on the subtle usage differences between near synonyms. It has been showed that concordance data can provide insight into the conceptual meaning of lexical units by revealing their behavioural profile in their phraseological environment.

Future work should include the following points:

- determining a statistical significance of the selected lexical unit's associations with certain constructions and with lexical units occurring in the different slots of these constructions
- assessing the degree of entrenchment of constructions associated with the research predicates by taking the register into account
- providing a full account of the semantic characterization of the research lemmas

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THE LOGICAL SYSTEMS IN SYSTEMIC FUNCTIONAL LINGUISTICS AND THE LOGICAL SYSTEMS IN GERMAN – A METHODOLOGICAL CHALLENGE

ALEXANDRA HOLSTING

Abstract

In this paper I will discuss the description of **clause complexity in German** entitled **the logical metafunction**, a term taken from the theoretical framework of the **systemic functional linguistics**. In the following sections, I will briefly introduce the systemic functional theory, particularly the concepts of the stratified language and the three metafunctions of language. After this, I will present the logical metafunction in particular, and in the third section, I will discuss two examples where German differs from English in relation to the logical grammar, namely the **subjunctive** and the **sentence types**. The fourth section will form the conclusion.

1. Introduction

In this paper I will consider some methodological problems experienced during my Ph.D.-project, *A Survey of the Logical Metafunction in German*. The aim of the project is, in terms of systemic functional linguistics (SFL), to describe a certain area of the German language, namely the linguistic resources combining (semantic) configurations of elements into sequences and (grammatical) clauses into clause complexes.

The SFL is a theory of language worked out during the 1960s by Michael Halliday (cf. Morley 1985). The main focus of the theory is on the functional aspects of language – how do we use language to make meanings? – and on the systemic aspects – how can we explain the linguistic choices we

made in a particular situation on the background of the choices we did not make?

However, the SFL has not only evolved as a theory which seeks to account for features common to all languages; it functions simultaneously as a model of analysis which originates in specific languages, for which it offers a careful grammatical description (originally these languages were English and Chinese). The SFL insists on being both a theory and a description. However, this might prove complicated should one wish to use the theory/description in relation to a different language. Which features should be considered common to all languages, and which should be considered specific for a particular language? Where does the theory of language end and where does the language description start? Halliday himself refuses to draw a clear line (Halliday 1994 : xxxiiif) – in applying the model to a 'new' language, one must always make one's own considerations.

In trying to describe one part of German – a language which, with few exceptions, has never been treated as an object language of this theory – I will try to find the balance between not adopting more than what actually might be considered an adequate description of German, and on the other hand not refusing more material than necessary. I.e. neither to do "squinting grammar" by describing German in terms of English, nor to reinvent all the concepts.

2. The theory: Strata, Systems and Metafunctions

The SFL can be seen as a holistic theory which seeks to explain not only the relationship between language and the extra-linguistic world (the **context** in SFL-terms), but also how (a) language functions at all levels (semantically, grammatically, phonologically). Consequently it is trying to embrace all kinds of linguistic disciplines: phonology, morphology, syntax, semantics, pragmatics, discourse analysis etc.

The way the various parts of language are related to each other can be illustrated by the strata-model (Andersen et al 2001 : 21):